

June 30, 2019

Pennsylvania SERS



**Investment Measurement Service
Quarterly Review**

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Capital Market Review

The Fed: 'A Mid-Cycle Adjustment to Policy'

ECONOMY

2 PAGE The economic news for the U.S. during the second quarter was largely good, and better than the headlines would lead us to believe. Yet the Fed proceeded with a widely anticipated (and clearly signaled) interest rate cut in July, describing it as "a mid-cycle adjustment to policy."

Big Focus on Fed, Possible Correction

INSTITUTIONAL INVESTORS

4 PAGE Institutional investors, as measured by the Callan Total Fund Sponsor Database Group, gained 3.3% in the second quarter. That compares to the 4.0% increase generated by a benchmark composed of 60% S&P 500/40% Bloomberg Barclays US Aggregate.

U.S. Stocks Hit Highs; Global Gains Muted

EQUITY

6 PAGE U.S. equities neared record highs in the second quarter on expectations of easing from the Fed. Global equity markets were largely positive although investor sentiment was fairly muted as both U.S./China tariff fatigue and Brexit uncertainty continued.

Rally for Treasuries Lifts Sovereign Bonds

FIXED INCOME

8 PAGE The Federal Reserve's dovish statements and announced policy objective to "sustain the expansion" caused risk assets and U.S. Treasury yields to rally. Non-U.S. developed market sovereign bonds rose in tandem with the rally in Treasuries.

Real Estate Gains; Real Assets Fall

REAL ESTATE/REAL ASSETS

10 PAGE The NCREIF Property Index gained 1.5% during the second quarter. The NCREIF Open-End Diversified Core Equity Index rose 0.8%. U.S. REITs and global REITs both gained, but lagged broad equity indices. The Bloomberg Commodity Index fell 1.2%.

Value Is in the Eye of the Beholder

PRIVATE EQUITY

12 PAGE Fundraising, company purchase prices, and IPOs increased in the second quarter. But private M&A investment and exit measures were flat to markedly down. Private equity returns remained positive, despite the fourth quarter public equity sell-off.

Continuing Rally Aids Most Strategies

HEDGE FUNDS/MACs

13 PAGE Risk-on sentiment supported virtually all hedge fund strategies. The continuing rally also lifted long-biased MACs, but risk premia languished again. Hedge funds are well positioned defensively for a downturn. But without a sustained pick-up in volatility, they are likely to lag.

Returns, Inflows Both Rebound for DC Index

DEFINED CONTRIBUTION

15 PAGE The Callan DC Index™ rebounded in the first quarter, gaining 9.6%, and the Age 45 Target Date Fund did even better. After two quarters of negative flows, balances saw sizable growth. And TDFs retook their spot as the top destination for inflows.

Broad Market Quarterly Returns

U.S. Equity
Russell 3000



4.1%

Non-U.S. Equity
MSCI ACWI ex USA



3.0%

U.S. Fixed Income
Bloomberg Barclays Agg



3.1%

Non-U.S. Fixed Income
Bloomberg Barclays GBI ex US



3.4%

Sources: Bloomberg Barclays, FTSE Russell, MSCI

The Fed Speaks: 'A Mid-Cycle Adjustment to Policy'

ECONOMY | Jay Kloepfer

The U.S. economy continued its now-record expansion in the second quarter with a 2.1% gain in GDP, slower than the robust 3.1% in the first quarter but well ahead of expectations. Consumer spending rose 4.3% in the quarter, supported by solid gains in the job market and disposable income growth of 5% in each of the first two quarters of 2019. Offsetting the gains in consumption were hits to GDP from exports, non-residential business investment, residential investment, and a drawdown in inventories. The economic news for the U.S. during the quarter was largely good, and better than the headlines would lead us to believe. Yet the Fed proceeded with a widely anticipated (and clearly signaled) interest rate cut in July, lowering the Federal Funds rate target by 25 basis points.

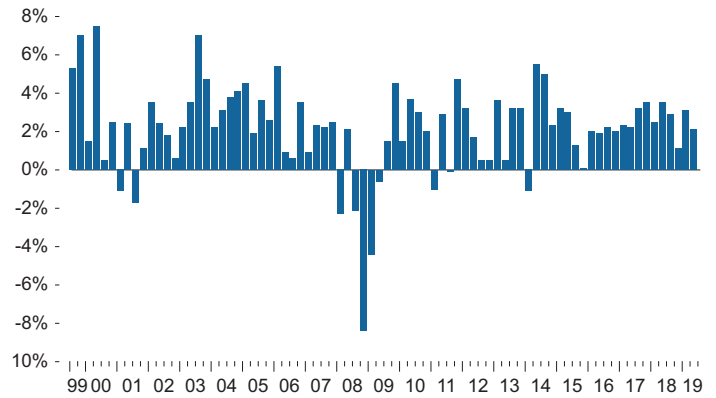
How did we get to a situation where the expansion continues but the Fed acts to cut rates? In classic Fed-speak, the announced reasoning is “a mid-cycle adjustment to policy.” To be fair, while the job market and overall GDP data are coming in solid for the U.S., the global economy is clearly showing signs of slowing, and the uncertainty stemming from trade tensions is top of mind. Chairman Jerome Powell noted three reasons for the rate cut: (1) to insure against downside risks from slowing global growth and trade tensions; (2) to mitigate the effects those factors are already having on the U.S. outlook, even if they haven't shown up in the data; and (3) to enable a faster return to the Federal Reserve's symmetric 2% inflation target.

It is important to note that the Fed made clear this July rate cut is not likely to be the first in a series. After initial confusion, the markets simply interpreted this Fed comment as fewer rate cuts this year than were previously priced into bond yields.

Key to the Fed's perceived latitude to lower rates is the persistent surprise of low inflation. After breaking through the Fed's 2% target in 2018, inflation has once again subsided. Headline CPI rose 1.6% in June (year-over-year), dragged down by a 3.4% decline in energy costs. In fact, core CPI (less food and energy) rose 2.1% over the past 12 months, pushed up by the

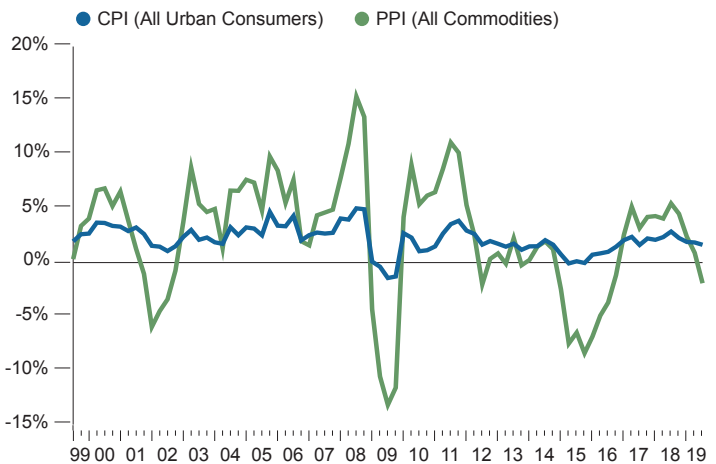
Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

rising cost of shelter, apparel, and used vehicles. While annual wage gains have moved above 3% for the first time since the Global Financial Crisis (GFC), wage pressures have yet to show up in headline inflation. The impact of tariffs on consumer prices has not affected the broad CPI data, as the tariffs to date have been narrowly targeted.

Foreshadowing the expected slowdown in the U.S. economy is the Purchasing Managers' Index (PMI), a forward-looking measure of business expectations for manufacturing demand and

production. The mid-year 2019 reading of the PMI hit 50.6, very close to the line dividing expansion from contraction (50), and the lowest reading since 2009. Producers cite the twin worries of slowing global growth and trade tensions; the 5% drop in exports and the softening of business spending in the second quarter data certainly support these concerns. Other concerns about a material slowdown to GDP growth include the waning impact on domestic spending that has come from rising stock prices and fiscal stimulus since the GFC. Further concerns include the effects of potential new tariffs, and the slowdown in inventory accumulation. The U.S. economy is also approaching capacity constraints as the expansion reaches into record territory. Unemployment has hit a generational low of 3.6%; at some point firms' difficulties in finding new and replacement staff will weigh on overall workforce growth.

The nine interest rate hikes enacted by the Fed through 2018 raised the cost of borrowing for both businesses and consumers, and while the reversal of Fed policy since January halted the trajectory of rates, the impact of the increases since 2016 is still working its way through the economy. Higher mortgage rates slowed housing markets, pulling existing home sales down by more than 10% over the course of 2018. Rates for 30-year mortgages have fallen by more than 110 bps since November 2018, and home sales have bounced back since the start of the year, but the recovery has been uneven, concentrated in the South and the West. Investment in new homes, as measured by permits, began slipping in 2018 and is still down more than 10% (year over year) through June. New residential construction, restricted in many locations by supply and cost factors, has lagged the pace set in typical expansions since the GFC.

The Long-Term View

Index	2019 2nd Qtr	Periods ended Dec. 31, 2018			
		Year	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	4.1	-5.2	7.9	13.2	9.0
S&P 500	4.3	-4.4	8.5	13.1	9.1
Russell 2000	2.1	-11.0	4.4	12.0	8.3
Non-U.S. Equity					
MSCI EAFE	3.7	-13.8	0.5	6.3	4.6
MSCI ACWI ex USA	3.0	-14.2	0.7	6.6	--
MSCI Emerging Markets	0.6	-14.6	1.6	8.0	--
MSCI ACWI ex USA Small Cap	1.2	-18.2	2.0	10.0	--
Fixed Income					
Bloomberg Barclays Agg	3.1	0.0	2.5	3.5	5.1
90-Day T-Bill	0.6	1.9	0.6	0.4	2.5
Bloomberg Barclays Long G/C	6.6	-4.7	5.4	5.9	6.8
Bloomberg Barclays GI Agg ex US	3.4	-2.1	0.0	1.7	4.4
Real Estate					
NCREIF Property	1.5	6.7	9.3	7.5	9.3
FTSE Nareit Equity	1.2	-4.6	7.9	12.1	9.8
Alternatives					
CS Hedge Fund	2.3	-3.2	1.7	5.1	7.3
Cambridge PE*	4.9	10.6	11.9	13.8	15.2
Bloomberg Commodity	-1.2	-11.2	-8.8	-3.8	2.0
Gold Spot Price	8.9	-2.1	1.3	3.8	4.9
Inflation – CPI-U	0.8	1.9	1.5	1.8	2.2

*Data for most recent period lags by a quarter. Data as of March 31, 2019.
Sources: Bloomberg, Bloomberg Barclays, Bureau of Economic Analysis, Credit Suisse, FTSE Russell, MSCI, NCREIF, Standard & Poor's, Refinitiv/Cambridge

Recent Quarterly Economic Indicators

	2Q19	1Q19	4Q18	3Q18	2Q18	1Q18	4Q17	3Q17
Employment Cost–Total Compensation Growth	2.7%	2.8%	2.9%	2.8%	2.8%	2.7%	2.6%	2.5%
Nonfarm Business–Productivity Growth	1.8%*	3.4%	1.3%	1.9%	2.9%	0.7%	-0.3%	2.3%
GDP Growth	2.1%	3.1%	1.1%	2.9%	3.5%	2.5%	3.5%	3.2%
Manufacturing Capacity Utilization	75.7%	76.4%	77.0%	76.9%	76.4%	76.1%	75.8%	74.9%
Consumer Sentiment Index (1966=100)	98.4	94.5	98.2	98.1	98.3	98.9	98.4	95.1

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

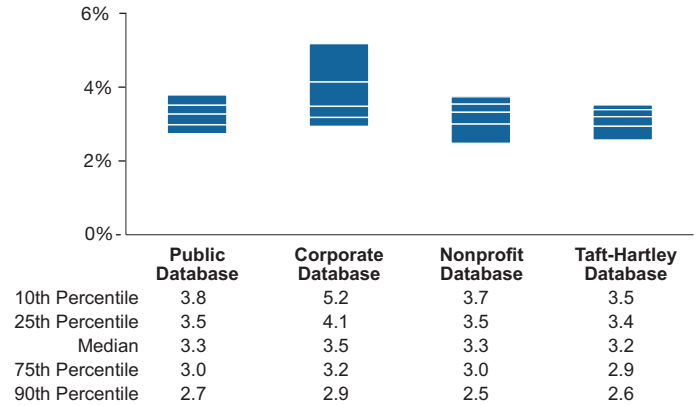
* Estimated figure provided by IHS Markit

Big Focus on Possible Correction, Future Action by Fed

INSTITUTIONAL INVESTORS

- Institutional investors, as measured by the **Callan Total Fund Sponsor Database Group**, gained 3.3% in the second quarter, with corporate plans faring best (+3.5%). Those results compare to the 4.0% gain of a quarterly rebalanced benchmark composed of 60% S&P 500/40% Bloomberg Barclays US Aggregate.
- Over the last 15 years, corporate plans (+6.9%) have fared the best, followed by nonprofits, public plans, and Taft-Hartley plans. Over that same period, the 60-40 index has seen a gain of 7.2%, annualized. Larger institutional investors have tended to do better than smaller ones over that time period, with the exception of Taft-Hartley plans; investors with more than \$1 billion in assets gained 7.0% over the 15-year period, followed by 6.7% for medium investors (\$100 million-\$1 billion), and 6.6% for small plans (under \$100 million).
- For institutional investors, strategic allocation decisions are focused on the anticipation of a market correction, volatility, and their desires to seek additional diversification opportunities. As a result, investors are re-evaluating the purpose and implementation of asset classes including real assets, hedge funds and liquid alternatives, fixed income, and equity.

Quarterly Returns, Callan Database Groups



Source: Callan

- Increasingly, investors are focused on the disparity of performance between growth and value. As value continues to underperform, investors are wondering if “value is dead.” They are also questioning whether there is any hope for active management. Will its promise to protect in a downturn be fulfilled?

Callan Database Median and Index Returns* for Periods ended June 30, 2019

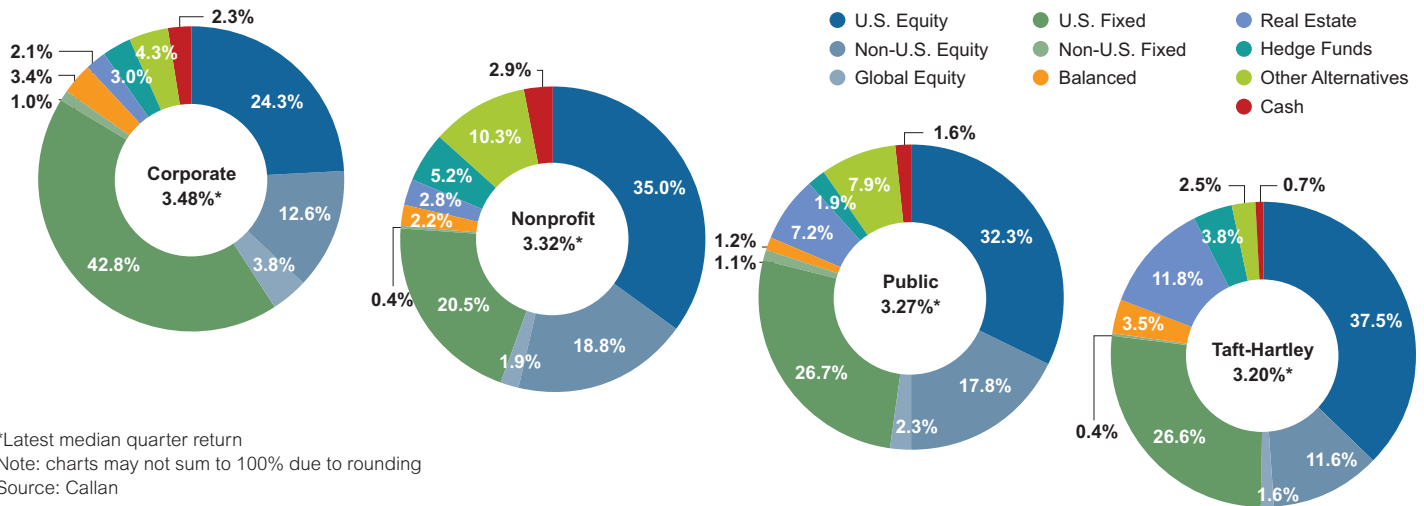
Database Group	Quarter	Year	3 Years	5 Years	10 Years	15 Years
Public Database	3.27	6.19	8.91	5.96	9.20	6.74
Corporate Database	3.48	7.26	8.21	5.96	9.24	6.85
Nonprofit Database	3.32	5.78	9.11	5.62	9.06	6.76
Taft-Hartley Database	3.20	6.34	9.03	6.54	9.42	6.67
All Institutional Investors	3.32	6.31	8.85	5.97	9.24	6.75
Large (>\$1 billion)	3.24	6.35	9.03	6.17	9.39	7.04
Medium (\$100mm - \$1bn)	3.31	6.43	8.84	6.04	9.28	6.71
Small (<\$100 million)	3.34	6.20	8.76	5.73	9.03	6.59

*Returns less than one year are not annualized.

Source: Callan. Callan's database includes the following groups: public defined benefit, corporate defined benefit, nonprofits, 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.

- Plans continue to retain a strong tilt toward growth assets (at least 70% and as high as 90%). Many investors said they employ such a tilt to meet funding requirements. This has coincided with a refined definition of growth to include high yield, convertibles, low-volatility equity, hedge funds, MACs, and option-based strategies.
- Callan has consulted on a surge in asset-liability studies, with substantial changes to many policy portfolios. The focus is on de-risking (less equity) and risk mitigation (diversification and implementation), but dissatisfaction remains with hedge funds, risk premia, and absolute return products.
- In the current capital market environment, investors are focused on how long the expansion will continue. They are also examining how the reversal in Fed policy changes the landscape. Equity markets cheered, but doesn't accommodation imply leaner times ahead? And while LDI pays off when rates fall, lower rates can wreak havoc with liability-driven investing glidepaths.
- In discussions of asset class structures, investors are examining the role of fixed income in a total return portfolio: Is pursuit of return a goal?
- The relentless cost pressure is driving passive implementation in all asset classes, particularly equity.
- Public plans are focused on the return from private markets, but they face mounting pressure to control costs. One approach is the “bar-belled” pursuit of active in private markets and alternatives, and all passive in equity, more passive in fixed, and cheaper liquid alternatives with “passive” exposures to betas and factors.
- Liquidity needs are top of mind for public plans looking to increase private investments in pursuit of a growth engine aside from public equity.
- Corporate plans moving down de-risking glidepaths continue to reconsider their equity structures, moving to passive to control costs and attain broad beta exposure in the declining growth allocation.

Average Asset Allocation, Callan Database Groups



Equity

U.S. Equities

Markets continued to march upward, and U.S. equities neared record highs. Growth outpaced value, as the dovish stance of the Fed was a headwind for valuation-sensitive stocks. Small cap stocks lagged large caps, possibly from economic weakness.

Large Cap ► S&P 500: +4.3% | Russell 1000: +4.2%

- U.S. equity showed strong gains as market participants anticipated another round of monetary easing from the Fed.
- Financials (+8.0%) was the best-performing sector; Energy (-2.8%) was the only sector to experience negative returns over the quarter.
- Trade rhetoric weighed on U.S. stocks in May followed by a June rebound.
- Given the increase in risk appetite, cyclicals outperformed while defensive sectors such as Utilities underperformed.

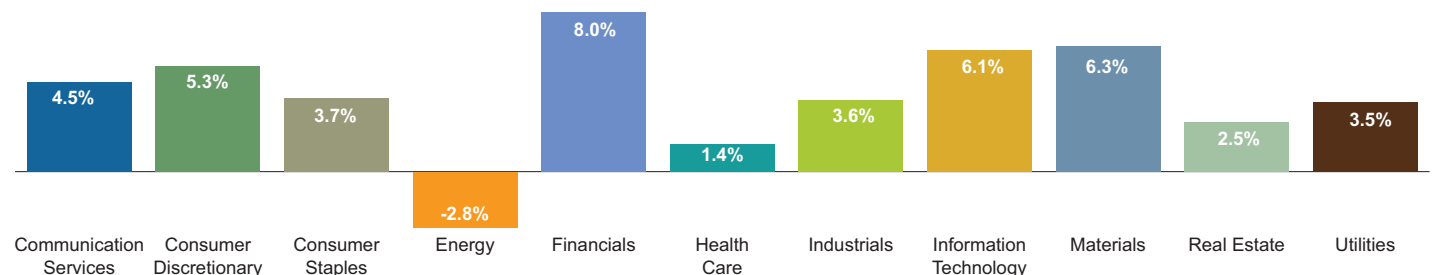
Small Cap ► Russell 2000: +2.1%

- Market conditions (e.g., more dovish Fed, strong U.S. dollar, trade tensions) should have benefited small cap companies, but did not.
- A slowing economy may explain weakness for small caps. Large caps tend to have stronger balance sheets and are more capable of weathering downturns.

Growth vs. Value ► Russell 1000 Growth: +4.6% | Russell 1000 Value: +3.8%

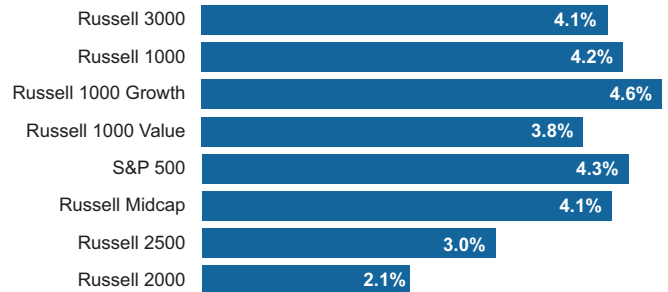
- Value factors (P/B, P/E trailing, yield) were mixed; growth factors (EPS growth, sales growth) were positive.

Quarterly Performance of Industry Sectors



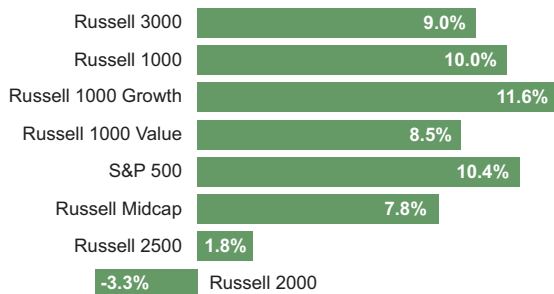
Source: Standard & Poor's

U.S. Equity: Quarterly Returns



Sources: FTSE Russell and Standard & Poor's

U.S. Equity: One-Year Returns



Sources: FTSE Russell and Standard & Poor's

Non-U.S./Global Equities

Global equity markets were largely positive in the second quarter although investor sentiment was fairly muted as both U.S./China tariff fatigue and Brexit uncertainty continued. Some non-U.S. markets benefited from a weakening U.S. dollar relative to local currencies. Global equities were boosted by dovish central bank commentary that led to lower interest rates around the globe.

Developed ► *MSCI EAFE: +3.7% | MSCI ACWI ex USA: +3.0% | MSCI Europe: +4.5% | MSCI Japan: +1.0%*

- Developed markets rallied as central banks around the world expressed more accommodative paths with interest rates and quantitative easing.
- U.K. equities finished the quarter slightly up (+0.9%) as Brexit uncertainty continues. Prime Minister Theresa May announced her resignation during the quarter.
- Relative to other non-U.S. developed markets, Europe had a strong quarter fueled by robust returns from Germany, France, and Switzerland (30% combined weight), which benefited from declining bond yields.
- EAFE sector performance was positive across the board with the exception of real estate. Cyclical drove the majority of returns as these are highly correlated with U.S. cyclicals, which benefited from declining interest rates.
- Factor performance in non-U.S. developed markets favored growth over value, large caps over small caps, and cyclicals over defensives.

Emerging Markets ► *MSCI Emerging Markets Index: +0.6%*

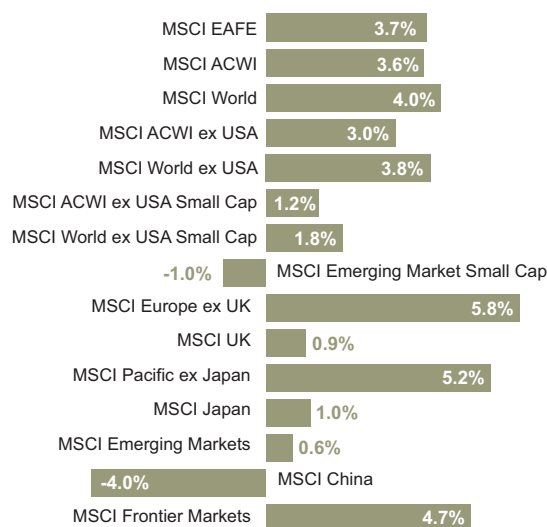
- Emerging market returns were lackluster although, regionally, returns were bar-belled as many Asian countries were held back by trade concerns while EM ex-Asia tended to perform well. Russia (+16.9%) performed strongly with the help of the ruble appreciating by 4.2% relative to the U.S. dollar. Brazil (+7.2%) was also a top contributor due to the initial success of keeping pension reforms on track. China (-4.0%) faltered on tariff concerns.
- Argentina (+31.7%) was the top country performer, aided by the announcement of its inclusion in the **MSCI Emerging Markets Index** at the end of May (eight stocks in total).

- The **MSCI EM Value Index** outperformed the **MSCI EM Growth Index** as many growth-oriented sector and country returns were impacted by trade disputes.

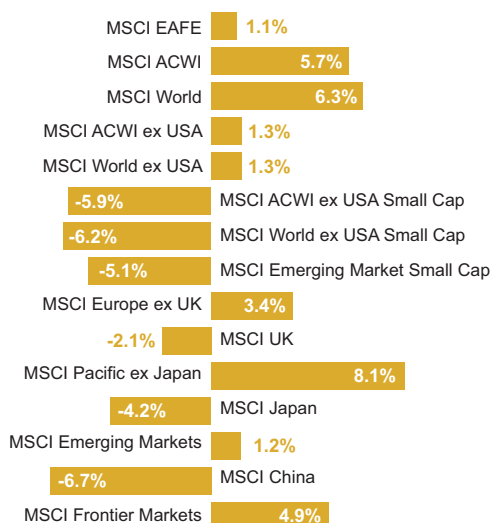
Non-U.S. Small Cap ► *MSCI World ex USA Small Cap: +1.8% | MSCI EM Small Cap: +1.0%*

- Non-U.S. small caps lagged large caps as investors preferred lower earnings risk and higher earnings momentum. Emerging market small caps lagged large caps as investors searched for a combination of lower volatility and higher growth that was absent in smaller companies as tariff uncertainty persisted.

Non-U.S. Equity: Quarterly Returns (U.S. Dollar)



Non-U.S. Equity: One-Year Returns (U.S. Dollar)



Source: MSCI

Fixed Income

U.S. Fixed Income

U.S. economic data continued to be mixed as a strong labor market and rising personal income offset waning business confidence and declining industrial production. The Federal Reserve's dovish statements and announced policy objective to "sustain the expansion" caused risk assets and U.S. Treasury yields to rally. Uncertainty surrounding trade policy and muted inflation data provided the Fed with additional cover for its rationale to potentially cut rates later this year.

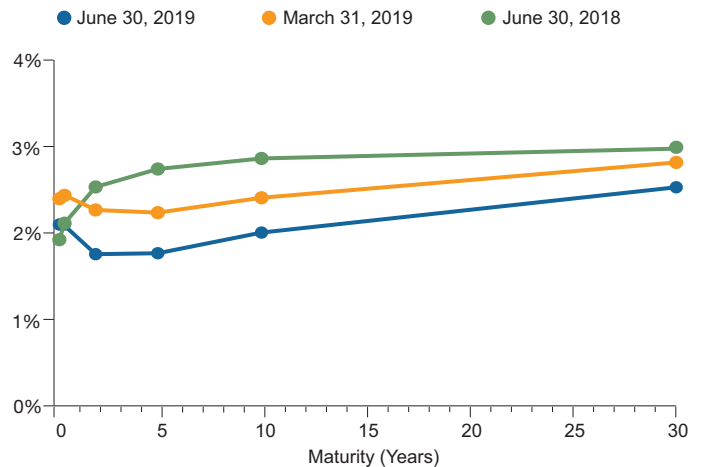
Core Fixed Income ► *Bloomberg Barclays US Agg: +3.1%*

- U.S. Treasuries gained 3.0% as the U.S. Treasury yield curve shifted lower across maturities, most dramatically at the 2-year key rate, as traders priced in expectations for the Fed to pre-emptively ease in order to boost domestic economic growth.
- The overall shape of the yield curve did not materially change during the quarter. The yield differential between the 10-year and 2-year key rates remained positive and widened 11 basis points during the quarter to close at 25 bps. However, the front-end of the curve remained inverted, with the 5-year offering roughly the same yield as the 2-year key rate.
- Nominal Treasuries outperformed TIPS as inflation expectations fell; the 10-year breakeven spread was only 1.69% as of quarter-end versus 1.88% at the end of the first quarter.

Investment-Grade Corporates ► *Bloomberg Barclays Corporate (Inv. Grade): +4.5%*

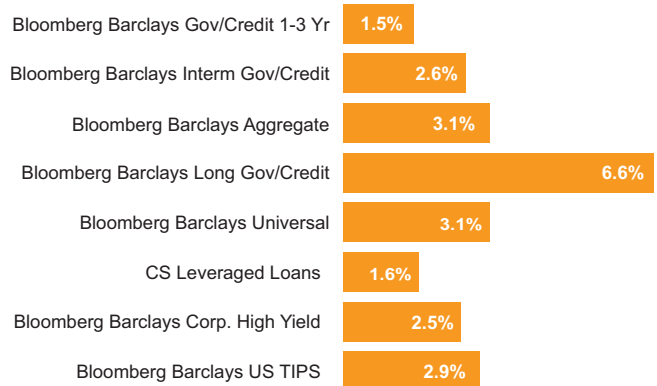
- Credit spreads rallied on the back of dovish Fed policy.
- Gross new corporate supply this quarter was \$290.5 billion, which was 14% lower than a year ago. Year-to-date supply was 18% lower than in the first half of 2018. New issuance favored the 6-12 year maturities relative to last year.
- AAA-rated corporates (+5.0%) were the best performers in absolute return terms. BBB-rated lagged AAA by 18 bps, but posted a positive excess return over the index (+1.4%).

U.S. Treasury Yield Curves



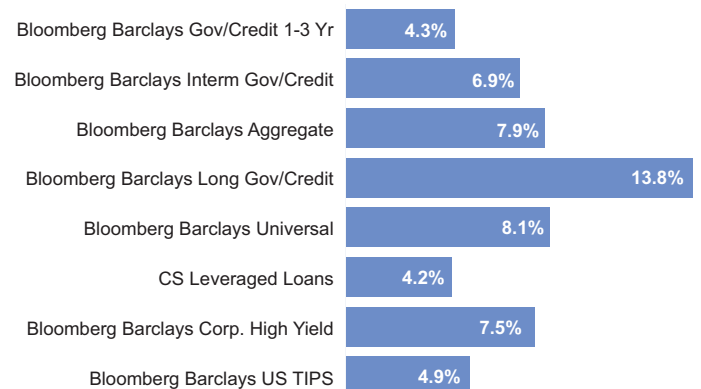
Source: Bloomberg

U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and Credit Suisse

U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and Credit Suisse

FIXED INCOME (Continued)

High Yield ► *Bloomberg Barclays Corporate HY: +2.5%*

- High yield corporates posted positive results for the quarter, but lagged investment grade corporates on both absolute and excess returns. High yield gained 9.9% for the first half of 2019.
- Interest rate-sensitive BB-rated issues posted the highest return (+3.1%) while CCC-rated issues rose 0.3%.

Leveraged Loans ► *CS Leveraged Loans: +1.6%*

- Bank loans participated in the risk-on rally, but lagged both longer duration IG and HY corporates as interest rates declined.
- Retail outflows remain unabated as the Fed's dovish tone dampened enthusiasm for floating rate assets. New CLO issuance running ahead of expectations has also put technical pressure on the sector as investors absorbed the new float.
- Bank loans have less sensitivity to interest rates, but may have a similar spread duration profile to that of high yield bonds.

Non-U.S. Fixed Income

Global Fixed Income ► *Bloomberg Barclays Global Aggregate: +3.3%*

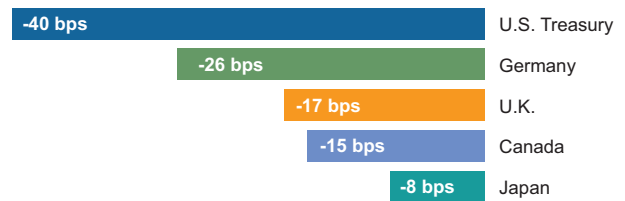
- Other developed market sovereign bonds rose in tandem with the rally in Treasuries and have pushed European sovereigns further into negative yields. The U.S. dollar depreciated modestly versus the euro and yen, but gained versus the U.K. pound.

Emerging Market Debt (\$US) ► *JPM EMBI Global Diversified: +4.1% | (Local currency) ► JPM GBI-EM Global Diversified: +5.6%*

- Most emerging market currencies appreciated against the U.S. dollar.
- Top performers included Russia (+10.4%) and Turkey (+10.1%), while Argentina was the worst performer (-5.0%), and one of the few countries to post a negative result this quarter.

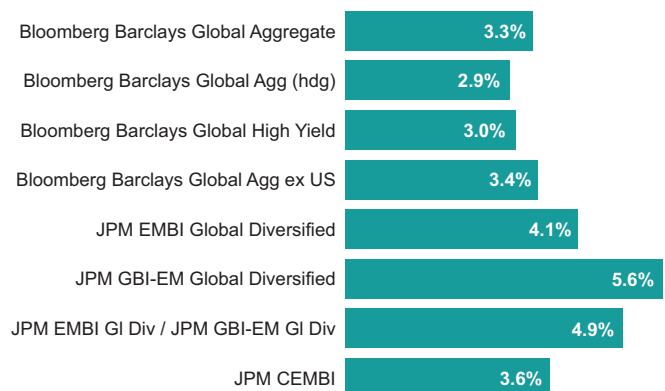
Change in 10-Year Global Government Bond Yields

1Q19 to 2Q19



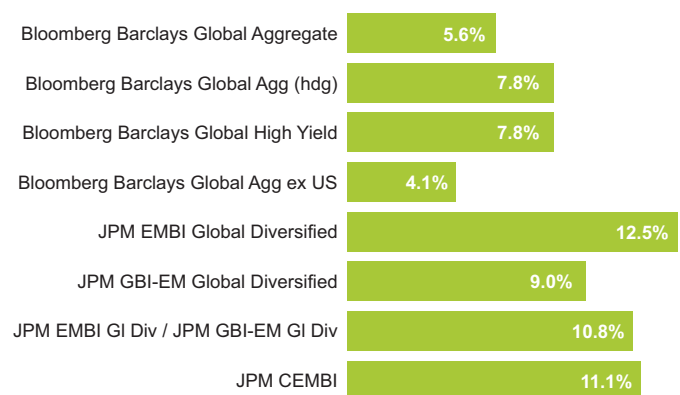
Source: Bloomberg Barclays

Non-U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and JPMorgan Chase

Non-U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and JPMorgan Chase

Real Estate Gains; Real Assets Mostly Fall

REAL ESTATE/REAL ASSETS | Munir Iman and Kristin Bradbury

Income Produces Bulk of Returns

- U.S. core real estate returns continue to be driven by income, with limited appreciation this late in the cycle.
- The **NCREIF Property Index (NPI)**, a measure of U.S. institutional real estate assets, gained 1.5% during the second quarter. The income return was 1.1%, while appreciation contributed 0.4%.
- Industrial led property sector performance with a return of 3.4%. Retail finished last, falling 0.1%.
- Regionally, the West led with a 1.9% return, while the Midwest was the worst performer at 0.7%.
- The **NCREIF Open-End Diversified Core Equity Index** (value-weighted, net of fees), representing equity ownership positions in U.S. core real estate, generated a 0.8% total return during the second quarter, with income providing 0.8% and appreciation 0.0%.
- Defensive posturing is becoming more prevalent.

U.S. Real Estate Fundamentals Remain Healthy

- Steady returns continued, driven by above inflation-level rent growth in many metro areas.
- Within the NPI, the vacancy rate for U.S. offices was 9.8% in the second quarter, the lowest in over 12 years.
- Net operating income has been growing annually and is expected to be the primary return driver.

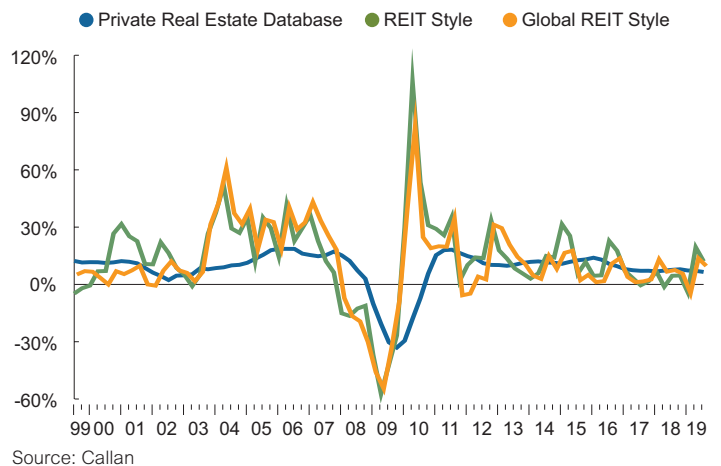
Pricing remains expensive in the U.S.

- Transaction volumes increased and remain robust.
- Cap rates fell slightly; market remains near full valuations

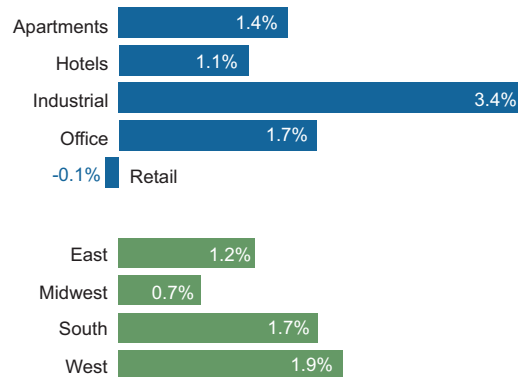
REITs underperformed global equities

- U.S. REITs advanced 1.2% in the second quarter, underperforming the S&P 500 Index, which rose 4.3%.
- Global REITs fell 0.1% in the second quarter compared to a 3.4% gain for global equities (MSCI ACWI IMI).
- Both U.S. and non-U.S. REITs are trading at NAV.
- Large cap REITs, especially those with lower debt levels, modestly underperformed.

Rolling One-Year Returns



Sector Quarterly Returns by Property Type and Region



Source: NCREIF

Non-U.S. Real Estate

Asia

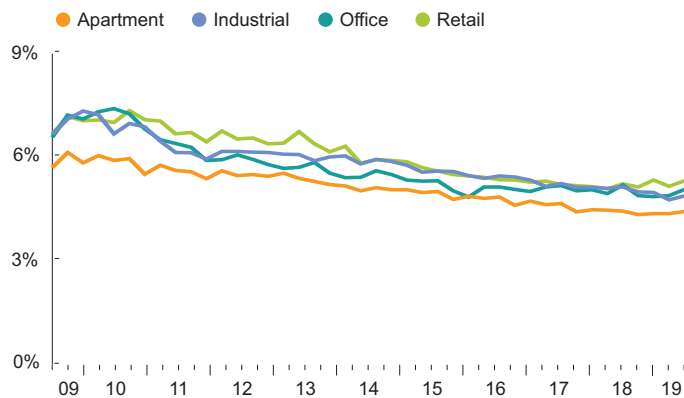
- The growth of the middle class in Asia is steady and the demand for institutional quality real estate is commensurate.
- The number of open-end core funds focused on the Asia Pacific market has increased over recent years and includes both sector-diversified and sector-specific (e.g., logistics) funds, supporting the development of the institutional real estate market in the region. In the first half of the year, India had the first successful IPO for a REIT, which substantiates the institutionalization of the asset class in that country.

REAL ESTATE/REAL ASSETS (Continued)

Europe

- Political uncertainty continues to weigh on overall growth throughout Europe, but real estate fundamentals remain strong in key gateway markets given the continued lack of new supply. Cap rates for prime real estate remain low, as real estate continues to be an attractive asset class as a result of low interest rates throughout the region.
- Institutional interest and investment in multifamily properties keeps expanding, as housing prices continue to grow faster than incomes in major markets across Europe, and demand is supported by continued urbanization and migration to major cities in Europe.

NCREIF Capitalization Rates by Property Type

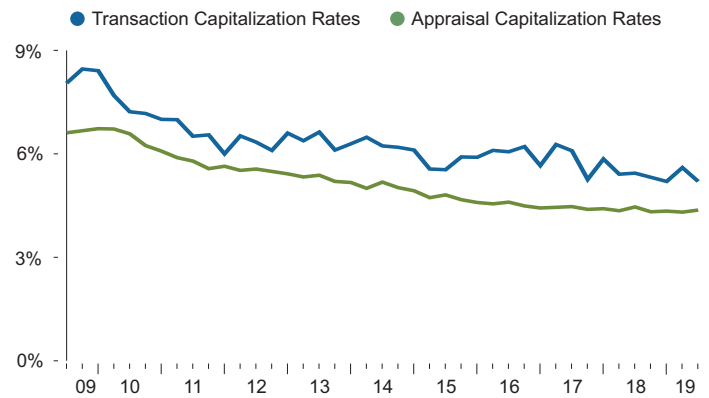


Source: NCREIF. Capitalization rates (net operating income / current market value (or sale price)) are appraisal-based.

Real Assets

- The **Bloomberg Commodity Index** fell 1.2% in the quarter.
- Both the Precious Metals and Agriculture commodity sectors were positive performers, driven by strong individual returns for gold as well as corn, wheat, and coffee.
- Meanwhile, the Livestock, Energy, and Industrial Metals commodity sectors all posted negative quarterly results.
- Oil pulled back but was roughly flat for the quarter, ending at \$58/barrel (West Texas intermediate).
- Natural gas within the **Bloomberg Energy Sub-Index** declined a precipitous 16.2%.
- MLPs (**Alerian MLP Index**: +0.1%) were flat.

NCREIF Transaction and Appraisal Capitalization Rates



Source: NCREIF
Note: Transaction capitalization rate is equal weighted.

Callan Database Median and Index Returns* for Periods ended June 30, 2019

	Quarter	Year to Date	Year	3 Years	5 Years	10 Years	15 Years
Private Real Assets							
Real Estate ODCE Style	1.55	3.12	6.53	7.15	9.51	9.07	6.79
NFI-ODCE (value wt net)	0.77	1.98	5.46	6.61	8.76	8.87	7.01
NCREIF Property	1.51	3.34	6.51	6.89	8.83	9.25	8.70
NCREIF Farmland	0.70	1.40	5.63	6.24	7.98	11.05	14.22
NCREIF Timberland	0.11	0.22	2.23	3.05	4.47	3.90	7.04
Public Real Estate							
Global Real Estate Style	1.20	16.17	9.66	6.17	6.54	12.22	8.56
FTSE EPRA Nareit Developed	-0.07	14.51	7.68	4.46	4.85	10.57	--
Global ex-U.S. Real Estate Style	0.35	13.95	7.84	8.97	5.45	9.97	8.10
FTSE EPRA Nareit Dev ex US	-0.58	12.89	6.09	6.79	3.47	8.26	--
U.S. REIT Style	2.06	19.28	12.11	5.17	8.60	16.15	9.90
EPRA Nareit Equity REITs	1.24	17.78	11.21	4.20	7.92	15.46	9.05

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

Value Is in the Eye of the Beholder

PRIVATE EQUITY | Gary Robertson

Fundraising, company purchase prices, and IPOs increased in the second quarter. However, private M&A investment and exit measures were flat to markedly down. Average buyout company prices and leverage levels hit a record in 2019, tempering transaction activity. Private equity returns remained positive, despite the fourth quarter public equity sell-off.

- **Fundraising** ► Based on preliminary data, final closes for private equity partnerships in the second quarter totaled \$143 billion of commitments in 203 partnerships. (Unless otherwise noted, all data in this commentary come from PitchBook.) The dollar volumes rose 8% and the number of funds rose 25% from the first quarter. For the first half, 2019 is running \$99 billion or 21% behind a year ago. We expect that the second half of 2019 will be larger than the first half, as some large fundraises are slated to start in the fourth quarter, and sought-after general partners are closing new funds quickly.
- **Buyouts** ► New buyout transactions continued declining in the quarter. Funds closed 1,424 investments with \$97 billion in disclosed deal value, representing a 12% decline in count and a 9% dip in dollar value from the first quarter. Average buyout prices leaped to 11.2x EBITDA in 2019 versus 10.6x in 2018, providing a headwind for investment volume.
- **VC Investments** ► New rounds of financing in venture capital companies totaled 4,656, with \$55 billion of announced value. The number of investments was down

Funds Closed January 1 to June 30, 2019

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	159	30,984	11%
Growth Equity	95	142,750	52%
Buyouts	37	26,682	10%
Mezzanine Debt	25	41,150	15%
Distressed	6	9,840	4%
Energy	6	12,266	4%
Secondary and Other	23	8,690	3%
Fund-of-funds	14	4,371	2%
Totals	365	276,733	100%

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

- 15% but announced value rose 10%. Venture prices generally rose during the quarter, particularly for larger later-stage investments.
- **Exits** ► There were 336 private M&A exits of private equity-backed companies, with disclosed values totaling \$80 billion. The private sale count fell 28% but the announced dollar volume rose 4%. There were 35 private equity-backed IPOs in the second quarter raising an aggregate \$15 billion, up 250% and 650%, respectively, from the first quarter.
- Venture-backed M&A exits totaled 290 transactions with disclosed value of \$20 billion. The number of sales declined 14% from the first quarter, and announced value fell 62%. There were 54 VC-backed IPOs in the second quarter with a combined float of \$54 billion; the count jumped 116% and the issuance ballooned 340% as unicorns such as Uber, Slack, and Pinterest made their public debuts.

Private Equity Performance Database (%) (Pooled Horizon IRRs through March 31, 2019*)

Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	5.71	19.54	13.70	14.32	14.38	11.37	15.71
Growth Equity	6.14	16.87	16.41	13.05	15.05	13.23	13.76
All Buyouts	4.52	10.65	15.56	12.25	15.63	13.78	12.23
Mezzanine	2.25	7.56	11.67	10.30	11.09	10.47	8.83
Distressed	2.28	4.65	9.89	6.31	16.26	9.70	10.24
All Private Equity	4.13	4.60	10.73	7.71	13.11	10.60	10.66
S&P 500	4.86	12.66	14.66	12.08	15.15	12.79	12.55

Note: Private equity returns are net of fees. Sources: Refinitiv/Cambridge and Standard & Poor's
*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 *Capital Market Review* and other Callan publications.

Continuing Rally Boosts Most Strategies

HEDGE FUNDS/MACs | Jim McKee

Top-Down Jumps Ahead; Bottom-Up Plods Forward

- Risk-on sentiment in equities and rates supported virtually all hedge fund strategies.
- *Global Macro* (+4.6%) and *Managed Futures* (+4.7%) led, supported by continuing trends/bets in the rates markets.
- Most relative value strategies slogged forward; *Equity Market Neutral* (-0.3%) slipped, indicating challenges with stock-specific risk factors.
- *Long/Short Equity* (+1.3%) lagged equities; *Event-Driven Multi-Strategy* (+2.9%) performed better with soft catalyst-driven stocks continuing to rebound from the fourth quarter sell-off.
- *Risk Arb* (+0.7%) and *Distressed* (+1.5%) edged ahead with their process-driven or hard-catalyst trades.
- Hedge fund portfolios with more exposure to macro or long-biased strategies beat absolute return, particularly those trading equity fundamentals without beta exposure.

- The median manager in the **Callan Hedge Fund-of-Funds Database Group**, net of fees, gained 1.9% in the second quarter. Within that broad grouping, the *Long/Short Equity FOF Style Group* (+2.2%) saw the biggest increase, followed by *Core Diversified* (+1.6%) and *Absolute Return* (+1.1%).

Hedge Fund-of-Funds Style Group Returns



Sources: Callan, Credit Suisse, and Federal Reserve

Callan Database Median and Index Returns* for Periods ended June 30, 2019

Hedge Fund Universe	Quarter	Year	3 Years	5 Years	10 Years	15 Years
Callan Fund-of-Funds Database	1.85	5.06	2.69	5.14	4.59	4.59
Callan Absolute Return FOF Style	1.13	4.42	2.84	5.00	4.00	4.00
Callan Core Diversified FOF Style	1.56	4.52	2.16	4.95	4.61	4.61
Callan Long/Short Equity FOF Style	2.17	6.76	3.46	5.52	5.47	5.47
Credit Suisse Hedge Fund	2.35	4.34	2.36	5.03	5.01	5.01
CS Convertible Arbitrage	1.25	3.99	2.18	5.68	3.81	3.81
CS Distressed	1.52	5.23	1.22	5.82	5.63	5.63
CS Emerging Markets	1.41	6.19	4.08	5.73	6.57	6.57
CS Equity Market Neutral	-0.25	1.39	0.31	1.73	-0.26	-0.26
CS Event-Driven Multi	2.86	4.82	-0.09	4.19	5.20	5.20
CS Fixed Income Arb	1.21	5.19	3.36	6.55	3.78	3.78
CS Global Macro	4.55	4.81	3.01	5.23	6.26	6.26
CS Long/Short Equity	1.25	5.46	3.39	5.66	5.80	5.80
CS Managed Futures	4.73	-1.65	2.50	1.57	3.23	3.23
CS Multi-Strategy	2.11	4.87	4.45	6.93	5.95	5.95
CS Risk Arbitrage	0.70	3.89	2.04	3.03	3.74	3.74
HFRI Asset Wtd Composite	2.12	5.15	3.00	5.15	--	--
90-Day T-Bill + 5%	1.84	6.38	5.87	5.49	6.38	6.38

*Gross of fees. Sources: Bloomberg Barclays, Callan, Credit Suisse, Hedge Fund Research, Societe Generale, and Standard & Poor's

Continuing Rally Lifts Long-Biased MACs; Risk Premia Languished Again

- **HFR Risk Parity Index** targeting 12% volatility gained 4.9%, propelled by rising stock and bond markets, amplified by portfolio leverage.
- Across these risk premia represented by HFR's Risk Premia indexes, *Rates Momentum* (+18.6%) benefited from global yields continuing their slide. Negative effects from other risk premia, especially in equities and commodities, dragged down overall performance.
- The **Callan Multi-Asset Class (MAC) Database Group** increased 2.3% in the quarter. Within that group, the *Risk Parity MAC Style Group* rose 4.6%, followed by *Long Biased* (+2.6%) and *Absolute Return* (+1.8%). *Risk Premia* fell 1.3%.

Volatility Settles Down Again with Risk-On Sentiment

- Markets are discounting continued growth with lower expected rates priced into valuations.
- If hard economic data does not confirm the market's buoyant sentiment, hedge funds are well positioned defensively for a downturn.
- Without a sustained pick-up in volatility, hedge funds are likely to lag.

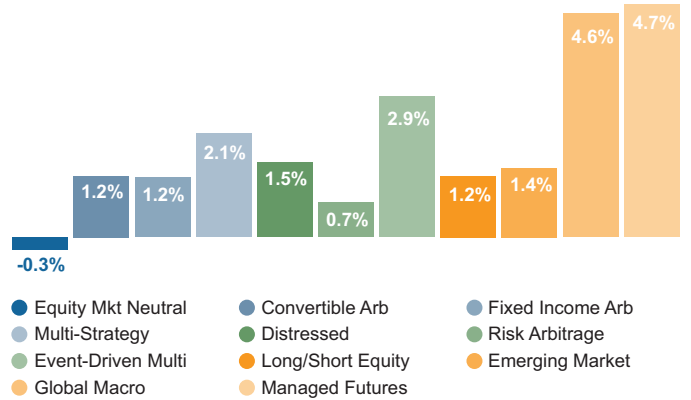
Flat Yield Curve Continues to Level Playing Field

- While both long and short rates settled to lower levels, today's positive short-term rates are still providing support to hedge funds on cash holdings and short interest rebates.
- If the Fed lowers rates aggressively from here due to weakening economic growth, fixed income and diversifying strategies of "hedged" funds will likely benefit at the expense of equities suffering from lowered earnings expectations.

Economic Divergence Creates More Opportunity

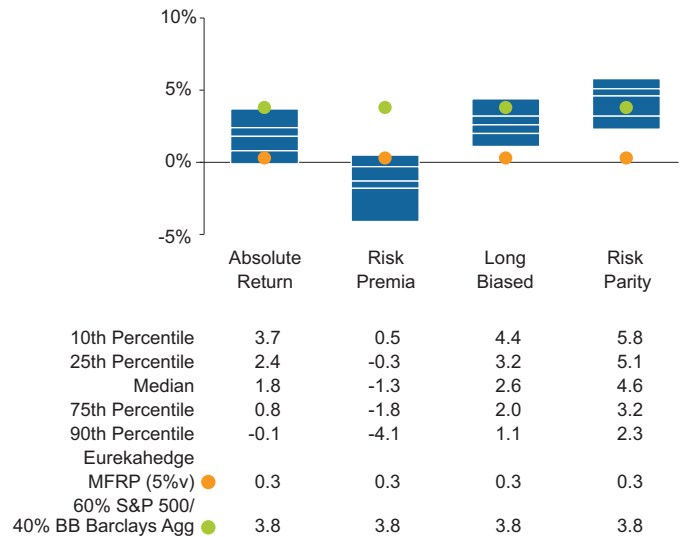
- Global macro tensions can lead to more fundamental and technical imbalances for hedge funds to trade.

Credit Suisse Hedge Fund Strategy Returns



Source: Credit Suisse

MAC Style Group Returns



Sources: Bloomberg Barclays, Callan, Euredahedge, Standard & Poor's

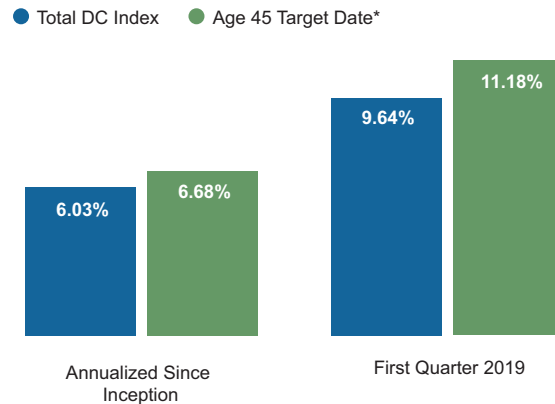
Returns, Inflows Both Rebound for DC Index

DEFINED CONTRIBUTION | Patrick Wisdom

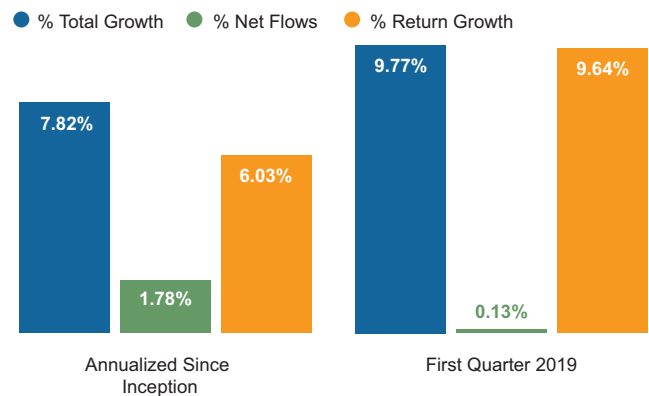
- After a rough finish to 2018, the Callan DC Index™ rebounded in the first quarter of 2019, gaining 9.6%. The Age 45 Target Date Fund posted even stronger results, gaining 11.2%, largely attributable to the Age 45 TDF's higher equity allocation (78% vs. 69%).
- After two quarters of negative flows, strong investment results and cash flows led to sizeable growth in balances in the first quarter, a reversal from two consecutive quarters of negative flows. The 9.8% total gain in market value for the quarter marked the highest since the first quarter of 2012 (9.9%).
- After an aberration in the fourth quarter, target date funds saw the largest inflows in the first quarter. Moreover, stable value experienced relatively large outflows after having the largest inflows the previous quarter. Despite strong equity gains in the first quarter, both U.S. and non-U.S. equity saw large outflows. At the same time, U.S. fixed and money market funds experienced relatively large inflows, perhaps indicating a shift toward safer securities within the core lineup.
- First quarter turnover (i.e., net transfer activity levels within DC plans) increased slightly to 0.48% from the previous quarter's 0.41%.
- After equities rebounded in the first quarter, the share of equity rose to 69.5% from 68.8% the previous quarter.
- Target date funds ended the quarter with 30% of assets, down from 33% the previous quarter. Among asset classes that increased, U.S. large cap (25%) and U.S./global balanced (7%) were up roughly 1 percentage point.
- Stable value's prevalence within DC plans rose for the sixth consecutive quarter and is now at 76%. Additionally, more plans are now offering emerging market equity (18%) as an option compared to the previous quarter.

The Callan DC Index is an equally weighted index tracking the cash flows and performance of nearly 90 plans, representing more than one million DC participants and over \$150 billion in assets. The Index is updated quarterly and is available on Callan's website, as is the quarterly DC Observer newsletter.

Investment Performance



Growth Sources



Net Cash Flow Analysis (First Quarter 2019) (Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	73.22%
U.S. Fixed Income	21.27%
U.S./Global Balanced	-16.65%
U.S. Large Cap	-24.86%
Total Turnover**	0.48%

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.

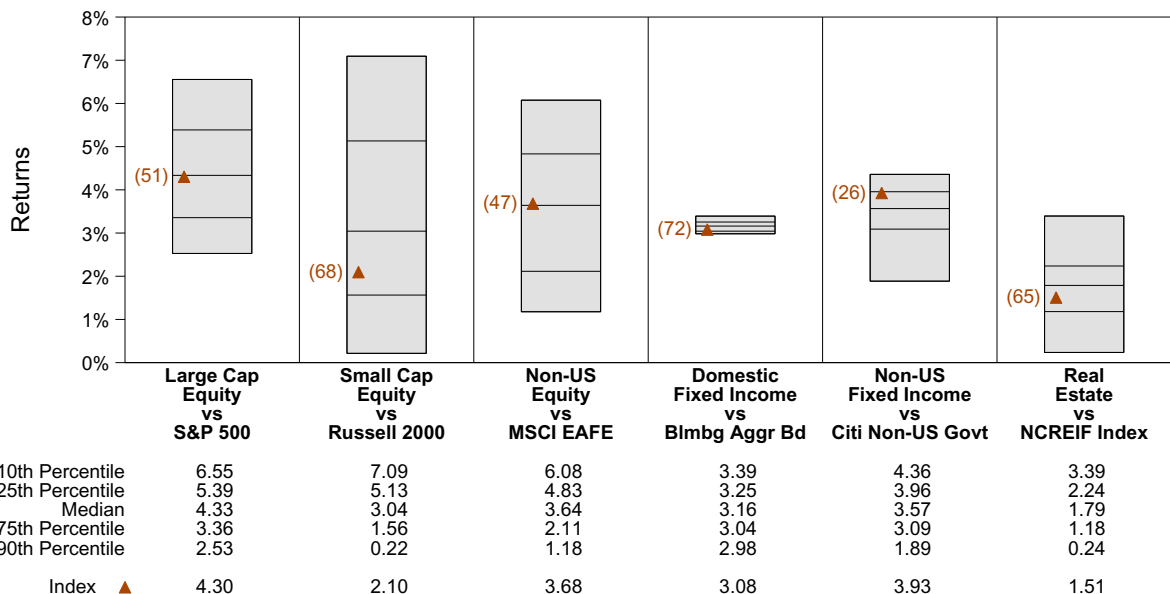
Market Overview

Active Management vs Index Returns

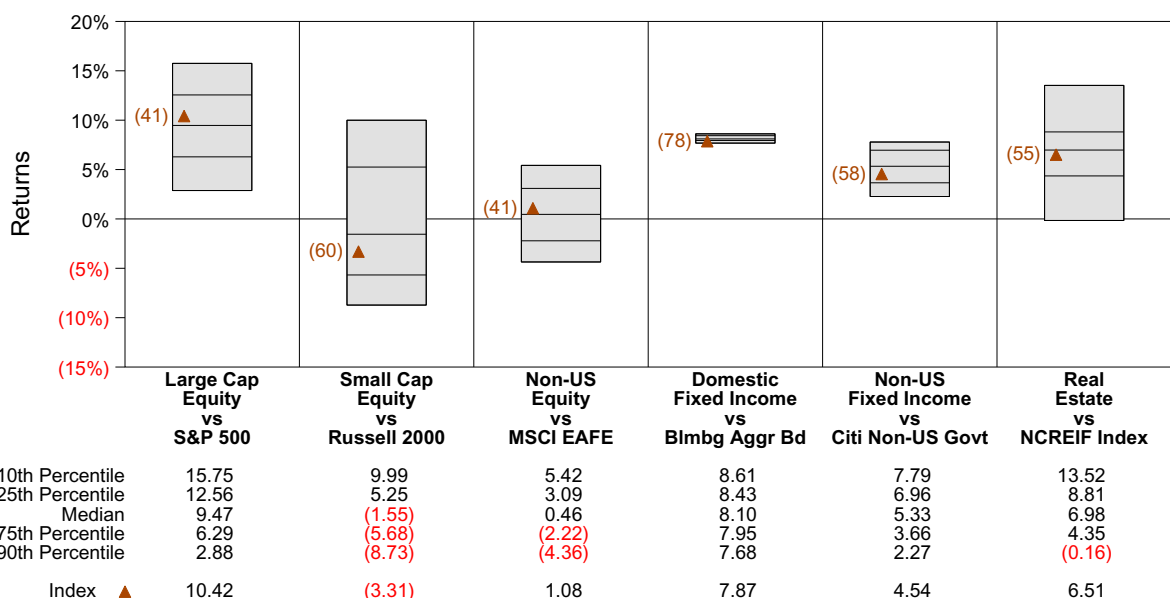
Market Overview

The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also shown for each asset class for comparison purposes. As an example, the first bar in the upper chart illustrates the range of returns for domestic equity managers over the last quarter. The triangle represents the S&P 500 return. The number next to the triangle represents the ranking of the S&P 500 in the Large Cap Equity manager database.

Range of Separate Account Manager Returns by Asset Class One Quarter Ended June 30, 2019



Range of Separate Account Manager Returns by Asset Class One Year Ended June 30, 2019



ASSET ALLOCATION AND PERFORMANCE

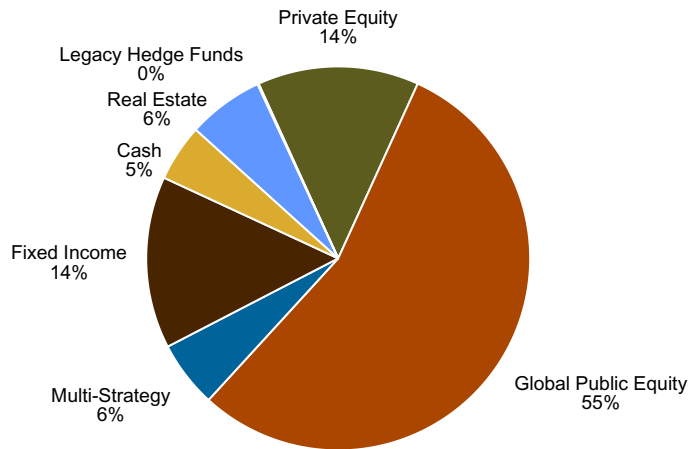
Asset Allocation and Performance

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.

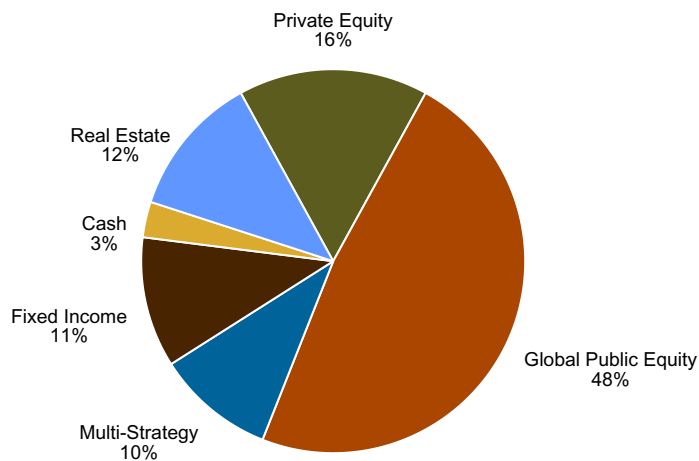
Actual vs Target Asset Allocation As of June 30, 2019

The first chart below shows the Fund's asset allocation as of June 30, 2019. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation

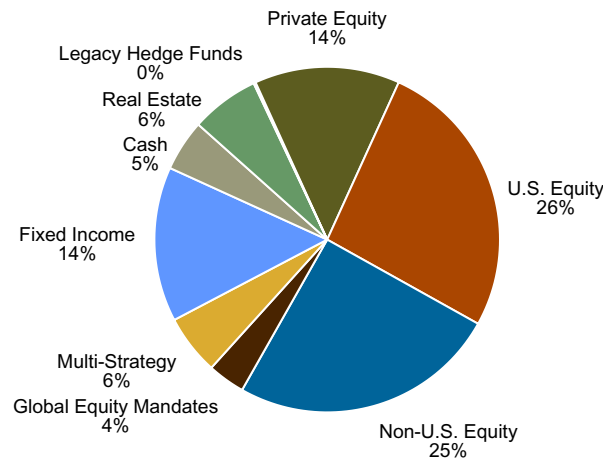


Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Private Equity	4,009,894	13.6%	16.0%	(2.4%)	(715,527)
Global Public Equity	16,231,877	55.0%	48.0%	7.0%	2,055,612
Multi-Strategy	1,661,163	5.6%	10.0%	(4.4%)	(1,292,226)
Fixed Income	4,273,494	14.5%	11.0%	3.5%	1,024,767
Cash	1,416,982	4.8%	3.0%	1.8%	530,965
Real Estate	1,902,498	6.4%	12.0%	(5.6%)	(1,641,568)
Legacy Hedge Funds	37,978	0.1%	0.0%	0.1%	37,978
Total	29,533,887	100.0%	100.0%		

Actual Asset Allocation As of June 30, 2019

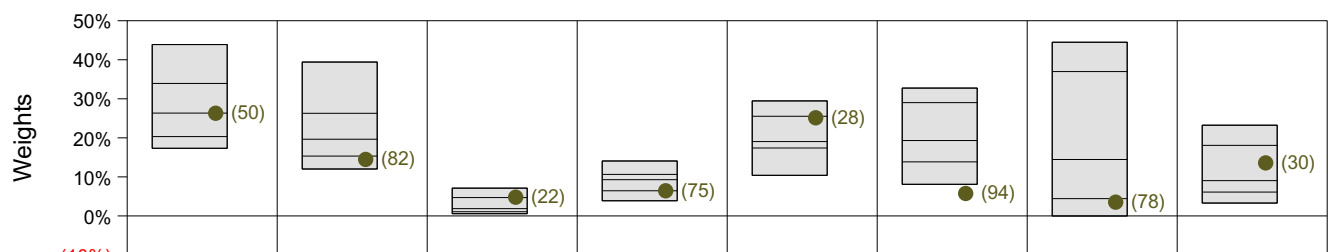
The first chart below shows the Fund's asset allocation as of June 30, 2019. The second chart ranks the fund's asset allocation versus the Callan Public Fund Spons- V Lg DB (>10B).

Actual Asset Allocation



Asset Class	\$000s Actual	Weight Actual
Private Equity	4,009,894	13.6%
U.S. Equity	7,766,309	26.3%
Non-U.S. Equity	7,423,432	25.1%
Global Equity Mandates	1,040,873	3.5%
Multi-Strategy	1,661,163	5.6%
Fixed Income	4,273,494	14.5%
Cash	1,416,982	4.8%
Real Estate	1,902,498	6.4%
Legacy Hedge Funds	37,978	0.1%
Total	29,532,624	100.0%

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



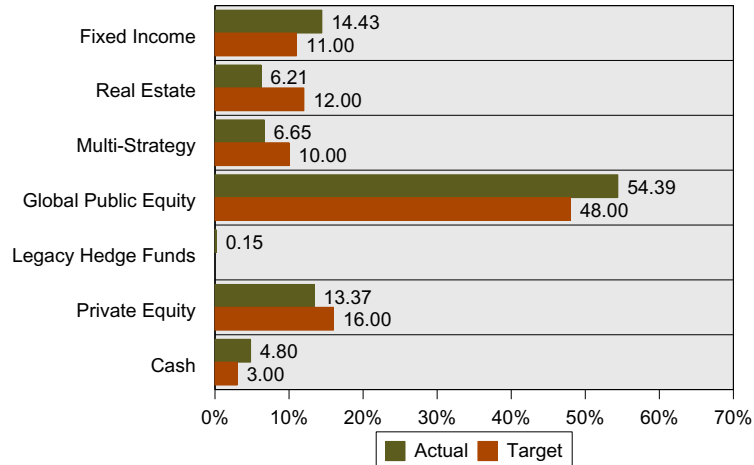
	U.S. Equity	Fixed Income	Cash	Real Estate	Intl Equity	Alternative	Global Equity Mandates	Private Equity
10th Percentile	43.90	39.41	7.12	14.07	29.46	32.75	44.49	23.24
25th Percentile	33.94	26.28	4.70	10.63	25.53	29.02	36.97	18.08
Median	26.34	19.65	1.86	9.28	19.05	19.31	14.45	9.04
75th Percentile	20.32	15.33	1.07	6.44	17.40	13.84	4.43	6.11
90th Percentile	17.32	12.02	0.56	3.88	10.39	8.09	0.00	3.29
Fund	26.30	14.47	4.80	6.44	25.14	5.75	3.52	13.58
% Group Invested	100.00%	96.15%	84.62%	84.62%	96.15%	76.92%	23.08%	30.77%

*Excludes transition accounts

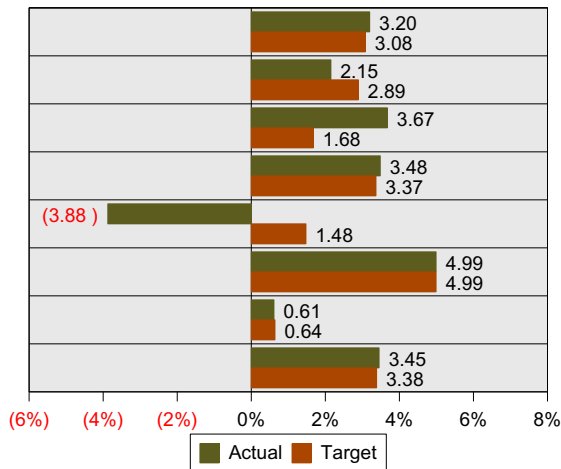
Quarterly Total Fund Absolute Attribution - June 30, 2019

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.

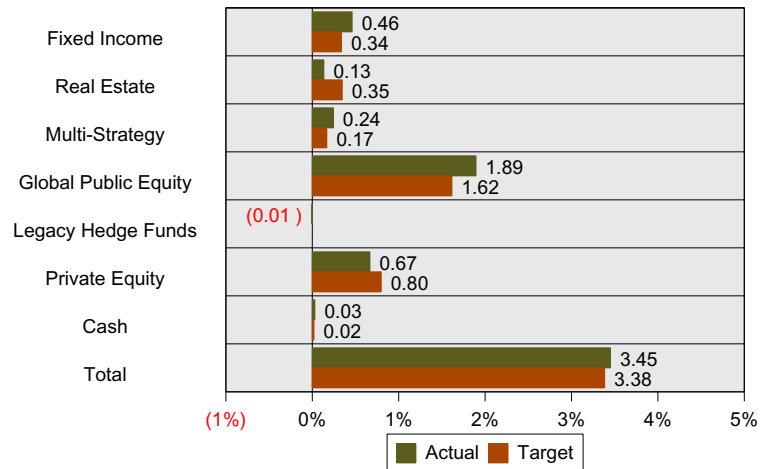
Actual and Target Weights



Actual and Target Returns



Absolute Return Contributions



Absolute Attribution Effects for Quarter ended June 30, 2019

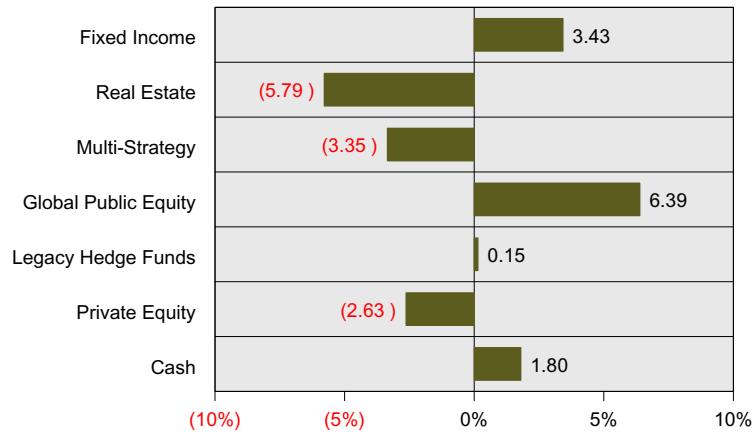
	Effective Actual Weight	Actual Return	Absolute Return Contribution	Effective Target Weight	Target Return	Target Return Contribution	Return Contribution Difference
Fixed Income	14%	3.20%	0.46%	11%	3.08%	0.34%	0.12%
Real Estate	6%	2.15%	0.13%	12%	2.89%	0.35%	(0.21%)
Multi-Strategy	7%	3.67%	0.24%	10%	1.68%	0.17%	0.08%
Global Public Equity	54%	3.48%	1.89%	48%	3.37%	1.62%	0.28%
Legacy Hedge Funds	0%	(3.88%)	(0.01%)	0%	1.48%	0.00%	(0.01%)
Private Equity	13%	4.99%	0.67%	16%	4.99%	0.80%	(0.13%)
Cash	5%	0.61%	0.03%	3%	0.64%	0.02%	0.01%
Total Fund Return		3.45%		Target Return	3.38%		0.07%

* Current Quarter Target = 48.0% MSCI ACWI IMI, 16.0% Private Equity, 11.0% Blmbg Aggregate, 10.8% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 10.0% S&P/LSTA Leveraged Loan, 3.0% 3-month Treasury Bill, 1.2% FTSE EP/NA US Index lagged 3 months and 0.0% HFRI Fund of Funds Compos.

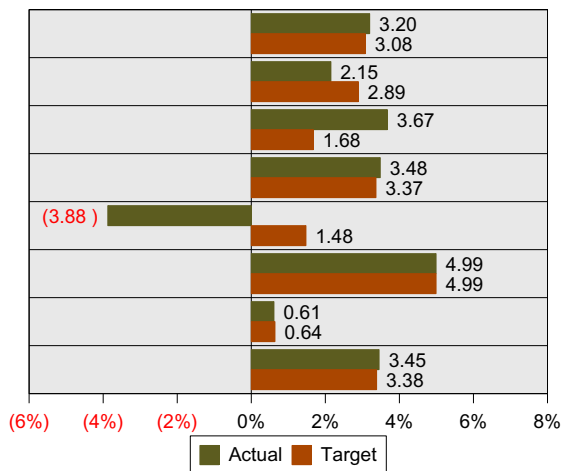
Quarterly Total Fund Relative Attribution - June 30, 2019

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

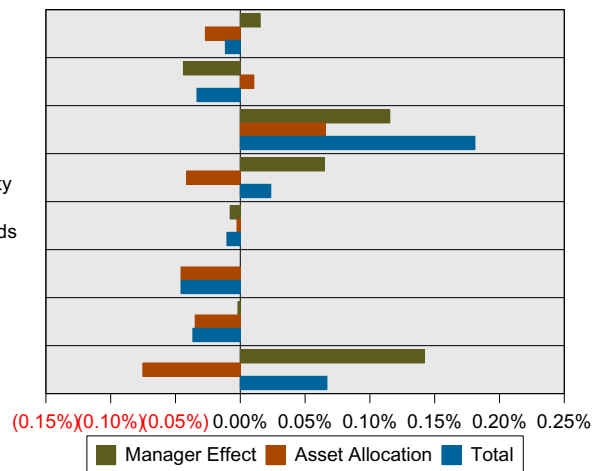
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2019

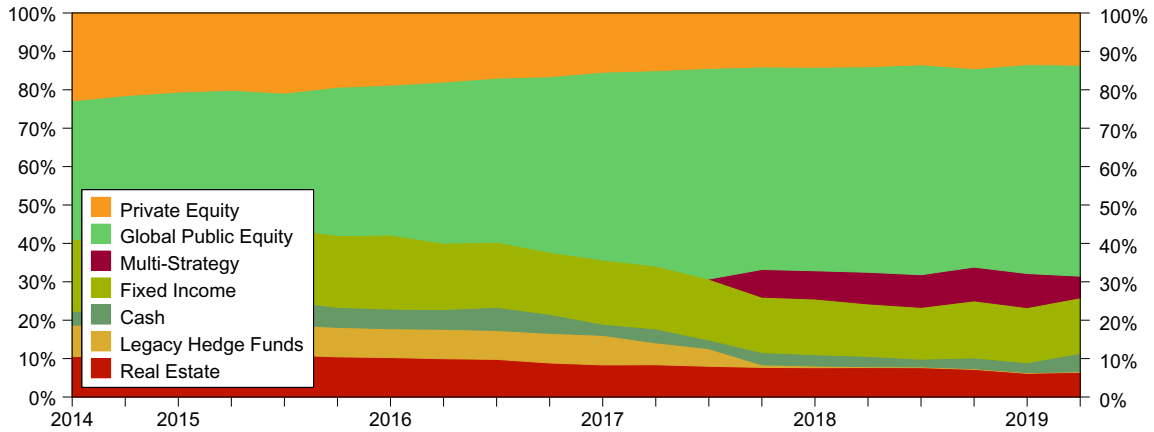
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Fixed Income	14%	11%	3.20%	3.08%	0.02%	(0.03%)	(0.01%)
Real Estate	6%	12%	2.15%	2.89%	(0.04%)	0.01%	(0.03%)
Multi-Strategy	7%	10%	3.67%	1.68%	0.12%	0.07%	0.18%
Global Public Equity	54%	48%	3.48%	3.37%	0.06%	(0.04%)	0.02%
Legacy Hedge Funds	0%	0%	(3.88%)	1.48%	(0.01%)	(0.00%)	(0.01%)
Private Equity	13%	16%	4.99%	4.99%	0.00%	(0.05%)	(0.05%)
Cash	5%	3%	0.61%	0.64%	(0.00%)	(0.03%)	(0.04%)
Total			3.45%	3.38%	+ 0.14%	+ (0.08%)	0.07%

* Current Quarter Target = 48.0% MSCI ACWI IMI, 16.0% Private Equity, 11.0% Blmbg Aggregate, 10.8% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 10.0% S&P/LSTA Leveraged Loan, 3.0% 3-month Treasury Bill, 1.2% FTSE EP/NA US Index lagged 3 months and 0.0% HFRI Fund of Funds Compos.

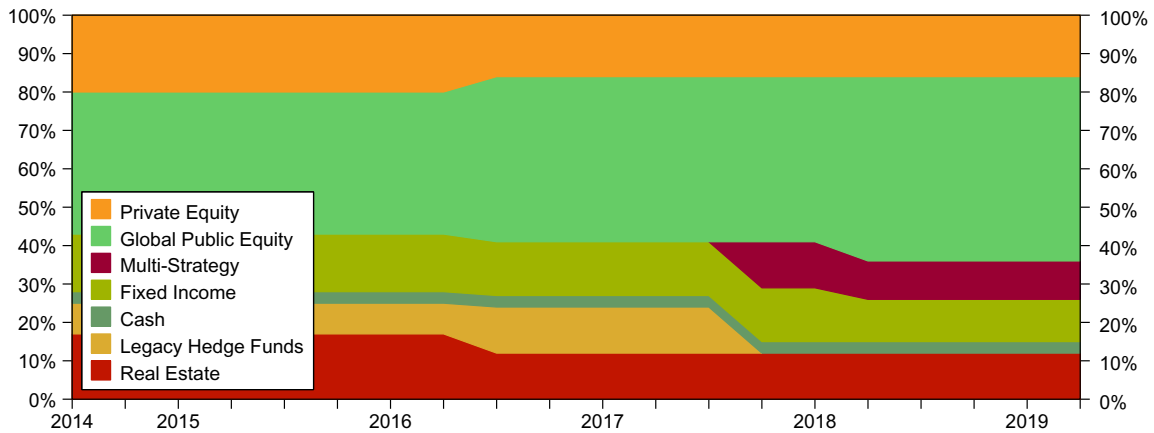
Actual vs Target Historical Asset Allocation

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).

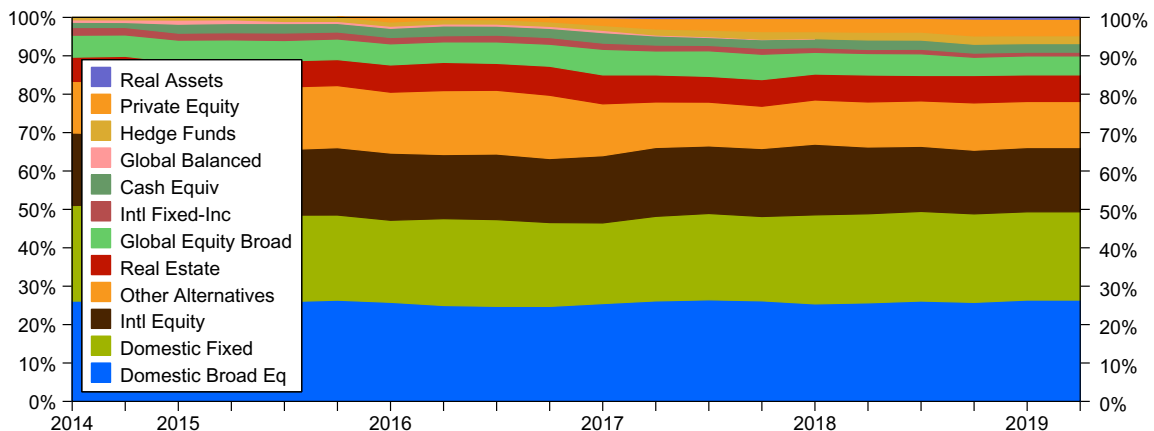
Actual Historical Asset Allocation



Target Historical Asset Allocation



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



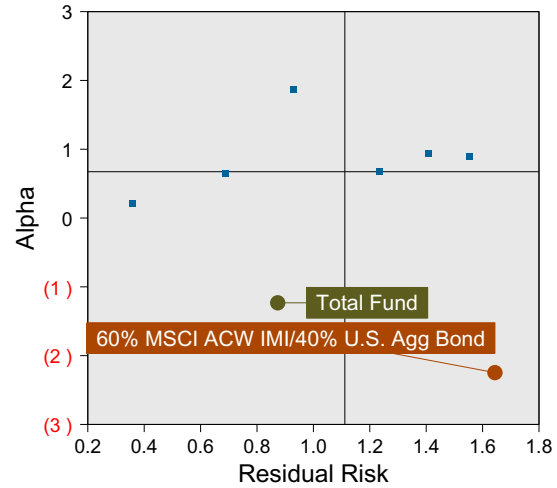
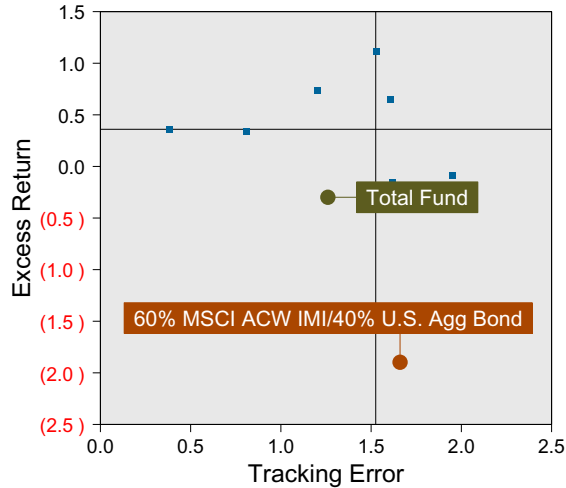
Total Fund

Total Fund vs Target Risk Analysis

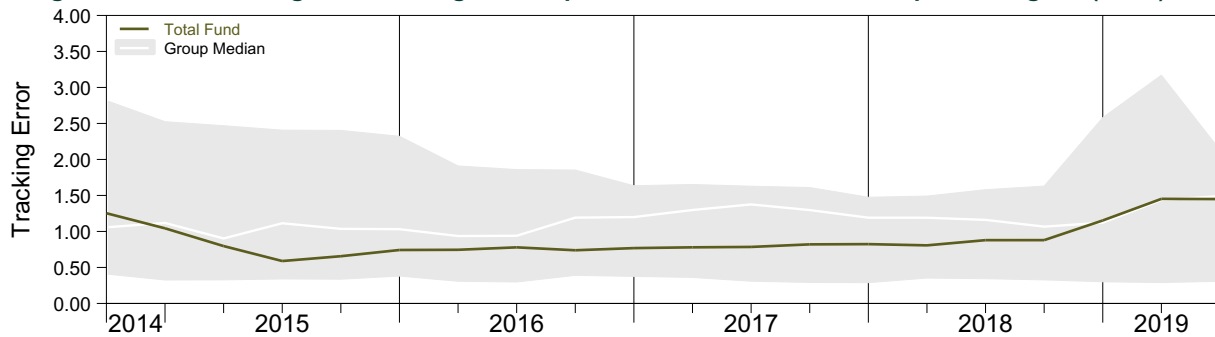
Risk Analysis

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.

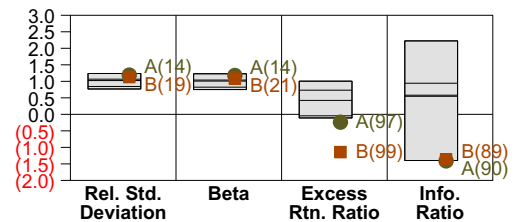
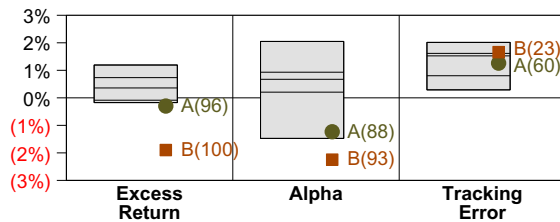
Risk Analysis vs Callan Public Fund Spons- V Lg DB (>10B) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs Targets Compared to Callan Public Fund Spons- V Lg DB (>10B)



Risk Statistics Rankings vs Targets Rankings Against Callan Public Fund Spons- V Lg DB (>10B) Five Years Ended June 30, 2019



	Excess Return	Alpha	Tracking Error	Rel. Std. Deviation	Beta	Excess Rtn. Ratio	Info. Ratio
10th Percentile	1.19	2.05	2.01	1.24	1.23	1.00	2.23
25th Percentile	0.73	0.93	1.62	1.07	1.04	0.73	0.94
Median	0.36	0.67	1.53	1.02	1.01	0.42	0.58
75th Percentile	(0.09)	0.21	0.80	0.84	0.82	(0.04)	0.55
90th Percentile	(0.17)	(1.47)	0.29	0.77	0.75	(0.11)	(1.40)
Total Fund	● A (0.30)	(1.23)	1.26	● A 1.19	1.18	(0.24)	(1.41)
60% MSCI ACW	■ B (1.90)	(2.25)	1.66	■ B 1.13	1.08	(1.14)	(1.37)
IMI/40% U.S. Agg Bond							

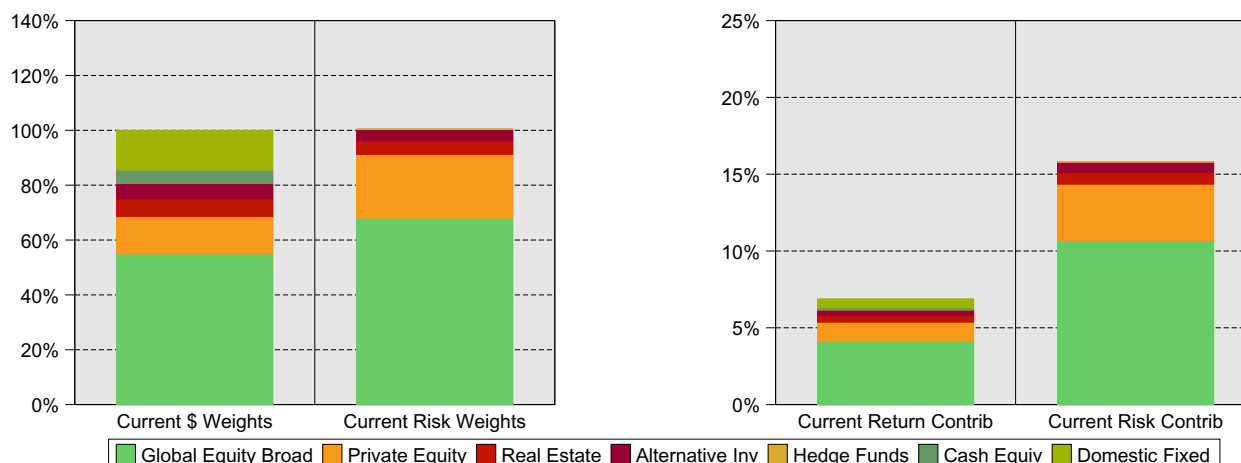
Pennsylvania SERS Total Fund Projected Risk Analysis as of June 30, 2019

The following is forward-looking analysis of the **projected long-term** total fund risk, return, and diversification benefits (improvement in risk and Sharpe ratio) using long-term capital market assumptions. The top table displays the projected results and diversification benefits for the total fund using both the actual and target asset allocations. The middle and bottom exhibits give a detailed attribution by asset class of the sources of projected total fund risk and return. This analysis juxtaposes dollar weights with projected risk weights and examines the projected risk and return contribution by asset class.

Capital Market Assumptions: Callan 2019 Total Fund Projected Risk Profile

	Projected Return	Projected Risk	Projected Sharpe	Risk w/o Diversification	Risk Diversification	Sharpe Diversification
Current Asset Allocation	6.89%	15.73%	0.28	17.32%	1.59%	0.03%
Target Asset Allocation	7.05%	16.26%	0.28	18.06%	1.80%	0.03%

Projected Risk and Return Sources



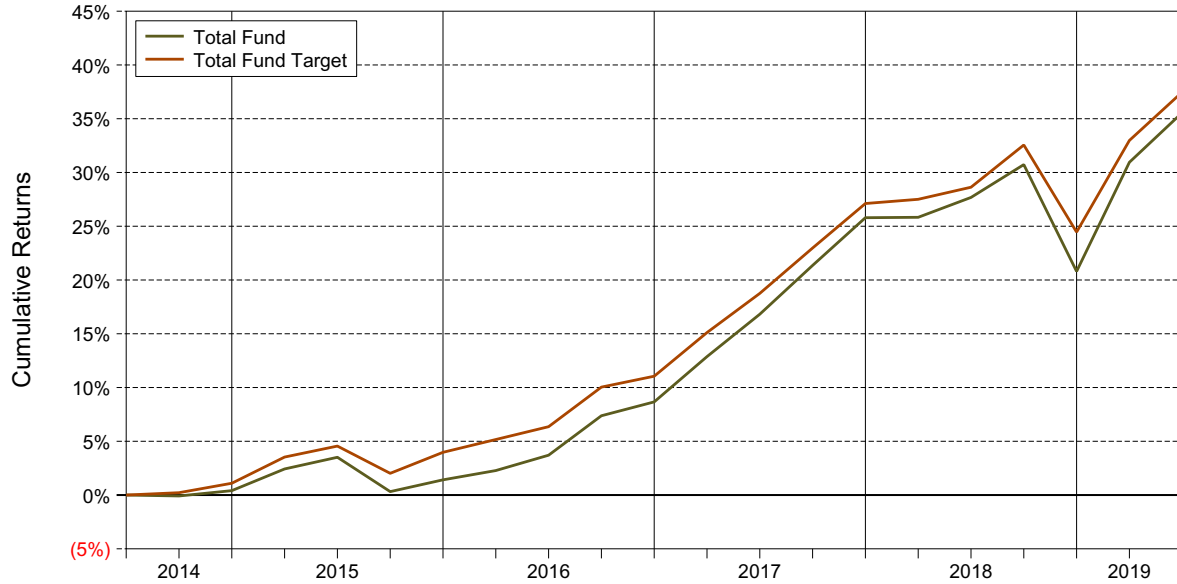
Detailed Risk and Return Sources by Asset Class

	Current Dollar Weight	Target Dollar Weight	Projected Return	Projected Risk	Current Risk Weight	Target Risk Weight	Projected Return Contrib	Projected Risk Contrib	Projected Rtn/Risk Contrib
Global Equity Broad	54.96%	48.00%	7.00%	19.75%	67.94%	56.53%	4.12%	10.69%	0.39x
Private Equity	13.58%	16.00%	8.50%	29.30%	23.25%	26.73%	1.24%	3.66%	0.34x
Real Estate	6.44%	12.00%	6.25%	15.70%	4.91%	9.29%	0.43%	0.77%	0.56x
Alternative Inv	5.62%	10.00%	6.25%	15.70%	4.29%	7.79%	0.38%	0.68%	0.56x
Hedge Funds	0.13%	0.00%	5.48%	8.85%	0.05%	0.00%	0.01%	0.01%	0.88x
Cash Equiv	4.80%	3.00%	2.52%	0.90%	(0.00%)	(0.00%)	0.13%	(0.00%)	(310.60x)
Domestic Fixed	14.47%	11.00%	3.73%	3.75%	(0.44%)	(0.33%)	0.58%	(0.07%)	(8.46x)

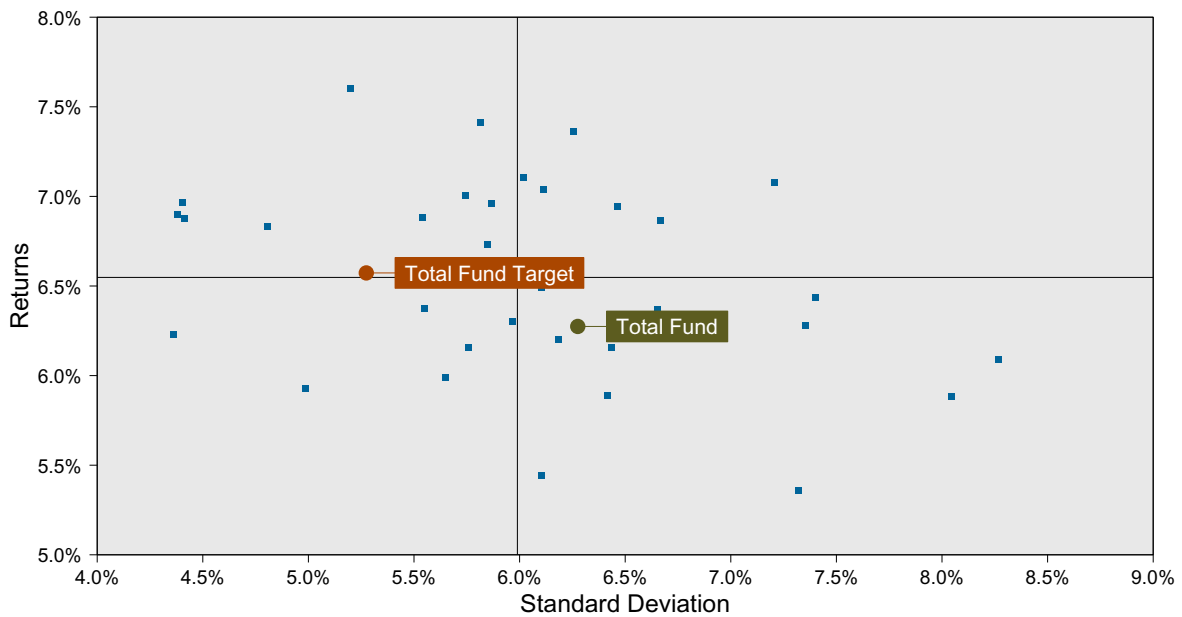
Cumulative Performance Relative to Target

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

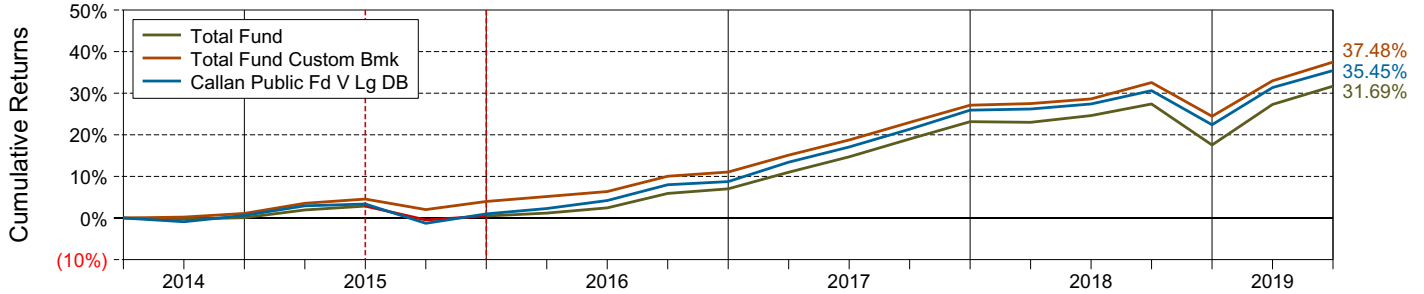


Squares represent membership of the Callan Public Fund Spons- V Lg DB (>10B)

Total Fund Drawdown Analysis for Five Years Ended June 30, 2019

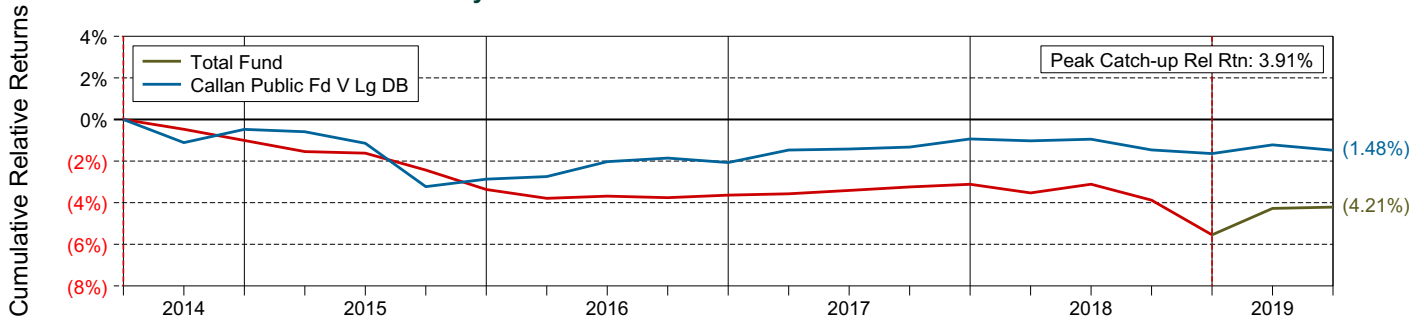
The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute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

Absolute Cumulative Drawdown Analysis



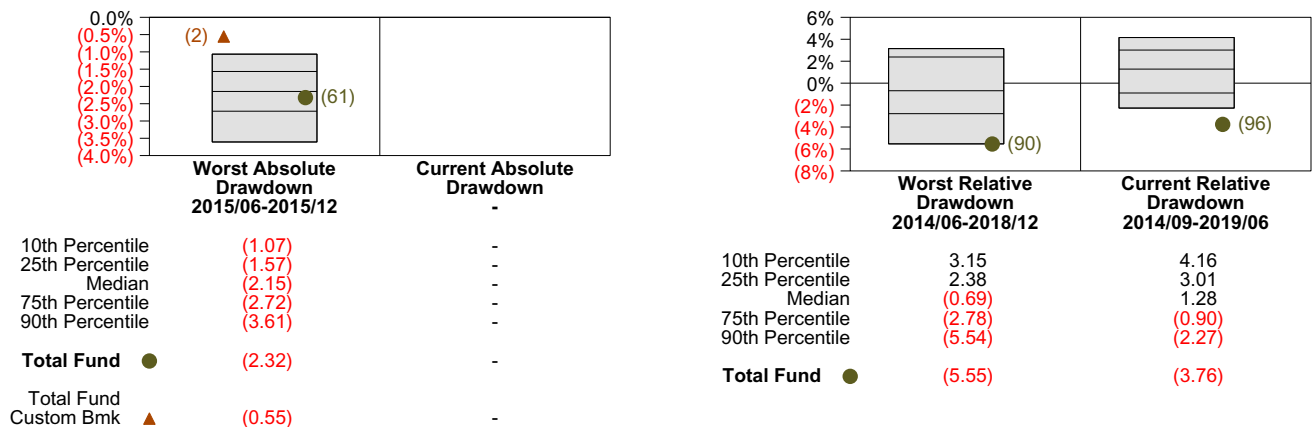
	Worst Absolute Drawdown					Current Absolute Drawdown				
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Total Fund	(2.32)%	0.50	2015/06-2015/12	(0.55)%	(2.29)%	-	-	-	-	-
Recovery from Trough	5.40%	0.75	2015/12-2016/09	5.83%	6.94%	-	-	-	-	-
Total Fund Custom Bmk	(6.11)%	0.25	2018/09-2018/12	-	-	-	-	-	-	-
Callan Public Fd V Lg DB	(6.28)%	0.25	2018/09-2018/12	-	-	-	-	-	-	-

Relative Cumulative Drawdown Analysis vs. Total Fund Custom Bmk



	Worst Relative Drawdown				Current Relative Drawdown			
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
Total Fund	(5.55)%	4.50	2014/06-2018/12	(1.64)%	(3.76)%	4.75	2014/09-2019/06	(0.37)%
Recovery from Trough	1.35%	0.25	2018/12-2019/03	0.43%	1.41%	0.50+	2018/12-2019/06	0.16%
Callan Public Fd V Lg DB	(3.23)%	1.25	2014/06-2015/09	-	(1.01)%	4.50	2014/12-2019/06	-

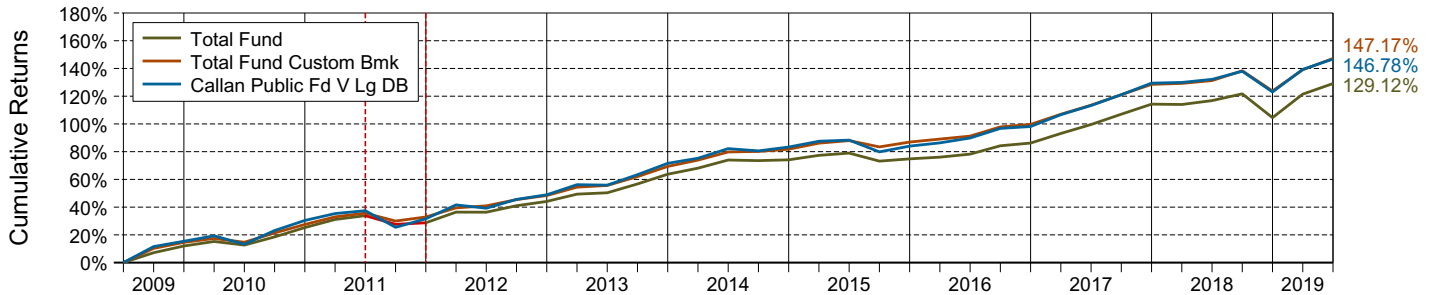
Drawdown Rankings vs. Total Fund Custom Bmk Rankings against Callan Public Fund Spons- V Lg DB (>10B) Five Years Ended June 30, 2019



Total Fund Drawdown Analysis for Ten Years Ended June 30, 2019

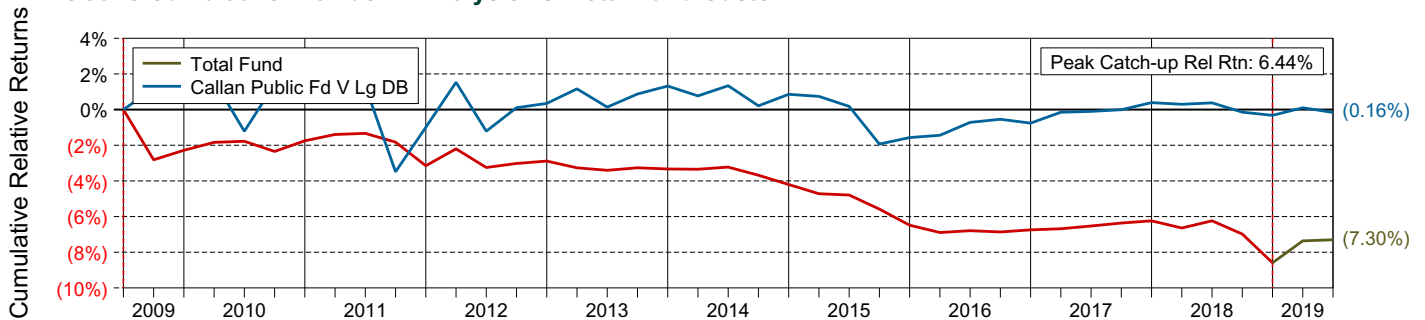
The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute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

Absolute Cumulative Drawdown Analysis



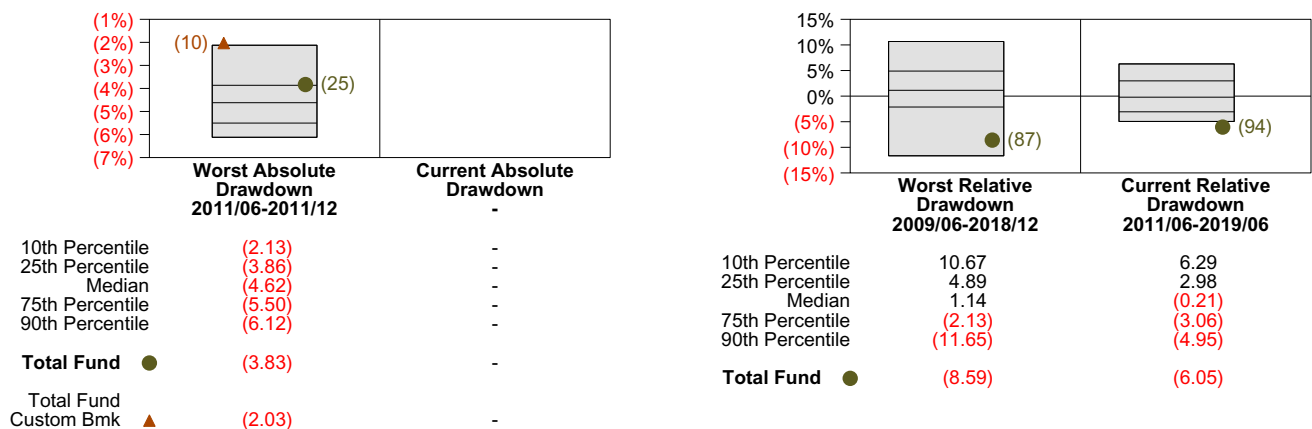
	Worst Absolute Drawdown					Current Absolute Drawdown				
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Total Fund	(3.83)%	0.50	2011/06-2011/12	(2.03)%	(4.26)%	-	-	-	-	-
Recovery from Trough	5.98%	0.25	2011/12-2012/03	4.95%	7.63%	-	-	-	-	-
Total Fund Custom Bmk	(6.11)%	0.25	2018/09-2018/12	-	-	-	-	-	-	-
Callan Public Fd V Lg DB	(6.28)%	0.25	2018/09-2018/12	-	-	-	-	-	-	-

Relative Cumulative Drawdown Analysis vs. Total Fund Custom Bmk



	Worst Relative Drawdown				Current Relative Drawdown			
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
Total Fund	(8.59)%	9.50	2009/06-2018/12	(0.32)%	(6.05)%	8.00	2011/06-2019/06	(1.45)%
Recovery from Trough	1.35%	0.25	2018/12-2019/03	0.43%	1.41%	0.50+	2018/12-2019/06	0.16%
Callan Public Fd V Lg DB	(5.63)%	0.75	2010/12-2011/09	-	(2.37)%	8.50	2010/12-2019/06	-

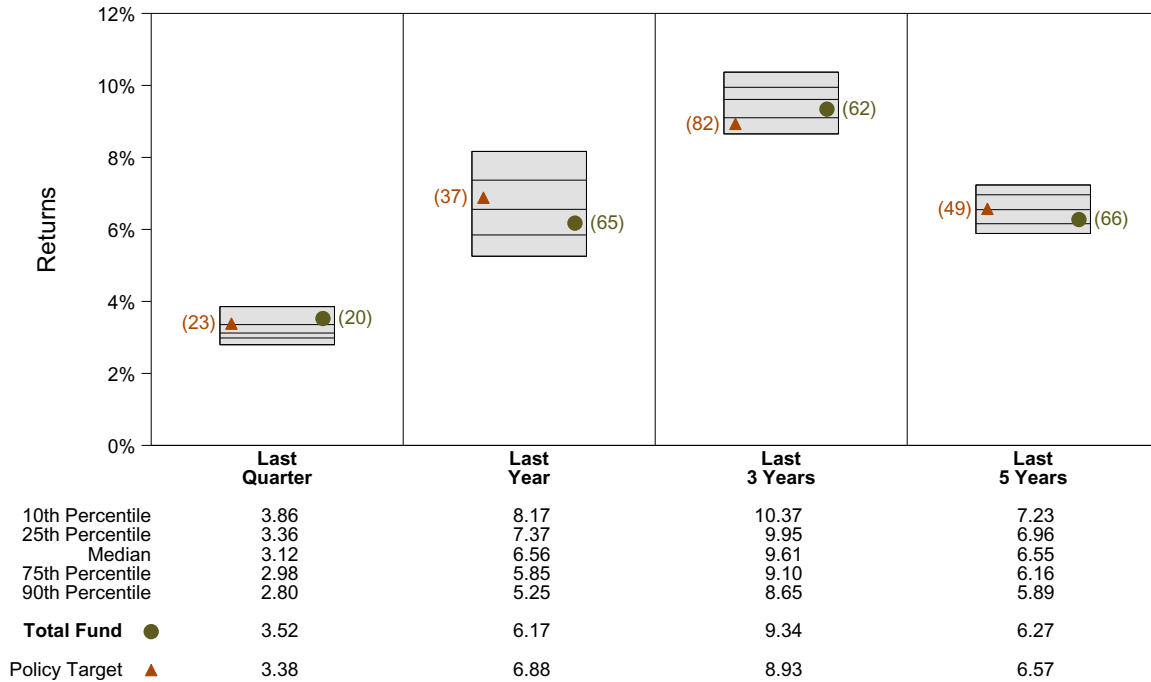
Drawdown Rankings vs. Total Fund Custom Bmk Rankings against Callan Public Fund Spons- V Lg DB (>10B) Ten Years Ended June 30, 2019



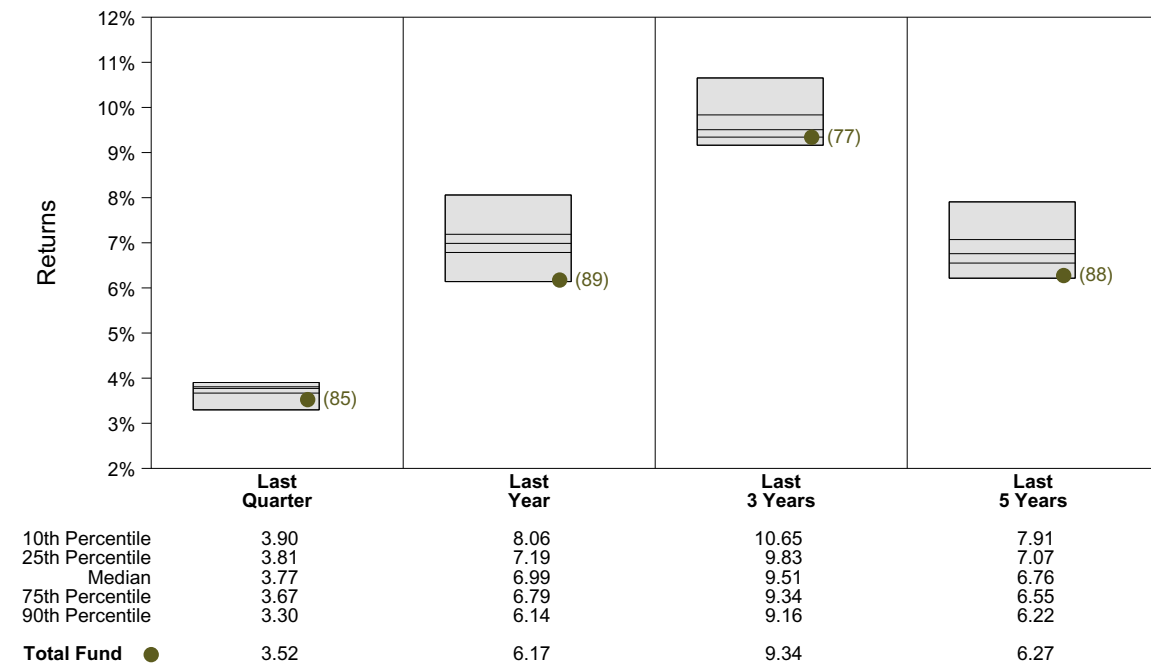
Total Fund Ranking

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 June 30, 2019. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

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



Asset Allocation Adjusted Ranking

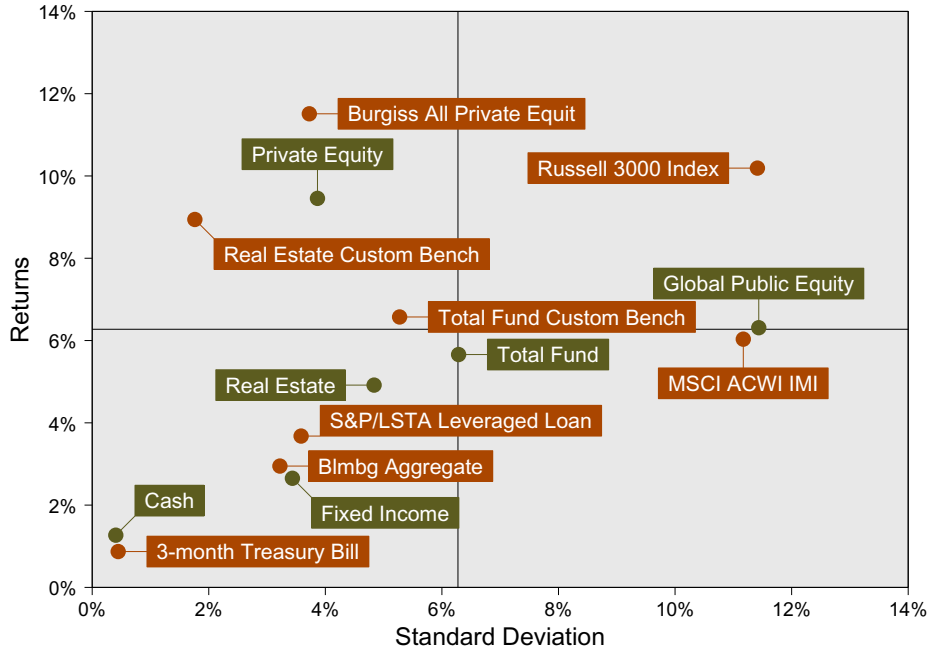


* Current Quarter Target = 48.0% MSCI ACWI IMI, 16.0% Private Equity, 11.0% Blmbg Aggregate, 10.8% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 10.0% S&P/LSTA Leveraged Loan, 3.0% 3-month Treasury Bill, 1.2% FTSE EP/NA US Index lagged 3 months and 0.0% HFRI Fund of Funds Compos.

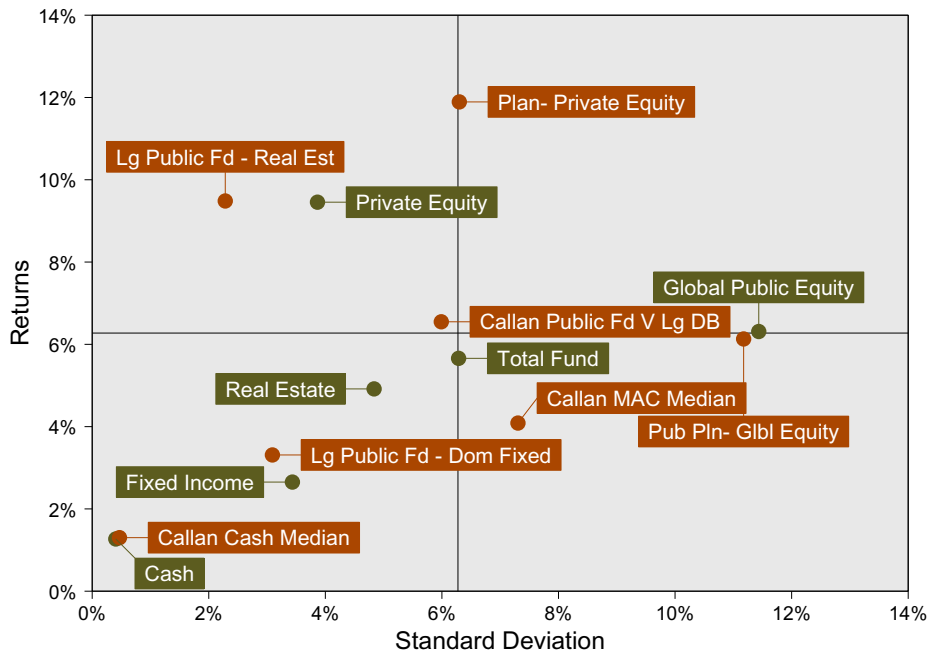
Asset Class Risk and Return

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



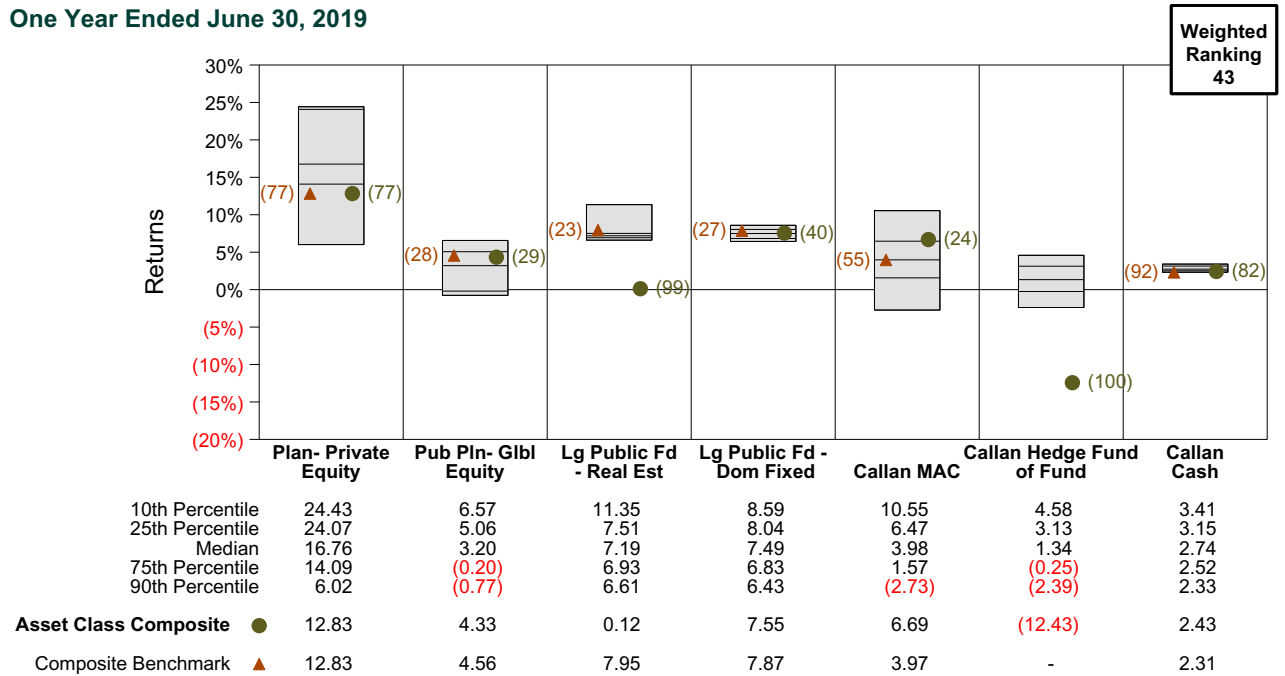
Five Year Annualized Risk vs Return Asset Classes vs Asset Class Median



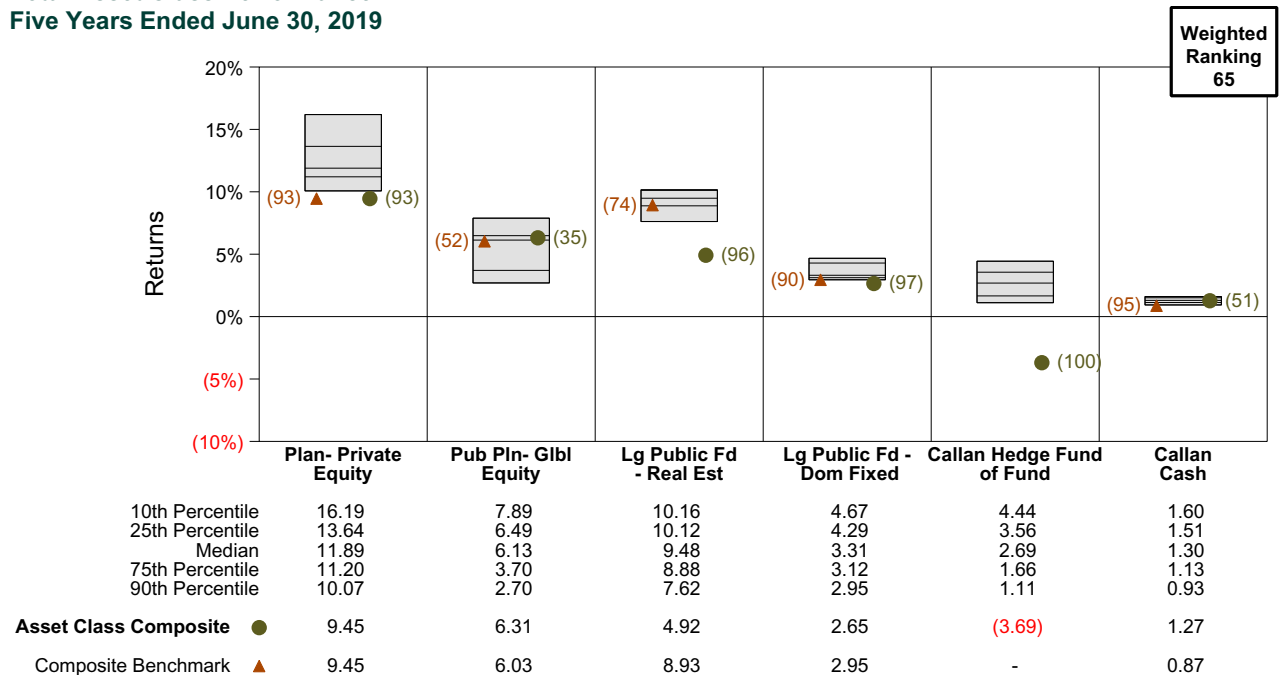
Asset Class Rankings

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

Total Asset Class Performance One Year Ended June 30, 2019



Total Asset Class Performance Five Years Ended June 30, 2019



* Current Quarter Target = 48.0% MSCI ACWI IMI, 16.0% Private Equity, 11.0% Blmbg Aggregate, 10.8% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 10.0% S&P/LSTA Leveraged Loan, 3.0% 3-month Treasury Bill, 1.2% FTSE EP/NA US Index lagged 3 months and 0.0% HFRI Fund of Funds Compos.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2019, with the distribution as of March 31, 2019.

Asset Distribution Across Investment Managers

	June 30, 2019					March 31, 2019		
	Market Value	% of Total	(min)	Target	(max)	Market Value	% of Total	Target
	\$(000)	Weight	Weight	\$(000)	Weight	Weight		
Total Equity	\$20,241,699	68.54%	59.00%	64.00%	69.00%	\$16,619,524	57.65%	64.00%
Global Public Equity	\$16,231,877	54.96%	-	-	-	\$15,685,984	54.41%	-
Global Mandates	1,040,873	3.52%				999,949	3.47%	
U.S. Equity	7,766,309	26.30%				7,489,449	25.98%	
Non-U.S. Developed Markets Equity	5,568,317	18.85%				5,445,216	18.89%	
Emerging Mkts Equity	1,855,115	6.28%				1,750,129	6.07%	
Private Equity (1)	\$4,009,894	13.58%	-	-	-	\$3,870,849	13.43%	-
Buyouts	1,779,557	6.03%				1,783,530	6.19%	
Special Situations	549,672	1.86%				560,900	1.95%	
Venture Capital	802,499	2.72%				592,947	2.06%	
Keystone Legacy (2)	878,166	2.97%				933,472	3.24%	
Fixed Income	\$4,273,494	14.47%	8.00%	11.00%	14.00%	\$4,141,513	14.37%	11.00%
Core Fixed Income	1,940,500	6.57%				1,881,872	6.53%	
Core-Plus Fixed Income	890,405	3.01%				862,548	2.99%	
Nominal U.S. Treasuries	587,016	1.99%				564,848	1.96%	
Global TIPS	855,574	2.90%				832,245	2.89%	
Multi-Strategy	\$1,661,163	5.62%	7.00%	10.00%	13.00%	\$2,561,057	8.88%	10.00%
Opportunistic Equity & Fixed Income	545,393	1.85%				1,525,276	5.29%	
Private Credit (1)	189,580	0.64%				124,334	0.43%	
Credit Focused Strategies	926,190	3.14%				911,448	3.16%	
Real Estate (1)	\$1,902,498	6.44%	9.00%	12.00%	15.00%	\$1,778,722	6.17%	12.00%
Core/Core Plus Real Estate Funds	619,316	2.10%				523,869	1.82%	
Value Add/Opp. Real Estate	1,012,699	3.43%				989,028	3.43%	
REITS	264,972	0.90%				260,268	0.90%	
Natural Resources/Infrastructure	5,510	0.02%				5,557	0.02%	
Legacy Hedge Funds	\$37,978	0.13%	-	-	-	\$46,114	0.16%	-
Cash	\$1,416,982	4.80%	0.00%	3.00%	6.00%	\$744,061	2.58%	3.00%
Total Fund	\$29,533,887	100.0%		100.0%		\$28,828,300	100.0%	100.0%

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

(2) As of 7/31/2018, Keystone Legacy SPV consists of 163 non-core funds, prior performance in previous sub-asset classes

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2019, with the distribution as of March 31, 2019. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	June 30, 2019		Net New Inv. \$(000)	Inv. Return \$(000)	March 31, 2019	
	Market Value \$(000)	% of Total Weight			Market Value \$(000)	% of Total Weight
Global Public Equity	\$16,231,877	54.96%	\$(6,012)	\$551,906	\$15,685,984	54.41%
Global Mandates	1,040,873	3.52%	(940)	41,865	999,949	3.47%
U.S. Equity	\$7,766,309	26.30%	\$(1,682)	\$278,543	\$7,489,449	25.98%
U.S. Large/Mid Cap Equity	6,156,858	20.85%	(669)	236,462	5,921,065	20.54%
U.S. Small Cap Equity	1,609,452	5.45%	(1,013)	42,080	1,568,384	5.44%
Non-U.S. Equity	\$7,423,432	25.14%	\$(3,389)	\$231,476	\$7,195,345	24.96%
Non-U.S. Developed Markets Equity	\$5,568,317	18.85%	\$(100,035)	\$223,136	\$5,445,216	18.89%
Non-U.S. Dev Large/Mid Cap Equity	4,801,443	16.26%	(100,035)	187,924	4,713,554	16.35%
Non-U.S. Dev Small Cap Equity	766,873	2.60%	0	35,212	731,662	2.54%
Emerging Mkts Equity	\$1,855,115	6.28%	\$96,646	\$8,341	\$1,750,129	6.07%
Fixed Income	\$4,273,494	14.47%	\$(2,525)	\$134,506	\$4,141,513	14.37%
Core Fixed Income	\$1,940,500	6.57%	\$(833)	\$59,460	\$1,881,872	6.53%
Core-Plus Fixed Income	\$890,405	3.01%	\$(993)	\$28,850	\$862,548	2.99%
Nominal U.S. Treasuries	\$587,016	1.99%	\$(256)	\$22,424	\$564,848	1.96%
Global TIPS	\$855,574	2.90%	\$(443)	\$23,772	\$832,245	2.89%
Multi-Strategy	\$1,661,163	5.62%	\$(974,186)	\$74,292	\$2,561,057	8.88%
Opportunistic Equity & Fixed Income	545,393	1.85%	(1,034,342)	54,460	1,525,276	5.29%
Private Credit (1)	189,580	0.64%	60,513	4,733	124,334	0.43%
Credit Focused Strategies	926,190	3.14%	(356)	15,098	911,448	3.16%
Private Equity (1)	\$4,009,894	13.58%	\$(52,557)	\$191,603	\$3,870,849	13.43%
Buyouts	1,779,557	6.03%	(76,644)	72,672	1,783,530	6.19%
Special Situations	549,672	1.86%	(22,730)	11,502	560,900	1.95%
Venture Capital	802,499	2.72%	124,436	85,116	592,947	2.06%
Keystone Legacy (2)	878,166	2.97%	(77,619)	22,313	933,472	3.24%
Real Estate (1)	\$1,902,498	6.44%	\$84,586	\$39,190	\$1,778,722	6.17%
Core/Core Plus Real Estate Funds	619,316	2.10%	89,949	5,499	523,869	1.82%
Value Add/Opp. Real Estate	1,012,699	3.43%	(5,363)	29,034	989,028	3.43%
REITS	264,972	0.90%	0	4,704	260,268	0.90%
Natural Resources/Infrastructure	5,510	0.02%	0	(47)	5,557	0.02%
Legacy Hedge Funds	\$37,978	0.13%	\$(6,572)	\$(1,564)	\$46,114	0.16%
Cash	\$1,416,982	4.80%	\$664,298	\$8,623	\$744,061	2.58%
Total Fund*	\$29,533,887	100.0%	\$(292,968)	\$998,555	\$28,828,300	100.0%

*Total Fund target allocation is: 48% Global Public Equity, 11% Fixed Income, 10% Multi-Strategy, 16% Private Equity, 12% Real Estate, 3% Cash, 0% Legacy Hedge Funds

*Sub-composite market values may not sum to asset class composites as a result of accounts in liquidation.

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

(2) As of 7/31/2018, Keystone Legacy SPV consists of 163 non-core funds, prior performance in previous sub-asset classes

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance							
Total Fund	\$29,534	100.00%	3.45%	12.02%	5.67%	8.73%	5.66%
Total Fund Custom Benchmark(1)	-	-	3.38%	10.46%	6.85%	8.95%	6.08%
Public Market Equiv Benchmark(2)	-	-	4.77%	9.40%	6.67%	9.55%	6.68%
60/40 Index(3)	-	-	3.35%	11.19%	6.60%	6.96%	4.68%
Global Public Equity	\$16,232	54.96%	3.48%	16.82%	4.33%	11.76%	6.31%
MSCI ACWI IMI	-	-	3.37%	16.08%	4.56%	11.42%	6.03%
Fixed Income	\$4,273	14.47%	3.20%	6.98%	7.55%	3.40%	2.65%
Blmbg Aggregate	-	-	3.08%	6.11%	7.87%	2.31%	2.95%
Multi-Strategy	\$1,661	5.62%	3.67%	11.07%	6.69%	-	-
S&P/LSTA Leveraged Loan	-	-	1.68%	5.74%	3.97%	5.24%	3.68%
Russell 3000 Index	-	-	4.10%	18.71%	8.98%	14.02%	10.19%
Real Estate	\$1,902	6.44%	2.15%	6.56%	0.12%	2.13%	4.92%
Real Estate Custom Benchmark	-	-	2.89%	3.58%	8.00%	6.83%	8.94%
CPI +3% (Qtr lag)	-	-	1.90%	2.18%	4.86%	5.20%	4.47%
Private Equity	\$4,010	13.58%	4.99%	6.13%	12.83%	12.28%	9.45%
Burgiss Private Equity Custom Index	-	-	3.63%	2.87%	10.69%	13.77%	11.51%
Russell 3000 +3% (Qtr lag)	-	-	14.57%	(0.26%)	12.35%	16.75%	13.62%
Cash	\$1,417	4.80%	0.61%	1.24%	2.43%	1.73%	1.27%
3-month Treasury Bill	-	-	0.64%	1.24%	2.31%	1.38%	0.87%

(1) Total Fund Custom Benchmark returns provided by RVK prior to 12/31/2018.

Benchmark consists of: 16% SERS Private Equity Composite, 48% MSCI ACWI IM Index, 12% Real Estate Custom Benchmark, 10% S&P/LSTA Leveraged Loan Index, 11% Bloomberg US Agg Bond Index, 3% ICE BofAML 3 Mo US T-Bill Index

(2) Public Market Equivalent Benchmark returns provided by RVK prior to 12/31/2018.

Benchmark consists of: 16% Russell 3000+3% (Qtr Lag), 48% MSCI ACWI IM Index, 12% CPI+3% (Qtr Lag),

10% S&P/LSTA Leveraged Loan Index, 11% Bloomberg US Agg Bond Index, 3% ICE BofAML 3 Mo US T-Bill Index

(3) Benchmark consists of 60% MSCI ACWI IM Index, 40% Bloomberg U.S. Agg Bond Index

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019					
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance					
Total Fund	8.64%	6.90%	6.19%	8.30%	9.52% ^(1/81)
Total Fund Custom Benchmark(1)	9.12%	7.70%	6.42%	8.51%	-
Public Market Equiv Benchmark(2)	9.75%	8.11%	6.73%	8.76%	-
60/40 Index(3)	7.33%	6.05%	5.44%	6.53%	-
Global Public Equity	10.91%	6.90%	-	-	6.77% ^(1/02)
MSCI ACWI IMI	10.32%	7.21%	5.27%	6.91%	7.07% ^(1/02)
Fixed Income	6.10%	5.32%	5.69%	6.38%	8.45% ^(1/81)
Blmbg Aggregate	3.90%	4.27%	4.93%	5.50%	7.67% ^(1/81)
Multi-Strategy					
S&P/LSTA Leveraged Loan	6.16%	4.71%	4.79%	-	-
Russell 3000 Index	14.67%	8.88%	6.30%	9.98%	11.01% ^(1/81)
Real Estate	5.44%	5.84%	6.98%	7.73%	8.39% ^(3/84)
Real Estate Custom Benchmark	8.80%	7.41%	7.90%	-	-
CPI +3% (Qtr lag)	4.80%	5.06%	5.18%	5.21%	5.64% ^(3/84)
Private Equity	12.44%	11.67%	11.00%	14.03%	10.97% ^(1/86)
Burgiss Private Equity Custom Index	13.97%	13.11%	12.39%	15.05%	16.97% ^(1/86)
Russell 3000 +3% (Qtr lag)	19.33%	12.14%	9.97%	13.28%	14.51% ^(1/86)
Cash	0.78%	1.67%	2.28%	2.88%	3.65% ^(1/87)
3-month Treasury Bill	0.49%	1.38%	1.85%	2.52%	3.28% ^(1/87)

(1) Total Fund Custom Benchmark returns provided by RVK prior to 12/31/2018.

Benchmark consists of: 16% SERS Private Equity Composite, 48% MSCI ACW IM Index, 12% Real Estate Custom Benchmark, 10% S&P/LSTA Leveraged Loan Index, 11% Bloomberg US Agg Bond Index, 3% ICE BofAML 3 Mo US T-Bill Index

(2) Public Market Equivalent Benchmark returns provided by RVK. Benchmark consists of: 16% Russell 3000+3% (Qtr Lag), 48% MSCI ACW IM Index, 12% CPI+3% (Qtr Lag), 10% S&P/LSTA Leveraged Loan Index, 11% Bloomberg US Agg Bond Index, 3% ICE BofAML 3 Mo US T-Bill Index

(3) 60% MSCI ACW IMI/ 40% Bloomberg Agg Bond Index

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance- Equity							
Global Public Equity	\$16,232	100.00%	3.48%	16.82%	4.33%	11.76%	6.31%
MSCI ACWI IMI	-	-	3.37%	16.08%	4.56%	11.42%	6.03%
Global Mandates	\$1,041	6.41%	4.10%	20.21%	13.97%	15.61%	10.71%
Walter Scott & Prtnrs Gbl Gr Eq	1,041	6.41%	4.10%	20.21%	13.97%	15.61%	10.71%
MSCI World	-	-	4.00%	16.98%	6.33%	11.77%	6.60%
U.S. Equity	\$7,766	47.85%	3.70%	19.00%	6.54%	12.78%	9.01%
Russell 3000 Index(1)	-	-	4.10%	18.71%	8.98%	14.02%	10.19%
U.S. Mid/Large Cap Equity	\$6,157	37.93%	3.98%	18.93%	8.74%	13.64%	9.79%
MCM Russell 1000 Index	5,709	35.17%	4.24%	18.81%	10.03%	14.17%	10.49%
Russell 1000 Index	-	-	4.25%	18.84%	10.02%	14.15%	10.45%
Iridian Asset Mgmt MCV	448	2.76%	0.82%	20.54%	(5.80%)	6.53%	3.16%
Russell MidCap Index	-	-	4.13%	21.35%	7.83%	12.16%	8.63%
Russell MidCap Value Idx	-	-	3.19%	18.02%	3.68%	8.95%	6.72%
U.S. Small Cap Equity	\$1,609	9.92%	2.63%	19.24%	(1.25%)	9.18%	5.25%
Russell 2000 Index(1)	-	-	2.10%	16.98%	(3.31%)	10.51%	6.61%
S&P 600 Small Cap Index	-	-	1.87%	13.69%	(4.88%)	11.97%	8.41%
MCM Russell 2000 Core Index	324	2.00%	2.05%	16.93%	(3.33%)	-	-
Russell 2000 Index	-	-	2.10%	16.98%	(3.31%)	12.30%	7.06%
MCM Russell 2000 Val Index	576	3.55%	1.36%	13.40%	(6.25%)	-	-
Russell 2000 Value Index	-	-	1.38%	13.47%	(6.24%)	9.81%	5.39%
Emerald Adv Div Sm Cap Grth	709	4.37%	3.94%	25.60%	4.28%	-	-
Russell 2000 Growth Index	-	-	2.75%	20.36%	(0.49%)	14.69%	8.63%
Non-U.S. Equity	\$7,423	45.73%	3.17%	14.19%	0.62%	10.08%	2.66%
MSCI ACWI ex US IMI(1)	-	-	2.74%	13.33%	0.26%	9.17%	2.25%
Non-U.S. Developed Markets Equity	\$5,568	34.30%	4.15%	15.28%	0.76%	10.15%	2.91%
Non-U.S. Dev Mid/Large Cap Equity	\$4,801	29.58%	4.03%	14.95%	1.61%	10.98%	3.37%
BlackRock MSCI World Ex US Index	4,791	29.52%	4.04%	14.99%	1.64%	-	-
MSCI World ex US	-	-	3.79%	14.64%	1.29%	9.01%	2.04%
Non-U.S. Dev Small Cap Equity	\$767	4.72%	4.81%	17.36%	(5.22%)	9.02%	2.24%
FIS Group Non-U.S. Small Cap	195	1.20%	2.74%	11.71%	-	-	-
MSCI ACWI ex US Small Cap	-	-	1.21%	11.60%	(5.94%)	7.76%	2.77%
Harris Assoc Int'l SCV	572	3.52%	5.54%	19.41%	(5.31%)	8.99%	2.22%
MSCI World ex US Sm Cap	-	-	1.76%	12.88%	(6.17%)	8.38%	3.39%
Emerging Mkts Equity	\$1,855	11.43%	0.37%	11.08%	0.37%	11.56%	2.81%
BlackRock Emg Mkts Index	689	4.24%	0.53%	10.42%	1.02%	-	-
Leading Edge Emg Mkts Fund	220	1.35%	1.65%	13.27%	-	-	-
Macquarie Emg Mkts Equity	416	2.56%	(1.32%)	7.94%	(0.08%)	11.88%	2.37%
Martin Currie Emg Mkts Equity	436	2.69%	1.06%	13.21%	(0.94%)	13.45%	4.27%
MSCI EM	-	-	0.61%	10.59%	1.22%	10.66%	2.49%
GlobeFlex Emerging Small Cap	95	0.58%	2.37%	12.75%	(4.12%)	10.44%	1.88%
MSCI EM Small Cap	-	-	(0.98%)	6.71%	(5.11%)	5.47%	0.53%
Northern Trust Equity Transition	1	0.01%	1.79%	0.16%	(14.57%)	-	-

*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.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception	
Net Performance- Equity						
Global Public Equity	10.91%	6.90%	-	-	6.77%	(1/02)
MSCI ACWI IMI	10.32%	7.21%	5.27%	6.91%	7.07%	(1/02)
Global Mandates	13.21%	-	-	-	8.60%	(11/06)
Walter Scott & Prtnrs Gbl Gr Eq	12.50%	-	-	-	9.18%	(10/06)
MSCI World	10.72%	7.03%	4.78%	7.07%	5.84%	(10/06)
U.S. Equity	14.22%	7.95%	6.07%	9.58%	10.62%	(1/81)
Russell 3000 Index(1)	14.67%	8.88%	6.30%	9.90%	10.91%	(1/81)
U.S. Mid/Large Cap Equity	14.68%	8.51%	5.99%	9.83%	9.49%	(1/94)
MCM Russell 1000 Index	-	-	-	-	14.32%	(1/12)
Russell 1000 Index	14.77%	8.94%	6.19%	10.09%	14.34%	(1/12)
Iridian Asset Mgmt MCV	13.50%	10.20%	9.38%	-	12.59%	(3/95)
Russell MidCap Index	15.16%	9.83%	8.99%	11.28%	11.14%	(3/95)
Russell MidCap Value Idx	14.56%	9.33%	9.15%	11.25%	11.17%	(3/95)
U.S. Small Cap Equity	11.97%	7.14%	7.44%	9.81%	9.17%	(1/94)
Russell 2000 Index(1)	13.87%	8.71%	8.65%	10.79%	10.28%	(1/94)
S&P 600 Small Cap Index	14.99%	9.43%	9.75%	11.08%	10.43%	(1/94)
MCM Russell 2000 Core Index	-	-	-	-	8.20%	(12/16)
Russell 2000 Index	13.45%	8.15%	7.77%	9.26%	8.24%	(12/16)
MCM Russell 2000 Val Index	-	-	-	-	4.06%	(12/16)
Russell 2000 Value Index	12.40%	7.28%	8.64%	9.88%	4.13%	(12/16)
Emerald Adv Div Sm Cap Grth	-	-	-	-	14.75%	(12/16)
Russell 2000 Growth Index	14.41%	8.90%	6.49%	8.20%	12.38%	(12/16)
Non-U.S. Equity	7.37%	5.44%	5.03%	-	6.23%	(11/95)
MSCI ACWI ex US IMI(1)	6.76%	6.23%	5.03%	5.40%	5.59%	(11/95)
Non-U.S. Developed Markets Equity	8.13%	5.49%	-	-	6.15%	(1/02)
Non-U.S. Dev Mid/Large Cap Equity	8.17%	5.05%	-	-	5.64%	(1/02)
BlackRock MSCI World Ex US Index	-	-	-	-	4.51%	(6/17)
MSCI World ex US	6.75%	5.44%	4.16%	5.01%	4.00%	(6/17)
Non-U.S. Dev Small Cap Equity	8.96%	7.52%	7.21%	6.73%	6.85%	(10/93)
FIS Group Non-U.S. Small Cap	-	-	-	-	(2.80%)	(10/18)
MSCI ACWI ex US Small Cap	8.48%	7.40%	6.89%	5.32%	(4.50%)	(10/18)
Harris Assoc Int'l SCV	9.82%	8.71%	-	-	10.63%	(7/03)
MSCI World ex US Sm Cap	9.19%	6.93%	-	-	9.16%	(7/03)
Emerging Mkts Equity	5.10%	6.06%	-	-	7.22%	(1/02)
BlackRock Emg Mkts Index	-	-	-	-	4.43%	(7/17)
Leading Edge Emg Mkts Fund	-	-	-	-	11.75%	(11/18)
Macquarie Emg Mkts Equity	-	-	-	-	3.63%	(5/13)
Martin Currie Emg Mkts Equity	-	-	-	-	4.49%	(1/14)
MSCI EM	5.81%	8.70%	-	-	3.37%	(1/14)
GlobeFlex Emerging Small Cap	-	-	-	-	4.33%	(8/13)
MSCI EM Small Cap	5.87%	9.06%	7.12%	4.47%	2.63%	(8/13)

*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.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance - Fixed Income							
Fixed Income	\$4,273	100.00%	3.20%	6.98%	7.55%	3.40%	2.65%
Blmbg Aggregate	-	-	3.08%	6.11%	7.87%	2.31%	2.95%
Core Fixed Income	\$1,940	45.41%	3.11%	6.70%	8.03%	2.75%	3.10%
Blmbg Aggregate	-	-	3.08%	6.11%	7.87%	2.31%	2.95%
MCM Bond Index	1,092	25.55%	3.06%	6.12%	7.87%	2.26%	2.90%
Blmbg Aggregate(1)	-	-	3.08%	6.11%	7.87%	2.31%	2.95%
PIMCO Core Bond Fund	653	15.27%	2.85%	6.82%	7.95%	2.97%	3.19%
Blmbg Agg ex Treasury	-	-	3.12%	6.71%	8.26%	2.88%	3.22%
Taplin, Canida & Habacht Corp FI	196	4.58%	4.25%	9.73%	9.30%	4.42%	3.57%
Blmbg Credit	-	-	4.27%	9.35%	10.34%	3.74%	3.92%
Core-Plus Fixed Income	\$890	20.84%	3.27%	8.33%	7.83%	5.71%	2.40%
Brandywine Global Opp	199	4.66%	3.57%	6.78%	4.32%	2.89%	1.47%
FTSE WGBI	-	-	3.57%	5.38%	5.48%	1.00%	0.85%
Pyramis Gbl Adv HY CMBS	334	7.81%	3.10%	5.84%	8.43%	5.42%	4.93%
Blmbg US Univ CMBS ex Aaa	-	-	3.77%	8.30%	10.40%	5.24%	4.34%
Stone Harbor Gbl HY	201	4.70%	2.94%	10.74%	8.16%	6.68%	3.44%
FTSE US High Yield	-	-	2.36%	9.89%	7.19%	7.37%	4.36%
Stone Harbor EMD	156	3.66%	3.60%	12.61%	10.41%	5.10%	3.97%
JPM EMBI Global	-	-	3.76%	10.60%	11.32%	4.65%	4.47%
Global TIPS	\$856	20.02%	2.80%	6.18%	4.64%	2.15%	1.78%
Brown Brothers TIPS	227	5.31%	2.98%	6.15%	4.82%	2.05%	1.89%
Blmbg US TIPS	-	-	2.86%	6.15%	4.84%	2.08%	1.76%
NISA Inv Adv TIPS	511	11.95%	2.80%	6.12%	4.75%	2.06%	1.76%
Blmbg US TIPS(1)	-	-	2.86%	6.15%	4.84%	2.08%	1.76%
New Century Global TIPS	118	2.77%	2.46%	6.51%	3.80%	2.73%	1.61%
Blmbg Wld Gov I-L Undhdg	-	-	2.28%	6.30%	3.70%	2.60%	1.41%
Nominal U.S. Treasuries	\$587	13.74%	3.92%	6.96%	9.89%	0.81%	3.14%
PIMCO US Treasuries	587	13.74%	3.92%	6.96%	9.89%	1.15%	3.39%
Blmbg US Treas Bell 10Y	-	-	4.22%	7.44%	10.38%	0.49%	2.90%

*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.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019					
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance - Fixed Income					
Fixed Income	6.10%	5.32%	5.69%	6.38%	8.45% (1/81)
Blmbg Aggregate	3.90%	4.27%	4.93%	5.50%	7.67% (1/81)
Core Fixed Income	4.96%	4.65%	-	-	4.84% (1/02)
Blmbg Aggregate	3.90%	4.27%	4.93%	5.50%	4.48% (1/02)
MCM Bond Index	3.78%	4.16%	4.90%	5.61%	7.16% (4/84)
Blmbg Aggregate(1)	3.90%	4.27%	5.00%	5.68%	7.43% (4/84)
PIMCO Core Bond Fund	-	-	-	-	2.67% (1/13)
Blmbg Agg ex Treasury	4.32%	-	-	-	2.92% (1/13)
Taplin, Canida & Habacht Corp FI	6.09%	5.25%	-	-	5.82% (11/00)
Blmbg Credit	5.77%	5.20%	5.78%	6.29%	5.86% (11/00)
Core-Plus Fixed Income	-	-	-	-	4.56% (10/12)
Brandywine Global Opp	-	-	-	-	3.97% (2/11)
FTSE WGBI	2.21%	3.48%	4.35%	4.70%	1.53% (2/11)
Pyramis Gbl Adv HY CMBS	13.02%	7.25%	8.38%	-	8.66% (4/97)
Blmbg US Univ CMBS ex Aaa	10.15%	1.09%	-	-	-
Stone Harbor Gbl HY	8.14%	6.88%	-	-	7.60% (7/00)
FTSE US High Yield	8.90%	7.22%	6.73%	7.38%	7.18% (7/00)
Stone Harbor EMD	8.08%	-	-	-	7.62% (4/05)
JPM EMBI Global	7.41%	7.80%	9.00%	9.97%	7.31% (4/05)
Global TIPS	2.81%	3.34%	-	-	3.23% (2/03)
Brown Brothers TIPS	-	-	-	-	1.51% (2/12)
Blmbg US TIPS	3.64%	4.07%	5.42%	-	1.34% (2/12)
NISA Inv Adv TIPS	2.59%	-	-	-	3.11% (4/07)
Blmbg US TIPS(1)	2.59%	-	-	-	-
New Century Global TIPS	-	-	-	-	2.09% (2/12)
Blmbg Wld Gov I-L Undhdg	3.54%	4.20%	5.44%	-	1.70% (2/12)
Nominal U.S. Treasuries	-	-	-	-	2.54% (9/11)
PIMCO US Treasuries	-	-	-	-	2.76% (9/11)
Blmbg US Treas Bell 10Y	3.93%	4.47%	4.88%	5.46%	2.60% (9/11)

*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.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance - Multi-Strategy							
Multi-Strategy	\$1,661	100.00%	3.67%	11.07%	6.69%	-	-
S&P/LSTA Leveraged Loan	-	-	1.68%	5.74%	3.97%	5.24%	3.68%
Russell 3000 Index	-	-	4.10%	18.71%	8.98%	14.02%	10.19%
Credit Focused Strategies	\$926	55.76%	1.66%	6.18%	4.22%	-	-
Blackstone Keystone(1)	926	55.76%	1.66%	6.18%	4.22%	6.54%	4.40%
HFRI Fund of Funds Compos	-	-	1.50%	6.16%	1.16%	4.25%	2.19%
Opp. Equity & Fixed Income	\$545	32.83%	5.55%	15.14%	8.60%	-	-
SEI Str. Credit: HY Bank Loans(2)	347	20.87%	3.88%	3.92%	4.58%	13.18%	7.36%
FTSE US High Yield	-	-	2.36%	9.89%	7.19%	7.37%	4.36%
Eaton Vance GMARA	199	11.96%	2.78%	4.90%	0.59%	-	-
3 month LIBOR + 6%	-	-	2.07%	4.21%	8.61%	7.78%	7.21%
MCM Russell 3000 Index(3)	0	0.01%	4.36%	18.99%	9.25%	-	-
Russell 3000 Index	-	-	4.10%	18.71%	8.98%	14.02%	10.19%
Private Credit(4)	\$190	11.41%	3.02%	5.74%	14.59%	-	-

(1) Blackstone Keystone since inception returns are included in the Legacy Hedge Fund composite through 9/30/2017.

(2) SEI HY Bank Loans since inception returns are included in the Fixed Income composite through 9/30/2017.

(3) Russell 3000 Index since inception returns are included in the Global Public Equity composite through 9/30/2017.

(4) Private Credit performance has a 1 Qtr lag.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last 7 Years	Last 10 Years	Last 15 Years	Last 20 Years	Since Inception
Net Performance - Multi-Strategy							
Multi-Strategy	\$1,661	100.00%	-	-	-	-	7.62% (10/17)
S&P/LSTA Leveraged Loan	-	-	4.46%	6.16%	4.71%	4.79%	4.16% (10/17)
Russell 3000 Index	-	-	13.79%	14.67%	8.88%	6.30%	10.78% (10/17)
Credit Focused Strategies	\$926	55.76%	-	-	-	-	4.13% (10/17)
Blackstone Keystone(1)	926	55.76%	-	-	-	-	7.45% (7/12)
HFRI Fund of Funds Compos	-	-	3.67%	3.21%	3.02%	3.99%	3.67% (7/12)
Opp. Equity & Fixed Income	\$545	32.83%	-	-	-	-	10.39% (10/17)
SEI Str. Credit: HY Bank Loans(2)	347	20.87%	8.77%	22.60%	-	-	12.68% (5/08)
FTSE US High Yield	-	-	6.00%	8.90%	7.22%	6.73%	7.34% (5/08)
Eaton Vance GMARA	199	11.96%	-	-	-	-	(0.64%) (6/18)
3 month LIBOR + 6%	-	-	6.95%	6.78%	7.78%	8.17%	8.59% (6/18)
MCM Russell 3000 Index(3)	0	0.01%	-	-	-	-	12.02% (6/17)
Russell 3000 Index	-	-	13.79%	14.67%	8.88%	6.30%	11.82% (6/17)
Private Credit(4)	\$190	11.41%	-	-	-	-	9.01% (12/17)

(1) Blackstone Keystone since inception returns are included in the Legacy Hedge Fund composite through 9/30/2017.

(2) SEI HY Bank Loans since inception returns are included in the Fixed Income composite through 9/30/2017.

(3) Russell 3000 Index since inception returns are included in the Global Public Equity composite through 9/30/2017.

(4) Private Credit performance has a 1 Qtr lag.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance - Real Estate							
Real Estate	\$1,902	100.00%	2.15%	6.56%	0.12%	2.13%	4.92%
Real Estate Custom Benchmark	-	-	2.89%	3.58%	8.00%	6.83%	8.94%
CPI +3% (Qtr lag)	-	-	1.90%	2.18%	4.86%	5.20%	4.47%
Core/Core Plus Real Estate Funds	\$619	32.55%	0.96%	2.02%	6.83%	6.94%	8.94%
NCREIF ODCE Index (Qtr lag)	-	-	1.48%	2.89%	6.80%	7.26%	9.42%
Value Add/Opp. Real Estate	\$1,013	53.23%	2.94%	6.52%	(5.21%)	0.86%	4.12%
Real Estate Separate Accounts	612	32.16%	4.11%	9.11%	(10.06%)	(2.12%)	2.29%
Non-Core Closed End Funds	401	21.07%	1.20%	2.56%	6.46%	7.79%	8.35%
NCREIF ODCE Index (Qtr lag)	-	-	1.48%	2.89%	6.80%	7.26%	9.42%
Natural Resources/Infrastructure	\$6	0.29%	(0.84%)	(2.20%)	(4.12%)	(5.04%)	(2.23%)
CPI +3% (Qtr lag)	-	-	1.90%	2.18%	4.86%	5.20%	4.47%
REITS	\$265	13.93%	1.81%	18.47%	20.22%	4.10%	6.06%
FTSE NAREIT US Index (Qtr lag)	-	-	15.88%	8.94%	20.80%	5.63%	8.72%

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Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019					
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance - Real Estate					
Real Estate	5.44%	5.84%	6.98%	7.73%	8.39% (3/84)
Real Estate Custom Benchmark	8.80%	7.41%	7.90%	-	-
CPI +3% (Qtr lag)	4.80%	5.06%	5.18%	5.21%	5.64% (3/84)
Core/Core Plus Real Estate Funds	8.73%	7.77%	7.92%	9.00%	7.15% (9/86)
NCREIF ODCE Index (Qtr lag)	7.52%	7.00%	7.25%	7.84%	6.03% (9/86)
Value Add/Opp. Real Estate	3.73%	5.29%	6.27%	7.20%	6.67% (3/84)
Real Estate Separate Accounts	1.59%	4.09%	5.13%	6.05%	5.06% (6/88)
Non-Core Closed End Funds	7.47%	7.03%	7.84%	8.84%	7.87% (3/84)
NCREIF ODCE Index (Qtr lag)	7.52%	7.00%	7.25%	7.84%	6.29% (3/84)
Natural Resources/Infrastructure	(2.15%)	1.47%	2.67%	3.49%	4.05% (3/93)
CPI +3% (Qtr lag)	4.80%	5.06%	5.18%	5.21%	5.24% (3/93)
REITS	14.42%	7.90%	10.28%	-	9.89% (4/96)
FTSE NAREIT US Index (Qtr lag)	18.29%	8.32%	10.57%	10.87%	10.61% (4/96)

*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.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance - Private Equity							
Private Equity	\$4,010	100.00%	4.99%	6.13%	12.83%	12.28%	9.45%
Burgiss Private Eqty Idx (Qtr Lag)	-	-	3.63%	2.87%	10.69%	13.77%	11.51%
Russell 3000 + 3% (Qtr Lag)	-	-	14.57%	(0.26%)	12.35%	16.75%	13.62%
Buyouts	\$1,780	44.38%	4.33%	3.68%	10.29%	13.21%	10.98%
Burgiss Buyout Index (Qtr Lag)	-	-	3.55%	1.78%	8.67%	14.51%	11.53%
Special Situations	\$550	13.71%	2.10%	7.52%	14.50%	10.99%	7.24%
Burgiss Special Sits Idx (Qtr Lag)	-	-	1.81%	0.80%	4.03%	8.56%	6.72%
Venture Capital	\$802	20.01%	11.77%	20.79%	41.24%	17.77%	11.08%
Burgiss Venture Cap Idx (Qtr Lag)	-	-	5.16%	7.60%	21.51%	15.10%	14.96%
Keystone Legacy (Qtr Lag) (1)	\$878	21.90%	2.50%	0.35%	-	-	-

(1) As of 7/31/2018, Keystone Legacy SPV consists of 163 non-core funds, prior performance in previous sub-asset classes

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019					
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance - Private Equity					
Private Equity	12.44%	11.67%	11.00%	14.03%	10.97% <small>(1/86)</small>
Burgiss Private Eqty Idx (Qtr Lag)	13.97%	13.11%	12.39%	15.05%	16.97% <small>(1/86)</small>
Russell 3000 + 3% (Qtr Lag)	19.33%	12.14%	9.97%	13.28%	14.51% <small>(1/86)</small>
Buyouts	14.37%	14.15%	13.04%	16.40%	13.17% <small>(4/86)</small>
Burgiss Buyout Index (Qtr Lag)	14.15%	14.09%	12.34%	13.52%	19.69% <small>(4/86)</small>
Special Situations	13.31%	12.06%	12.35%	-	12.27% <small>(1/95)</small>
Burgiss Special Sits Idx (Qtr Lag)	11.62%	9.14%	10.22%	-	10.57% <small>(1/95)</small>
Venture Capital	10.36%	7.06%	5.08%	8.70%	7.16% <small>(1/86)</small>
Burgiss Venture Cap Idx (Qtr Lag)	14.59%	11.35%	10.76%	15.84%	13.64% <small>(1/86)</small>
Keystone Legacy (Qtr Lag) (1)	-	-	-	-	(3.17%) <small>(10/18)</small>

(1) As of 7/31/2018, Keystone Legacy SPV consists of 163 non-core funds, prior performance in previous sub-asset classes

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance							
Total Fund	\$29,534	100.00%	3.52%	12.22%	6.17%	9.34%	6.27%
Total Fund Custom Benchmark(1)	-	-	3.38%	10.46%	6.85%	8.95%	6.08%
Public Market Equiv Benchmark(2)	-	-	4.77%	9.40%	6.67%	9.55%	6.68%
60/40 Index(3)	-	-	3.35%	11.19%	6.60%	6.96%	4.68%
Global Public Equity	\$16,232	54.96%	3.52%	16.88%	4.46%	11.94%	6.52%
MSCI ACWI IMI	-	-	3.37%	16.08%	4.56%	11.42%	6.03%
Fixed Income	\$4,273	14.47%	3.26%	7.08%	7.77%	3.63%	2.92%
Blmbg Aggregate	-	-	3.08%	6.11%	7.87%	2.31%	2.95%
Multi-Strategy	\$1,661	5.62%	3.76%	11.16%	6.90%	-	-
S&P/LSTA Leveraged Loan	-	-	1.68%	5.74%	3.97%	5.24%	3.68%
Russell 3000 Index	-	-	4.10%	18.71%	8.98%	14.02%	10.19%
Real Estate(4)	\$1,902	6.44%	2.15%	6.56%	0.12%	2.17%	4.94%
Real Estate Custom Benchmark	-	-	2.89%	3.58%	8.00%	6.83%	8.94%
CPI +3% (Qtr lag)	-	-	1.90%	2.18%	4.86%	5.20%	4.47%
Private Equity(4)	\$4,010	13.58%	4.99%	6.13%	12.83%	12.28%	9.45%
Burgiss Private Equity Custom Index	-	-	3.63%	2.87%	10.69%	13.77%	11.51%
Russell 3000 +3% (Qtr lag)	-	-	14.57%	(0.26%)	12.35%	16.75%	13.62%
Cash	\$1,417	4.80%	0.61%	1.24%	2.43%	1.73%	1.27%
3-month Treasury Bill	-	-	0.64%	1.24%	2.31%	1.38%	0.87%

(1) Total Fund Custom Benchmark returns provided by RVK. Benchmark consists of: 16% SERS Private Equity Composite, 48% MSCI ACWI IM Index, 12% Real Estate Custom Benchmark, 10% S&P/LSTA Leveraged Loan Index, 11% Bloomberg US Agg Bond Index, 3% ICE BofAML 3 Mo US T-Bill Index

(2) Public Market Equivalent Benchmark returns provided by RVK. Benchmark consists of: 16% Russell 3000+3% (Qtr Lag), 48% MSCI ACWI IM Index, 12% CPI+3% (Qtr Lag), 10% S&P/LSTA Leveraged Loan Index, 11% Bloomberg US Agg Bond Index, 3% ICE BofAML 3 Mo US T-Bill Index

(3) Benchmark consists of 60% MSCI ACWI IMI, 40% Bloomberg Agg Bond Index

(4) Private Equity, Real Estate, and Private Debt (within Multi-Strategy) performance are shown Net of Fees.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Last 7 Years	Last 10 Years
Gross Performance		
Total Fund	8.35%	9.37%
Total Fund Custom Benchmark(1)	7.98%	9.12%
Public Market Equiv Benchmark(2)	8.71%	9.75%
60/40 Index(3)	6.37%	7.33%
Global Public Equity	10.55%	11.15%
MSCI ACWI IMI	9.90%	10.32%
Fixed Income	3.54%	6.34%
Blmbg Aggregate	2.62%	3.90%
Multi-Strategy		
S&P/LSTA Leveraged Loan	4.46%	6.16%
Russell 3000 Index	13.79%	14.67%
Real Estate(4)	6.75%	5.46%
Real Estate Custom Benchmark	9.76%	8.80%
CPI +3% (Qtr lag)	4.48%	4.80%
Private Equity(4)	10.25%	12.44%
Burgiss Private Equity Custom Index	12.52%	13.97%
Russell 3000 +3% (Qtr lag)	15.87%	19.33%
Cash	1.00%	0.79%
3-month Treasury Bill	0.65%	0.49%

(1) Total Fund Custom Benchmark returns provided by RVK. Benchmark consists of: 16% SERS Private Equity Composite, 48% MSCI ACWI IM Index, 12% Real Estate Custom Benchmark, 10% S&P/LSTA Leveraged Loan Index, 11% Bloomberg US Agg Bond Index, 3% ICE BofAML 3 Mo US T-Bill Index

(2) Public Market Equivalent Benchmark returns provided by RVK. Benchmark consists of: 16% Russell 3000+3% (Qtr Lag), 48% MSCI ACWI IM Index, 12% CPI+3% (Qtr Lag), 10% S&P/LSTA Leveraged Loan Index, 11% Bloomberg US Agg Bond Index, 3% ICE BofAML 3 Mo US T-Bill Index

(3) Benchmark consists of 60% MSCI ACWI IMI, 40% Bloomberg Agg Bond Index

(4) Private Equity, Real Estate, and Private Debt (within Multi-Strategy) performance are shown Net of Fees.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance- Equity							
Global Public Equity	\$16,232	100.00%	3.52%	16.88%	4.46%	11.94%	6.52%
MSCI ACWI IMI	-	-	3.37%	16.08%	4.56%	11.42%	6.03%
Global Mandates	\$1,041	6.41%	4.19%	20.43%	14.41%	16.06%	11.14%
Walter Scott & Prtnrs Gbl Gr Eq	1,041	6.41%	4.19%	20.43%	14.41%	16.06%	11.14%
MSCI World	-	-	4.00%	16.98%	6.33%	11.77%	6.60%
U.S. Equity	\$7,766	47.85%	3.72%	19.04%	6.63%	12.91%	9.15%
Russell 3000 Index(1)	-	-	4.10%	18.71%	8.98%	14.02%	10.19%
U.S. Large/Mid Cap Equity	\$6,157	37.93%	3.99%	18.94%	8.79%	13.75%	9.90%
MCM Russell 1000 Index	5,709	35.17%	4.25%	18.83%	10.05%	14.18%	10.50%
Russell 1000 Index	-	-	4.25%	18.84%	10.02%	14.15%	10.45%
Iridian Asset Mgmt MCV	448	2.76%	0.93%	20.67%	(5.32%)	7.00%	3.64%
Russell MidCap Index	-	-	4.13%	21.35%	7.83%	12.16%	8.63%
Russell MidCap Value Idx	-	-	3.19%	18.02%	3.68%	8.95%	6.72%
U.S. Small Cap Equity	\$1,609	9.92%	2.69%	19.37%	(1.03%)	9.44%	5.55%
Russell 2000 Index(1)	-	-	2.10%	16.98%	(3.31%)	10.51%	6.61%
S&P 600 Small Cap Index	-	-	1.87%	13.69%	(4.88%)	11.97%	8.41%
MCM Russell 2000 Core Index	324	2.00%	2.06%	16.95%	(3.31%)	-	-
Russell 2000 Index	-	-	2.10%	16.98%	(3.31%)	12.30%	7.06%
MCM Russell 2000 Val Index	576	3.55%	1.38%	13.43%	(6.21%)	-	-
Russell 2000 Value Index	-	-	1.38%	13.47%	(6.24%)	9.81%	5.39%
Emerald Adv Div Sm Cap Grth	709	4.37%	4.06%	25.87%	4.76%	-	-
Russell 2000 Growth Index	-	-	2.75%	20.36%	(0.49%)	14.69%	8.63%
Non-U.S. Equity	\$7,423	45.73%	3.22%	14.26%	0.76%	10.32%	2.93%
MSCI ACWI ex US IMI(1)	-	-	2.74%	13.33%	0.26%	9.17%	2.25%
Non-U.S. Developed Markets Equity	\$5,568	34.30%	4.15%	15.28%	0.83%	10.31%	3.12%
Non-U.S. Dev Large/Mid Cap Equity	\$4,801	29.58%	4.04%	14.96%	1.64%	11.07%	3.51%
BlackRock MSCI World Ex US Index	4,791	29.52%	4.04%	14.99%	1.65%	-	-
MSCI World ex US	-	-	3.79%	14.64%	1.29%	9.01%	2.04%
Non-U.S. Dev Small Cap Equity	\$767	4.72%	4.81%	17.36%	(4.83%)	9.59%	2.85%
FIS Group Non-U.S. Small Cap	195	1.20%	2.74%	11.71%	-	-	-
MSCI ACWI ex US Small Cap	-	-	1.21%	11.60%	(5.94%)	7.76%	2.77%
Harris Assoc Int'l SCV	572	3.52%	5.54%	19.41%	(4.78%)	9.61%	2.86%
MSCI World ex US Sm Cap	-	-	1.76%	12.88%	(6.17%)	8.38%	3.39%
Emerging Mkts Equity	\$1,855	11.43%	0.51%	11.27%	0.68%	12.15%	3.38%
BlackRock Emg Mkts Index	689	4.24%	0.57%	10.49%	1.11%	-	-
Leading Edge Emg Mkts Fund	220	1.35%	1.65%	13.27%	-	-	-
Macquarie Emg Mkts Equity	416	2.56%	(1.08%)	8.30%	0.52%	12.66%	3.18%
Martin Currie Emg Mkts Equity	436	2.69%	1.26%	13.43%	(0.53%)	14.20%	4.86%
MSCI EM	-	-	0.61%	10.59%	1.22%	10.66%	2.49%
GlobeFlex Emerging Small Cap	95	0.58%	2.69%	13.10%	(3.48%)	11.14%	2.51%
MSCI EM Small Cap	-	-	(0.98%)	6.71%	(5.11%)	5.47%	0.53%
Northern Trust Equity Transition	1	0.01%	1.79%	0.16%	(14.57%)	-	-

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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.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2019. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2019

	Last 7 Years	Last 10 Years
Gross Performance- Equity		
Global Public Equity MSCI ACWI IMI	10.55% 9.90%	11.15% 10.32%
Global Mandates Walter Scott & Prtnrs Gbl Gr Eq MSCI World	13.21% 13.21% 10.61%	13.70% 12.96% 10.72%
U.S. Equity Russell 3000 Index(1)	13.10% 13.79%	14.38% 14.67%
U.S. Large/Mid Cap Equity MCM Russell 1000 Index Russell 1000 Index Iridian Asset Mgmt MCV Russell MidCap Index Russell MidCap Value Idx	13.70% 14.00% 13.97% 12.13% 13.37% 12.34%	14.79% - 14.77% 14.06% 15.16% 14.56%
U.S. Small Cap Equity Russell 2000 Index(1) S&P 600 Small Cap Index Russell 2000 Index Russell 2000 Value Index Russell 2000 Growth Index	10.30% 11.72% 13.00% 11.63% 10.31% 12.87%	12.34% 13.87% 14.99% 13.45% 12.40% 14.41%
Non-U.S. Equity MSCI ACWI ex US IMI(1)	7.31% 6.53%	7.67% 6.76%
Non-U.S. Developed Markets Equity	8.14%	8.41%
Non-U.S. Dev Large/Mid Cap Equity MSCI World ex US	8.26% 6.98%	8.38% 6.75%
Non-U.S. Dev Small Cap Equity MSCI ACWI ex US Small Cap Harris Assoc Int'l SCV MSCI World ex US Sm Cap	8.91% 7.66% 8.92% 8.79%	9.62% 8.48% 10.53% 9.19%
Emerging Mkts Equity MSCI EM MSCI EM Small Cap	4.87% 4.15% 3.68%	5.52% 5.81% 5.87%

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Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance - Fixed Income							
Fixed Income	\$4,273	100.00%	3.26%	7.08%	7.77%	3.63%	2.92%
Blmbg Aggregate	-	-	3.08%	6.11%	7.87%	2.31%	2.95%
Core Fixed Income	\$1,940	45.41%	3.17%	6.77%	8.17%	2.87%	3.21%
Blmbg Aggregate	-	-	3.08%	6.11%	7.87%	2.31%	2.95%
MCM Bond Index	1,092	25.55%	3.08%	6.14%	7.91%	2.29%	2.93%
Blmbg Aggregate(1)	-	-	3.08%	6.11%	7.87%	2.31%	2.95%
PIMCO Core Bond Fund	653	15.27%	2.93%	6.90%	8.17%	3.15%	3.37%
Blmbg Agg ex Treasury	-	-	3.12%	6.71%	8.26%	2.88%	3.22%
Taplin, Canida & Habacht Corp FI	196	4.58%	4.36%	9.84%	9.54%	4.67%	3.83%
Blmbg Credit	-	-	4.27%	9.35%	10.34%	3.74%	3.92%
Core-Plus Fixed Income	\$890	20.84%	3.35%	8.60%	8.39%	6.31%	3.03%
Brandywine Global Opp	199	4.66%	3.67%	6.99%	4.83%	3.29%	1.87%
FTSE WGBI	-	-	3.57%	5.38%	5.48%	1.00%	0.85%
Pyramis Glbl Adv HY CMBS	334	7.81%	3.25%	6.33%	9.27%	6.08%	5.60%
Blmbg US Univ CMBS ex Aaa	-	-	3.77%	8.30%	10.40%	5.24%	4.34%
Stone Harbor Glbl HY	201	4.70%	2.94%	10.85%	8.49%	7.08%	3.87%
FTSE US High Yield	-	-	2.36%	9.89%	7.19%	7.37%	4.36%
Stone Harbor EMD	156	3.66%	3.60%	12.72%	10.75%	5.50%	4.40%
JPM EMBI Global	-	-	3.76%	10.60%	11.32%	4.65%	4.47%
Global TIPS	\$856	20.02%	2.86%	6.27%	4.77%	2.28%	1.91%
Brown Brothers TIPS	227	5.31%	3.01%	6.21%	4.95%	2.18%	2.02%
Blmbg US TIPS	-	-	2.86%	6.15%	4.84%	2.08%	1.76%
NISA Inv Adv TIPS	511	11.95%	2.86%	6.21%	4.86%	2.17%	1.87%
Blmbg US TIPS(1)	-	-	2.86%	6.15%	4.84%	2.08%	1.76%
New Century Global TIPS	118	2.77%	2.58%	6.64%	4.05%	2.98%	1.86%
Blmbg Wld Gov I-L Undhdg	-	-	2.28%	6.30%	3.70%	2.60%	1.41%
Nominal U.S. Treasuries	\$587	13.74%	3.97%	7.02%	10.00%	0.91%	3.24%
PIMCO US Treasuries	587	13.74%	3.97%	7.02%	10.00%	1.24%	3.49%
Blmbg US Treas Bell 10Y	-	-	4.22%	7.44%	10.38%	0.49%	2.90%

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Returns for Periods Ended June 30, 2019

	Last 7 Years	Last 10 Years
Gross Performance - Fixed Income		
Fixed Income	3.54%	6.34%
Blmbg Aggregate	2.62%	3.90%
Core Fixed Income	3.22%	5.13%
Blmbg Aggregate	2.62%	3.90%
MCM Bond Index	2.56%	3.82%
Blmbg Aggregate(1)	2.62%	3.90%
Blmbg Agg ex Treasury	3.08%	4.32%
Taplin, Canida & Habacht Corp FI	4.37%	6.35%
Blmbg Credit	3.97%	5.77%
Brandywine Global Opp	3.24%	-
FTSE WGBI	0.89%	2.21%
Pyramis Gbl Adv HY CMBS	8.59%	13.75%
Blmbg US Univ CMBS ex Aaa	4.93%	10.15%
Stone Harbor Gbl HY	6.10%	8.60%
FTSE US High Yield	6.00%	8.90%
Stone Harbor EMD	5.01%	8.52%
JPM EMBI Global	4.91%	7.41%
Global TIPS	1.39%	2.93%
Brown Brothers TIPS	1.46%	-
Blmbg US TIPS	1.17%	3.64%
NISA Inv Adv TIPS	1.15%	2.70%
Blmbg US TIPS(1)	1.05%	2.59%
New Century Global TIPS	2.47%	-
Blmbg Wld Gov I-L Undhdg	1.80%	3.54%
Nominal U.S. Treasuries	2.12%	-
PIMCO US Treasuries	2.32%	-
Blmbg US Treas Bell 10Y	1.85%	3.93%

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Returns for Periods Ended June 30, 2019

	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance - Multi-Strategy							
Multi-Strategy	\$1,661	100.00%	3.76%	11.16%	6.90%	-	-
S&P/LSTA Leveraged Loan	-	-	1.68%	5.74%	3.97%	5.24%	3.68%
Russell 3000 Index	-	-	4.10%	18.71%	8.98%	14.02%	10.19%
Credit Focused Strategies	\$926	55.76%	1.66%	6.18%	4.22%	-	-
Blackstone Keystone(1)(5)	926	55.76%	1.66%	6.18%	4.22%	6.54%	4.40%
HFRI Fund of Funds Compos	-	-	1.50%	6.16%	1.16%	4.25%	2.19%
Opp. Equity & Fixed Income	\$545	32.83%	5.75%	15.36%	9.01%	-	-
SEI Str. Credit: HY Bank Loans(2)	347	20.87%	4.33%	4.37%	5.94%	14.14%	8.31%
FTSE US High Yield	-	-	2.36%	9.89%	7.19%	7.37%	4.36%
Eaton Vance GMARA	199	11.96%	2.78%	4.90%	0.59%	-	-
3 month LIBOR + 6%	-	-	2.07%	4.21%	8.61%	7.78%	7.21%
MCM Russell 3000 Index(3)	0	0.01%	4.48%	19.13%	9.39%	-	-
Russell 3000 Index	-	-	4.10%	18.71%	8.98%	14.02%	10.19%
Private Credit(4)	\$190	11.41%	3.02%	5.74%	14.59%	-	-

(1) Blackstone Keystone since inception returns are included in the Legacy Hedge Fund composite through 9/30/2017.

(2) SEI HY Bank Loans since inception returns are included in the Fixed Income composite through 9/30/2017.

(3) Russell 3000 Index since inception returns are included in the Global Public Equity composite through 9/30/2017.

(4) Private Debt performance is shown Net of Fees with a 1 Qtr lag.

(5) Blackstone Keystone performance is shown Net of Fees.

Global Public Equity Period Ended June 30, 2019

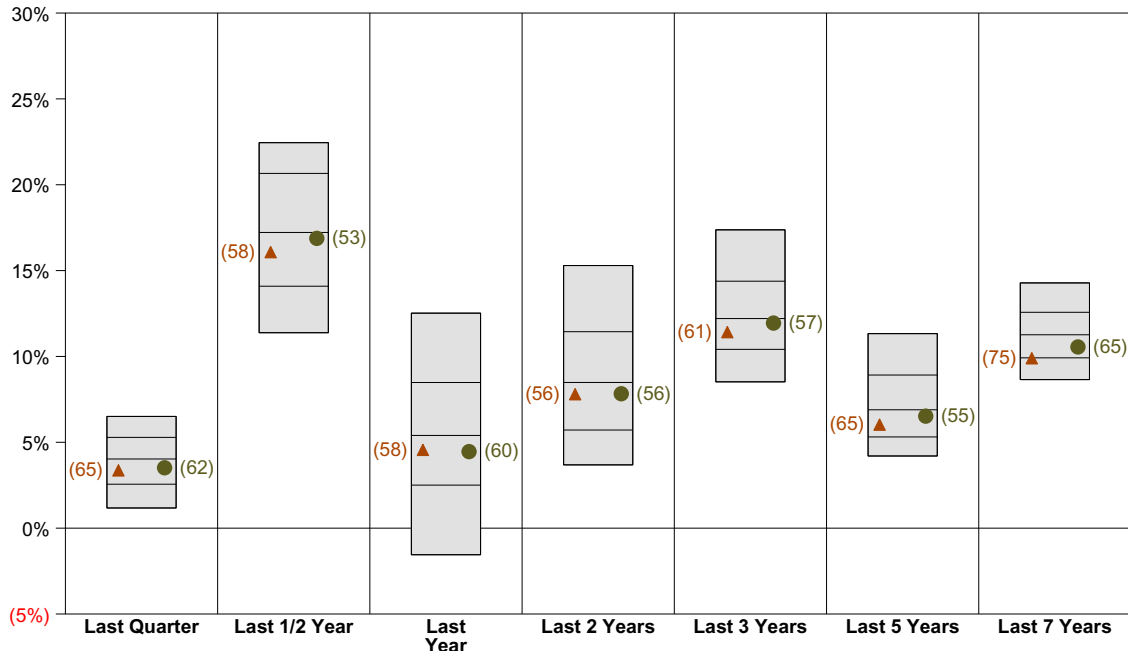
Quarterly Summary and Highlights

- Global Public Equity's portfolio posted a 3.52% return for the quarter placing it in the 62 percentile of the Callan Global Equity group for the quarter and in the 60 percentile for the last year.
- Global Public Equity's portfolio outperformed the MSCI ACWI IMI by 0.15% for the quarter and underperformed the MSCI ACWI IMI for the year by 0.11%.

Quarterly Asset Growth

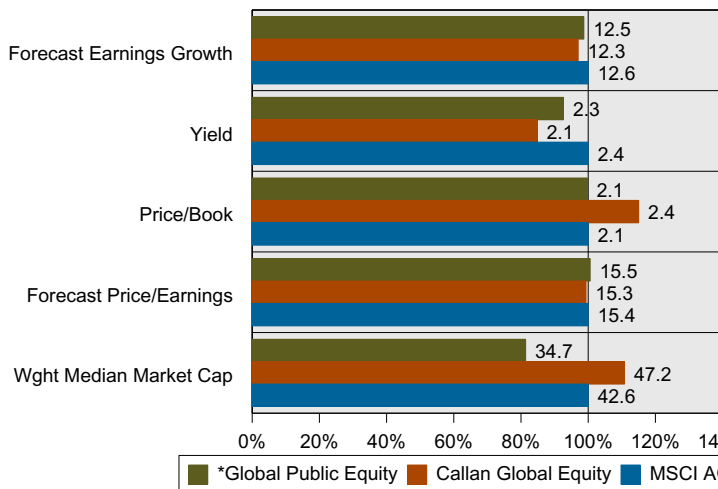
Beginning Market Value	\$15,685,983,955
Net New Investment	\$-6,012,377
Investment Gains/(Losses)	\$551,905,695
Ending Market Value	\$16,231,877,274

Performance vs Callan Global Equity (Gross)

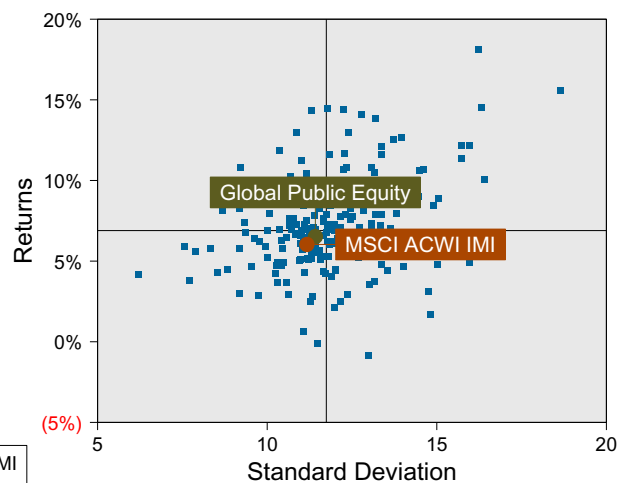


	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	6.51	22.45	12.52	15.29	17.37	11.33	14.28
25th Percentile	5.29	20.66	8.48	11.44	14.38	8.92	12.57
Median	4.03	17.22	5.40	8.48	12.21	6.89	11.26
75th Percentile	2.56	14.09	2.51	5.71	10.41	5.31	9.92
90th Percentile	1.17	11.38	(1.55)	3.68	8.52	4.20	8.65
Global Public Equity ●	3.52	16.88	4.46	7.83	11.94	6.52	10.55
MSCI ACWI IMI ▲	3.37	16.08	4.56	7.80	11.42	6.03	9.90

Portfolio Characteristics as a Percentage of the MSCI ACWI IMI



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



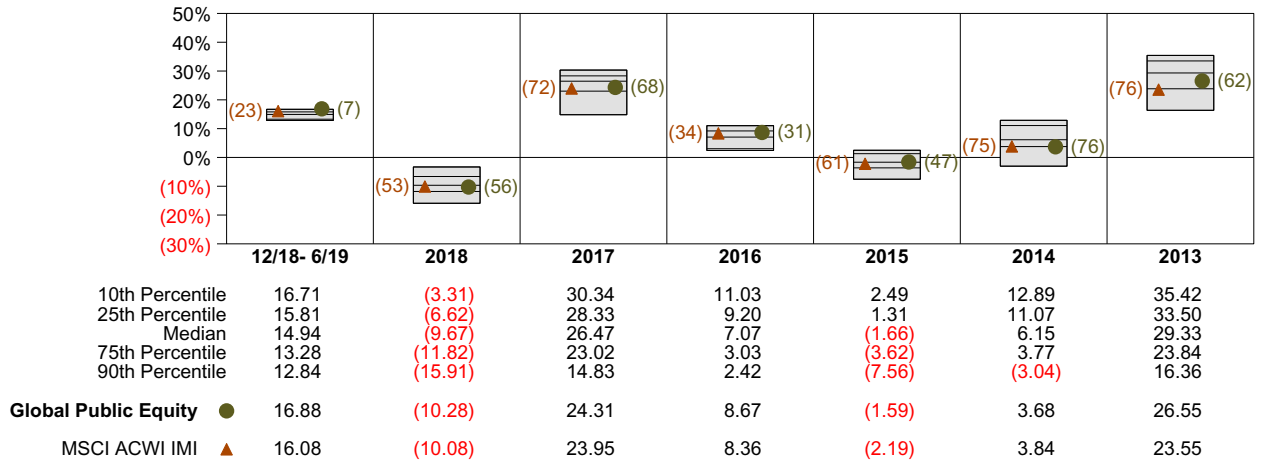
* 6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

Global Public Equity Return Analysis Summary

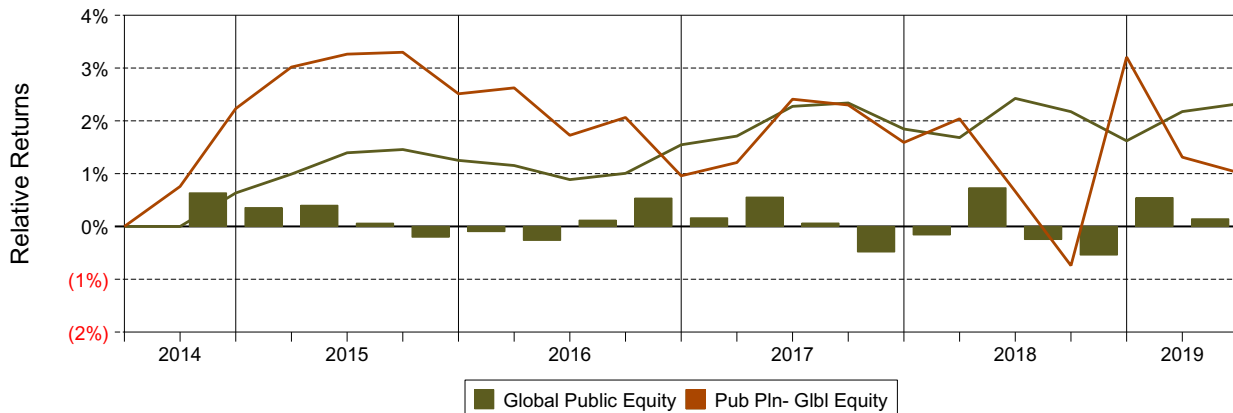
Return Analysis

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.

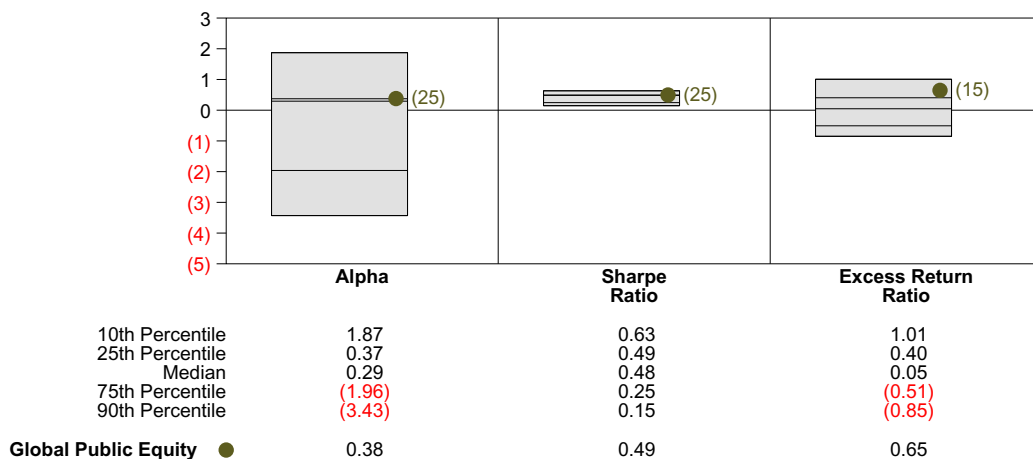
Performance vs Public Fund - Global Equity (Gross)



Cumulative and Quarterly Relative Return vs MSCI ACWI IMI



Risk Adjusted Return Measures vs MSCI ACWI IMI Rankings Against Public Fund - Global Equity (Gross) Five Years Ended June 30, 2019

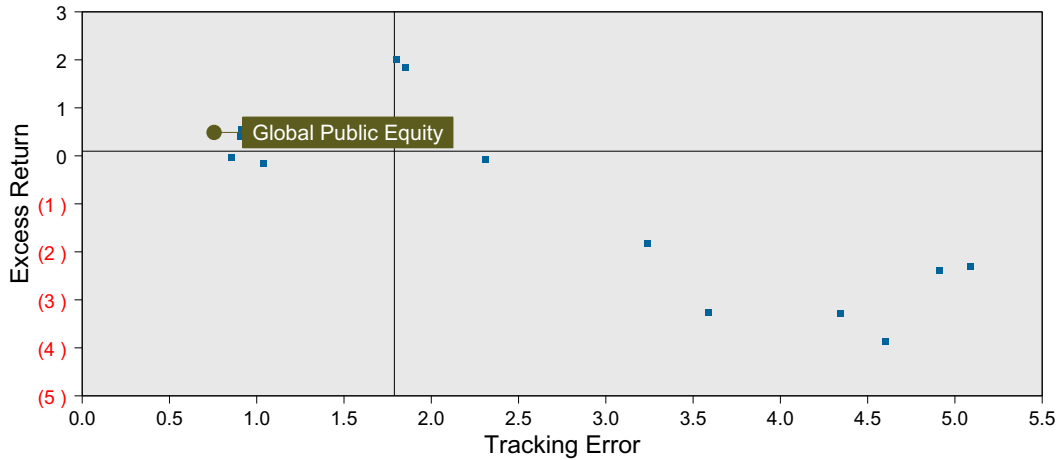


Global Public Equity Risk Analysis Summary

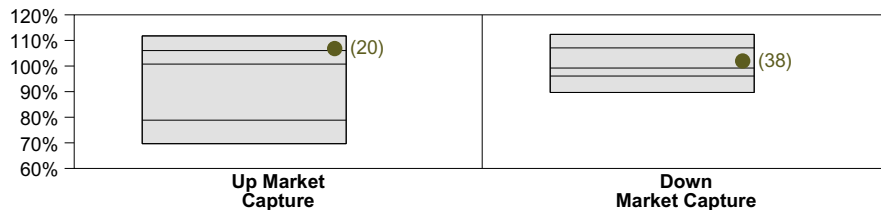
Risk Analysis

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 - Global Equity (Gross) Five Years Ended June 30, 2019



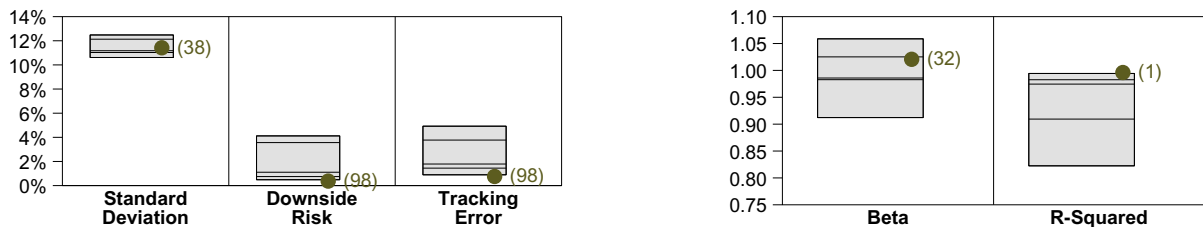
Market Capture vs MSCI ACWI IMI Index (USD Net Div) Rankings Against Public Fund - Global Equity (Gross) Five Years Ended June 30, 2019



	Up Market Capture	Down Market Capture
10th Percentile	111.77	112.36
25th Percentile	106.04	107.09
Median	100.76	99.22
75th Percentile	78.86	96.09
90th Percentile	69.67	89.68

Global Public Equity ● 106.82 101.97

Risk Statistics Rankings vs MSCI ACWI IMI Index (USD Net Div) Rankings Against Public Fund - Global Equity (Gross) Five Years Ended June 30, 2019



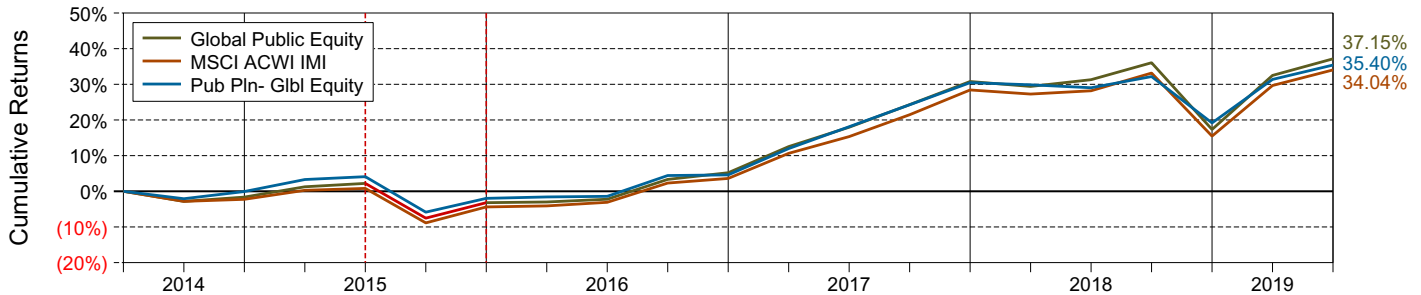
	Standard Deviation	Downside Risk	Tracking Error		Beta	R-Squared
10th Percentile	12.48	4.12	4.92	10th Percentile	1.06	0.99
25th Percentile	12.13	3.56	3.77	25th Percentile	1.03	0.98
Median	11.18	1.11	1.79	Median	0.99	0.97
75th Percentile	11.03	0.75	1.45	75th Percentile	0.98	0.91
90th Percentile	10.61	0.49	0.89	90th Percentile	0.91	0.82

Global Public Equity ● 11.42 0.37 0.76 1.02 1.00

Global Public Equity Drawdown Analysis for Five Years Ended June 30, 2019

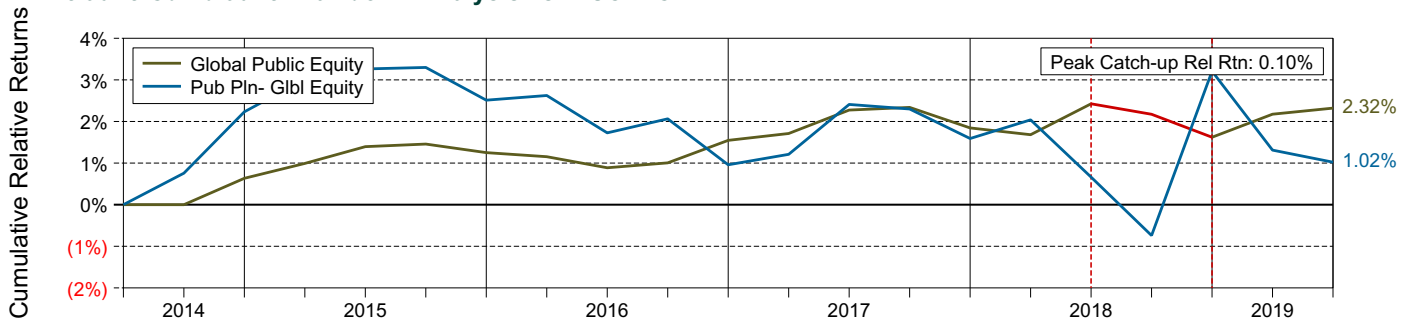
The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute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

Absolute Cumulative Drawdown Analysis



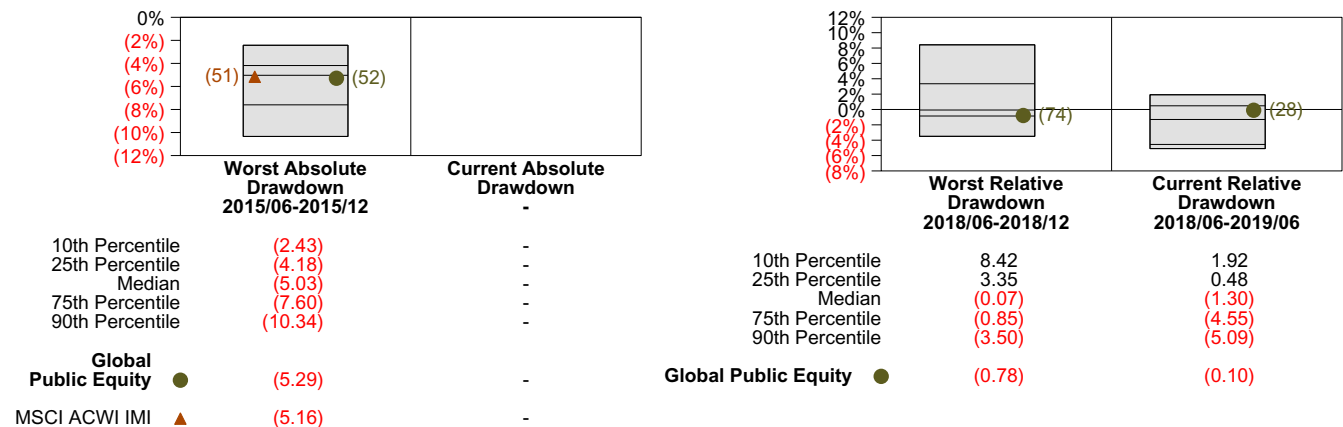
	Worst Absolute Drawdown					Current Absolute Drawdown				
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Global Public Equity	(5.29)%	0.50	2015/06-2015/12	(5.16)%	(5.85)%	-	-	-	-	-
Recovery from Trough	6.74%	0.75	2015/12-2016/09	7.00%	6.53%	-	-	-	-	-
MSCI ACWI IMI	(5.16)%	0.50	2015/06-2015/12	-	-	-	-	-	-	-
Pub Pln- Gbl Equity	(5.85)%	0.50	2015/06-2015/12	-	-	-	-	-	-	-

Relative Cumulative Drawdown Analysis vs. MSCI ACWI IMI



	Worst Relative Drawdown				Current Relative Drawdown			
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
Global Public Equity	(0.78)%	0.50	2018/06-2018/12	2.53%	(0.10)%	1.00	2018/06-2019/06	0.36%
Recovery from Trough	0.69%	0.50+	2018/12-2019/06	(2.12)%	0.69%	0.50+	2018/12-2019/06	(2.12)%
Pub Pln- Gbl Equity	(3.91)%	3.00	2015/09-2018/09	-	(2.20)%	3.75	2015/09-2019/06	-

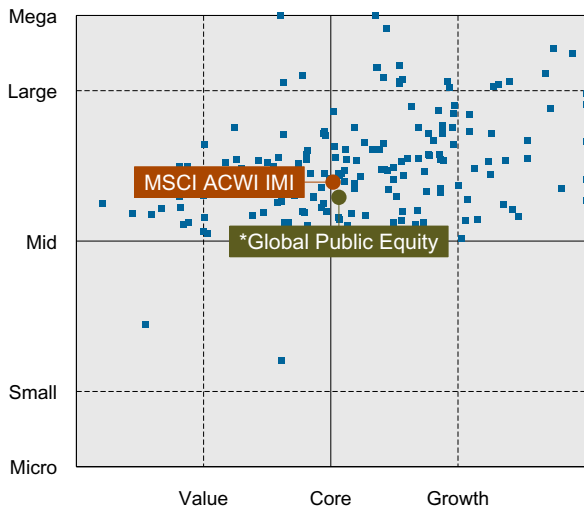
Drawdown Rankings vs. MSCI ACWI IMI Rankings against Public Fund - Global Equity Five Years Ended June 30, 2019



Current Holdings Based Style Analysis Global Public Equity As of June 30, 2019

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

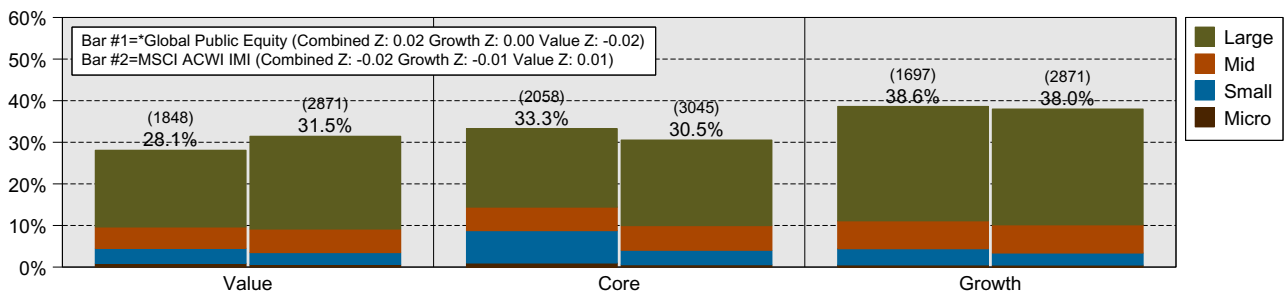
Style Map vs Callan Global Equity Holdings as of June 30, 2019



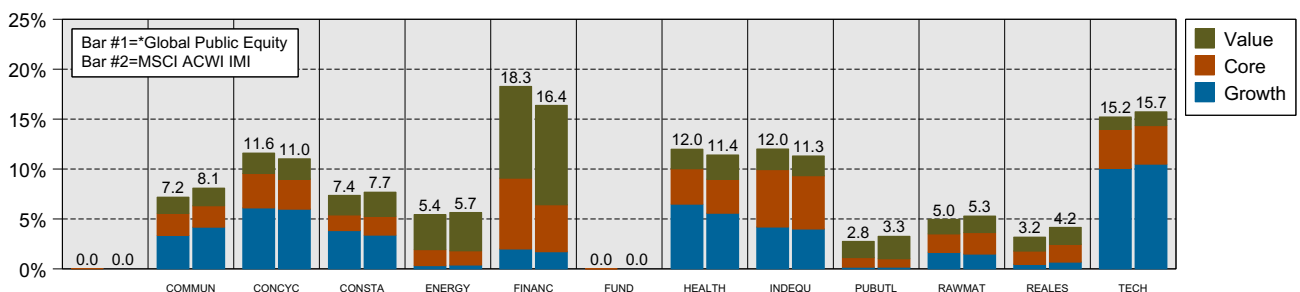
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	18.5% (281)	18.9% (278)	27.5% (292)	64.9% (851)
	22.3% (288)	20.6% (286)	27.9% (304)	70.8% (878)
Mid	5.1% (493)	5.7% (526)	6.7% (555)	17.5% (1574)
	5.7% (533)	5.9% (572)	6.8% (653)	18.4% (1758)
Small	3.6% (570)	7.8% (707)	3.9% (531)	15.3% (1808)
	2.8% (1070)	3.5% (1307)	2.9% (1137)	9.2% (3514)
Micro	0.9% (504)	1.0% (547)	0.5% (319)	2.4% (1370)
	0.6% (980)	0.6% (880)	0.5% (777)	1.7% (2637)
Total	28.1% (1848)	33.3% (2058)	38.6% (1697)	100.0% (5603)
	31.5% (2871)	30.5% (3045)	38.0% (2871)	100.0% (8787)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019



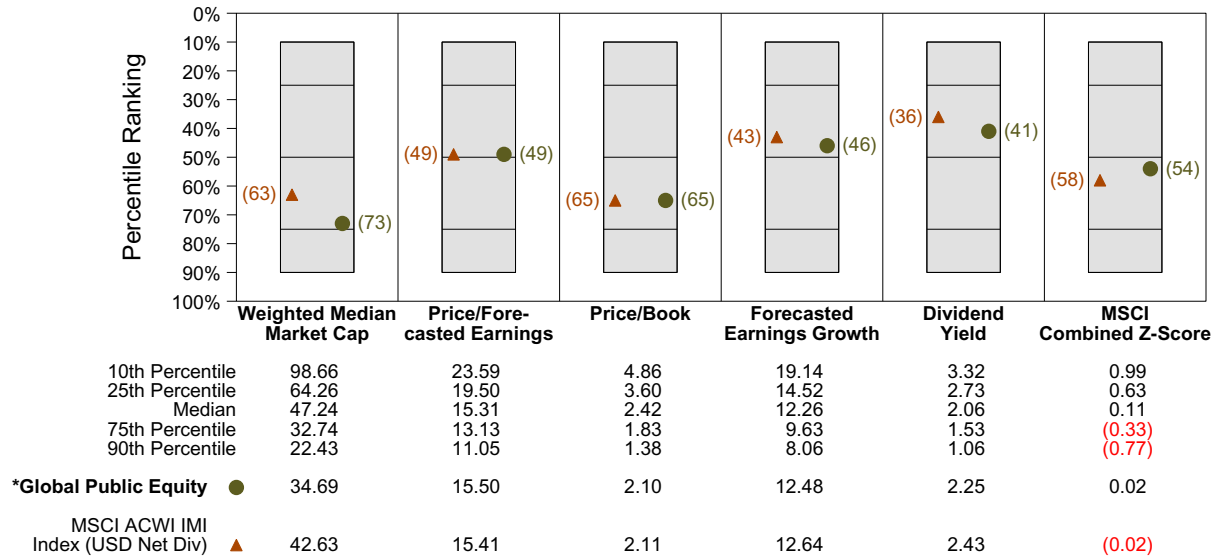
*6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

Global Public Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

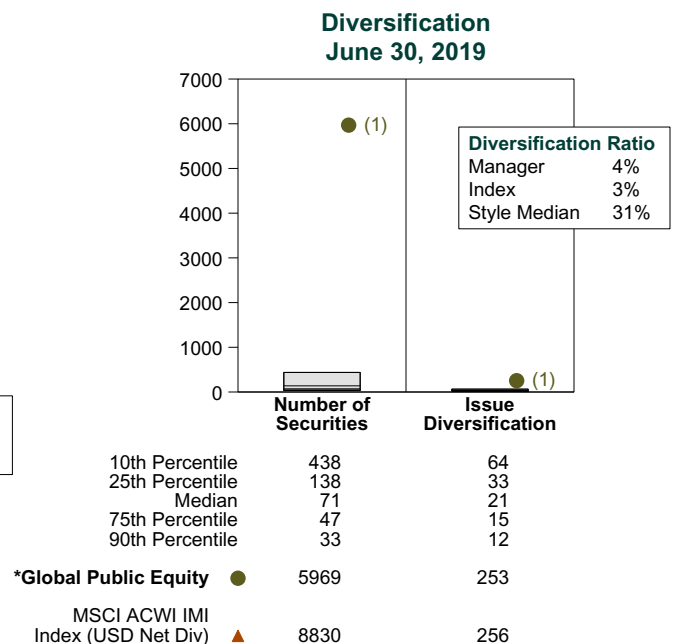
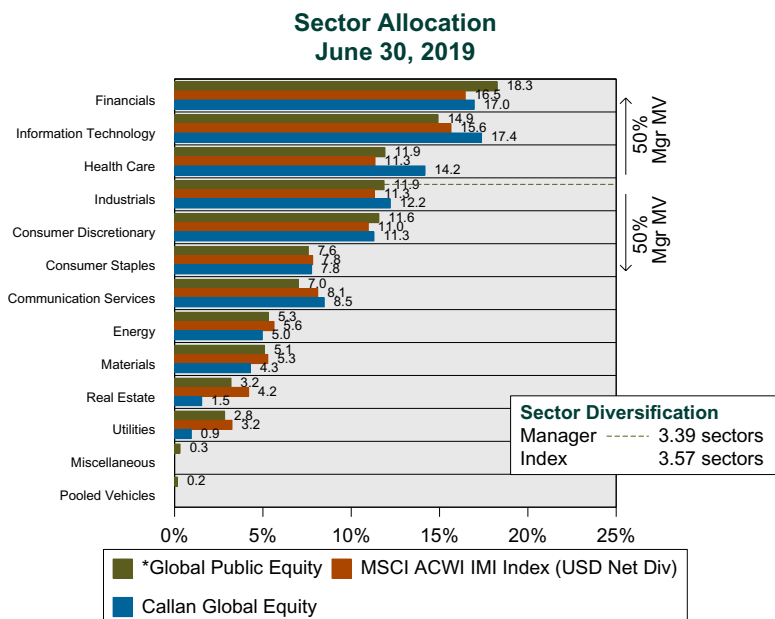
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Global Equity as of June 30, 2019



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.

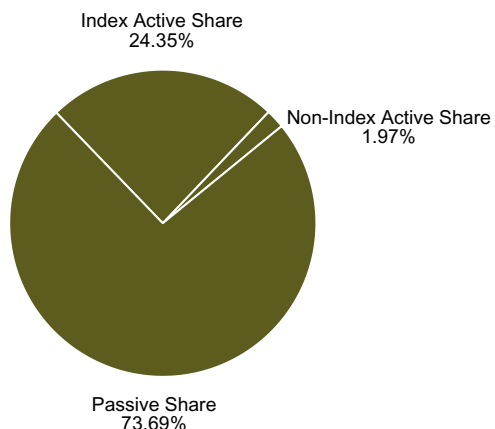


*6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

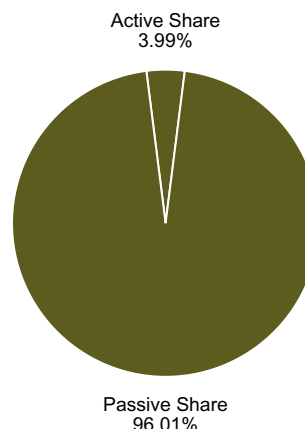
Global Public Equity Active Share Analysis as of June 30, 2019 vs. MSCI ACWI IMI Index (USD Net Div)

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.

Holdings-Level Active Share



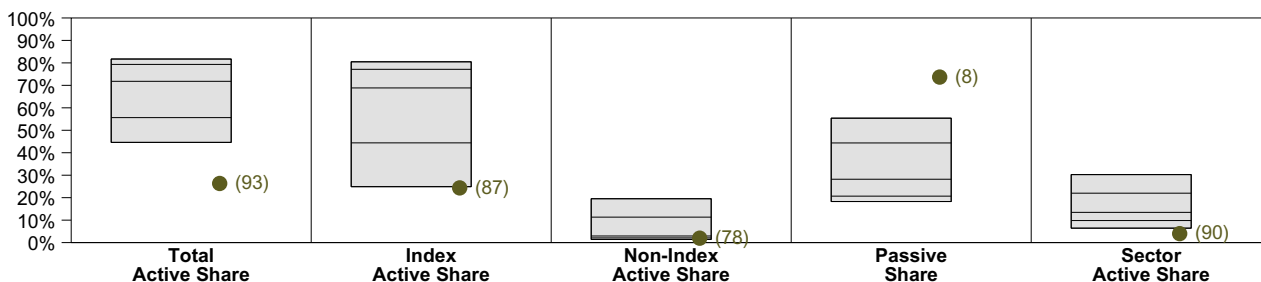
Sector Exposure Active Share



Total Active Share: 26.31%

	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	18.93%	1.57%	20.50%	8.10%	7.01%	1.70%
Consumer Discretionary	26.74%	2.10%	28.84%	10.97%	11.57%	3.20%
Consumer Staples	22.71%	1.91%	24.62%	7.82%	7.57%	1.88%
Energy	19.71%	1.79%	21.50%	5.63%	5.31%	1.16%
Financials	28.25%	2.02%	30.27%	16.46%	18.27%	4.97%
Health Care	24.61%	1.19%	25.80%	11.35%	11.91%	2.94%
Industrials	27.86%	1.65%	29.51%	11.31%	11.86%	3.37%
Information Technology	20.96%	0.79%	21.76%	15.65%	14.92%	3.40%
Materials	27.79%	2.76%	30.55%	5.28%	5.09%	1.55%
Miscellaneous	0.00%	110.62%	110.62%	-	0.31%	0.16%
Pooled Vehicles	0.00%	105.86%	105.86%	-	0.16%	0.08%
Real Estate	25.04%	2.03%	27.07%	4.19%	3.19%	1.10%
Utilities	22.31%	3.10%	25.41%	3.25%	2.83%	0.80%
Total	24.35%	1.97%	26.31%	100.00%	100.00%	26.30%

Active Share vs. Pub Pln- Gbl Equity



10th Percentile	81.72	80.48	19.53	55.39	30.27
25th Percentile	79.32	77.13	11.33	44.36	21.99
Median	71.79	68.85	2.95	28.21	13.46
75th Percentile	55.64	44.40	2.09	20.68	9.81
90th Percentile	44.61	24.90	1.43	18.28	6.43

Global Public Equity ●

26.31	24.35	1.97	73.69	3.99
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Walter Scott & Prtnrs Gbl Gr Eq Period Ended June 30, 2019

Investment Philosophy

Walter Scott believes that the objective for all long term investors is to maintain and enhance the real after inflation purchasing power of their assets. This is most likely to be achieved by investing in companies with high rates of internal wealth generation which in time translates into total return for the investor. Thus, the firm's research efforts are directed towards identifying companies that meet its investment criteria. Their research process combines historic and forecasted financial analysis with business and management analysis at the company level.

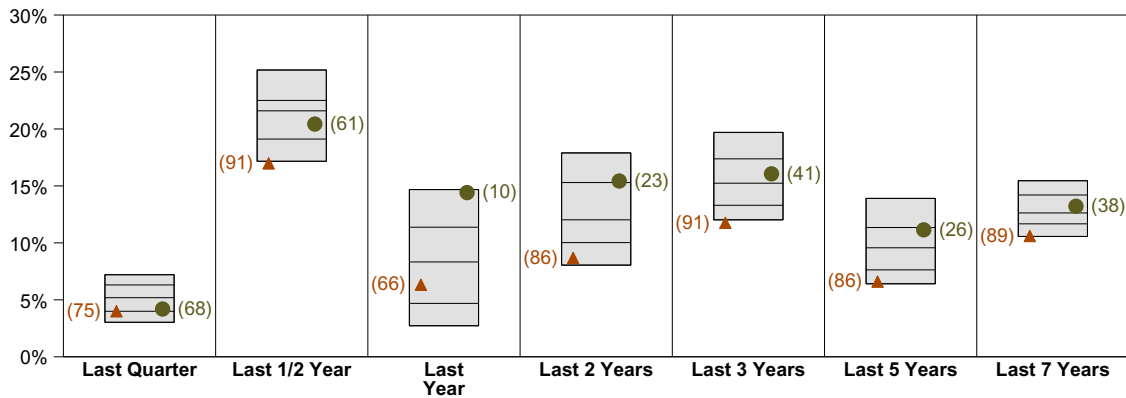
Quarterly Summary and Highlights

- Walter Scott & Prtnrs Gbl Gr Eq's portfolio posted a 4.19% return for the quarter placing it in the 68 percentile of the Callan Global Broad Growth Equity group for the quarter and in the 10 percentile for the last year.
- Walter Scott & Prtnrs Gbl Gr Eq's portfolio outperformed the MSCI World by 0.19% for the quarter and outperformed the MSCI World for the year by 8.08%.

Quarterly Asset Growth

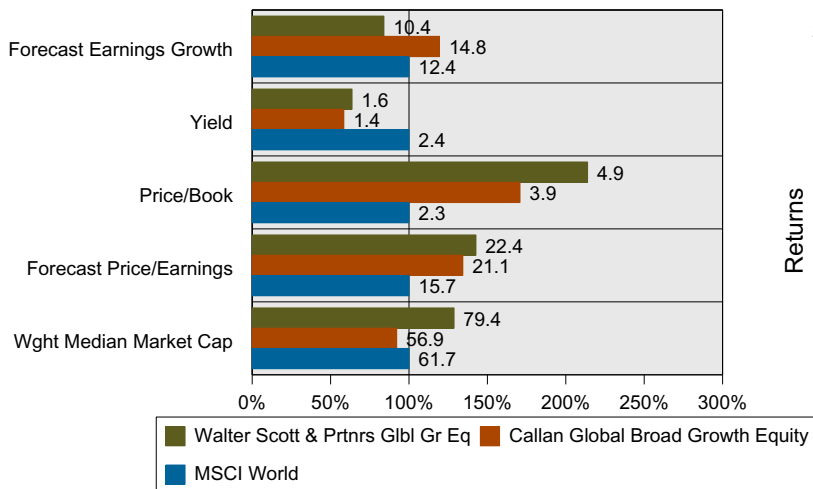
Beginning Market Value	\$999,949,325
Net New Investment	\$-940,465
Investment Gains/(Losses)	\$41,864,584
Ending Market Value	\$1,040,873,444

Performance vs Callan Global Broad Growth Equity (Gross)

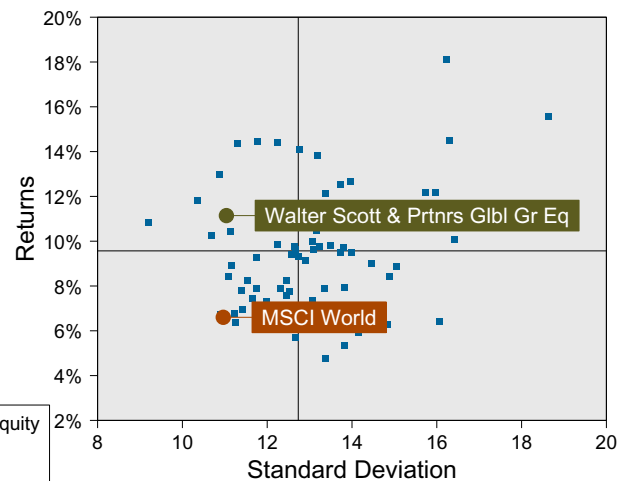


10th Percentile	7.21	25.18	14.68	17.90	19.70	13.90	15.46
25th Percentile	6.31	22.51	11.38	15.29	17.38	11.35	14.20
Median	5.19	21.59	8.33	12.03	15.24	9.57	12.63
75th Percentile	4.00	19.11	4.69	10.02	13.30	7.63	11.67
90th Percentile	3.03	17.16	2.72	8.05	12.02	6.41	10.56
Walter Scott & Prtnrs Gbl Gr Eq	● 4.19	20.43	14.41	15.43	16.06	11.14	13.21
MSCI World	▲ 4.00	16.98	6.33	8.68	11.77	6.60	10.61

Portfolio Characteristics as a Percentage of the MSCI World



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

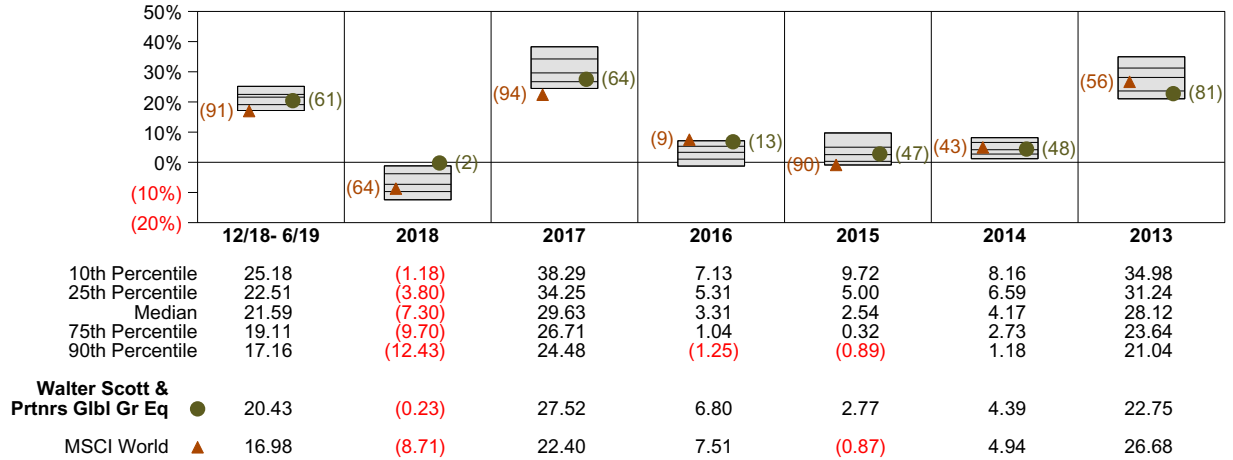


Walter Scott & Prtnrs Gbl Gr Eq Return Analysis Summary

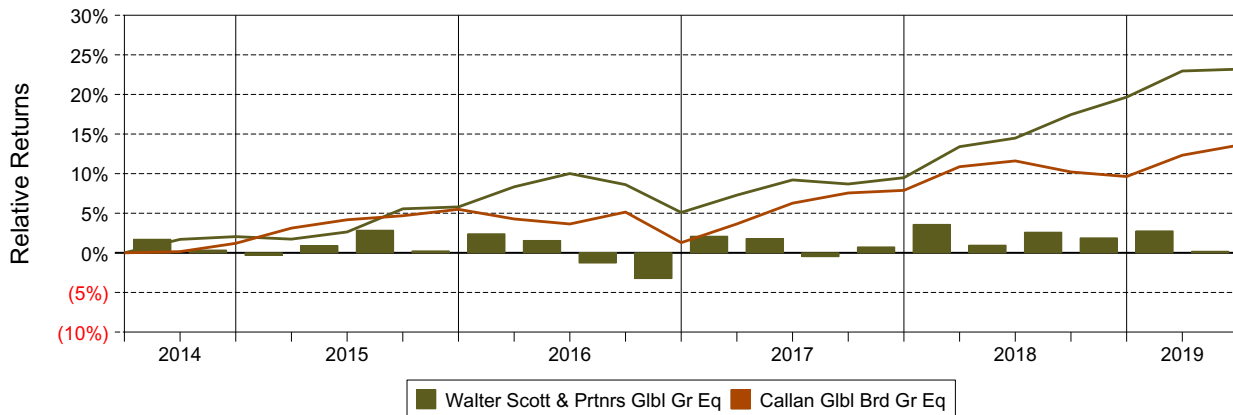
Return Analysis

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.

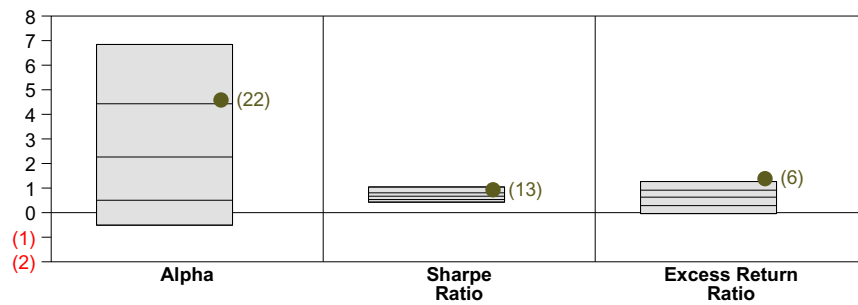
Performance vs Callan Global Broad Growth Equity (Gross)



Cumulative and Quarterly Relative Return vs MSCI World



Risk Adjusted Return Measures vs MSCI World Rankings Against Callan Global Broad Growth Equity (Gross) Five Years Ended June 30, 2019



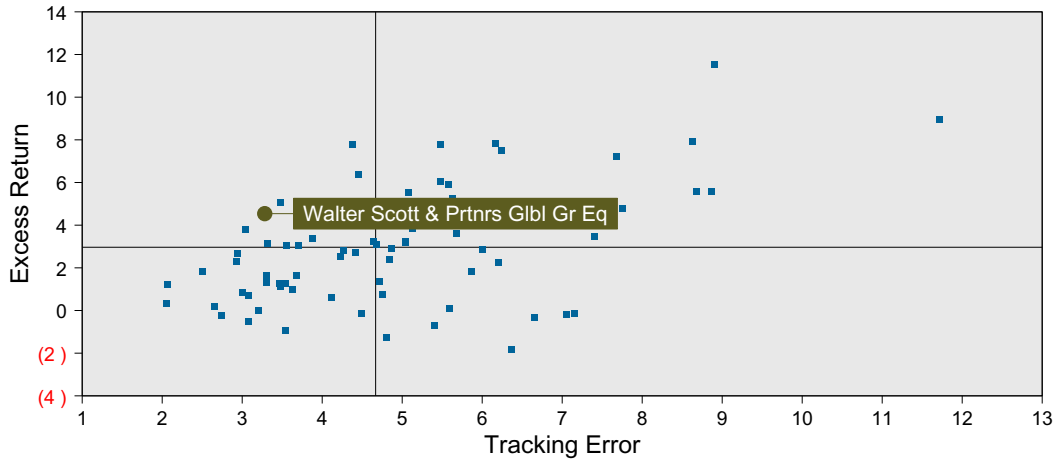
	Alpha	Sharpe Ratio	Excess Return Ratio
10th Percentile	6.84	1.04	1.27
25th Percentile	4.43	0.81	0.91
Median	2.26	0.67	0.63
75th Percentile	0.50	0.53	0.29
90th Percentile	(0.51)	0.43	(0.04)
Walter Scott & Prtnrs Gbl Gr Eq	4.58	0.93	1.38

Walter Scott & Prtnrs Gbl Gr Eq Risk Analysis Summary

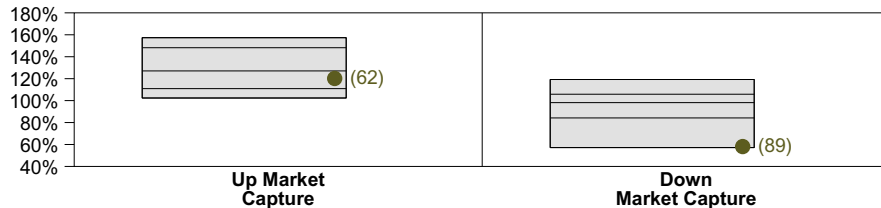
Risk Analysis

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 June 30, 2019



Market Capture vs MSCI World Index (USD Net Div) Rankings Against Callan Global Broad Growth Equity (Gross) Five Years Ended June 30, 2019



	Up Market Capture	Down Market Capture
10th Percentile	157.35	119.24
25th Percentile	148.21	105.83
Median	127.05	98.17
75th Percentile	110.92	84.21
90th Percentile	102.36	57.17
Walter Scott & Prtnrs Gbl Gr Eq	120.19	58.10

Risk Statistics Rankings vs MSCI World Index (USD Net Div) Rankings Against Callan Global Broad Growth Equity (Gross) Five Years Ended June 30, 2019



	Standard Deviation	Downside Risk	Tracking Error	Beta	R-Squared
10th Percentile	15.70	4.54	7.47	1.27	0.94
25th Percentile	13.81	3.60	5.81	1.18	0.93
Median	12.73	2.47	4.67	1.09	0.89
75th Percentile	11.76	2.11	3.53	1.02	0.83
90th Percentile	11.10	1.72	2.97	0.94	0.74
Walter Scott & Prtnrs Gbl Gr Eq	11.04	1.61	3.28	0.96	0.91

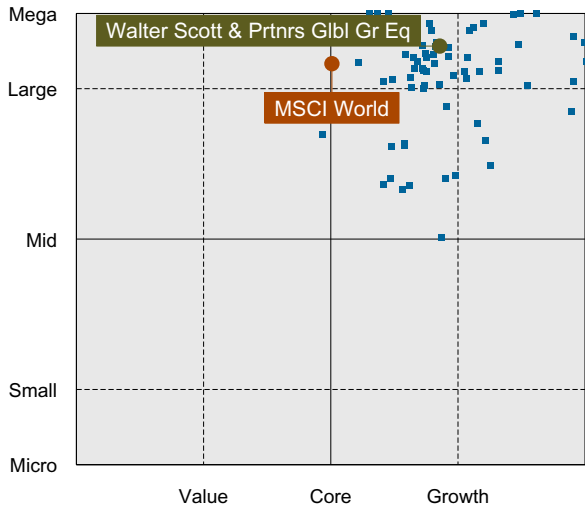
Current Holdings Based Style Analysis

Walter Scott & Prtnrs Gbl Gr Eq

As of June 30, 2019

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 chart 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.

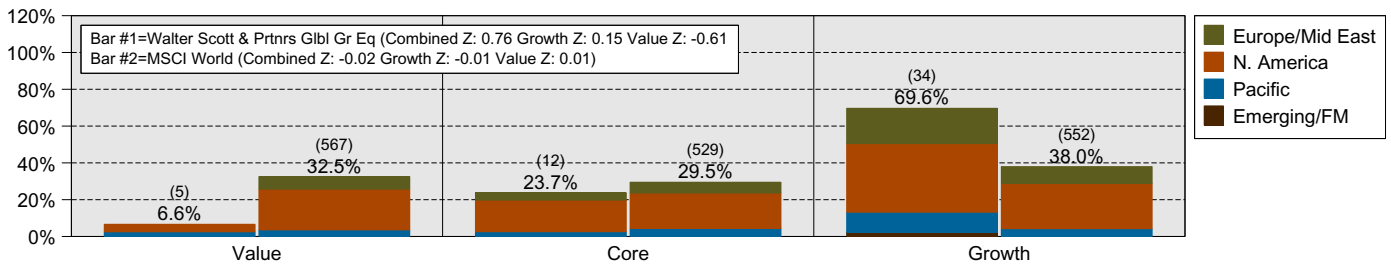
Style Map vs Callan Gbl Brd Gr Eq Holdings as of June 30, 2019



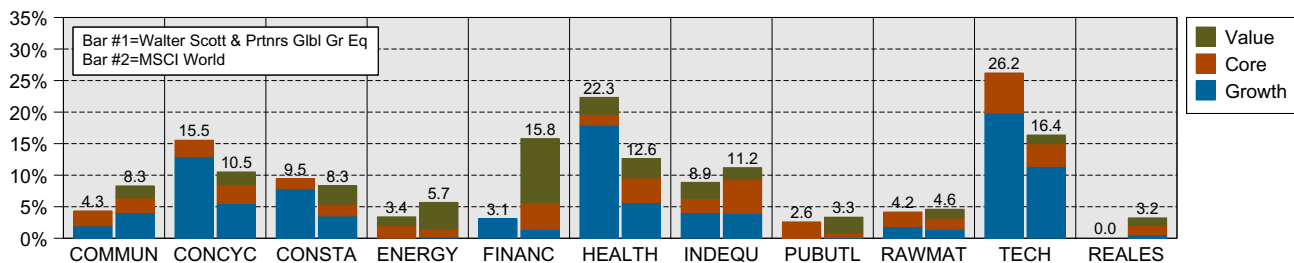
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Europe/Mid East	0.0% (0)	4.0% (2)	19.2% (11)	23.1% (13)
N. America	6.8% (145)	5.8% (130)	9.1% (180)	21.8% (455)
Pacific	4.1% (3)	17.2% (8)	37.3% (17)	58.5% (28)
Emerging/FM	2.5% (2)	2.6% (2)	10.9% (5)	16.1% (9)
	3.6% (153)	4.6% (157)	4.2% (159)	12.4% (469)
Emerging/FM	0.0% (0)	0.0% (0)	2.3% (1)	2.3% (1)
	0.0% (0)	0.0% (0)	0.1% (1)	0.1% (1)
Total	6.6% (5)	23.7% (12)	69.6% (34)	100.0% (51)
	32.5% (567)	29.5% (529)	38.0% (552)	100.0% (1648)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

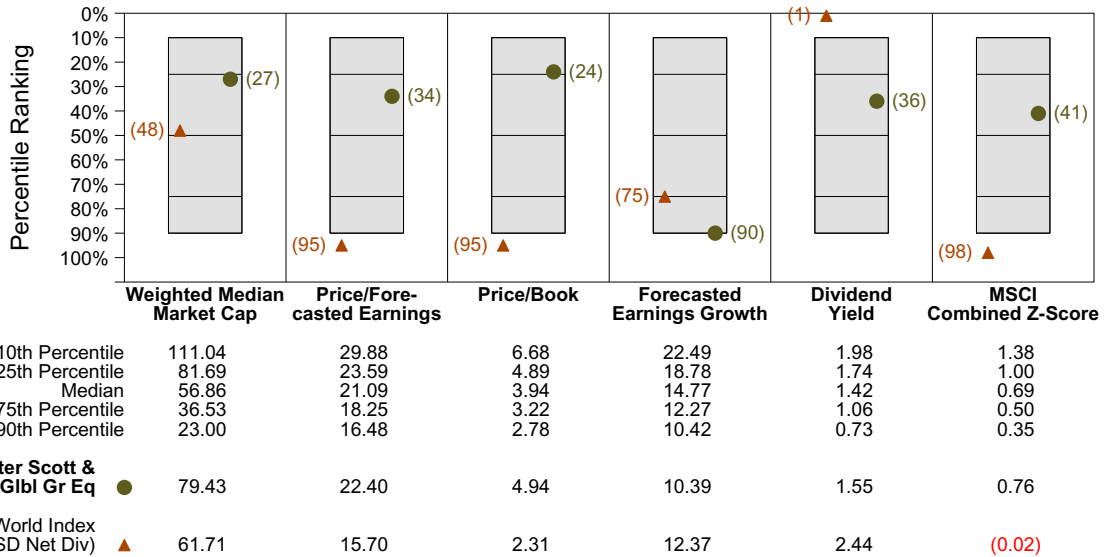


Walter Scott & Prtnrs Gbl Gr Eq Equity Characteristics Analysis Summary

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.

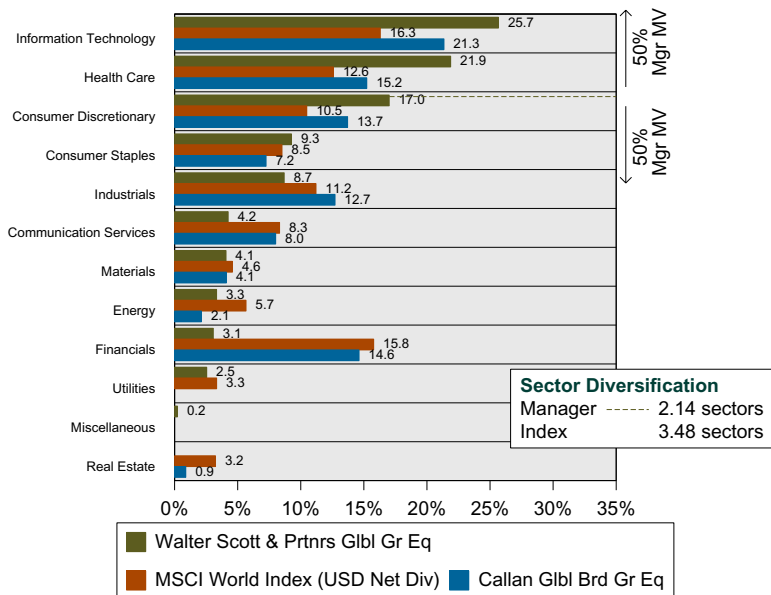
Portfolio Characteristics Percentile Rankings Rankings Against Callan Global Broad Growth Equity as of June 30, 2019



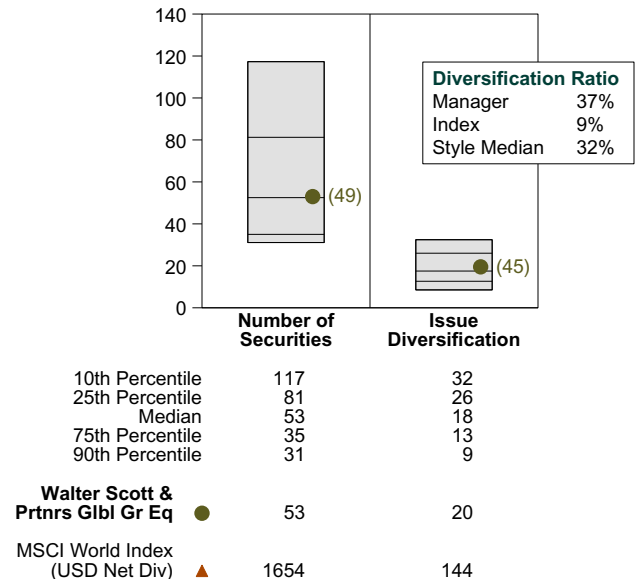
Sector Weights

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.

Sector Allocation June 30, 2019



Diversification June 30, 2019

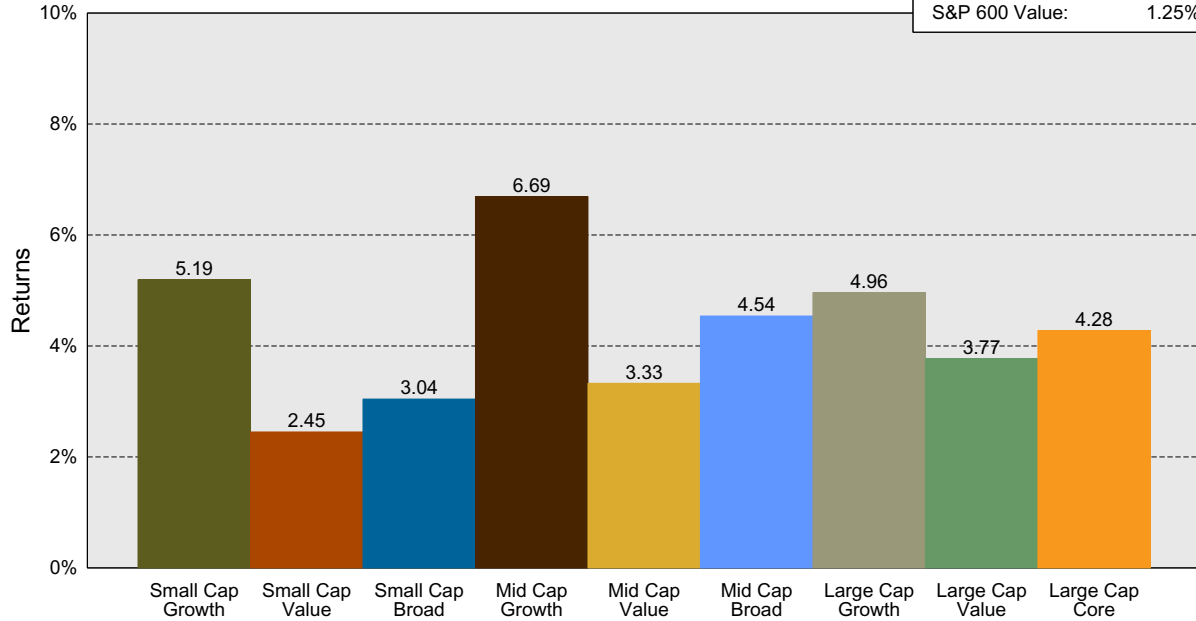


Domestic Equity Active Management Overview

U.S. equity markets approached record levels as investors were heartened by the potential for imminent Fed rate cuts. The S&P 500 Index rose 4.3%, bringing its ytd return to 18.5%. With a forward P/E for the S&P 500 at 16.7x, equity multiples are slightly above their 25-year average of 16.2x. Financials (+8.0%) were the best performers while Energy (-2.8%) was the only sector with a negative return. Small cap stocks (R2000: 2.1%) underperformed large (R1000: 4.2%) and growth continued its trend of outperformance across the capitalization spectrum, albeit only modestly in Q2. In a reversal from Q1, quality factors such as operating margin and return on equity contributed to performance. Value factors (P/B, P/E trailing, and yield) were mixed while growth factors (EPS growth, sales growth) were positive.

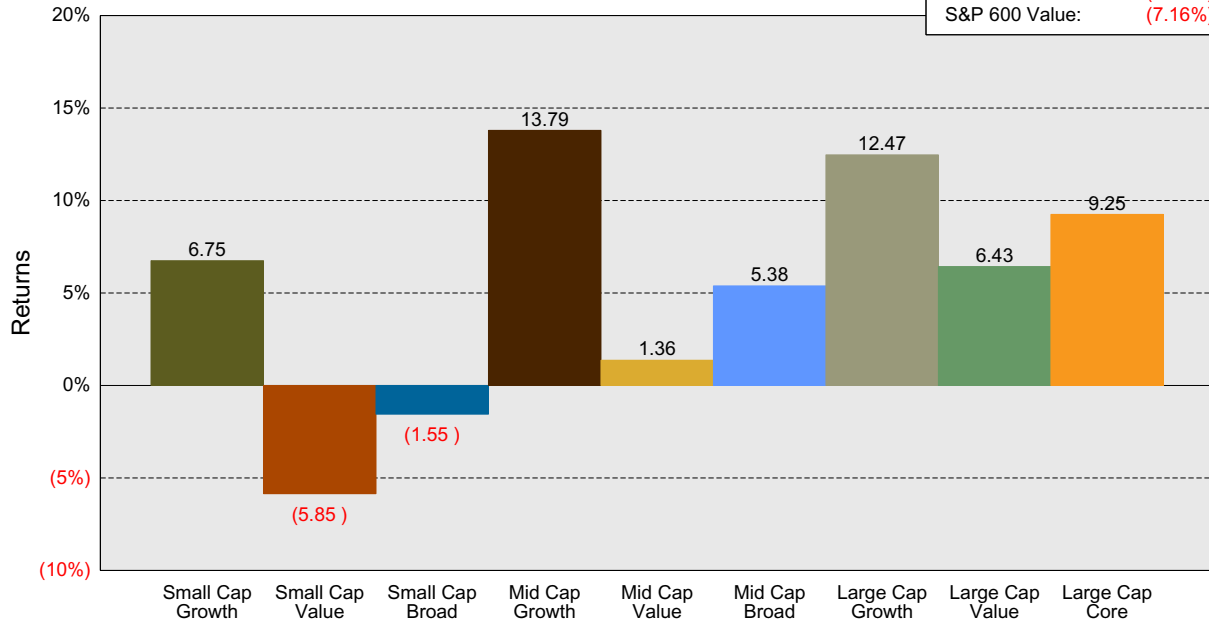
S&P 500:	4.30%
S&P 500 Growth:	4.56%
S&P 500 Value:	4.02%
S&P Mid Cap:	3.05%
S&P 600:	1.87%
S&P 600 Growth:	2.50%
S&P 600 Value:	1.25%

Separate Account Style Group Median Returns for Quarter Ended June 30, 2019



S&P 500:	10.42%
S&P 500 Growth:	12.02%
S&P 500 Value:	8.67%
S&P Mid Cap:	1.36%
S&P 600:	(4.88%)
S&P 600 Growth:	(2.33%)
S&P 600 Value:	(7.16%)

Separate Account Style Group Median Returns for One Year Ended June 30, 2019



U.S. Equity Period Ended June 30, 2019

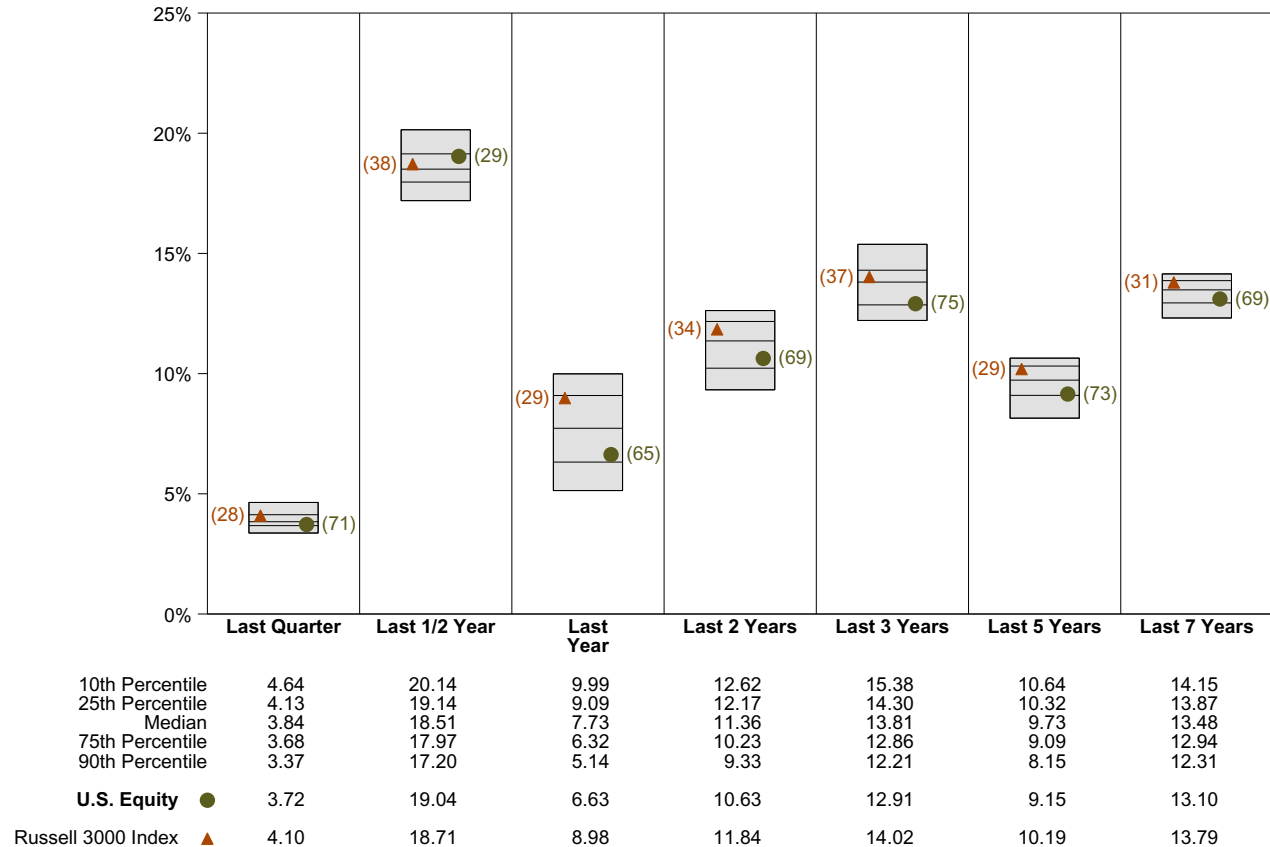
Quarterly Summary and Highlights

- U.S. Equity's portfolio posted a 3.72% return for the quarter placing it in the 71 percentile of the Public Fund - Domestic Equity group for the quarter and in the 65 percentile for the last year.
- U.S. Equity's portfolio underperformed the Russell 3000 Index by 0.37% for the quarter and underperformed the Russell 3000 Index for the year by 2.35%.

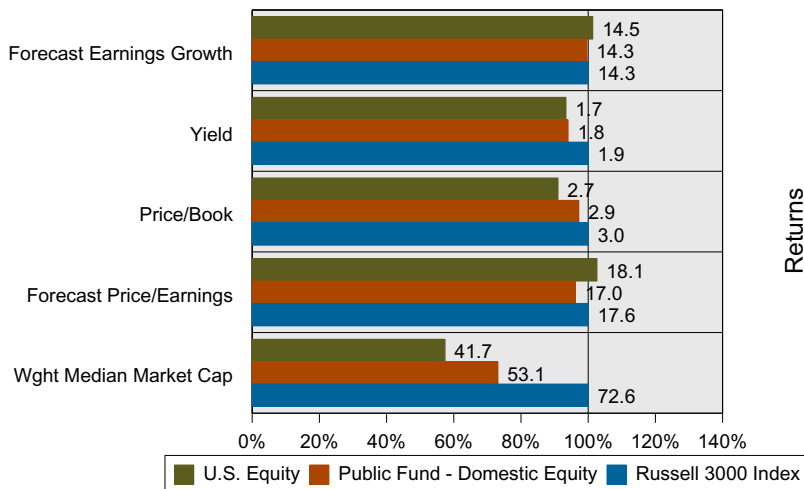
Quarterly Asset Growth

Beginning Market Value	\$7,489,448,883
Net New Investment	\$-1,682,061
Investment Gains/(Losses)	\$278,542,655
Ending Market Value	\$7,766,309,477

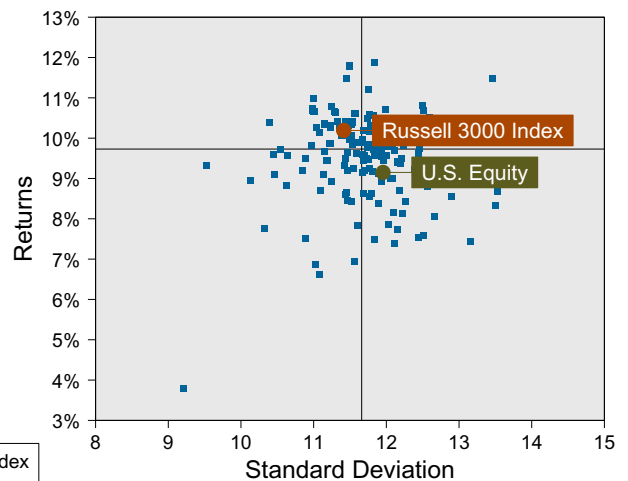
Performance vs Public Fund - Domestic Equity (Gross)



Portfolio Characteristics as a Percentage of the Russell 3000 Index



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

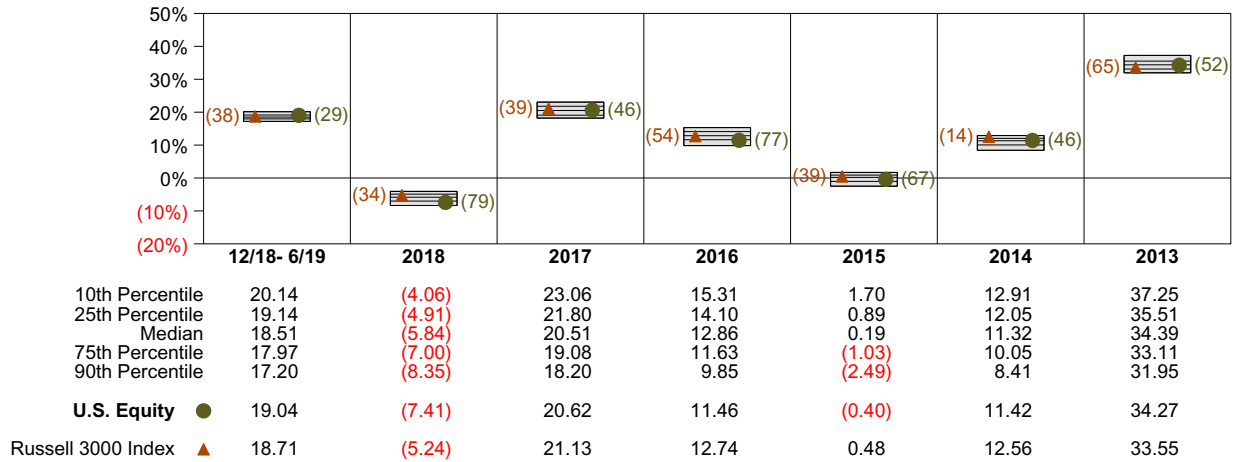


U.S. Equity Return Analysis Summary

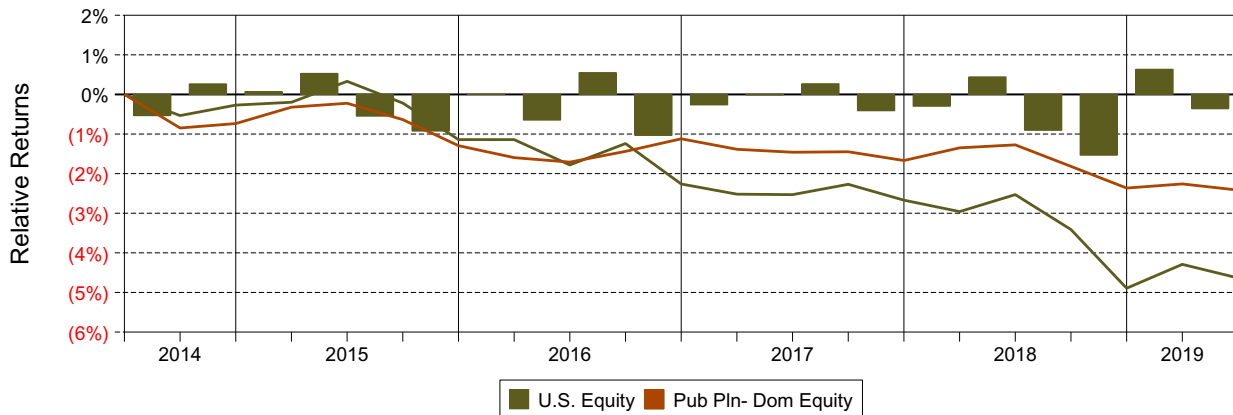
Return Analysis

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.

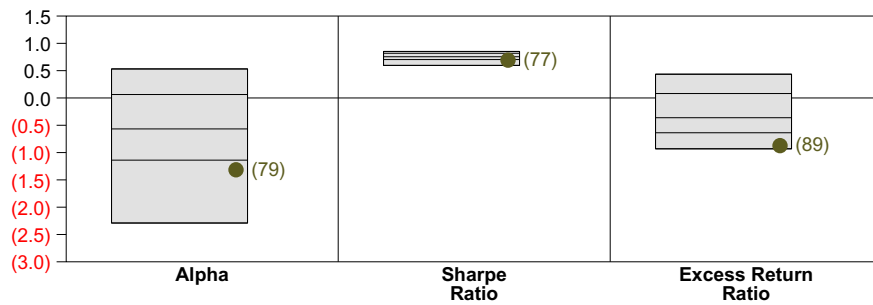
Performance vs Public Fund - Domestic Equity (Gross)



Cumulative and Quarterly Relative Return vs Russell 3000 Index



Risk Adjusted Return Measures vs Russell 3000 Index Rankings Against Public Fund - Domestic Equity (Gross) Five Years Ended June 30, 2019

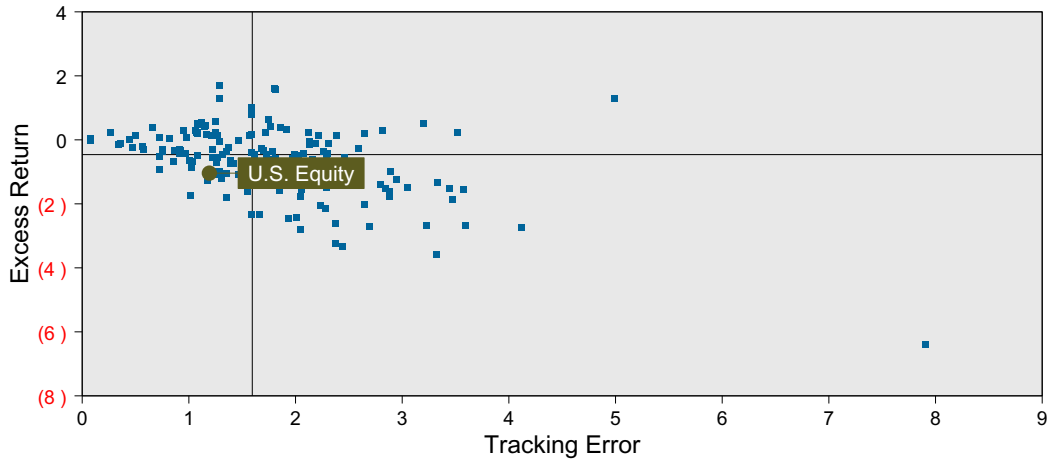


U.S. Equity Risk Analysis Summary

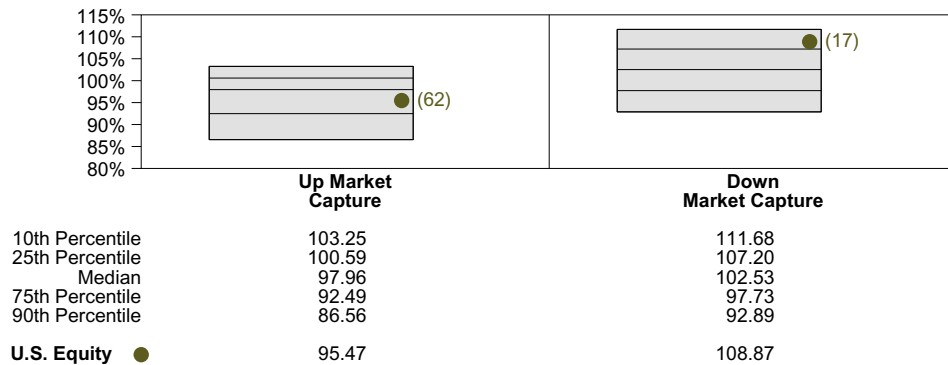
Risk Analysis

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.

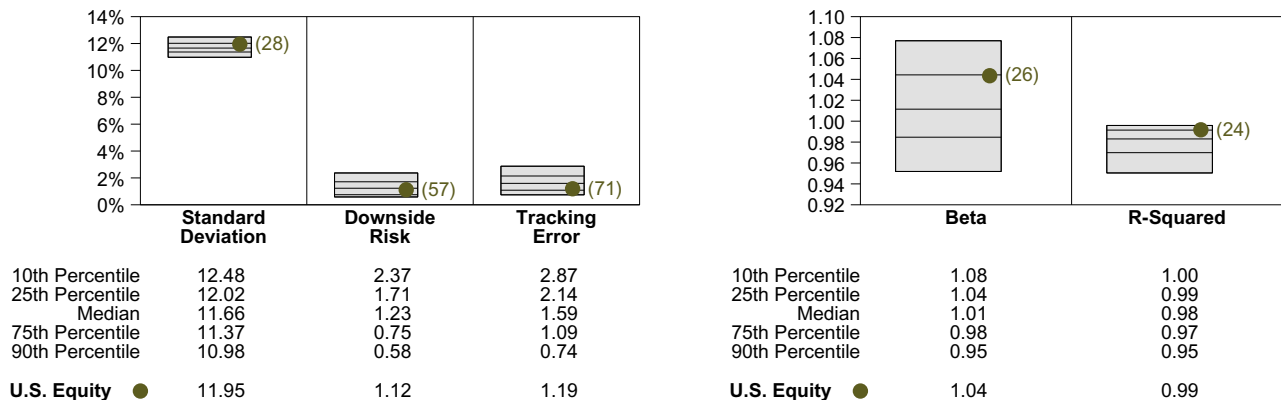
Risk Analysis vs Public Fund - Domestic Equity (Gross) Five Years Ended June 30, 2019



Market Capture vs Russell 3000 Index Rankings Against Public Fund - Domestic Equity (Gross) Five Years Ended June 30, 2019



Risk Statistics Rankings vs Russell 3000 Index Rankings Against Public Fund - Domestic Equity (Gross) Five Years Ended June 30, 2019



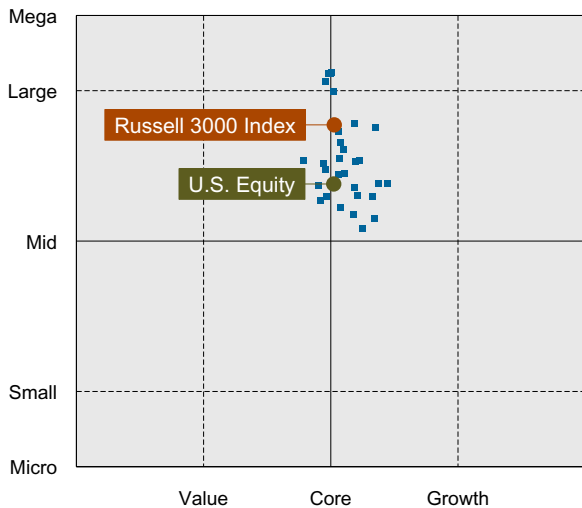
Current Holdings Based Style Analysis

U.S. Equity

As of June 30, 2019

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

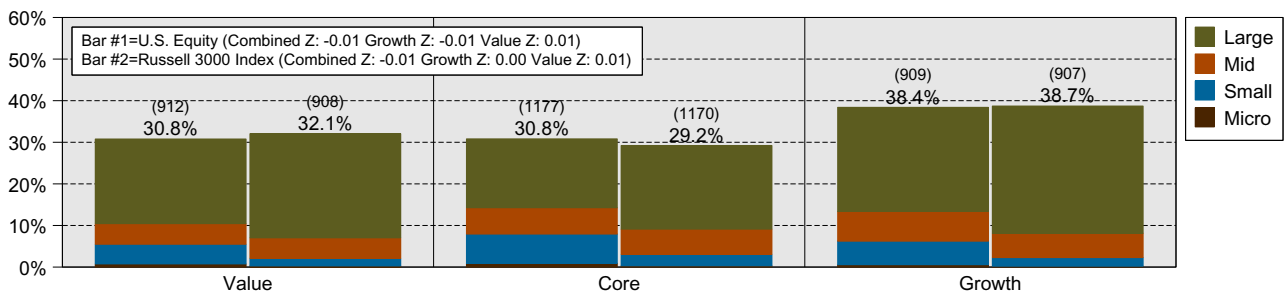
Style Map vs Pub Pln- Dom Equity Holdings as of June 30, 2019



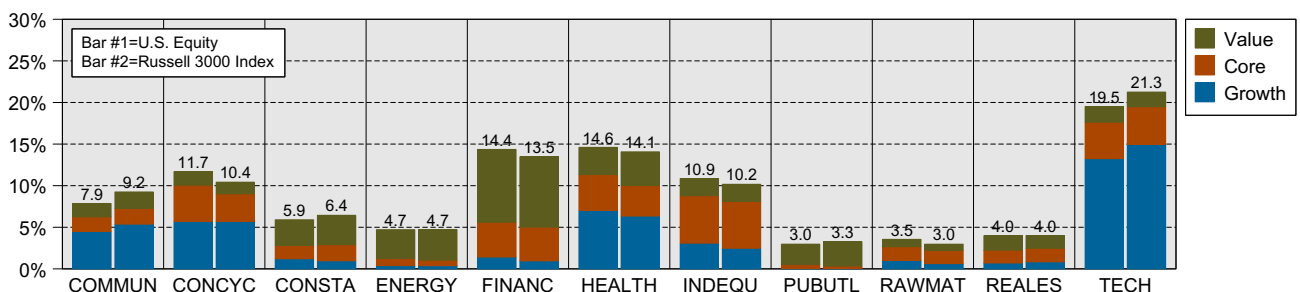
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	20.3% (107)	16.5% (92)	25.0% (99)	61.9% (298)
	25.0% (107)	20.1% (92)	30.6% (99)	75.7% (298)
Mid	5.0% (182)	6.3% (210)	7.1% (208)	18.4% (600)
	4.9% (180)	6.1% (210)	5.8% (207)	16.8% (597)
Small	4.7% (324)	7.0% (488)	5.7% (385)	17.4% (1197)
	1.8% (324)	2.7% (486)	2.1% (384)	6.7% (1194)
Micro	0.8% (299)	0.9% (387)	0.6% (217)	2.2% (903)
	0.3% (297)	0.3% (382)	0.2% (217)	0.8% (896)
Total	30.8% (912)	30.8% (1177)	38.4% (909)	100.0% (2998)
	32.1% (908)	29.2% (1170)	38.7% (907)	100.0% (2985)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



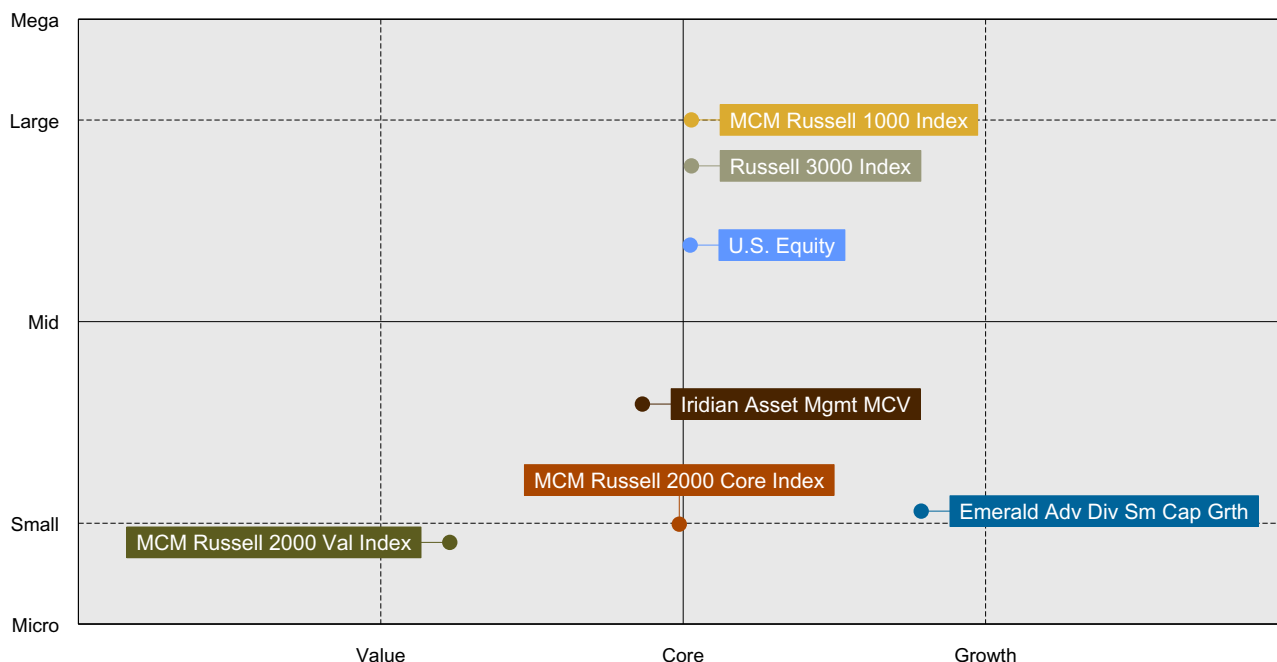
Sector Weights Distribution Holdings as of June 30, 2019



Holdings Based Style Analysis For One Quarter Ended June 30, 2019

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 June 30, 2019



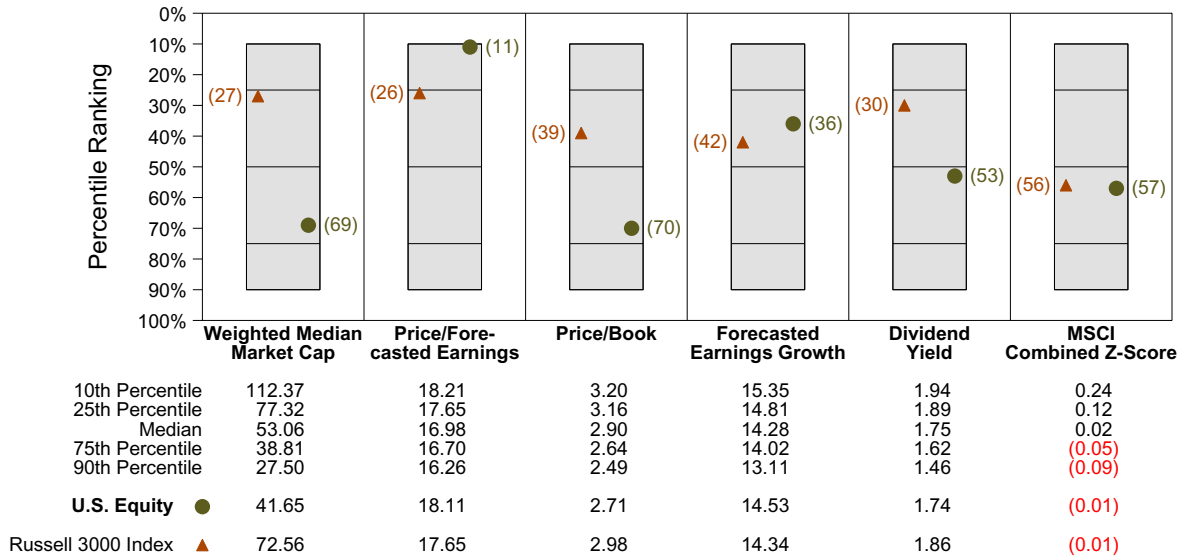
	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
MCM Russell 2000 Val Index	7.42%	1.72	(0.64)	(0.17)	0.48	1350	207.79
MCM Russell 2000 Core Index	4.18%	2.00	(0.04)	(0.06)	(0.02)	2014	348.85
Emerald Adv Div Sm Cap Grth	9.13%	2.60	0.59	0.07	(0.52)	118	30.96
Iridian Asset Mgmt MCV	5.77%	7.79	(0.14)	(0.04)	0.10	45	16.14
MCM Russell 1000 Index	73.50%	90.56	(0.01)	0.00	0.01	1003	63.79
U.S. Equity	100.00%	41.65	(0.01)	(0.01)	0.01	3025	130.32
Russell 3000 Index	-	72.56	(0.01)	0.00	0.01	3008	76.90

U.S. Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

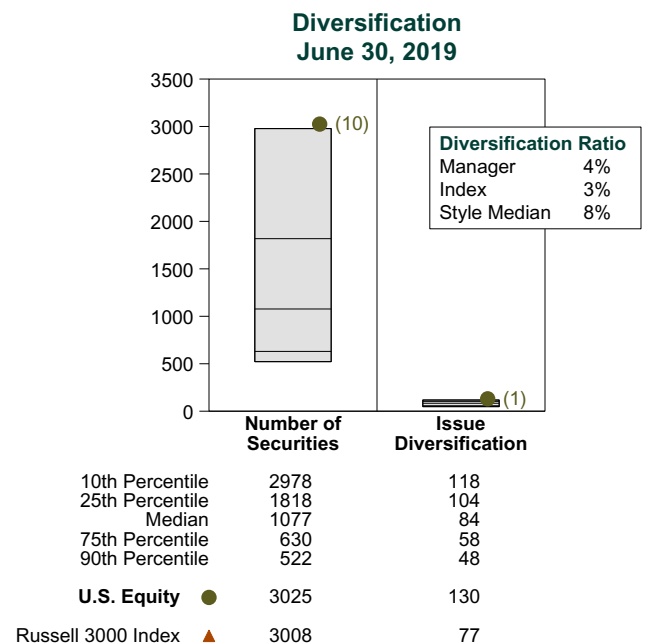
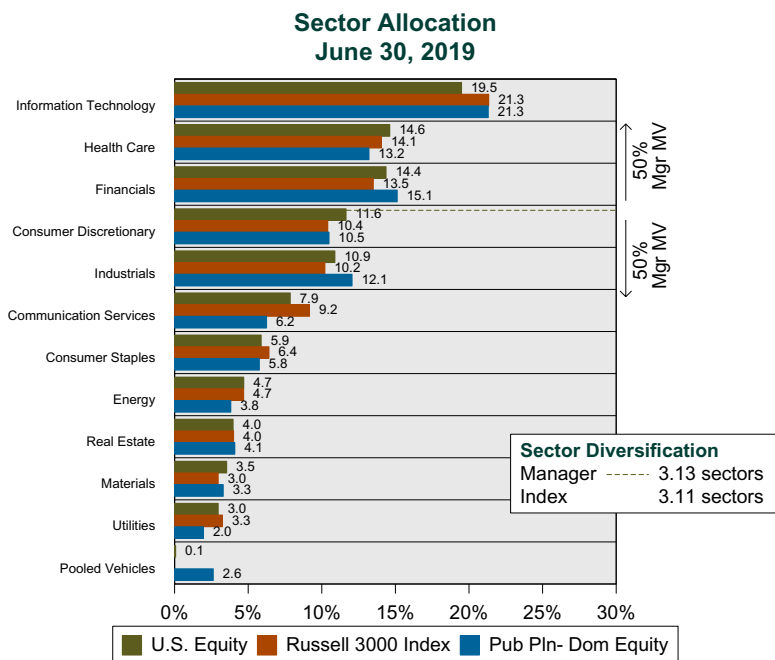
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Public Fund - Domestic Equity as of June 30, 2019



Sector Weights

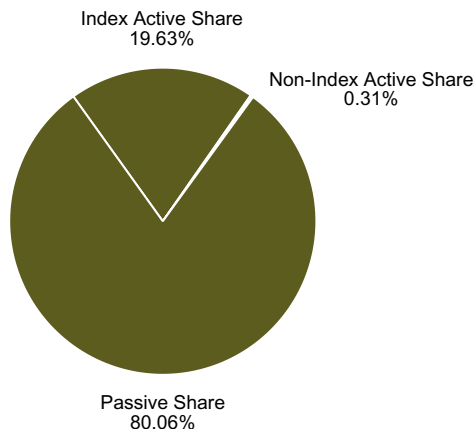
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration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



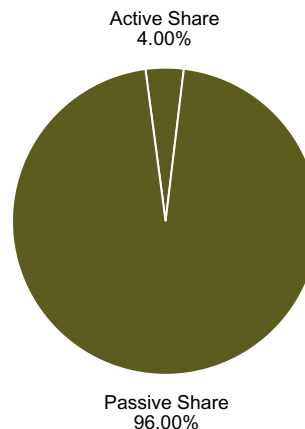
U.S. Equity Active Share Analysis as of June 30, 2019 vs. Russell 3000 Index

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.

Holdings-Level Active Share



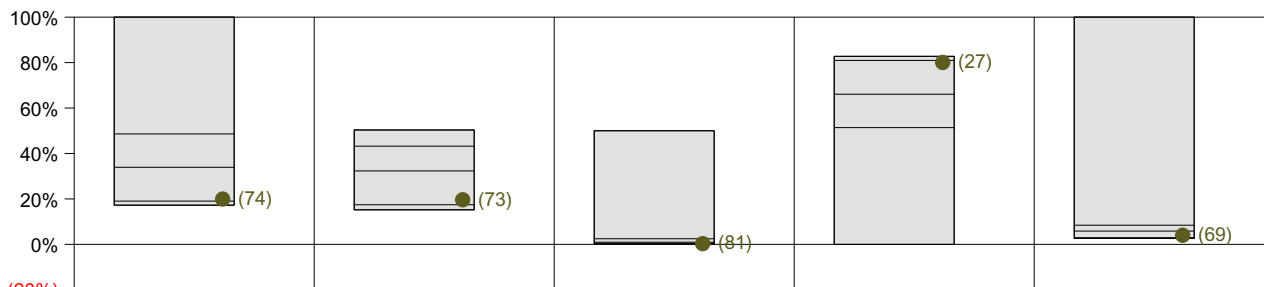
Sector Exposure Active Share



Total Active Share: 19.94%

	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	7.36%	0.00%	7.36%	9.16%	7.86%	1.25%
Consumer Discretionary	27.28%	0.03%	27.31%	10.41%	11.65%	2.65%
Consumer Staples	13.13%	0.00%	13.13%	6.41%	5.88%	1.02%
Energy	18.35%	0.95%	19.31%	4.69%	4.70%	0.91%
Financials	21.94%	0.47%	22.41%	13.50%	14.37%	2.89%
Health Care	23.00%	0.37%	23.37%	14.05%	14.62%	3.17%
Industrials	24.78%	0.25%	25.03%	10.21%	10.89%	2.41%
Information Technology	13.33%	0.40%	13.73%	21.34%	19.49%	3.52%
Materials	27.84%	0.00%	27.84%	2.96%	3.54%	0.80%
Pooled Vehicles	0.00%	100.00%	100.00%	-	0.07%	0.04%
Real Estate	19.22%	0.00%	19.22%	4.01%	3.98%	0.78%
Utilities	12.93%	0.00%	12.93%	3.25%	2.96%	0.51%
Total	19.63%	0.31%	19.94%	100.00%	100.00%	19.94%

Active Share vs. Pub Pln- Dom Equity



	Total Active Share	Index Active Share	Non-Index Active Share	Passive Share	Sector Active Share
10th Percentile	100.00	50.35	50.00	82.76	100.00
25th Percentile	48.62	43.21	2.46	80.96	8.43
Median	33.92	32.32	0.97	66.08	5.84
75th Percentile	19.04	17.44	0.44	51.38	2.94
90th Percentile	17.24	15.19	0.23	0.00	2.61
U.S. Equity	19.94	19.63	0.31	80.06	4.00

MCM Russell 1000 Index Period Ended June 30, 2019

Investment Philosophy

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

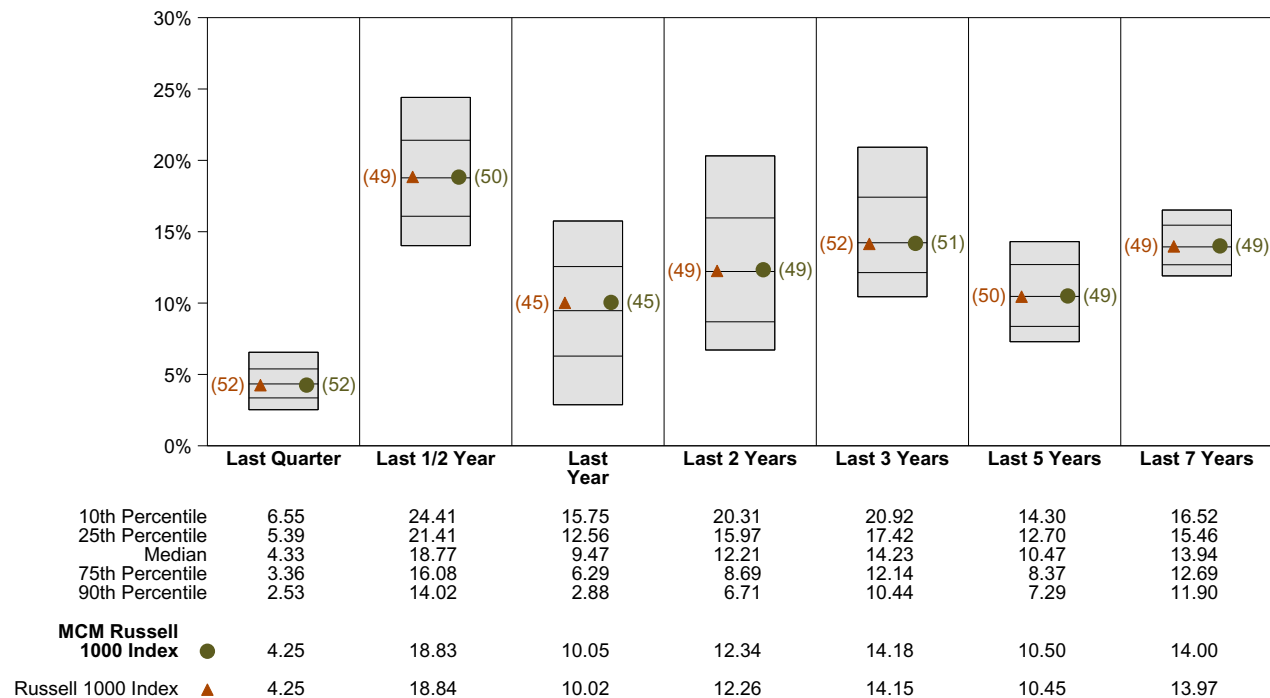
Quarterly Summary and Highlights

- MCM Russell 1000 Index's portfolio posted a 4.25% return for the quarter placing it in the 52 percentile of the Callan Large Capitalization group for the quarter and in the 45 percentile for the last year.
- MCM Russell 1000 Index's portfolio outperformed the Russell 1000 Index by 0.01% for the quarter and outperformed the Russell 1000 Index for the year by 0.03%.

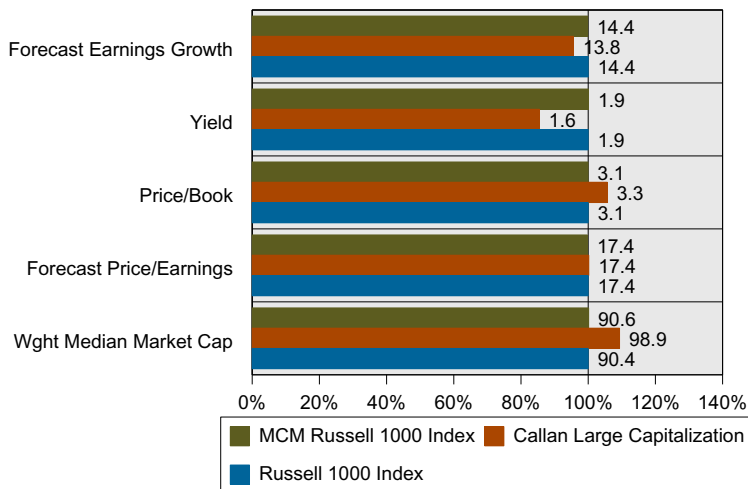
Quarterly Asset Growth

Beginning Market Value	\$5,476,400,742
Net New Investment	\$-180,999
Investment Gains/(Losses)	\$232,361,304
Ending Market Value	\$5,708,581,047

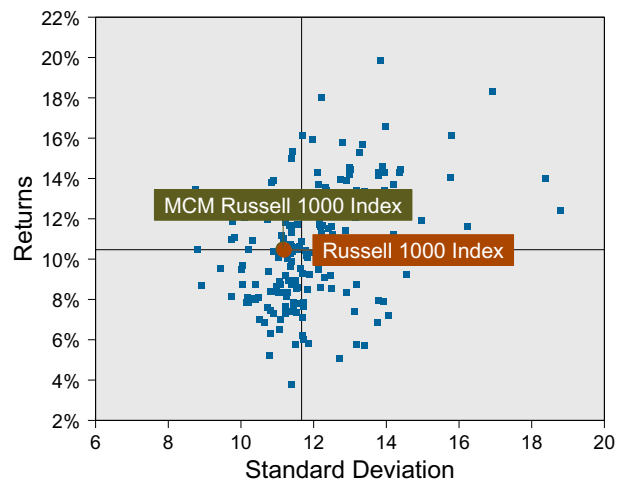
Performance vs Callan Large Capitalization (Gross)



Portfolio Characteristics as a Percentage of the Russell 1000 Index



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

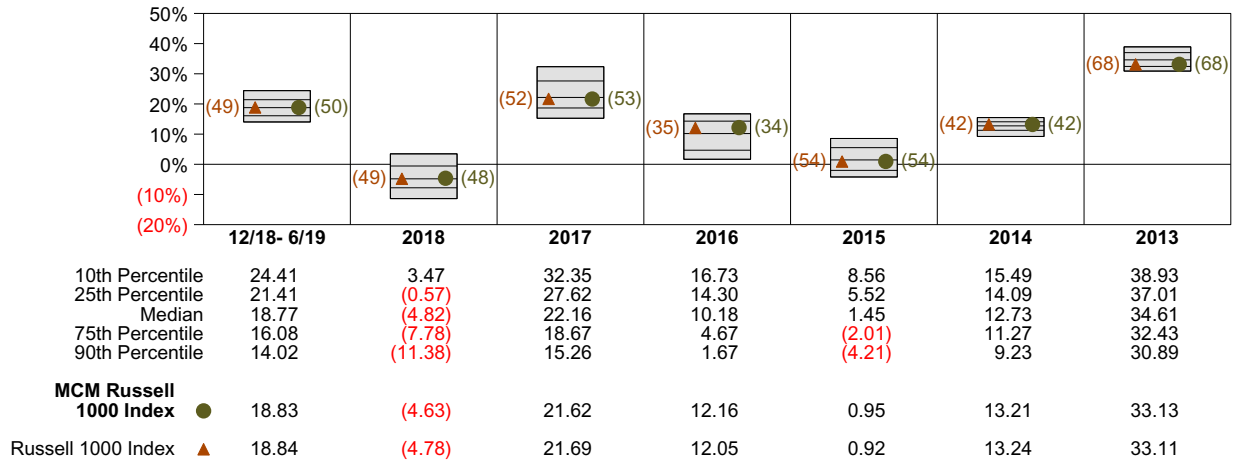


MCM Russell 1000 Index Return Analysis Summary

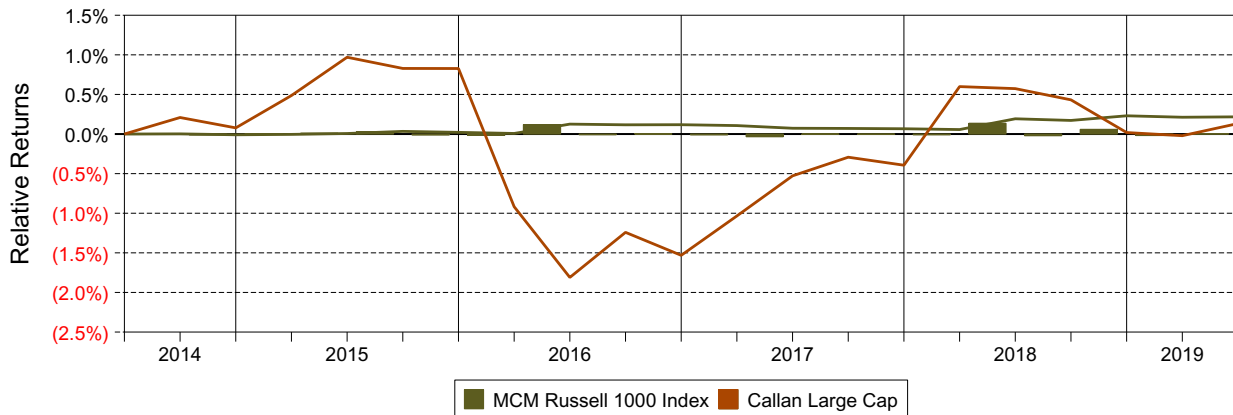
Return Analysis

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.

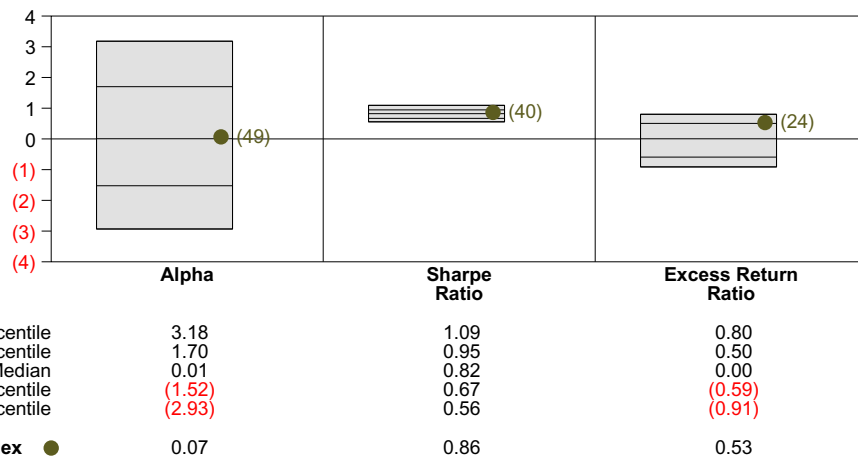
Performance vs Callan Large Capitalization (Gross)



Cumulative and Quarterly Relative Return vs Russell 1000 Index



Risk Adjusted Return Measures vs Russell 1000 Index Rankings Against Callan Large Capitalization (Gross) Five Years Ended June 30, 2019

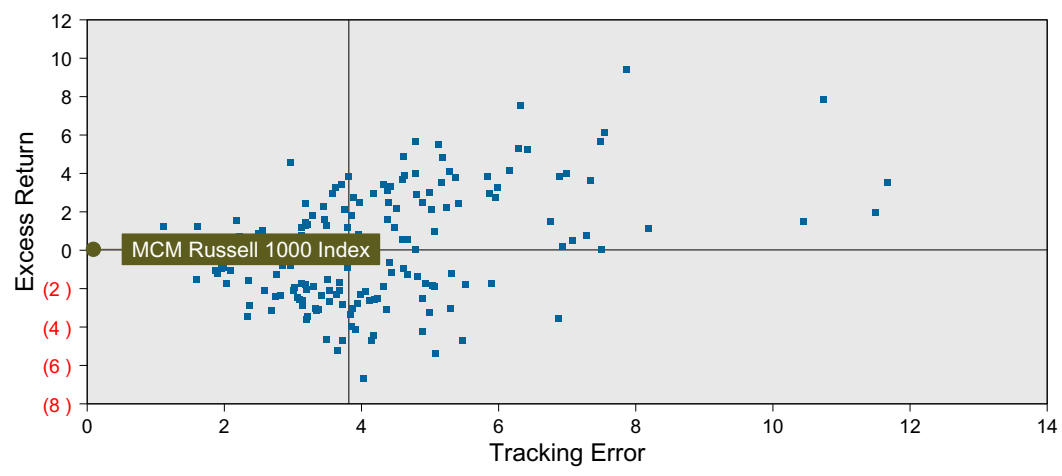


MCM Russell 1000 Index Risk Analysis Summary

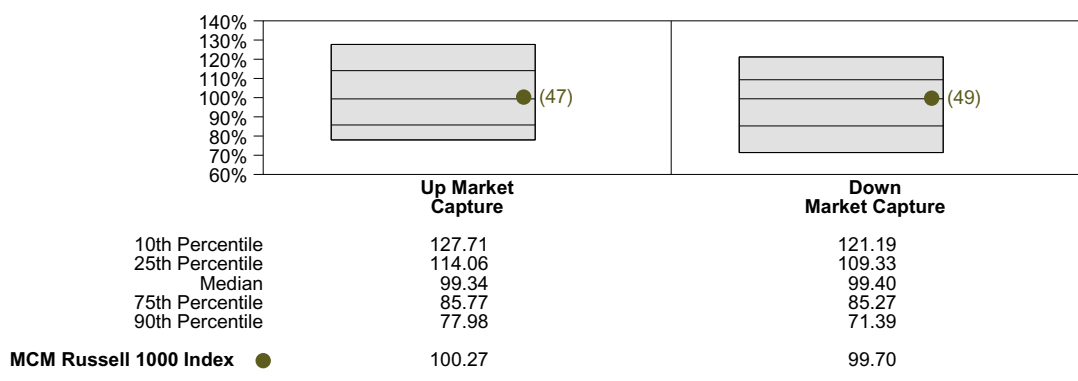
Risk Analysis

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.

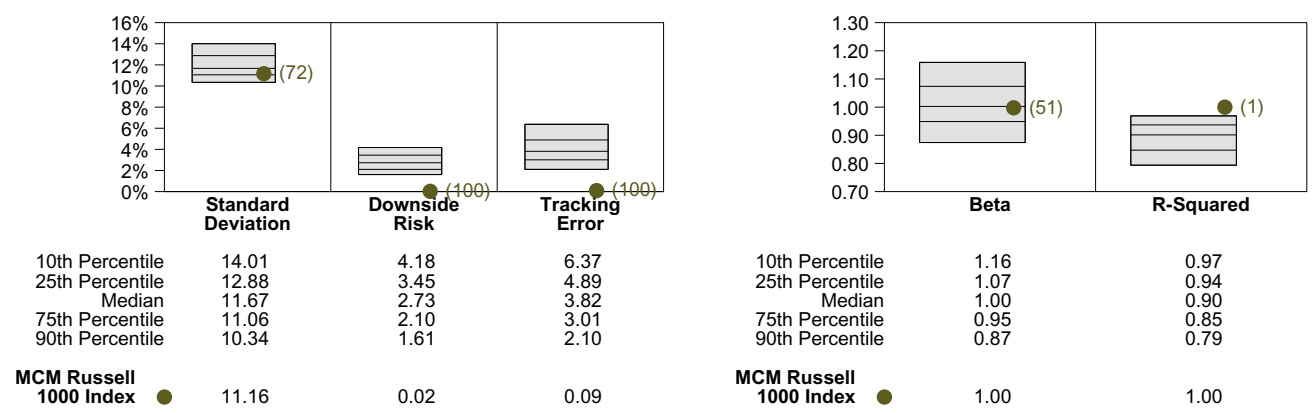
**Risk Analysis vs Callan Large Capitalization (Gross)
Five Years Ended June 30, 2019**



**Market Capture vs Russell 1000 Index
Rankings Against Callan Large Capitalization (Gross)
Five Years Ended June 30, 2019**



**Risk Statistics Rankings vs Russell 1000 Index
Rankings Against Callan Large Capitalization (Gross)
Five Years Ended June 30, 2019**



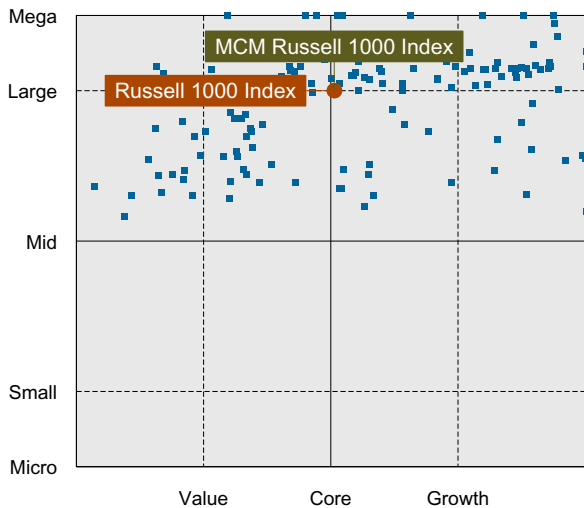
Current Holdings Based Style Analysis

MCM Russell 1000 Index

As of June 30, 2019

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

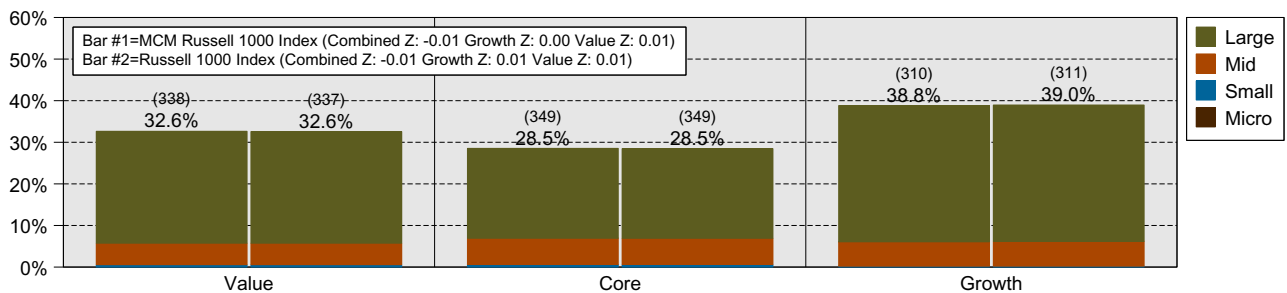
Style Map vs Callan Large Cap Holdings as of June 30, 2019



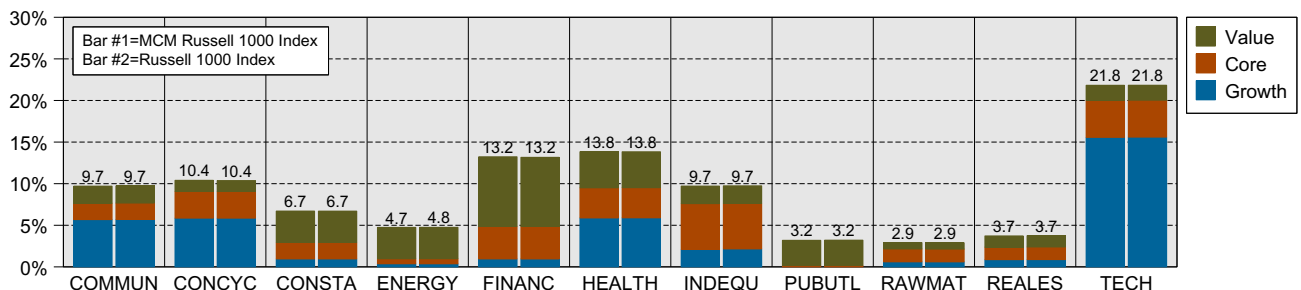
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	26.9% (107)	21.6% (92)	32.7% (99)	81.3% (298)
Mid	5.2% (173)	6.3% (197)	5.9% (189)	17.3% (559)
Small	0.6% (58)	0.6% (60)	0.2% (22)	1.4% (140)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Total	32.6% (338)	28.5% (349)	38.8% (310)	100.0% (997)
	32.6% (337)	28.5% (349)	39.0% (311)	100.0% (997)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

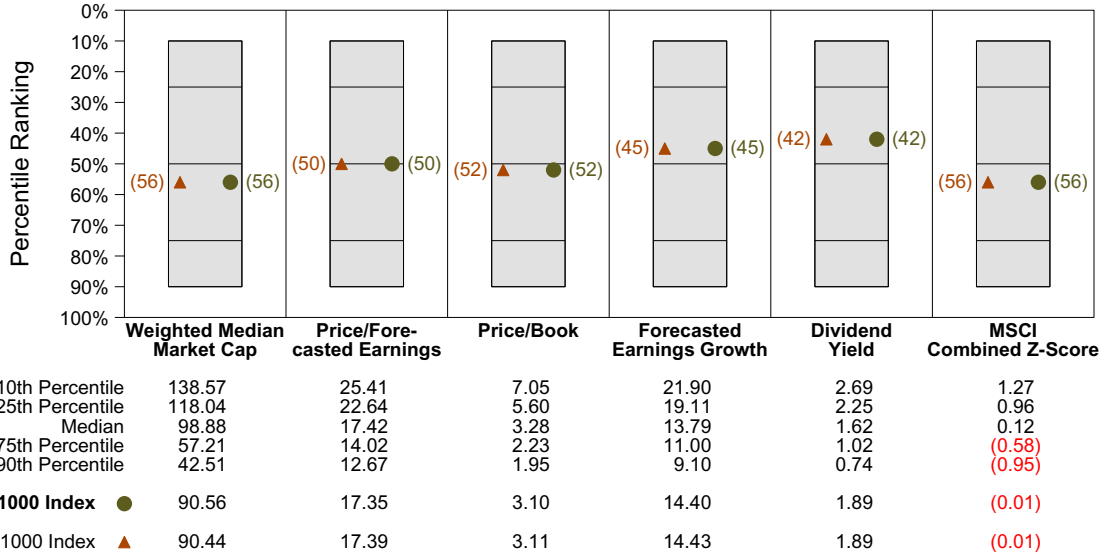


MCM Russell 1000 Index Equity Characteristics Analysis Summary

Portfolio Characteristics

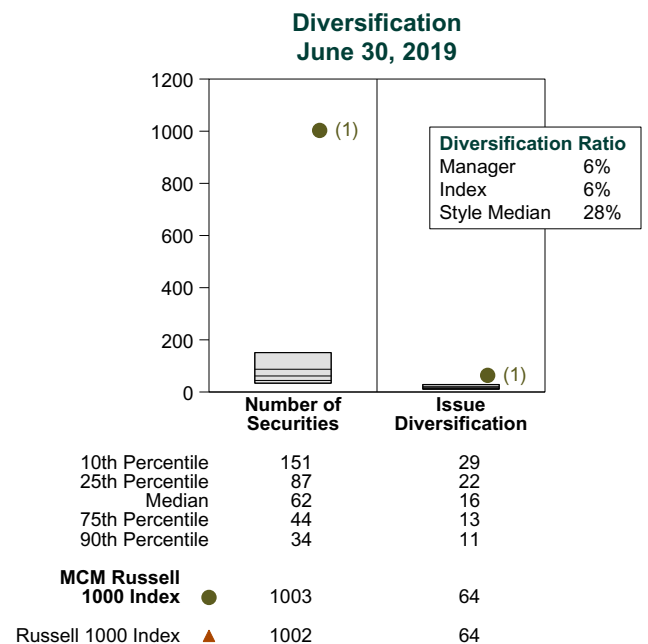
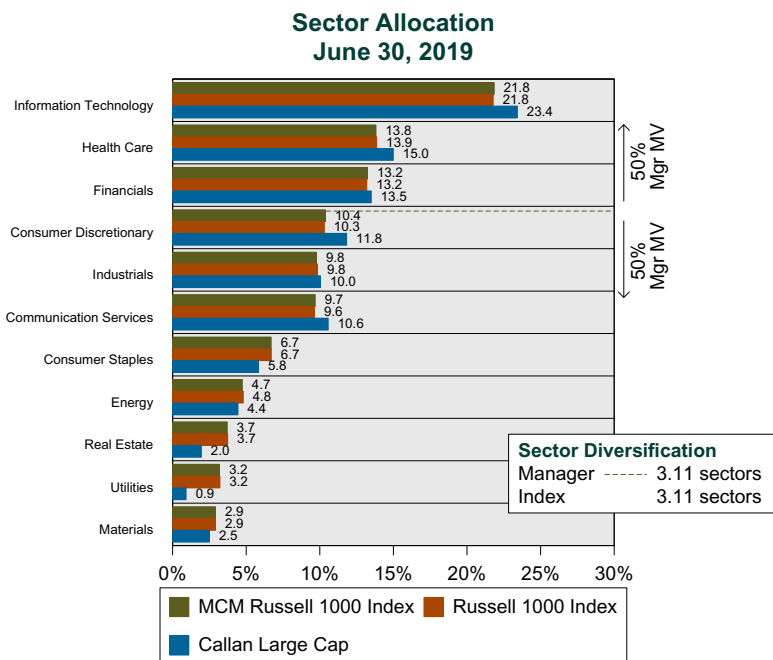
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Capitalization as of June 30, 2019



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.



Iridian Asset Mgmt MCV Period Ended June 30, 2019

Investment Philosophy

Iridian believes the market is efficient in processing information, but does not recognize the more profound implications of corporate change. They believe this change creates inefficiencies which lead to investment opportunities.

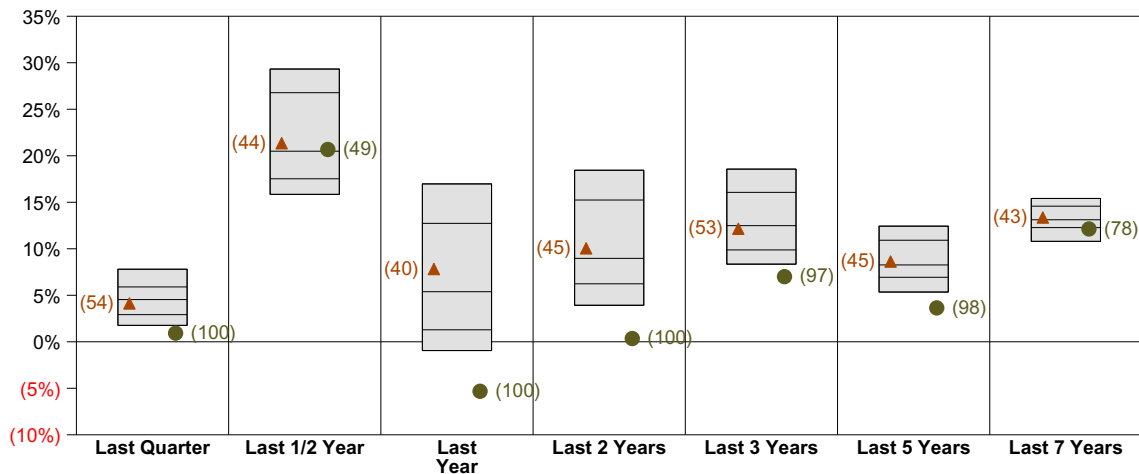
Quarterly Summary and Highlights

- Iridian Asset Mgmt MCV's portfolio posted a 0.93% return for the quarter placing it in the 100 percentile of the Callan Mid Capitalization group for the quarter and in the 100 percentile for the last year.
- Iridian Asset Mgmt MCV's portfolio underperformed the Russell MidCap Index by 3.20% for the quarter and underperformed the Russell MidCap Index for the year by 13.15%.

Quarterly Asset Growth

Beginning Market Value	\$444,663,860
Net New Investment	\$-488,130
Investment Gains/(Losses)	\$4,100,697
Ending Market Value	\$448,276,428

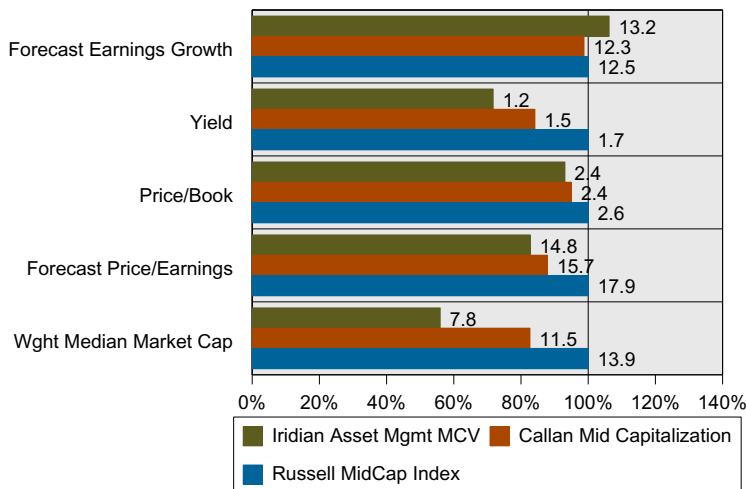
Performance vs Callan Mid Capitalization (Gross)



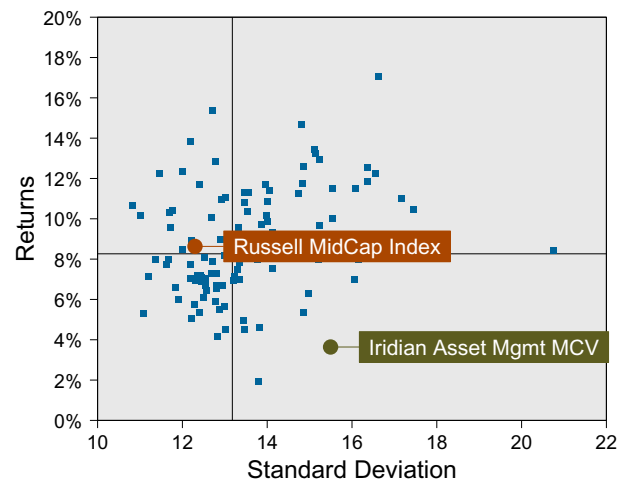
10th Percentile	7.80	29.32	16.97	18.44	18.56	12.43	15.41
25th Percentile	5.90	26.78	12.73	15.24	16.06	10.92	14.58
Median	4.54	20.49	5.38	8.97	12.49	8.26	13.12
75th Percentile	2.92	17.52	1.29	6.23	9.88	6.94	12.28
90th Percentile	1.76	15.85	(0.94)	3.92	8.35	5.35	10.80

Iridian Asset Mgmt MCV ●	0.93	20.67	(5.32)	0.35	7.00	3.64	12.13
Russell MidCap Index ▲	4.13	21.35	7.83	10.05	12.16	8.63	13.37

Portfolio Characteristics as a Percentage of the Russell MidCap Index



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

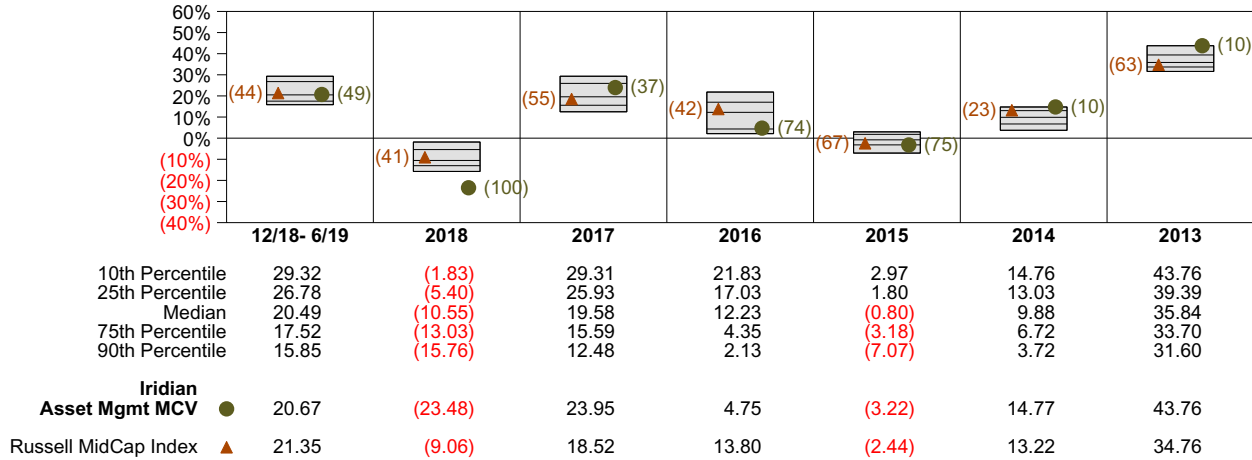


Iridian Asset Mgmt MCV Return Analysis Summary

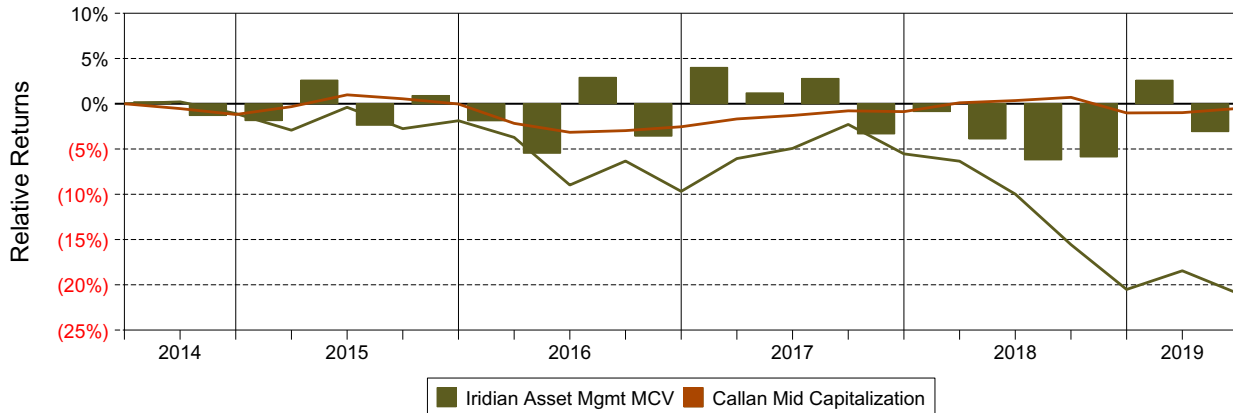
Return Analysis

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.

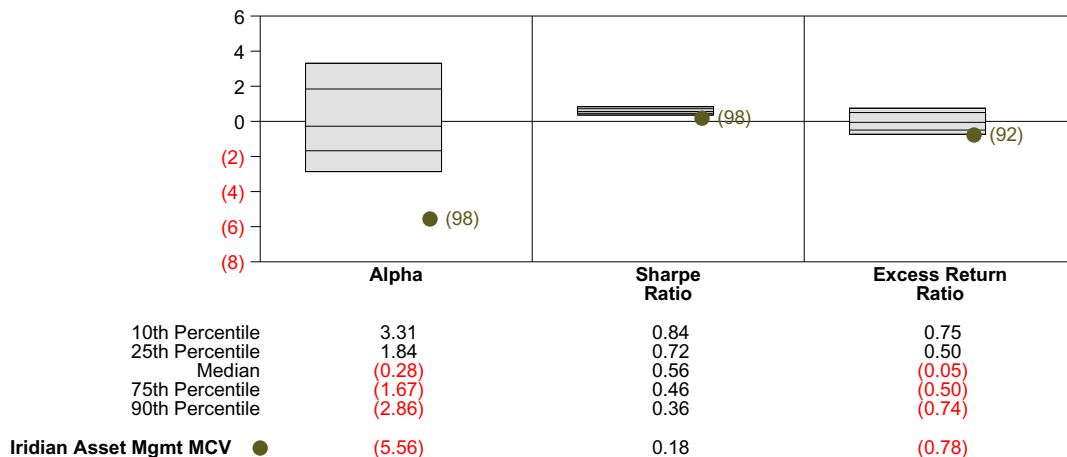
Performance vs Callan Mid Capitalization (Gross)



Cumulative and Quarterly Relative Return vs Russell MidCap Index



Risk Adjusted Return Measures vs Russell MidCap Index Rankings Against Callan Mid Capitalization (Gross) Five Years Ended June 30, 2019

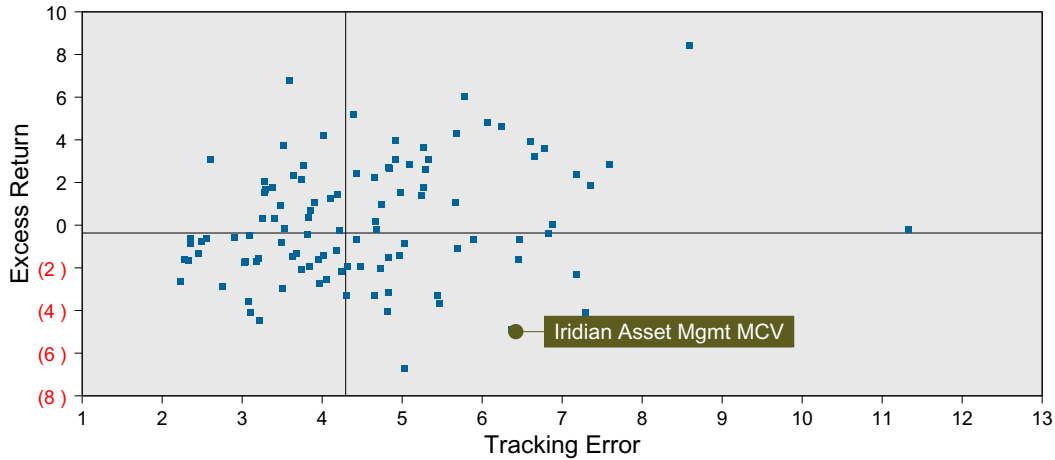


Iridian Asset Mgmt MCV Risk Analysis Summary

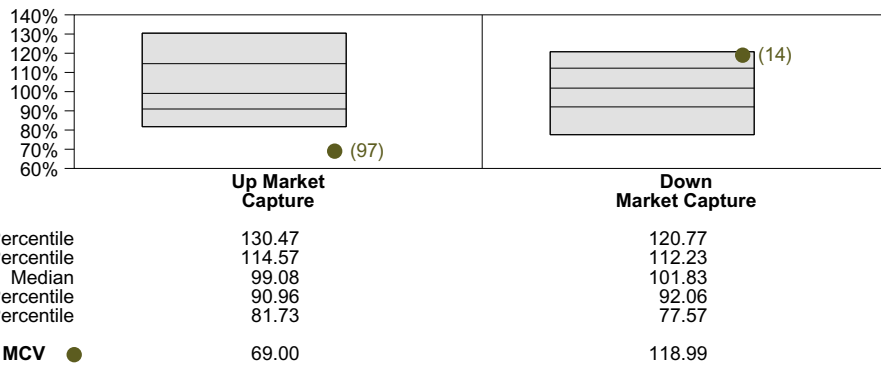
Risk Analysis

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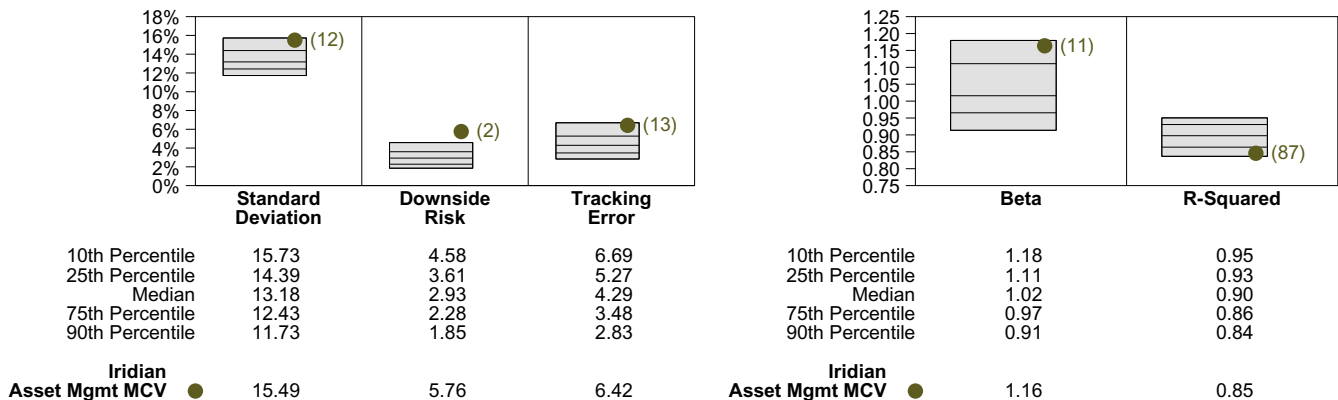
Risk Analysis vs Callan Mid Capitalization (Gross) Five Years Ended June 30, 2019



Market Capture vs Russell Mid-Cap Index Rankings Against Callan Mid Capitalization (Gross) Five Years Ended June 30, 2019



Risk Statistics Rankings vs Russell Mid-Cap Index Rankings Against Callan Mid Capitalization (Gross) Five Years Ended June 30, 2019



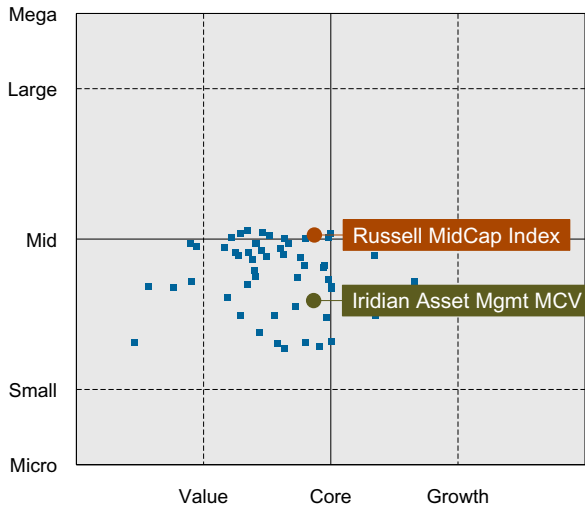
Current Holdings Based Style Analysis

Iridian Asset Mgmt MCV

As of June 30, 2019

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

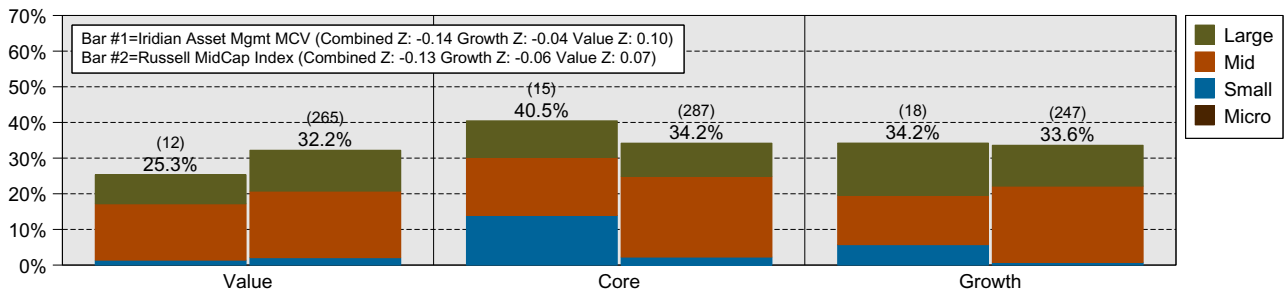
Style Map vs Callan Mid Capitalization Holdings as of June 30, 2019



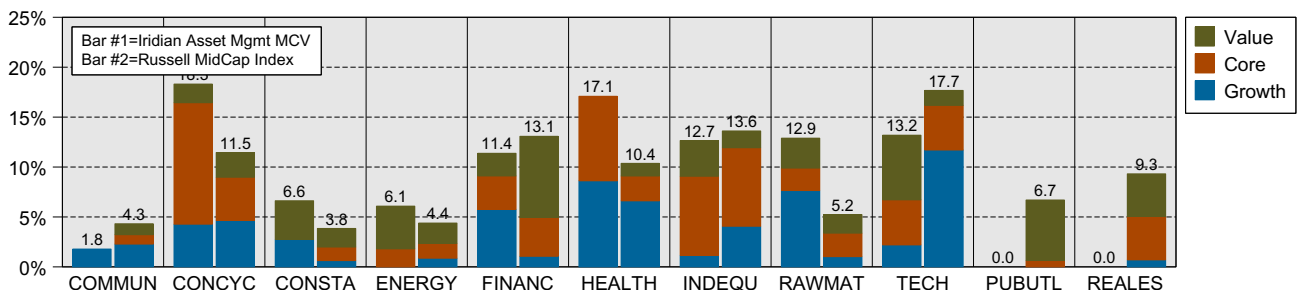
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	8.1% (3)	10.3% (3)	14.7% (6)	33.1% (12)
	11.5% (35)	9.3% (31)	11.5% (36)	32.2% (102)
Mid	15.8% (8)	16.3% (7)	13.8% (7)	45.9% (22)
	18.7% (173)	22.7% (196)	21.4% (188)	62.7% (557)
Small	1.4% (1)	13.9% (5)	5.7% (5)	21.0% (11)
	2.1% (57)	2.2% (60)	0.8% (23)	5.1% (140)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Total	25.3% (12)	40.5% (15)	34.2% (18)	100.0% (45)
	32.2% (265)	34.2% (287)	33.6% (247)	100.0% (799)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

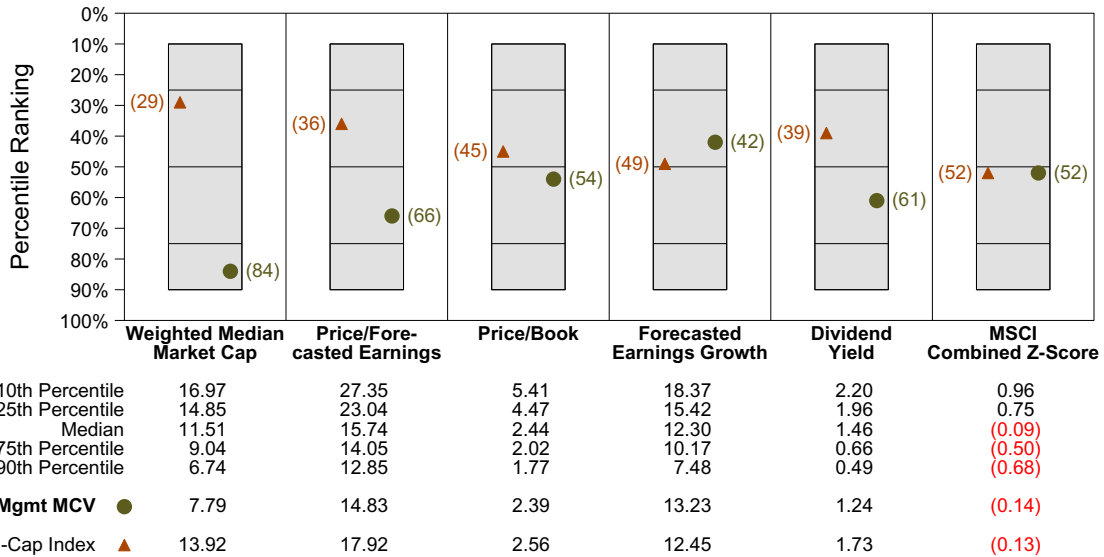


Iridian Asset Mgmt MCV Equity Characteristics Analysis Summary

Portfolio Characteristics

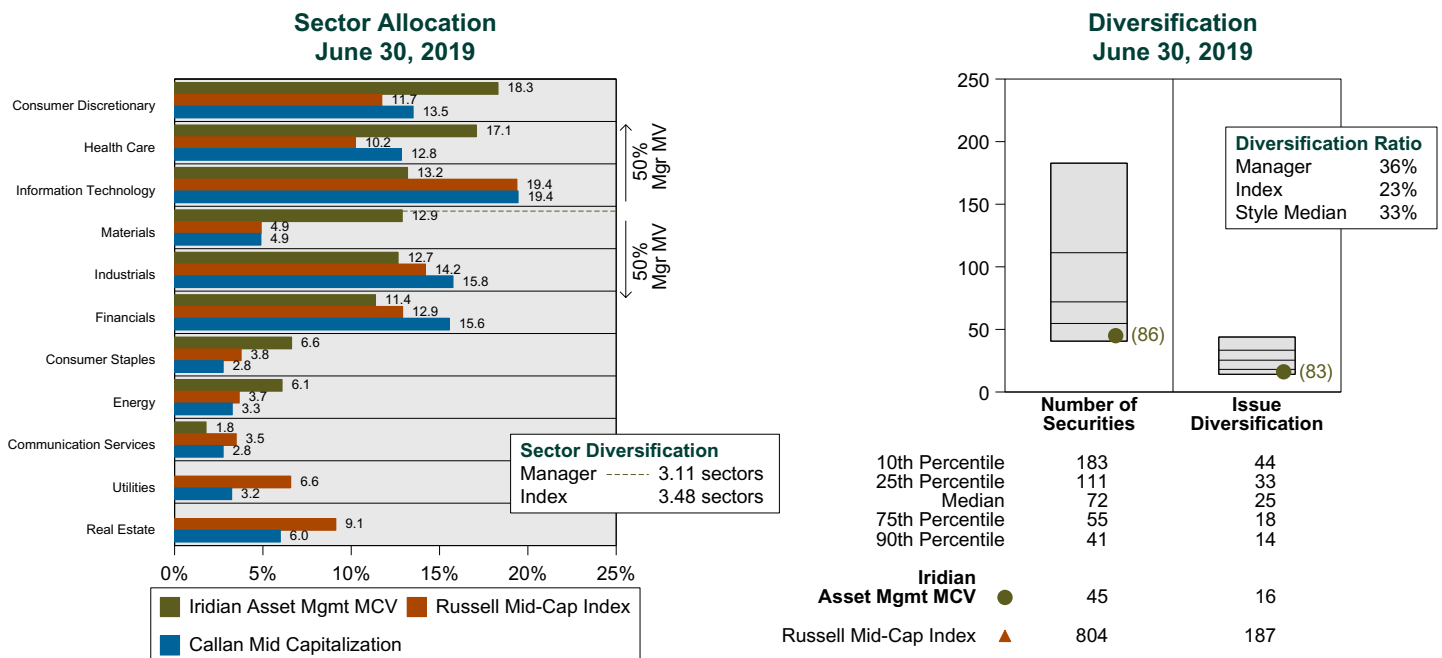
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Mid Capitalization as of June 30, 2019



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.



MCM Russell 2000 Core Index Period Ended June 30, 2019

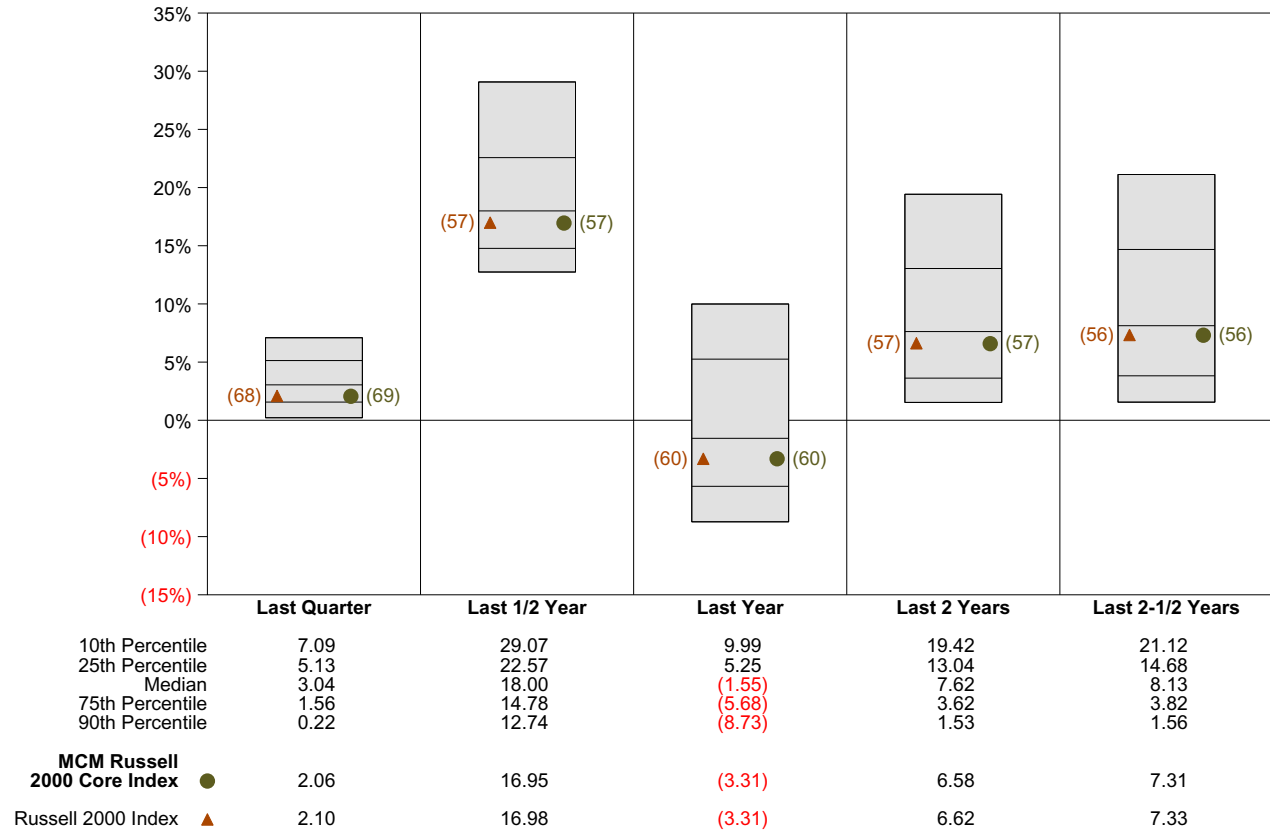
Quarterly Summary and Highlights

- MCM Russell 2000 Core Index's portfolio posted a 2.06% return for the quarter placing it in the 69 percentile of the Callan Small Capitalization group for the quarter and in the 60 percentile for the last year.
- MCM Russell 2000 Core Index's portfolio underperformed the Russell 2000 Index by 0.03% for the quarter and outperformed the Russell 2000 Index for the year by 0.00%.

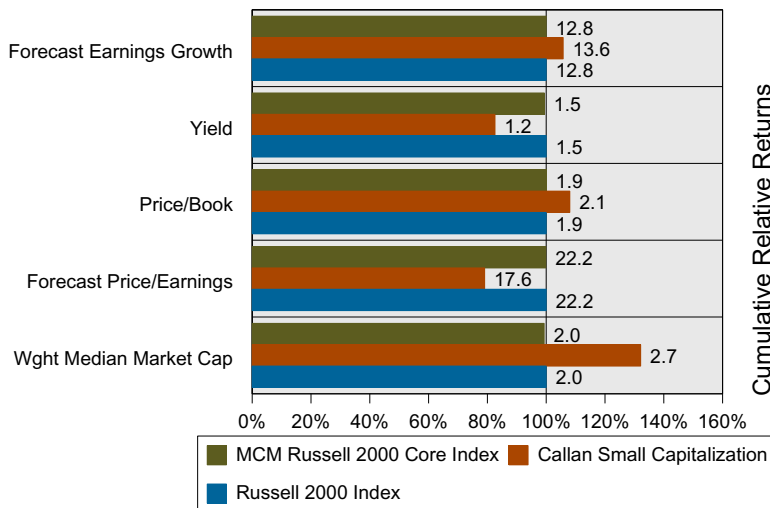
Quarterly Asset Growth

Beginning Market Value	\$317,824,427
Net New Investment	\$-30,883
Investment Gains/(Losses)	\$6,562,935
Ending Market Value	\$324,356,479

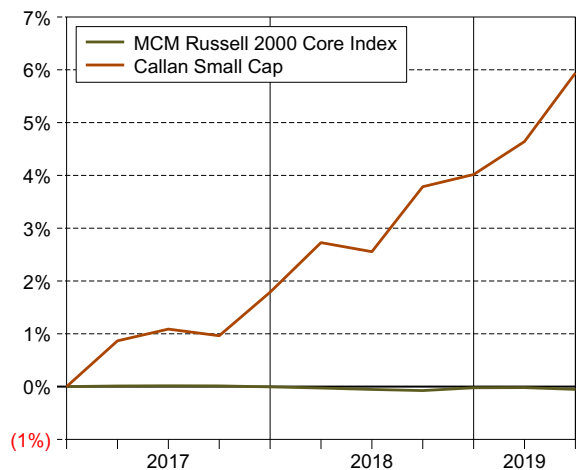
Performance vs Callan Small Capitalization (Gross)



Portfolio Characteristics as a Percentage of the Russell 2000 Index



Cumulative Returns vs Russell 2000 Index



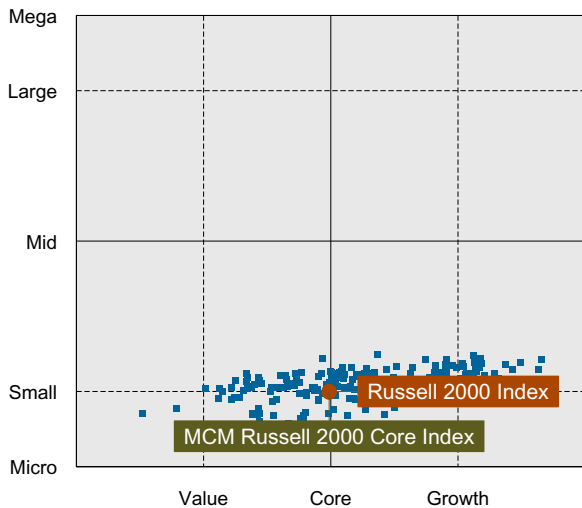
Current Holdings Based Style Analysis

MCM Russell 2000 Core Index

As of June 30, 2019

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

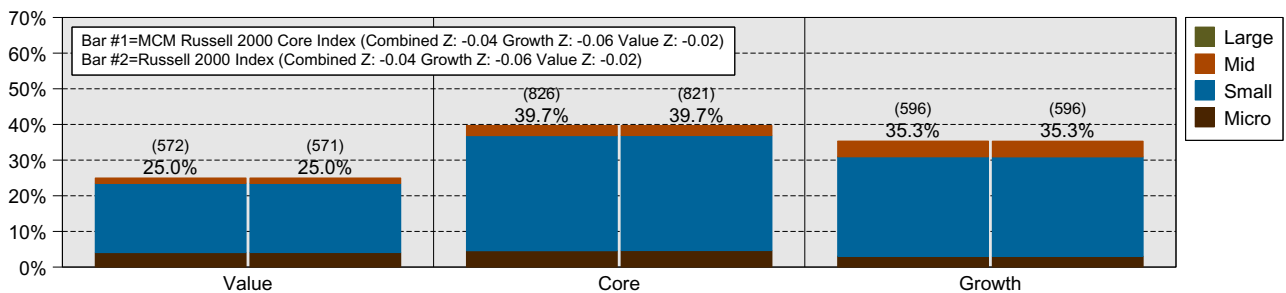
Style Map vs Callan Small Cap Holdings as of June 30, 2019



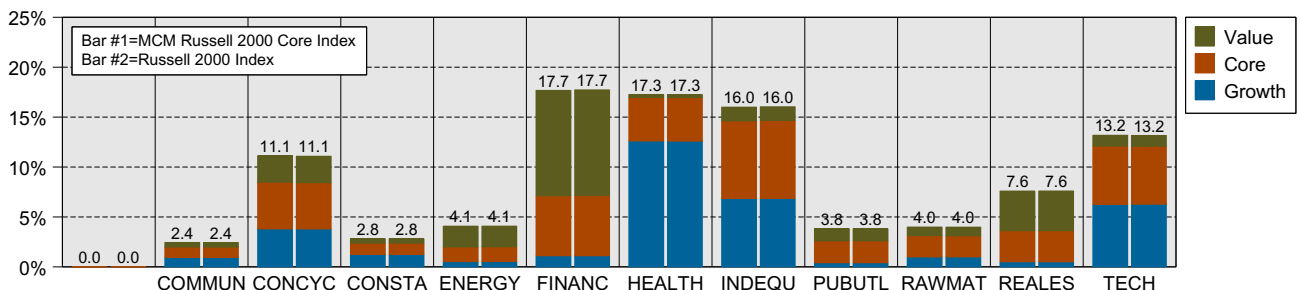
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Mid	1.4% (7)	2.8% (13)	4.4% (18)	8.7% (38)
Small	19.5% (267)	32.3% (427)	27.9% (361)	79.7% (1055)
Micro	4.1% (298)	4.6% (386)	3.0% (217)	11.7% (901)
Total	25.0% (572)	39.7% (826)	35.3% (596)	100.0% (1994)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

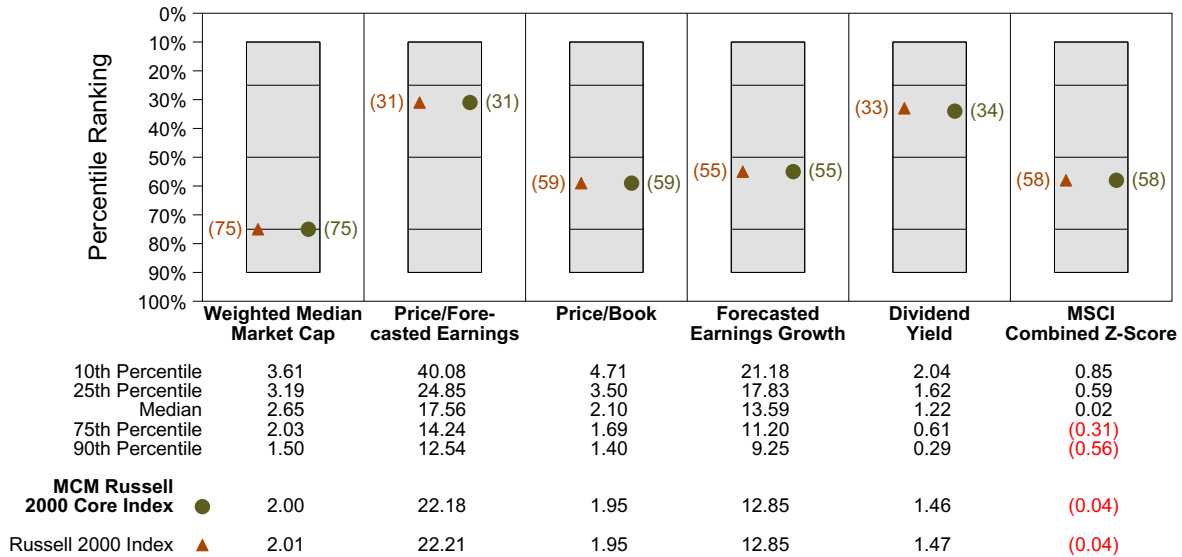


MCM Russell 2000 Core Index Equity Characteristics Analysis Summary

Portfolio Characteristics

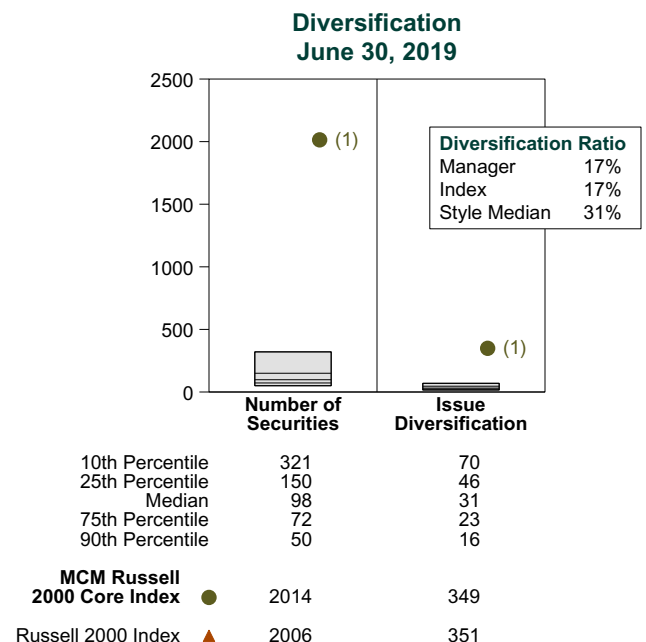
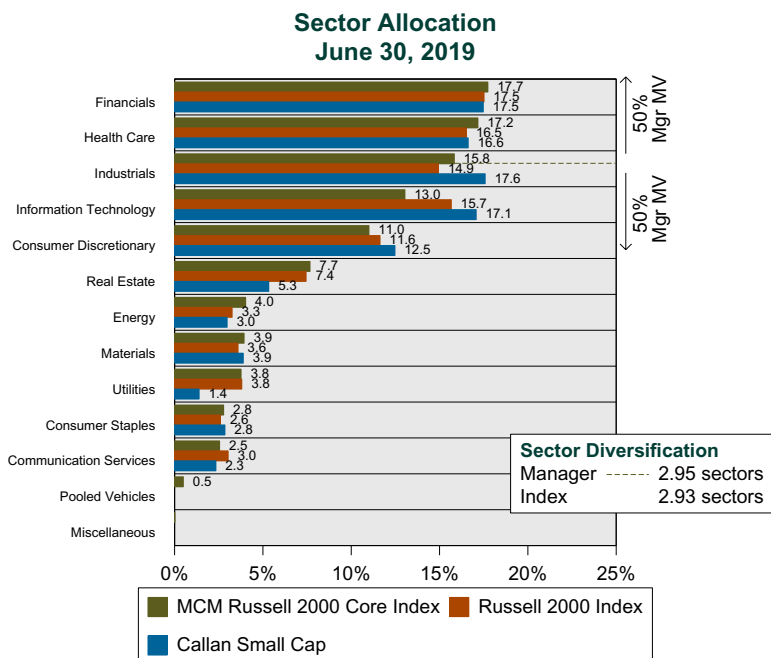
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Capitalization as of June 30, 2019



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.



MCM Russell 2000 Val Index Period Ended June 30, 2019

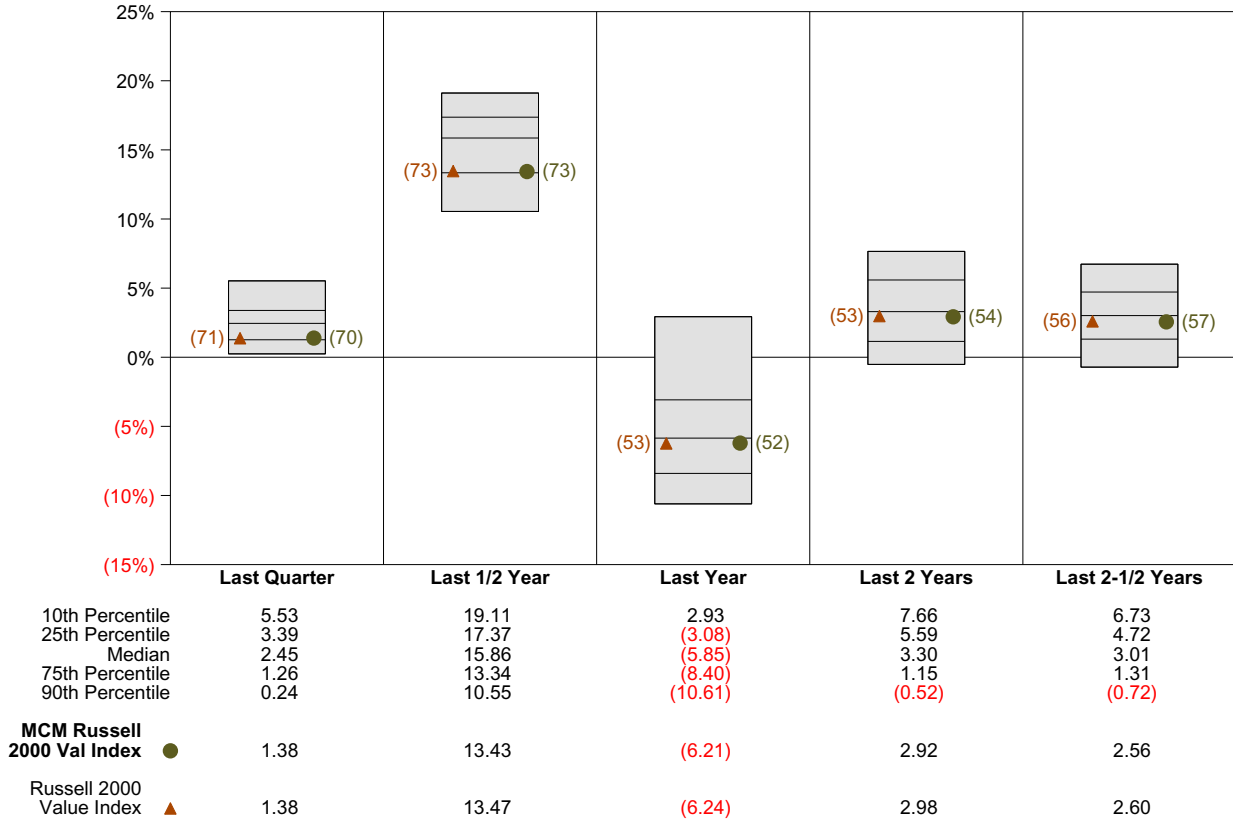
Quarterly Summary and Highlights

- MCM Russell 2000 Val Index's portfolio posted a 1.38% return for the quarter placing it in the 70 percentile of the Callan Small Cap Value group for the quarter and in the 52 percentile for the last year.
- MCM Russell 2000 Val Index's portfolio outperformed the Russell 2000 Value Index by 0.01% for the quarter and outperformed the Russell 2000 Value Index for the year by 0.02%.

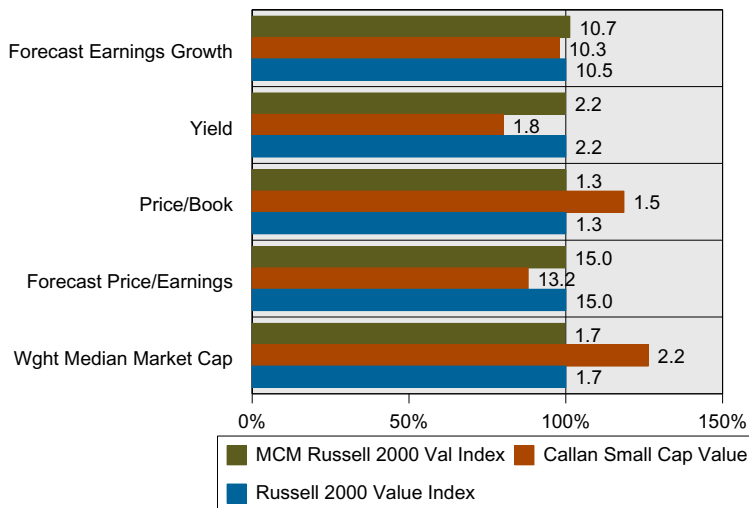
Quarterly Asset Growth

Beginning Market Value	\$568,375,272
Net New Investment	\$-56,187
Investment Gains/(Losses)	\$7,837,788
Ending Market Value	\$576,156,873

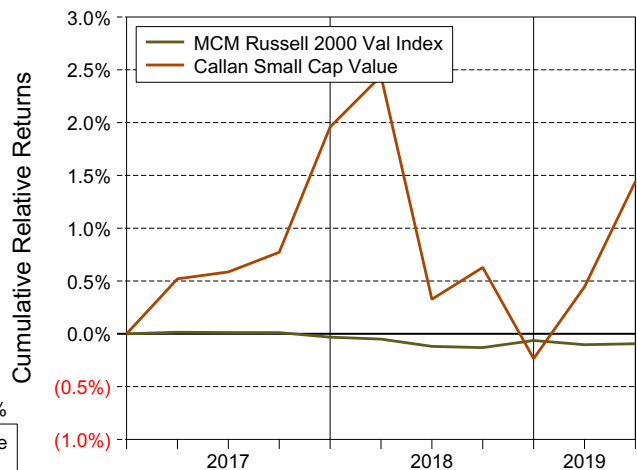
Performance vs Callan Small Cap Value (Gross)



Portfolio Characteristics as a Percentage of the Russell 2000 Value Index



Cumulative Returns vs Russell 2000 Value Index



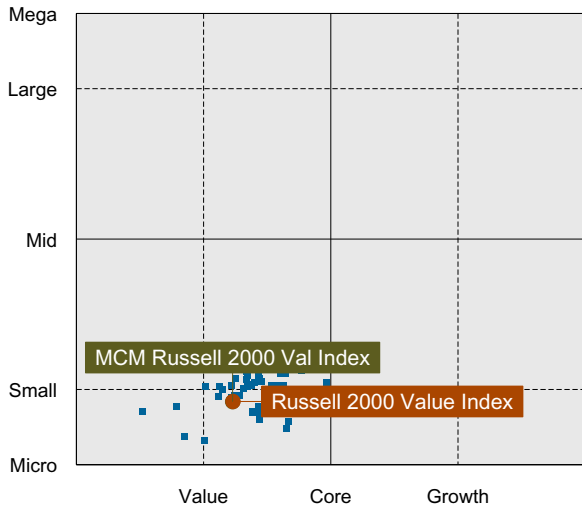
Current Holdings Based Style Analysis

MCM Russell 2000 Val Index

As of June 30, 2019

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

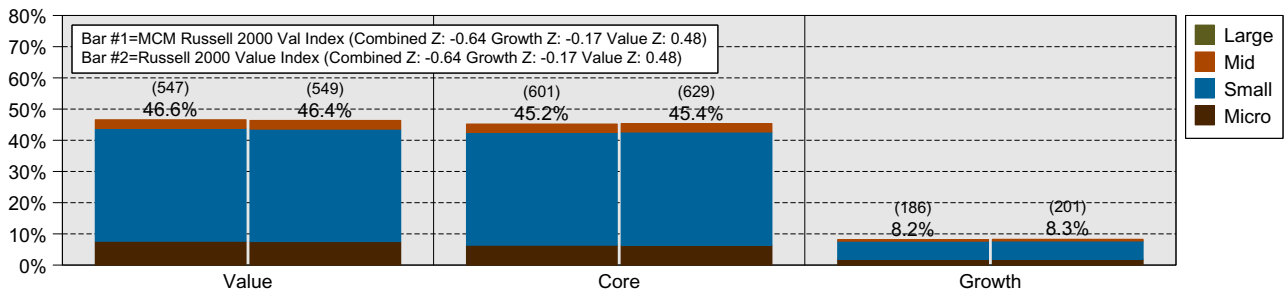
Style Map vs Callan Small Cap Value Holdings as of June 30, 2019



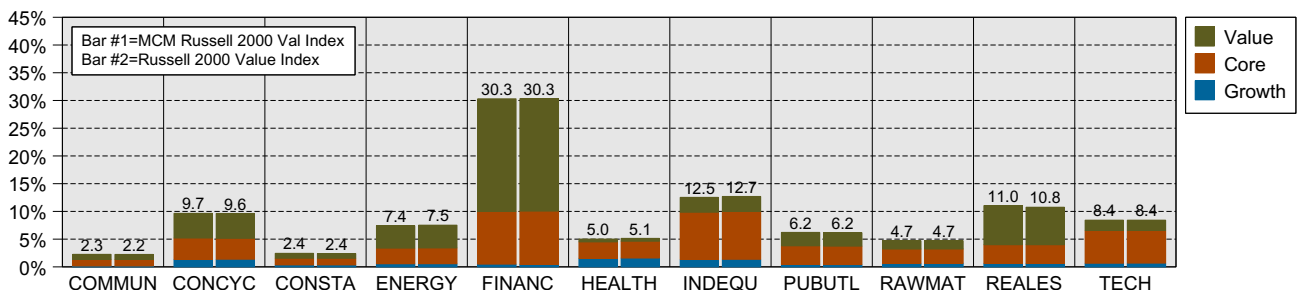
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Mid	2.8% (7)	2.7% (7)	0.6% (2)	6.1% (16)
Small	36.2% (257)	36.1% (325)	5.8% (88)	78.1% (670)
Micro	7.6% (283)	6.3% (269)	1.9% (96)	15.8% (648)
Total	46.6% (547)	45.2% (601)	8.2% (186)	100.0% (1334)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

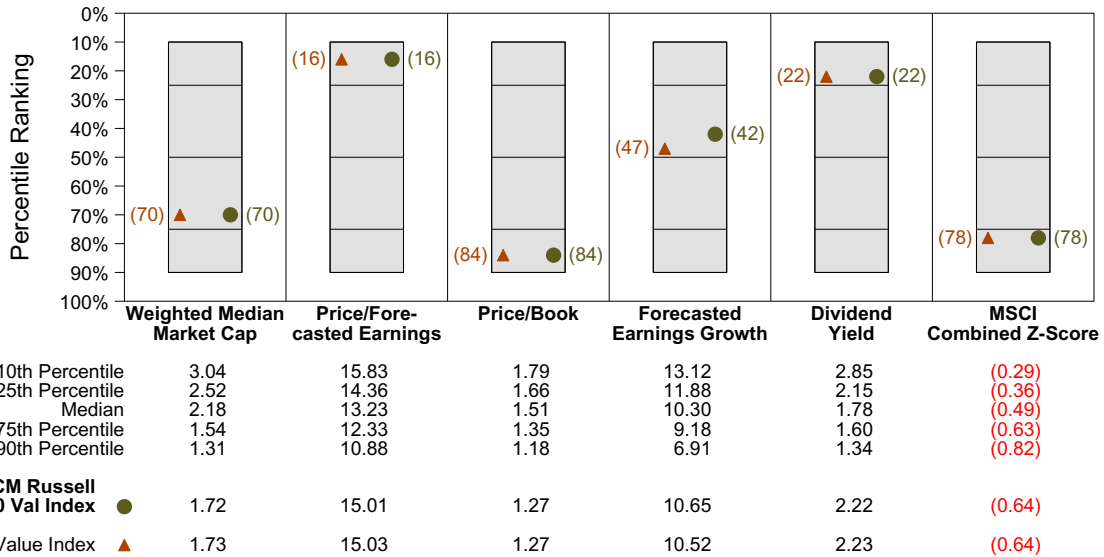


MCM Russell 2000 Val Index Equity Characteristics Analysis Summary

Portfolio Characteristics

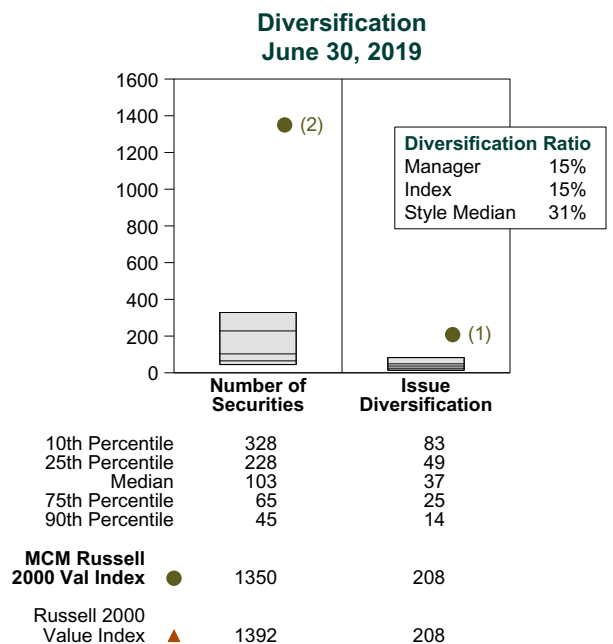
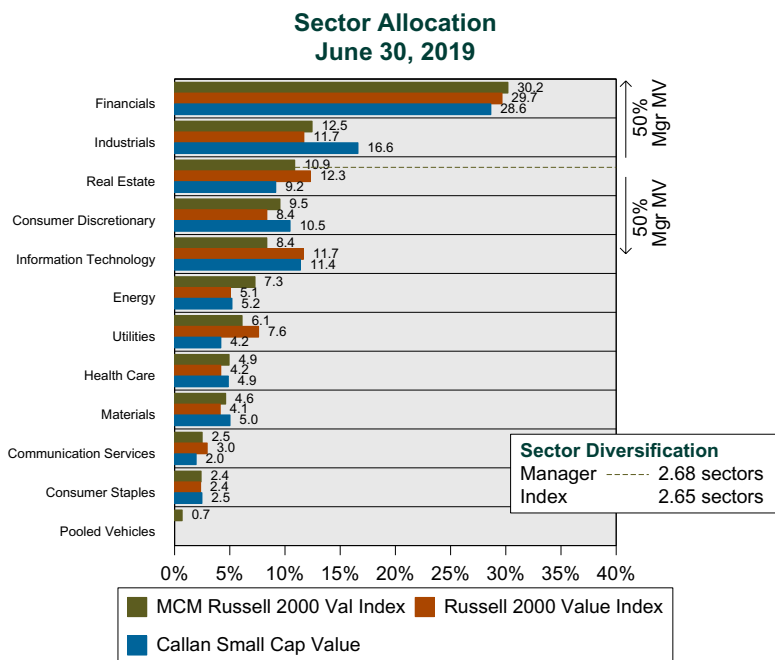
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Value as of June 30, 2019



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 Adv Div Sm Cap Grth Period Ended June 30, 2019

Investment Philosophy

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

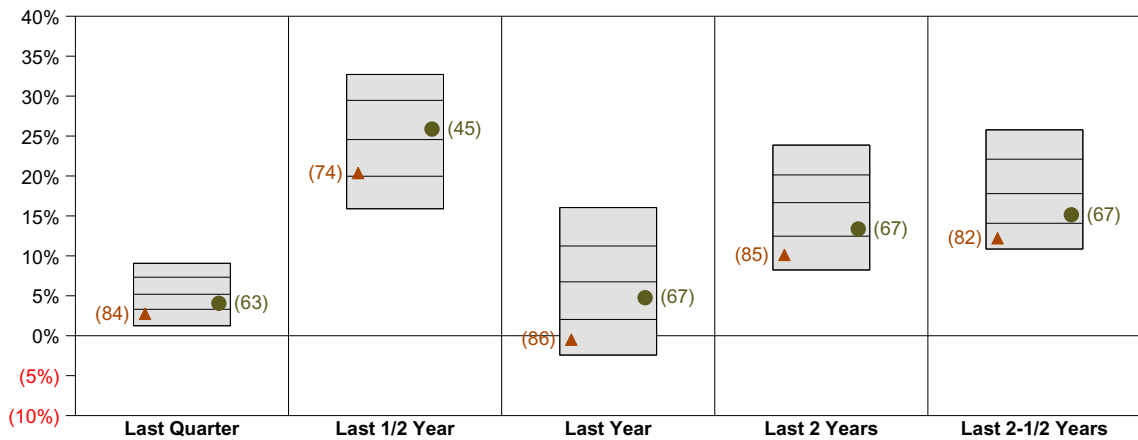
Quarterly Summary and Highlights

- Emerald Adv Div Sm Cap Grth's portfolio posted a 4.06% return for the quarter placing it in the 63 percentile of the Callan Small Cap Growth group for the quarter and in the 67 percentile for the last year.
- Emerald Adv Div Sm Cap Grth's portfolio outperformed the Russell 2000 Growth Index by 1.31% for the quarter and outperformed the Russell 2000 Growth Index for the year by 5.25%.

Quarterly Asset Growth

Beginning Market Value	\$682,013,643
Net New Investment	\$-774,750
Investment Gains/(Losses)	\$27,678,829
Ending Market Value	\$708,917,723

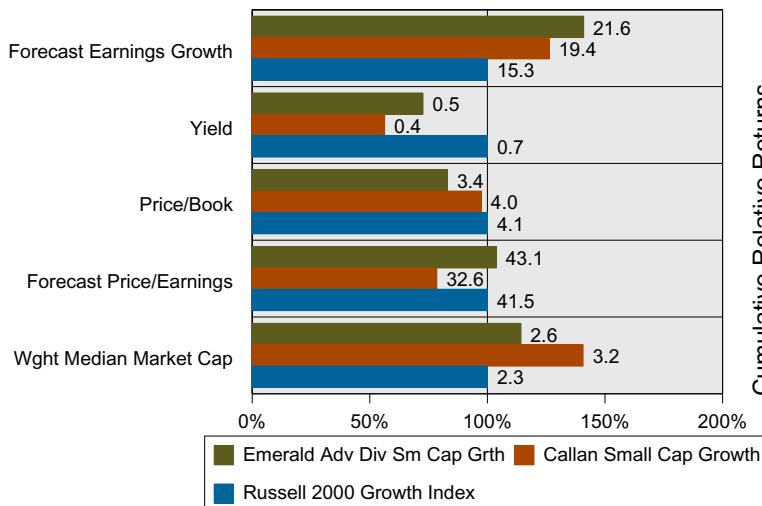
Performance vs Callan Small Cap Growth (Gross)



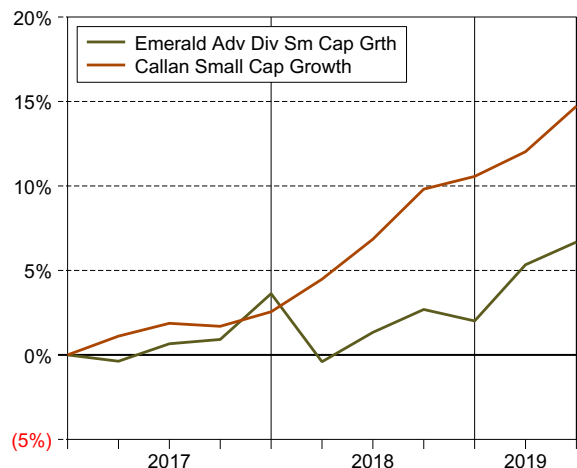
	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 2-1/2 Years
10th Percentile	9.07	32.71	16.05	23.86	25.78
25th Percentile	7.32	29.47	11.23	20.13	22.10
Median	5.19	24.56	6.75	16.66	17.79
75th Percentile	3.31	19.97	2.04	12.46	14.08
90th Percentile	1.25	15.89	(2.43)	8.23	10.85

Emerald Adv Div Sm Cap Grth ●	4.06	25.87	4.76	13.37	15.14
Russell 2000 Growth Index ▲	2.75	20.36	(0.49)	10.12	12.20

Portfolio Characteristics as a Percentage of the Russell 2000 Growth Index



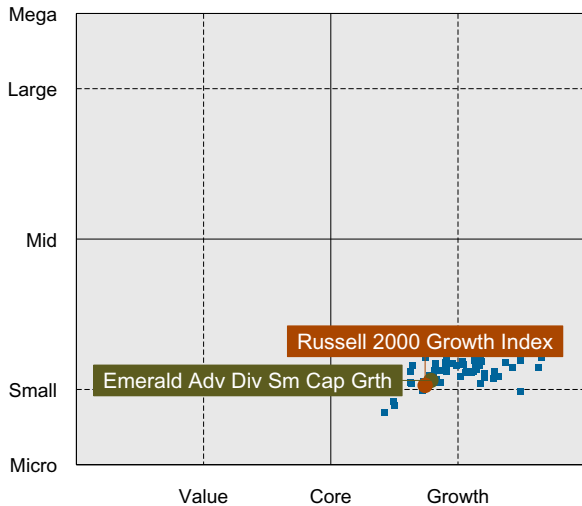
Cumulative Returns vs Russell 2000 Growth Index



Current Holdings Based Style Analysis Emerald Adv Div Sm Cap Grth As of June 30, 2019

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

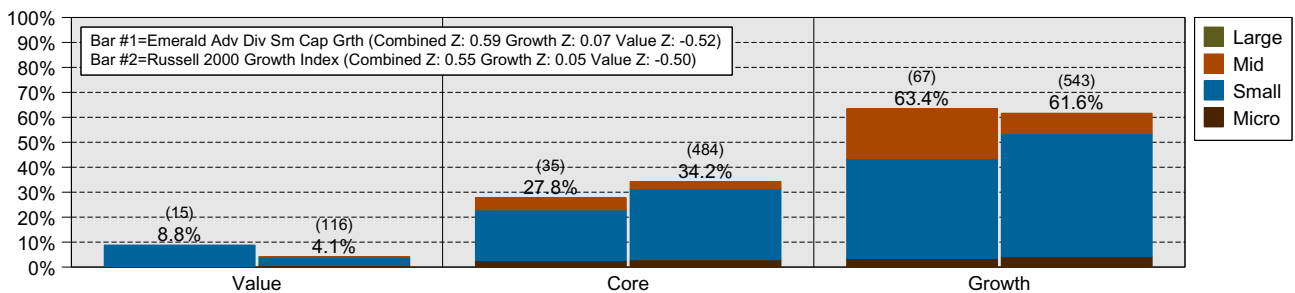
Style Map vs Callan Small Cap Growth Holdings as of June 30, 2019



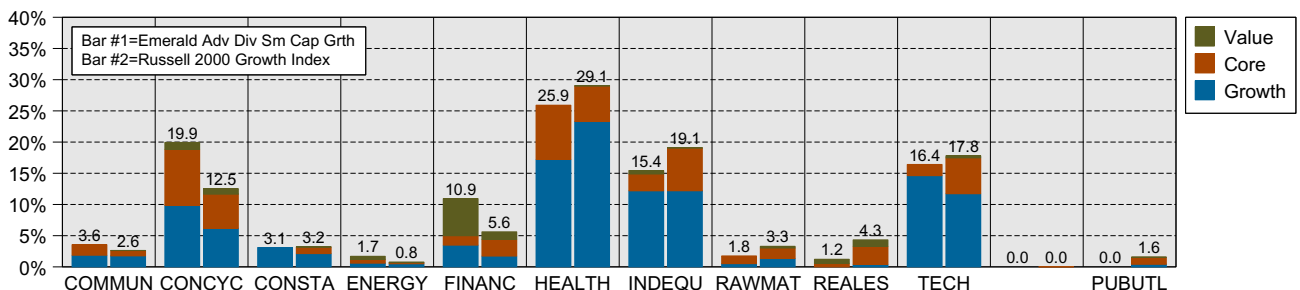
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)
Mid	0.0% (0) 0.1% (2)	4.8% (3) 2.9% (11)	20.0% (14) 8.2% (17)	24.9% (17) 11.2% (30)
Small	8.4% (12) 3.3% (45)	20.3% (28) 28.3% (270)	40.0% (43) 49.3% (346)	68.7% (83) 81.0% (661)
Micro	0.4% (3) 0.7% (69)	2.6% (4) 3.0% (203)	3.4% (10) 4.2% (180)	6.4% (17) 7.8% (452)
Total	8.8% (15) 4.1% (116)	27.8% (35) 34.2% (484)	63.4% (67) 61.6% (543)	100.0% (117) 100.0% (1143)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

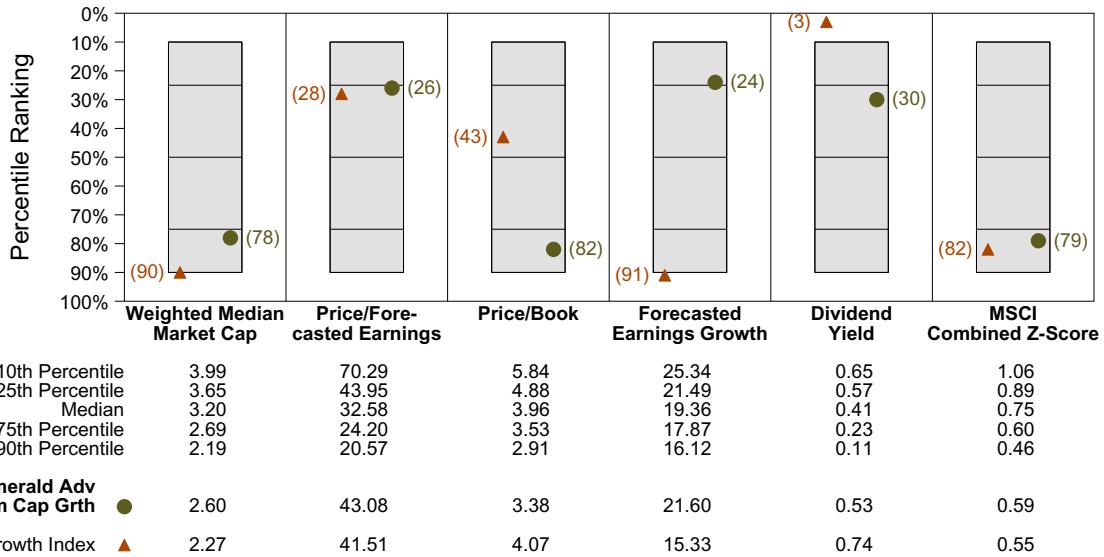


Emerald Adv Div Sm Cap Grth Equity Characteristics Analysis Summary

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.

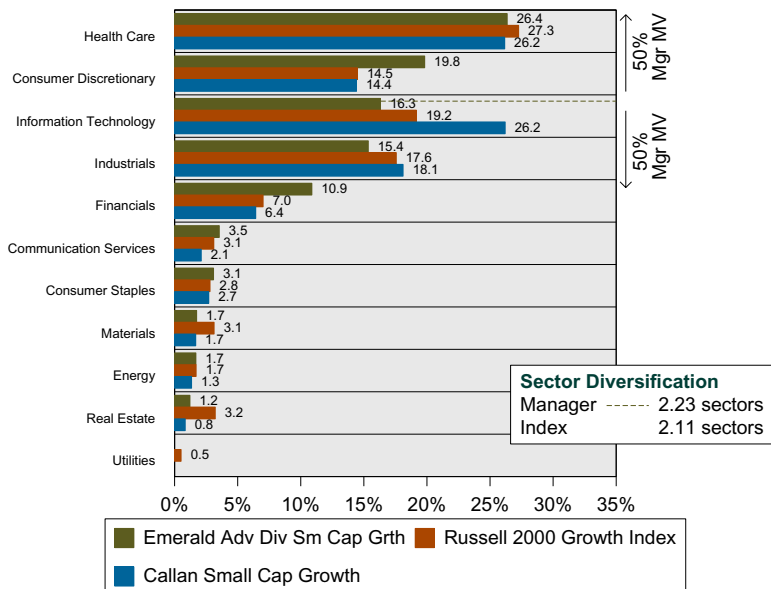
Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Growth as of June 30, 2019



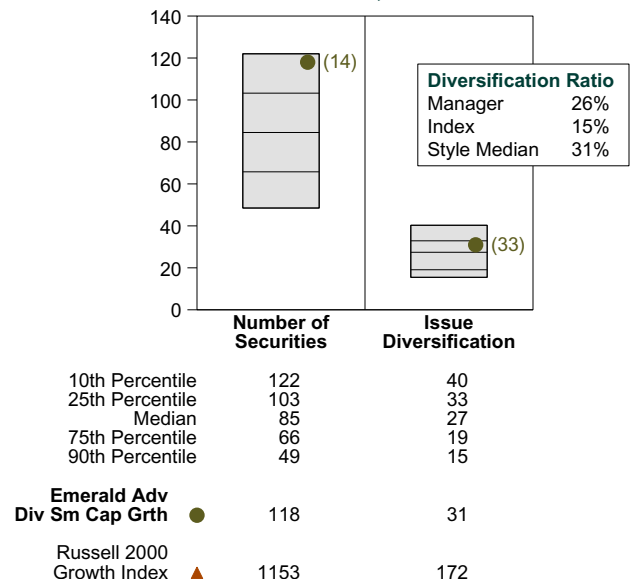
Sector Weights

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.

Sector Allocation June 30, 2019



Diversification June 30, 2019

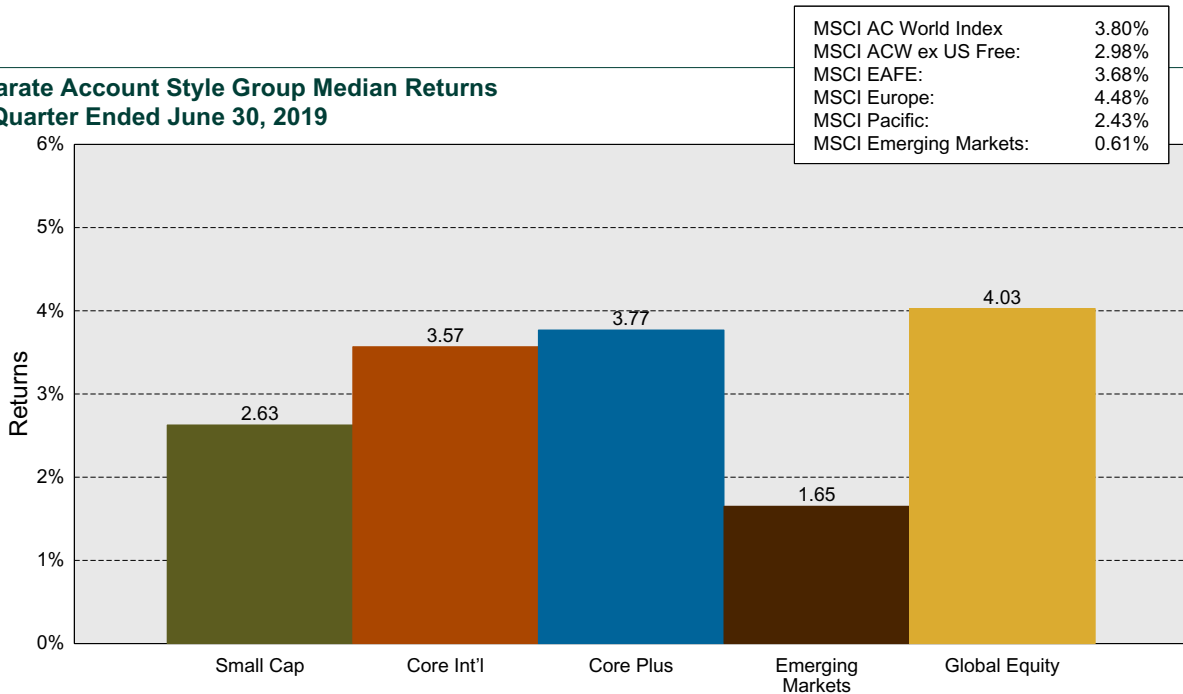


International Equity Active Management Overview

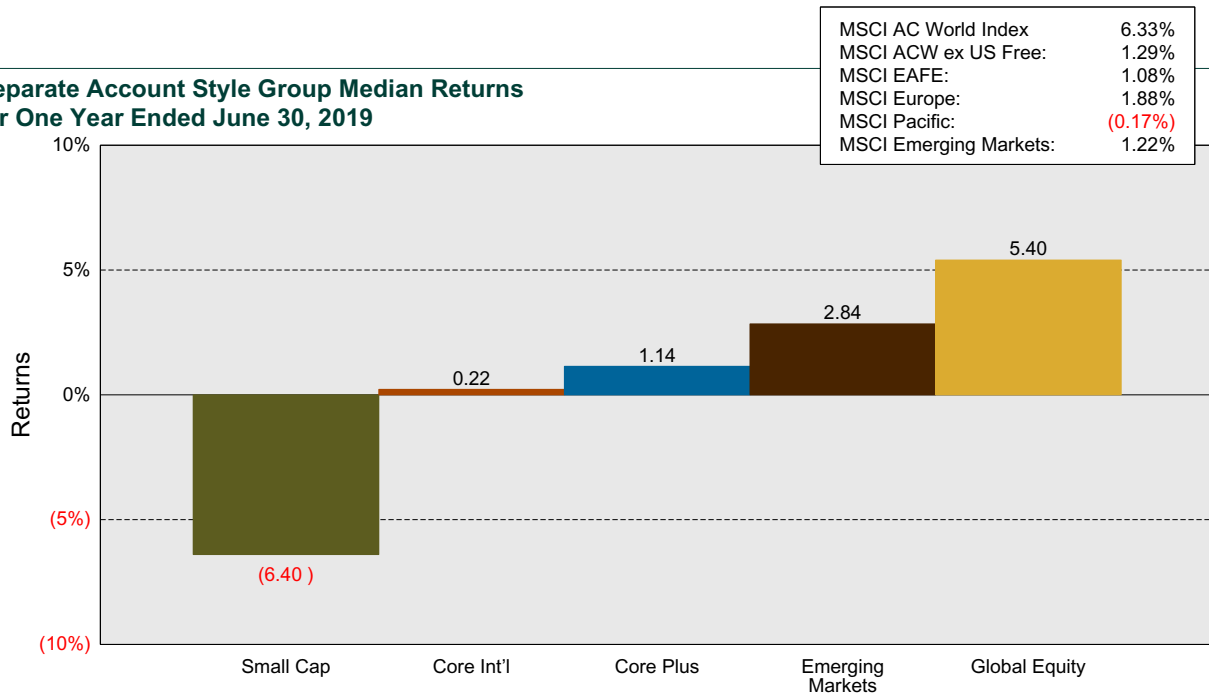
Developed markets were also buoyed by optimism for rate cuts. The MSCI ACWI ex-USA Index rose 3.0%, with Canada (+4.9%), Pacific ex-Japan (+5.2%) and Europe ex-UK (+5.8%) leading the way. Japan (+1.0%) and the UK (+0.9%), at the lower end of the group, were able to eke out small positive returns. The Canadian dollar, yen and euro appreciated versus the U.S. dollar while the British pound and Australian dollar lost ground. Industrials (+5.2%); Financials (+4.4%) and Technology (+4.0%) were the best performing sectors while Real Estate (-1.6%) and Energy (+0.5%) trailed.

Emerging markets (MSCI Emg Mkts:+0.6%) underperformed developed but returns across countries varied. Argentina (+31.7%) was the best performing country where political developments boosted sentiment, but Russia (+16.9%) was also a strong performer. China (-4.0%) finished in negative territory; but the market was able to recover after May's sharp pull-back thanks to the pause in tariff hikes following the G20 Osaka summit. Also worth mentioning is the performance of the two other BRICs; Brazil (+7.2%) and India (+0.5%).

Separate Account Style Group Median Returns for Quarter Ended June 30, 2019



Separate Account Style Group Median Returns for One Year Ended June 30, 2019



Non-U.S. Developed Markets Equity Period Ended June 30, 2019

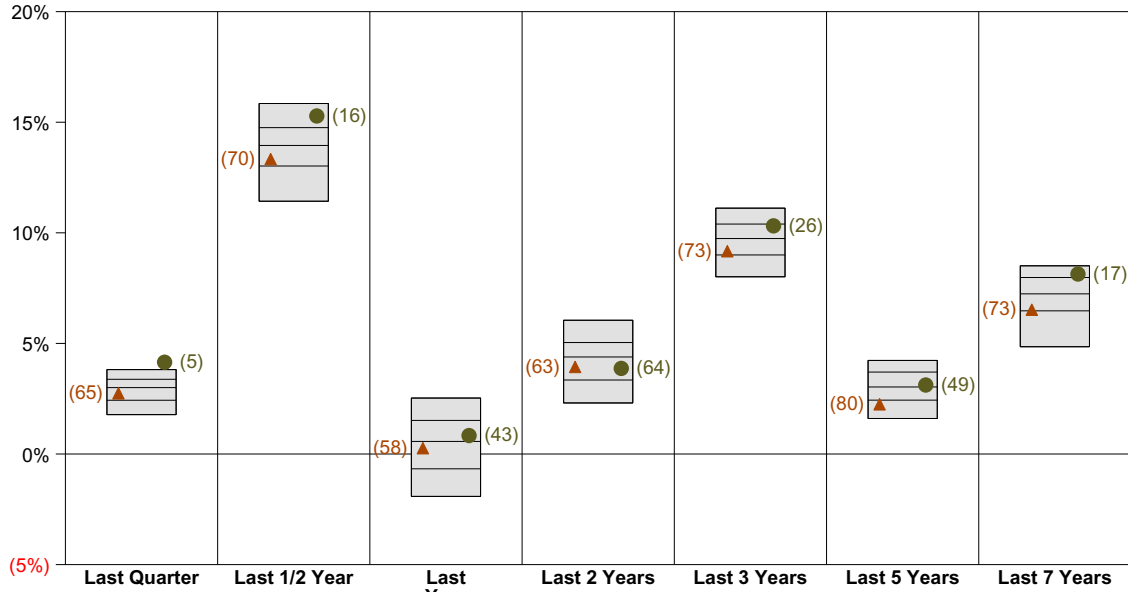
Quarterly Summary and Highlights

- Non-U.S. Developed Markets Equity's portfolio posted a 4.15% return for the quarter placing it in the 5 percentile of the Public Fund - International Equity group for the quarter and in the 43 percentile for the last year.
- Non-U.S. Developed Markets Equity's portfolio outperformed the MSCI ACWI ex US IMI by 1.41% for the quarter and outperformed the MSCI ACWI ex US IMI for the year by 0.57%.

Quarterly Asset Growth

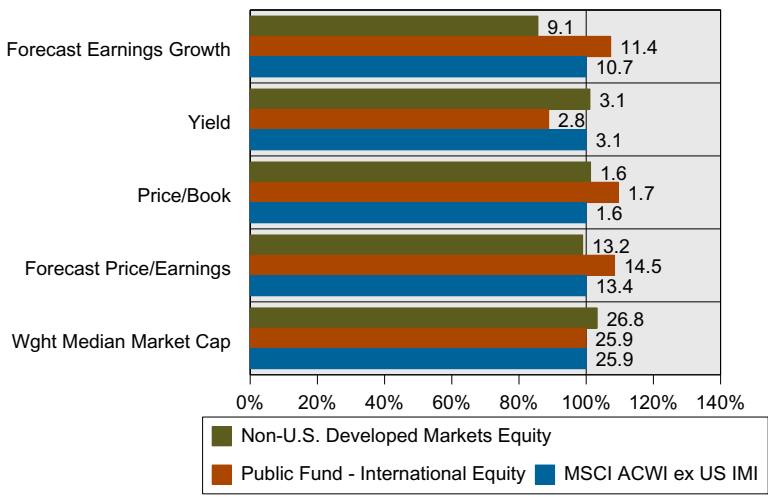
Beginning Market Value	\$5,445,215,912
Net New Investment	\$-100,034,846
Investment Gains/(Losses)	\$223,135,536
Ending Market Value	\$5,568,316,603

Performance vs Public Fund - International Equity (Gross)

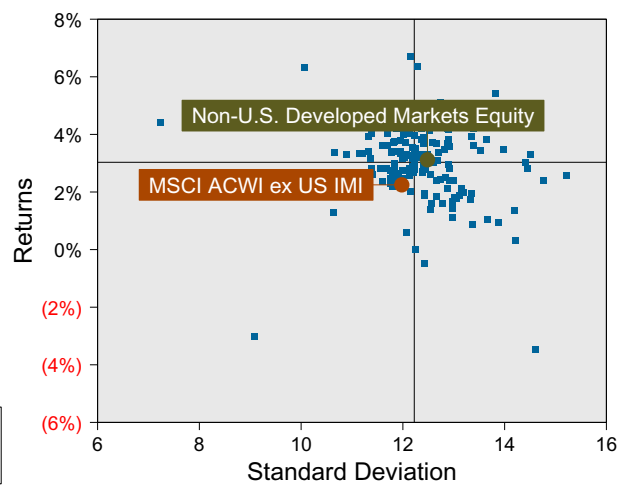


	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	3.82	15.85	2.53	6.05	11.12	4.23	8.51
25th Percentile	3.38	14.76	1.52	5.04	10.40	3.70	7.98
Median	3.00	13.95	0.57	4.39	9.74	3.03	7.24
75th Percentile	2.43	13.02	(0.67)	3.35	9.00	2.44	6.47
90th Percentile	1.78	11.43	(1.92)	2.31	8.01	1.61	4.85
Non-U.S. Developed Markets Equity	● 4.15	15.28	0.83	3.87	10.31	3.12	8.14
MSCI ACWI ex US IMI	▲ 2.74	13.33	0.26	3.94	9.17	2.25	6.53

Portfolio Characteristics as a Percentage of the MSCI ACWI ex US IMI



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

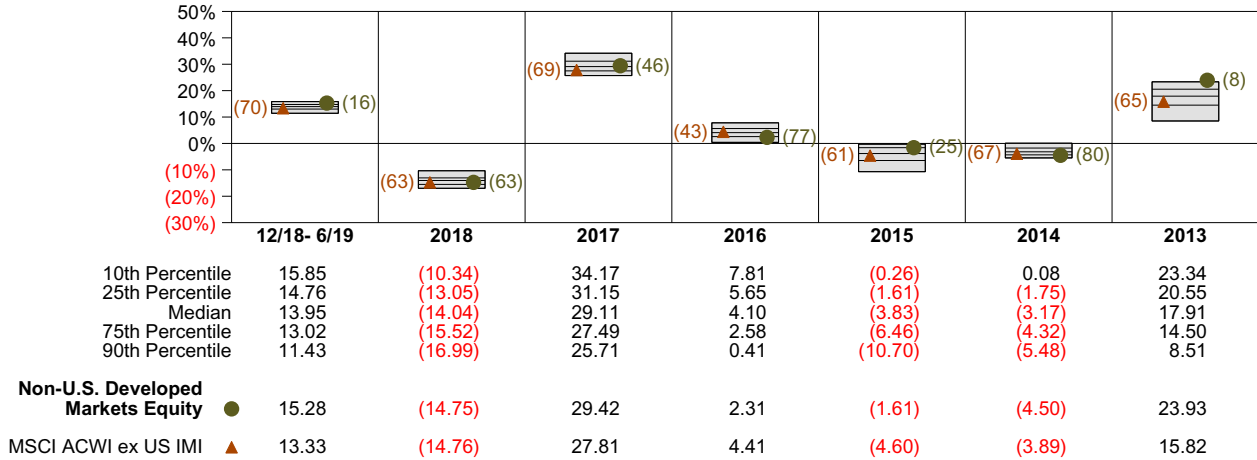


Non-U.S. Developed Markets Equity Return Analysis Summary

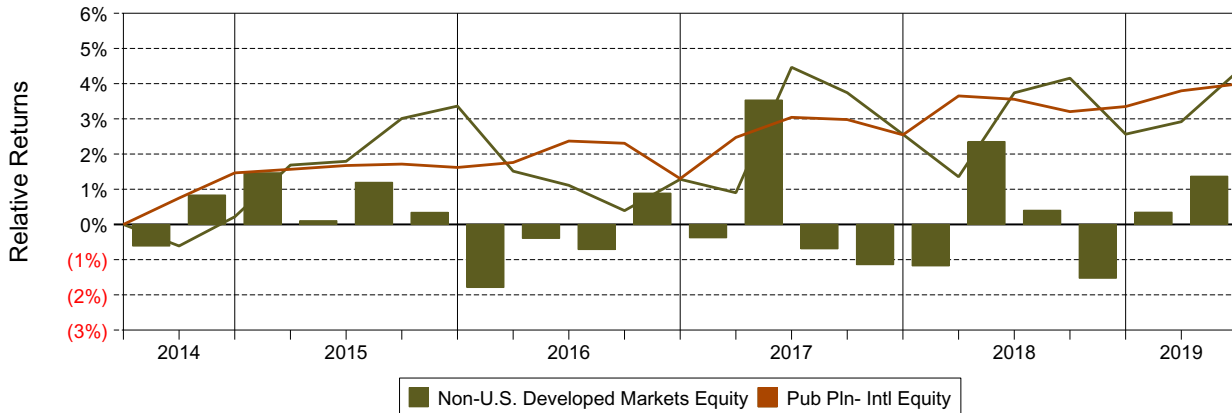
Return Analysis

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.

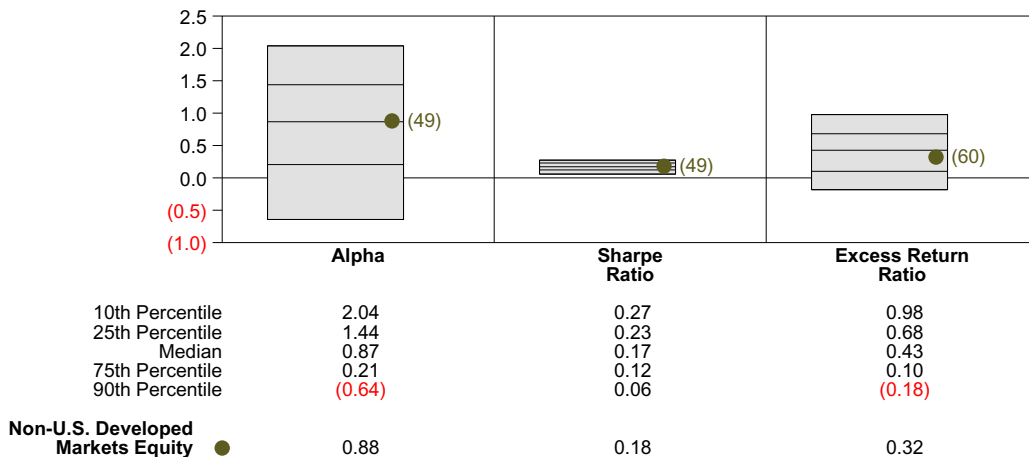
Performance vs Public Fund - International Equity (Gross)



Cumulative and Quarterly Relative Return vs MSCI ACWI ex US IMI



Risk Adjusted Return Measures vs MSCI ACWI ex US IMI Rankings Against Public Fund - International Equity (Gross) Five Years Ended June 30, 2019

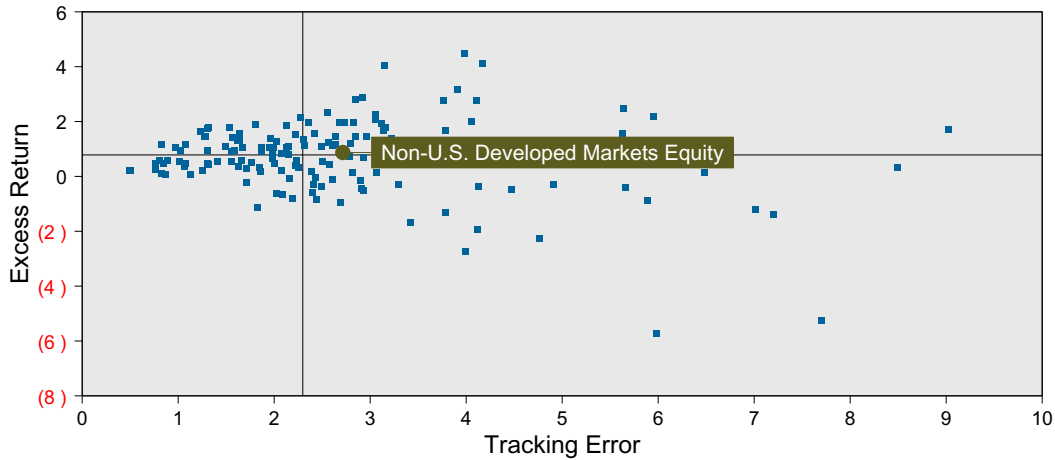


Non-U.S. Developed Markets Equity Risk Analysis Summary

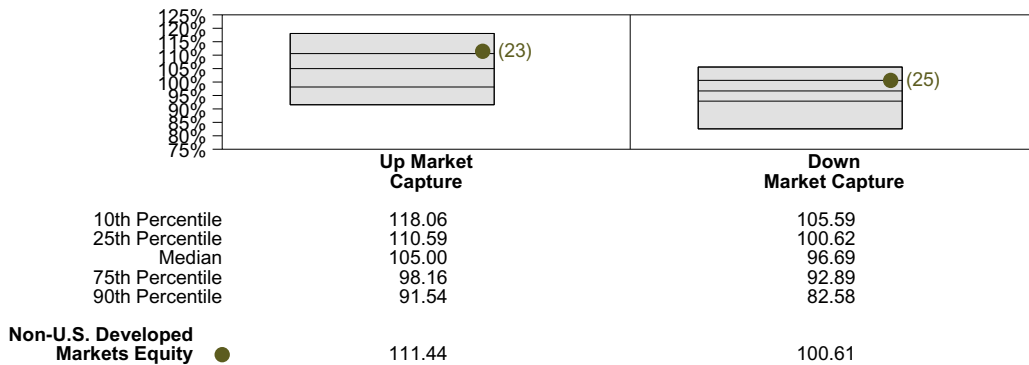
Risk Analysis

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.

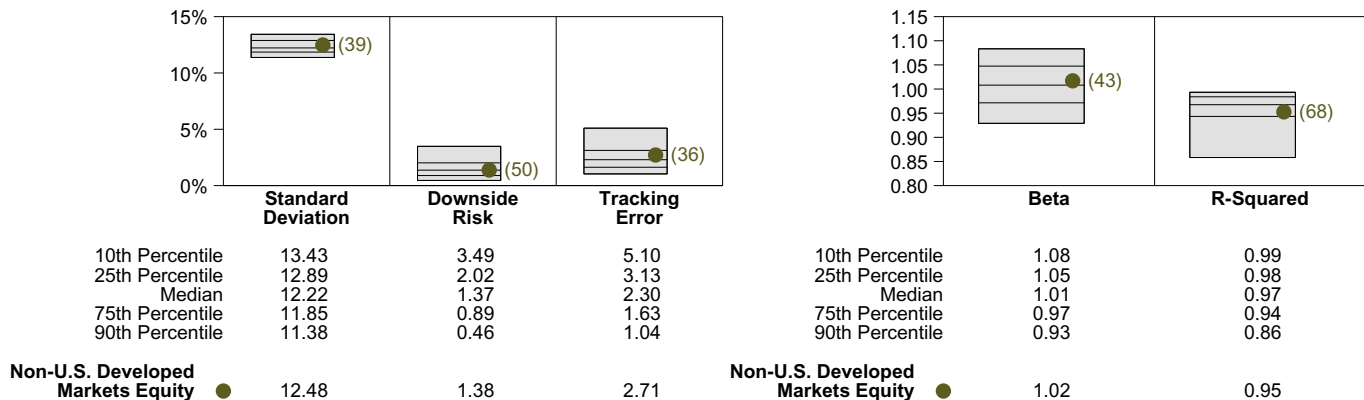
Risk Analysis vs Public Fund - International Equity (Gross) Five Years Ended June 30, 2019



Market Capture vs MSCI ACWI ex US IMI Index (USD Net Div) Rankings Against Public Fund - International Equity (Gross) Five Years Ended June 30, 2019



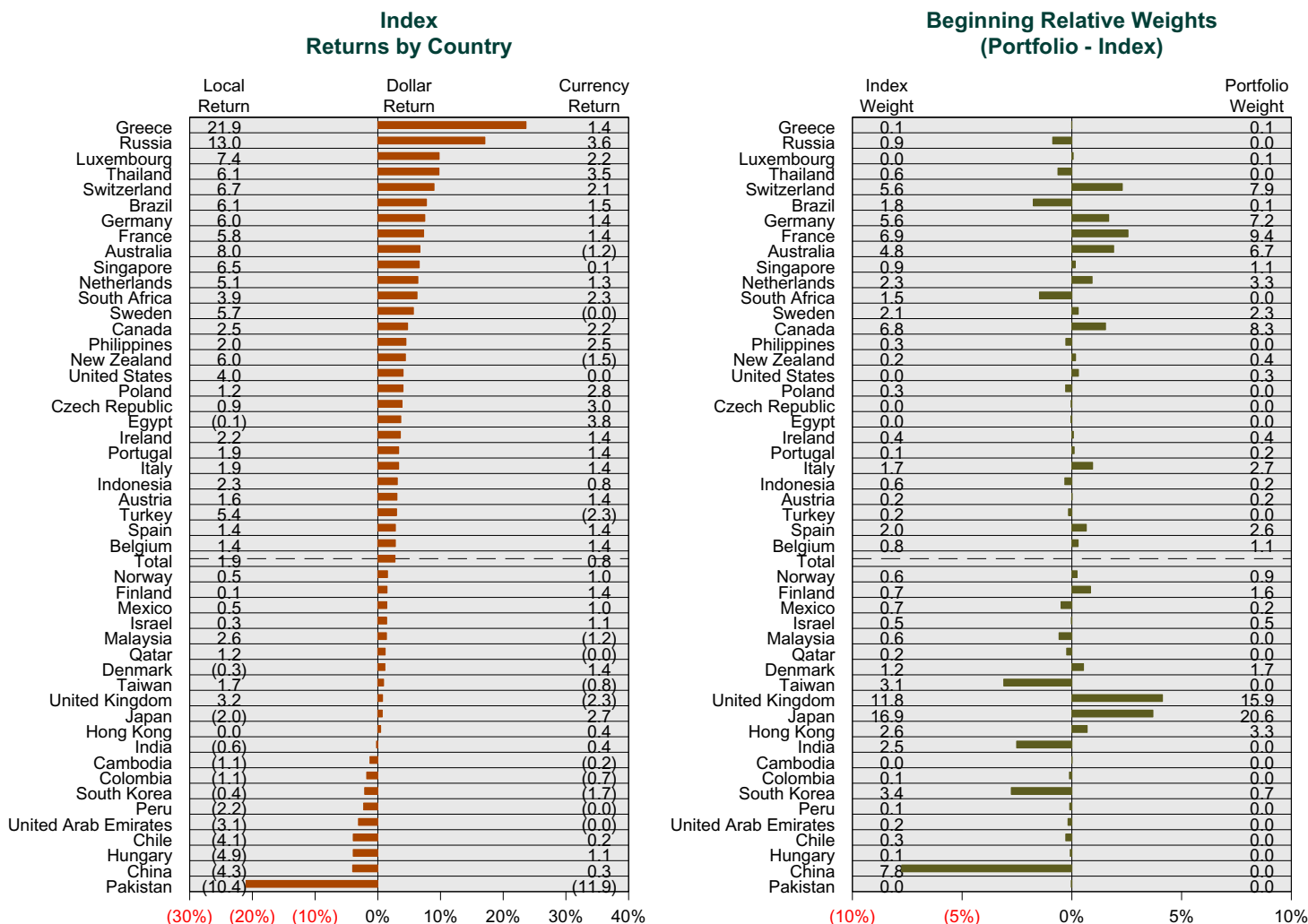
Risk Statistics Rankings vs MSCI ACWI ex US IMI Index (USD Net Div) Rankings Against Public Fund - International Equity (Gross) Five Years Ended June 30, 2019



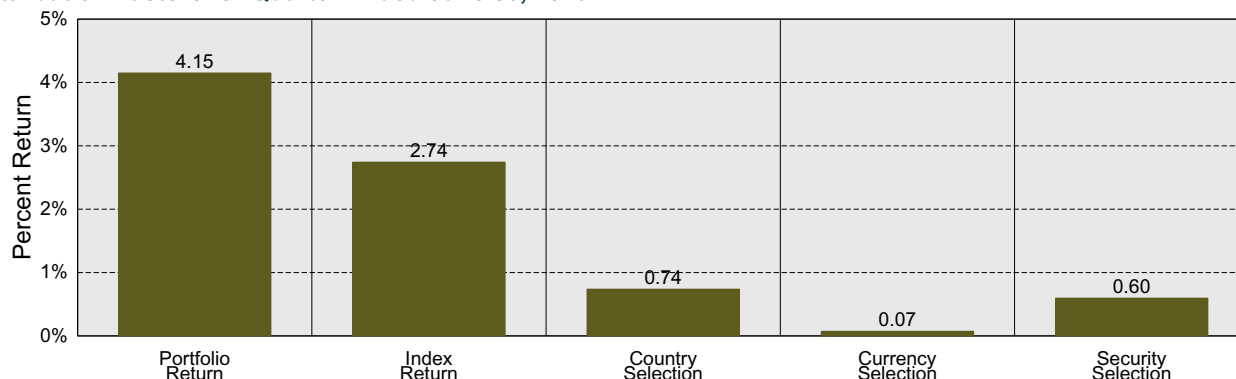
Non-U.S. Developed Markets Equity vs MSCI ACWI ex US IMI Attribution for Quarter Ended June 30, 2019

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.



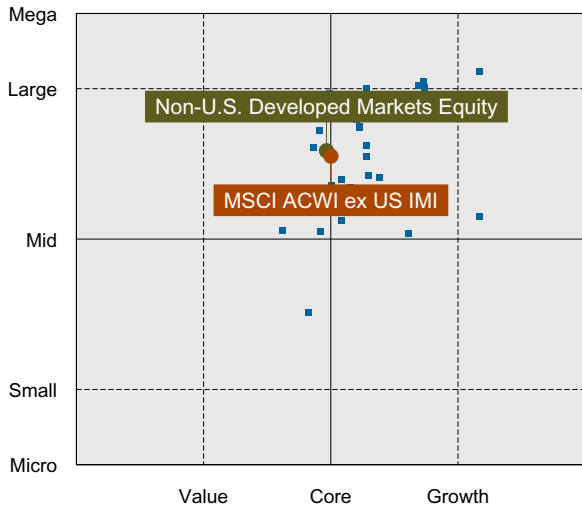
Attribution Factors for Quarter Ended June 30, 2019



Current Holdings Based Style Analysis Non-U.S. Developed Markets Equity As of June 30, 2019

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 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.

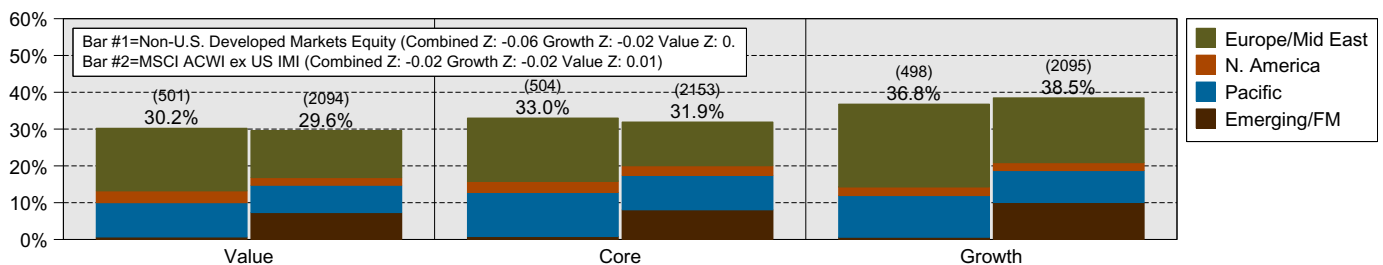
Style Map vs Pub Pln- Intl Equity Holdings as of June 30, 2019



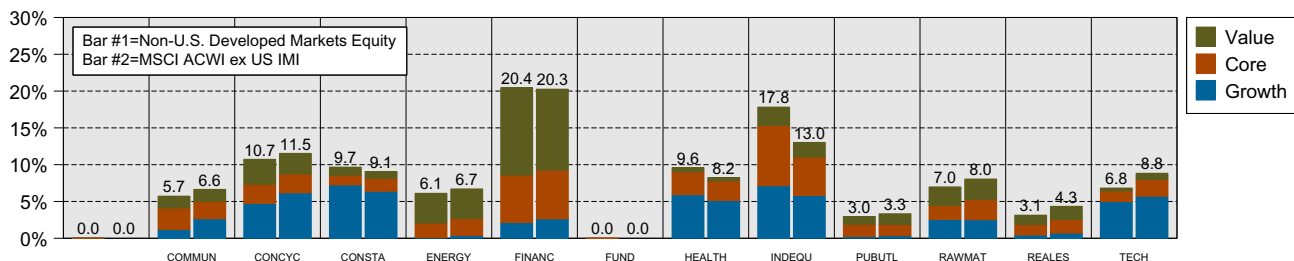
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Europe/ Mid East	17.0% (205) 12.8% (474)	17.2% (207) 11.9% (521)	22.5% (202) 17.6% (504)	56.7% (614) 42.3% (1499)
N. America	3.2% (42) 2.1% (102)	3.0% (32) 2.7% (100)	2.3% (29) 2.1% (98)	8.6% (103) 6.9% (300)
Pacific	9.3% (229) 7.4% (598)	12.0% (219) 9.3% (588)	11.3% (191) 8.7% (571)	32.6% (639) 25.4% (1757)
Emerging/ FM	0.7% (25) 7.3% (920)	0.8% (46) 8.1% (944)	0.6% (76) 10.1% (922)	2.1% (147) 25.4% (2786)
Total	30.2% (501) 29.6% (2094)	33.0% (504) 31.9% (2153)	36.8% (498) 38.5% (2095)	100.0% (1503) 100.0% (6342)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



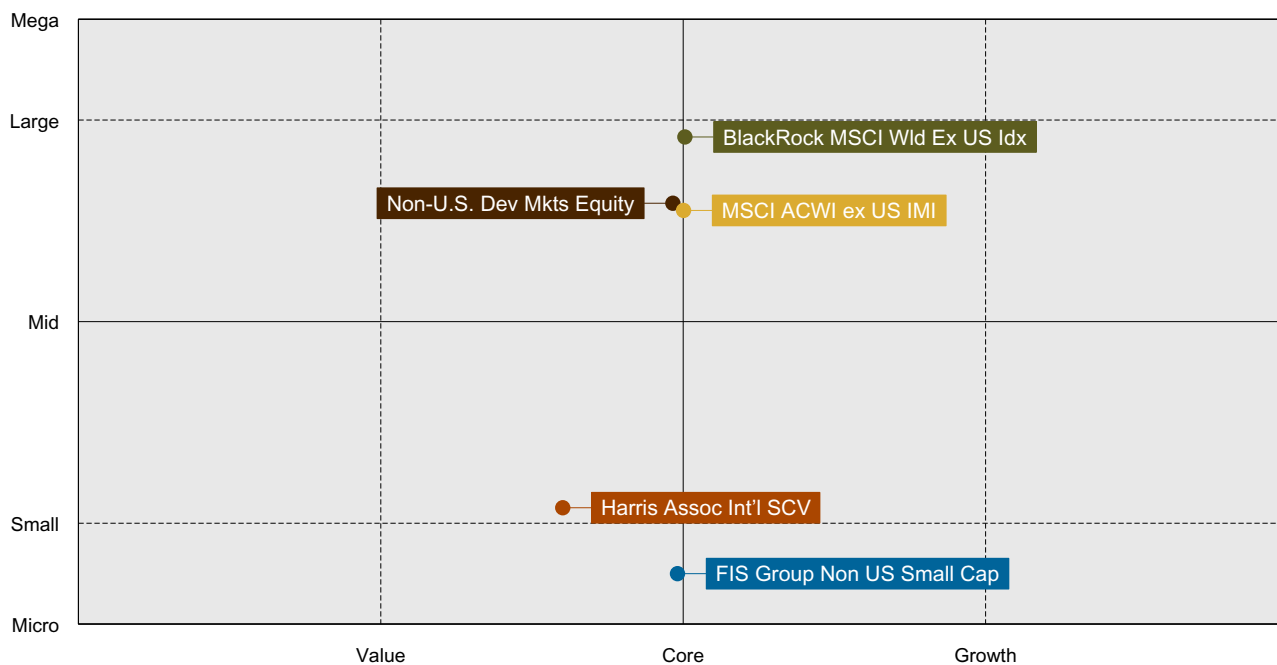
Sector Weights Distribution Holdings as of June 30, 2019



International Holdings Based Style Analysis For One Quarter Ended June 30, 2019

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 June 30, 2019



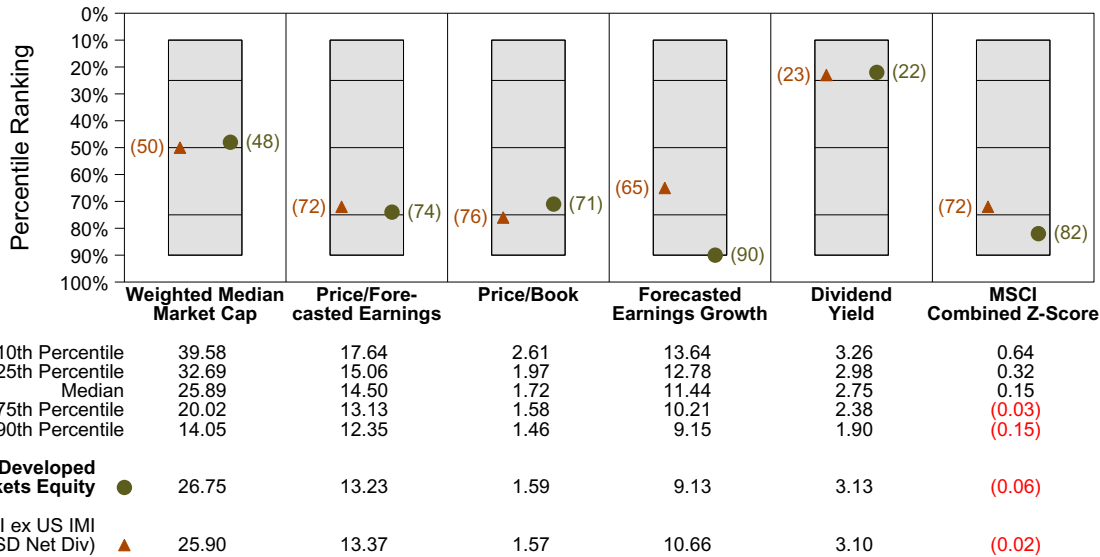
	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
BlackRock MSCI Wld Ex US Idx	86.04%	34.54	(0.02)	(0.02)	0.00	1019	121.17
Harris Assoc Int'l SCV	10.27%	2.96	(0.41)	(0.12)	0.29	62	17.37
FIS Group Non US Small Cap	3.50%	1.60	(0.04)	0.10	0.14	524	100.48
Non-U.S. Dev Mkts Equity	100.00%	26.75	(0.06)	(0.02)	0.04	1571	146.45
MSCI ACWI ex US IMI	-	25.90	(0.02)	(0.02)	0.01	6377	250.49

Non-U.S. 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.

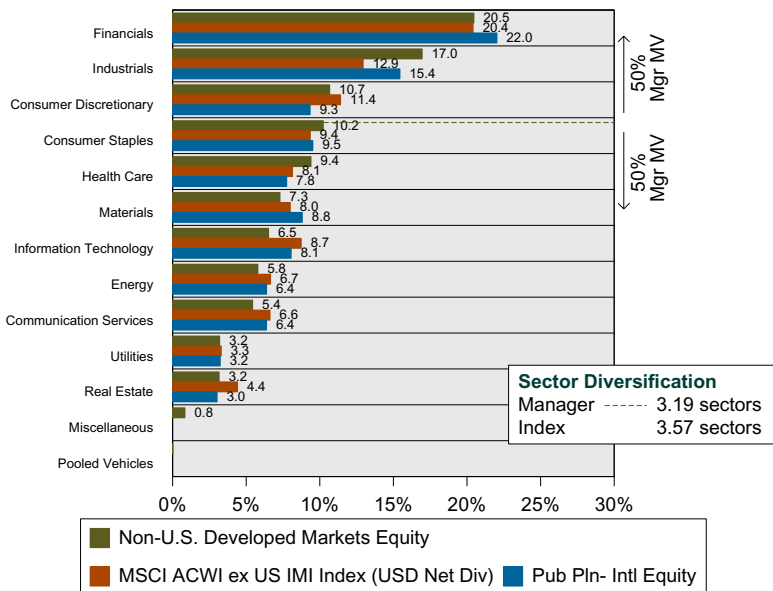
Portfolio Characteristics Percentile Rankings Rankings Against Public Fund - International Equity as of June 30, 2019



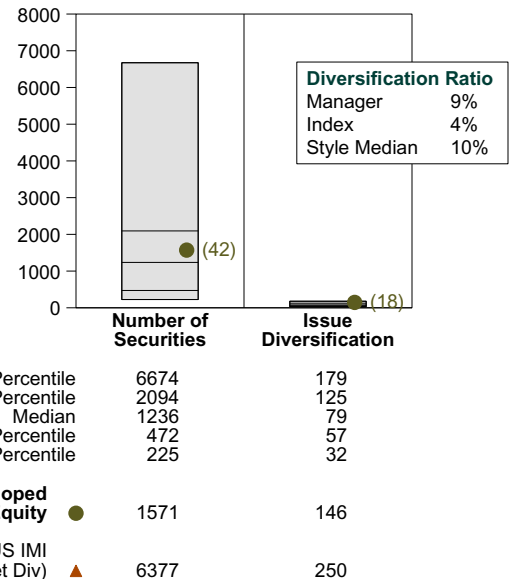
Sector Weights

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.

Sector Allocation June 30, 2019



Diversification June 30, 2019



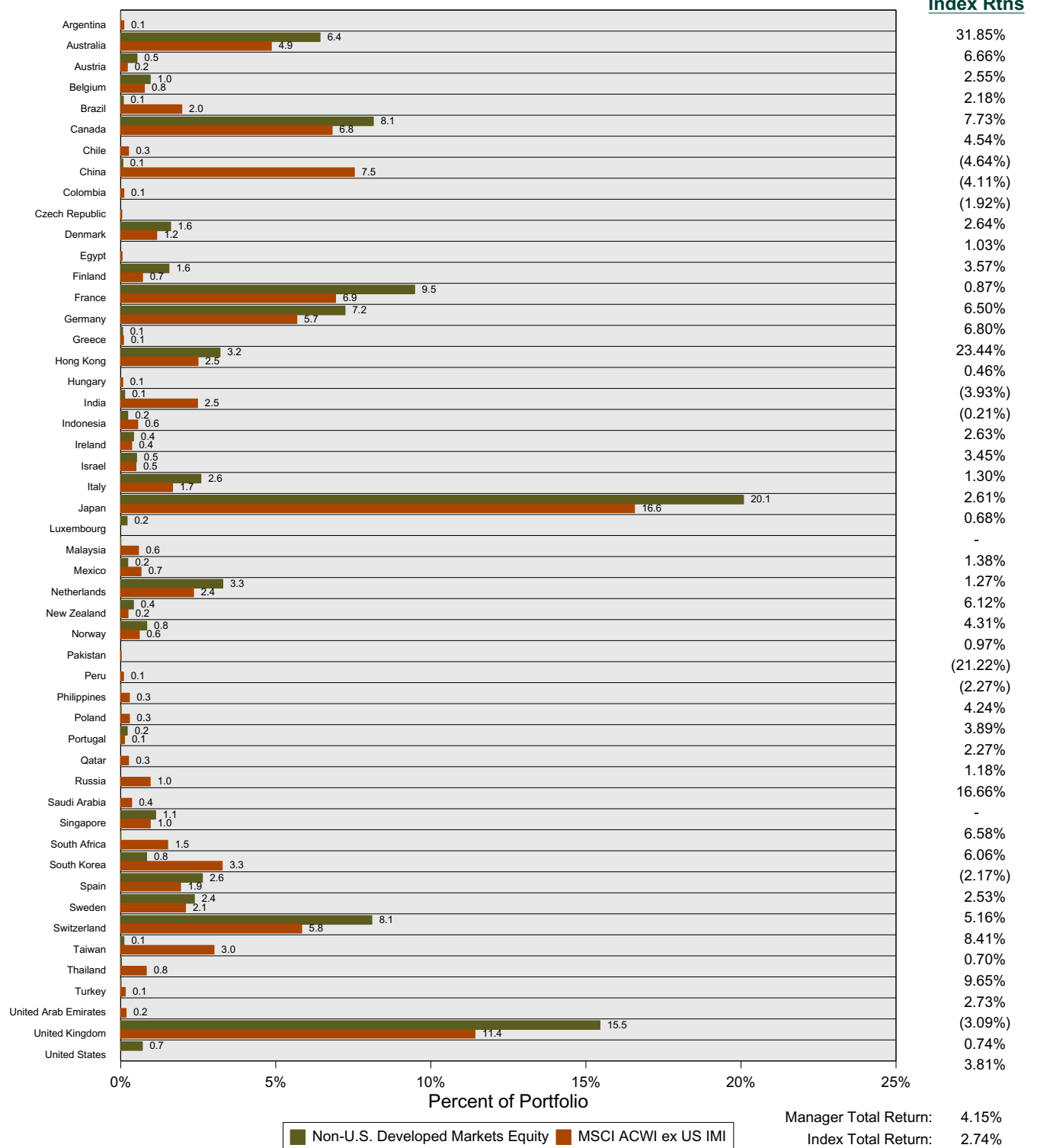
Country Allocation

Non-U.S. Developed Markets Equity VS MSCI ACWI ex US IMI Index (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

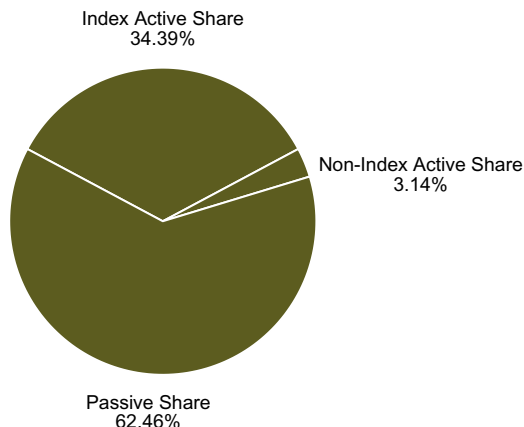
Country Weights as of June 30, 2019



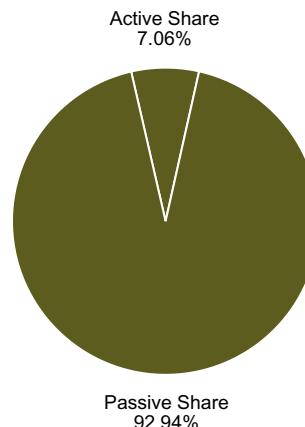
Non-U.S. Developed Markets Equity Active Share Analysis as of June 30, 2019 vs. MSCI ACWI ex US IMI Index (USD Net Div)

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.

Holdings-Level Active Share



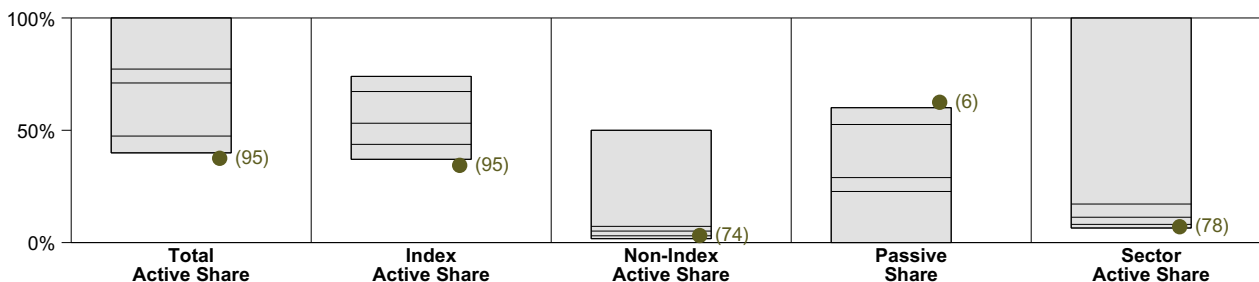
Sector Exposure Active Share



Total Active Share: 37.54%

	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	45.67%	2.55%	48.22%	6.62%	5.44%	2.60%
Consumer Discretionary	37.16%	4.51%	41.67%	11.41%	10.67%	4.38%
Consumer Staples	25.53%	2.80%	28.33%	9.36%	10.24%	3.08%
Energy	36.55%	0.00%	36.55%	6.65%	5.79%	2.00%
Financials	34.12%	2.52%	36.65%	20.41%	20.47%	7.48%
Health Care	19.38%	1.84%	21.22%	8.15%	9.40%	2.36%
Industrials	25.46%	2.17%	27.63%	12.95%	16.95%	5.65%
Information Technology	50.29%	1.01%	51.31%	8.74%	6.52%	3.38%
Materials	39.54%	4.67%	44.21%	8.00%	7.29%	3.18%
Miscellaneous	0.00%	100.00%	100.00%	-	0.84%	0.41%
Pooled Vehicles	0.00%	100.00%	100.00%	-	0.02%	0.01%
Real Estate	49.67%	4.49%	54.16%	4.41%	3.16%	1.77%
Utilities	32.63%	6.48%	39.12%	3.31%	3.20%	1.24%
Total	34.39%	3.14%	37.54%	100.00%	100.00%	37.53%

Active Share vs. Pub Pln- Intl Equity



Non-U.S. Developed Markets Equity ●

Comparative Manager Matrix

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

Holding Overlap for Period Ended June 30, 2019

FIS Group Non US Small Cap	5% (13)	1%	6% (12)	17%	
Harris Assoc Int'l SCV	23% (12)	1%			17% (12)
BlackRock MSCI World Ex US Index			1% (12)	23%	1% (13)
	BlackRock MSCI World Ex US Index		Harris Assoc Int'l SCV		FIS Group Non US Small Cap

BlackRock MSCI World Ex US Index Period Ended June 30, 2019

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.

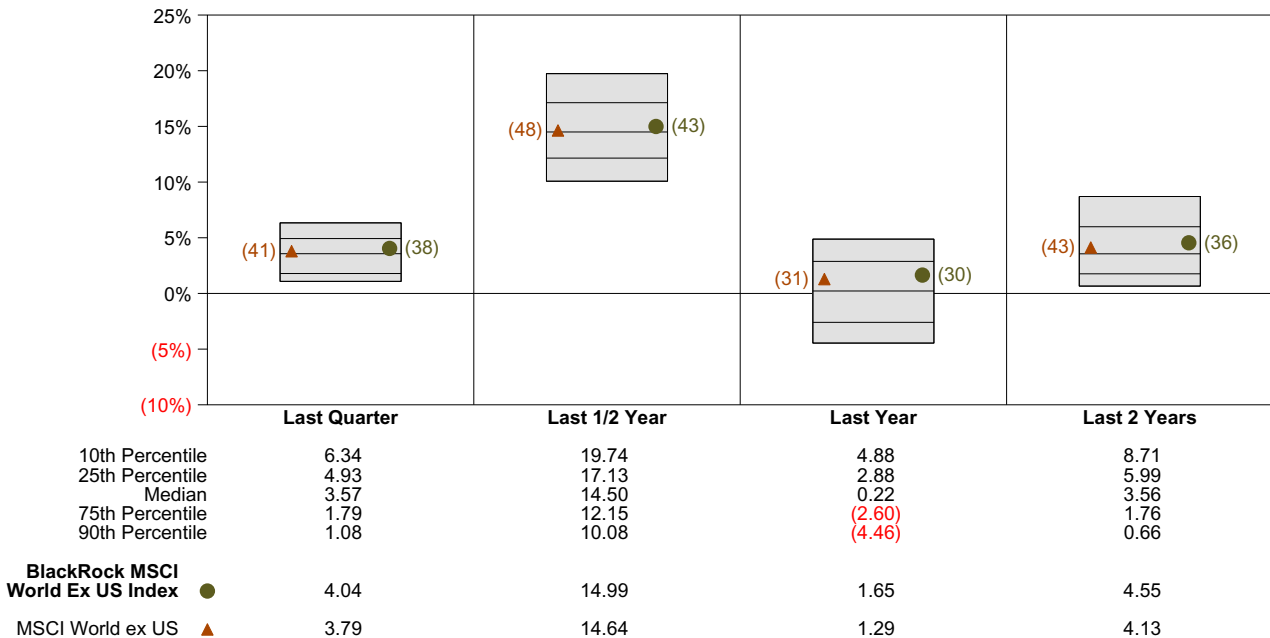
Quarterly Summary and Highlights

- BlackRock MSCI World Ex US Index's portfolio posted a 4.04% return for the quarter placing it in the 38 percentile of the Callan Non-US Developed Broad Equity group for the quarter and in the 30 percentile for the last year.
- BlackRock MSCI World Ex US Index's portfolio outperformed the MSCI World ex US by 0.25% for the quarter and outperformed the MSCI World ex US for the year by 0.36%.

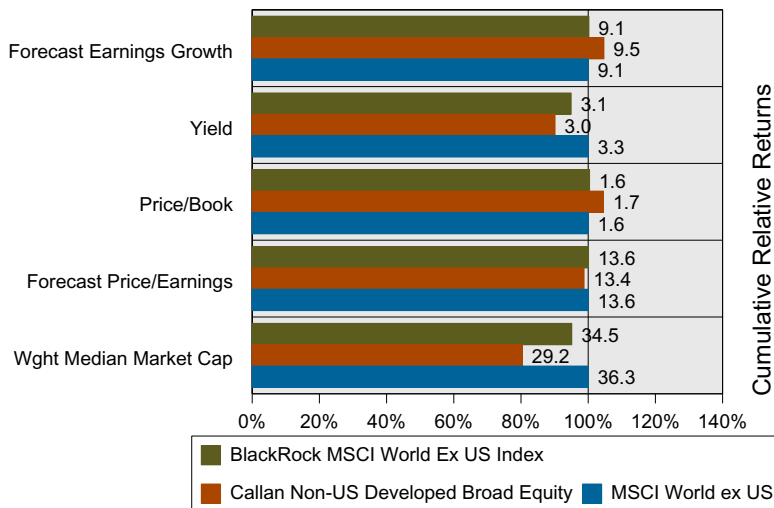
Quarterly Asset Growth

Beginning Market Value	\$4,703,341,913
Net New Investment	\$-100,000,000
Investment Gains/(Losses)	\$187,744,708
Ending Market Value	\$4,791,086,622

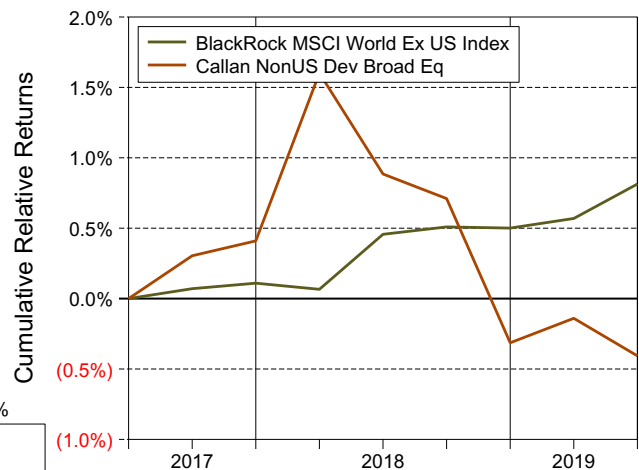
Performance vs Callan Non-US Developed Broad Equity (Gross)



Portfolio Characteristics as a Percentage of the MSCI World ex US



Cumulative Returns vs MSCI World ex US



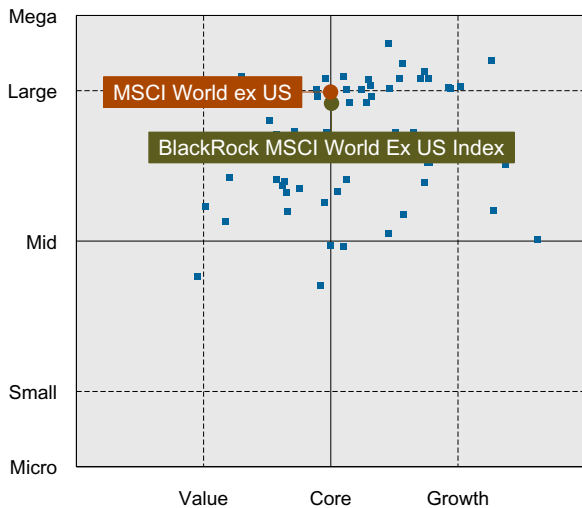
Current Holdings Based Style Analysis

BlackRock MSCI World Ex US Index

As of June 30, 2019

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

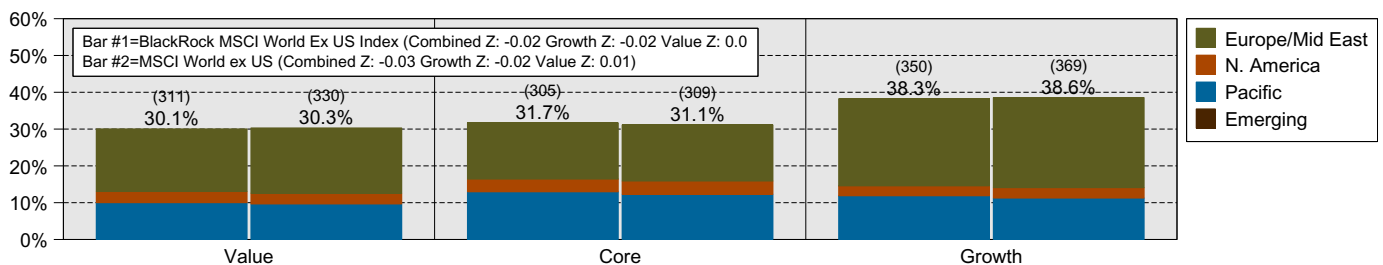
Style Map vs Callan NonUS Dev Broad Eq Holdings as of June 30, 2019



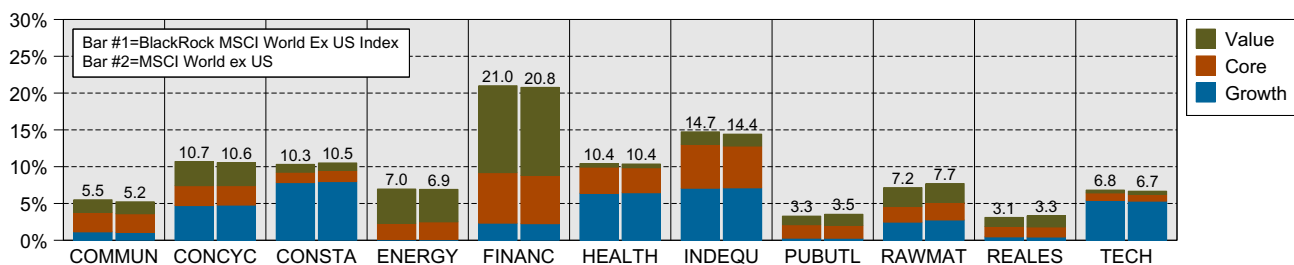
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Europe/ Mid East	17.0% (129)	15.3% (126)	23.7% (162)	56.0% (417)
N. America	3.0% (31)	3.5% (23)	2.7% (29)	9.2% (83)
Pacific	10.0% (151)	13.0% (156)	11.9% (159)	34.8% (466)
Emerging	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Total	30.1% (311)	31.7% (305)	38.3% (350)	100.0% (966)
	30.3% (330)	31.1% (309)	38.6% (369)	100.0% (1008)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

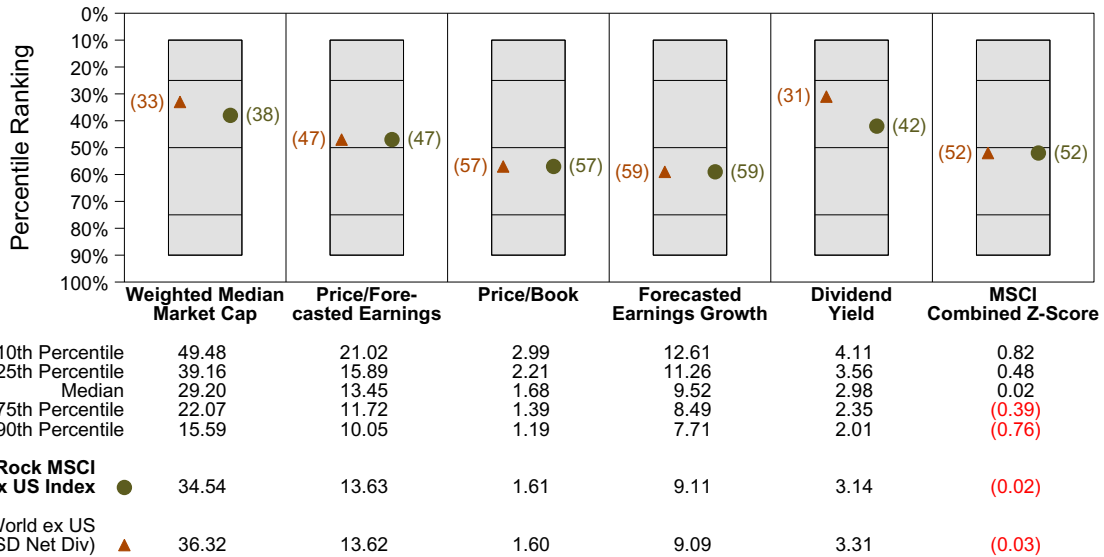


BlackRock MSCI World Ex US Index Equity Characteristics Analysis Summary

Portfolio Characteristics

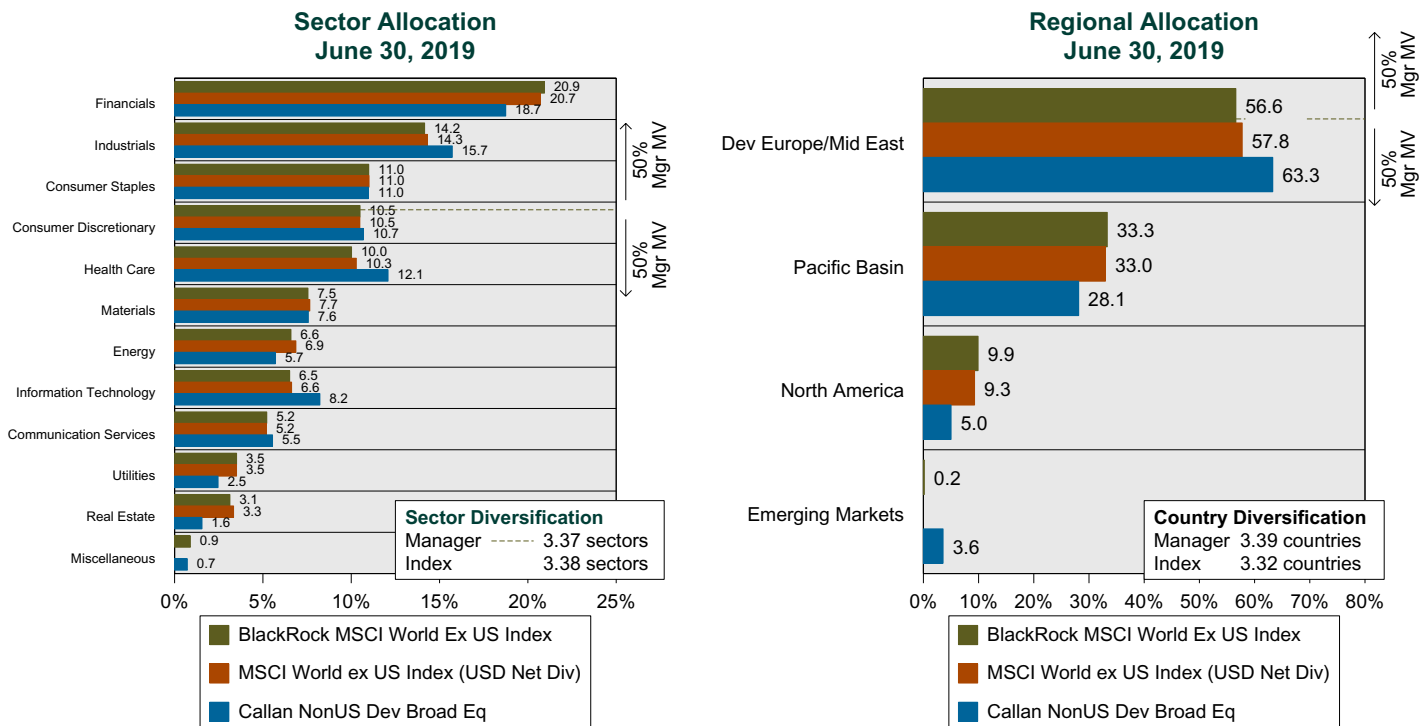
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Developed Broad Equity as of June 30, 2019



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.



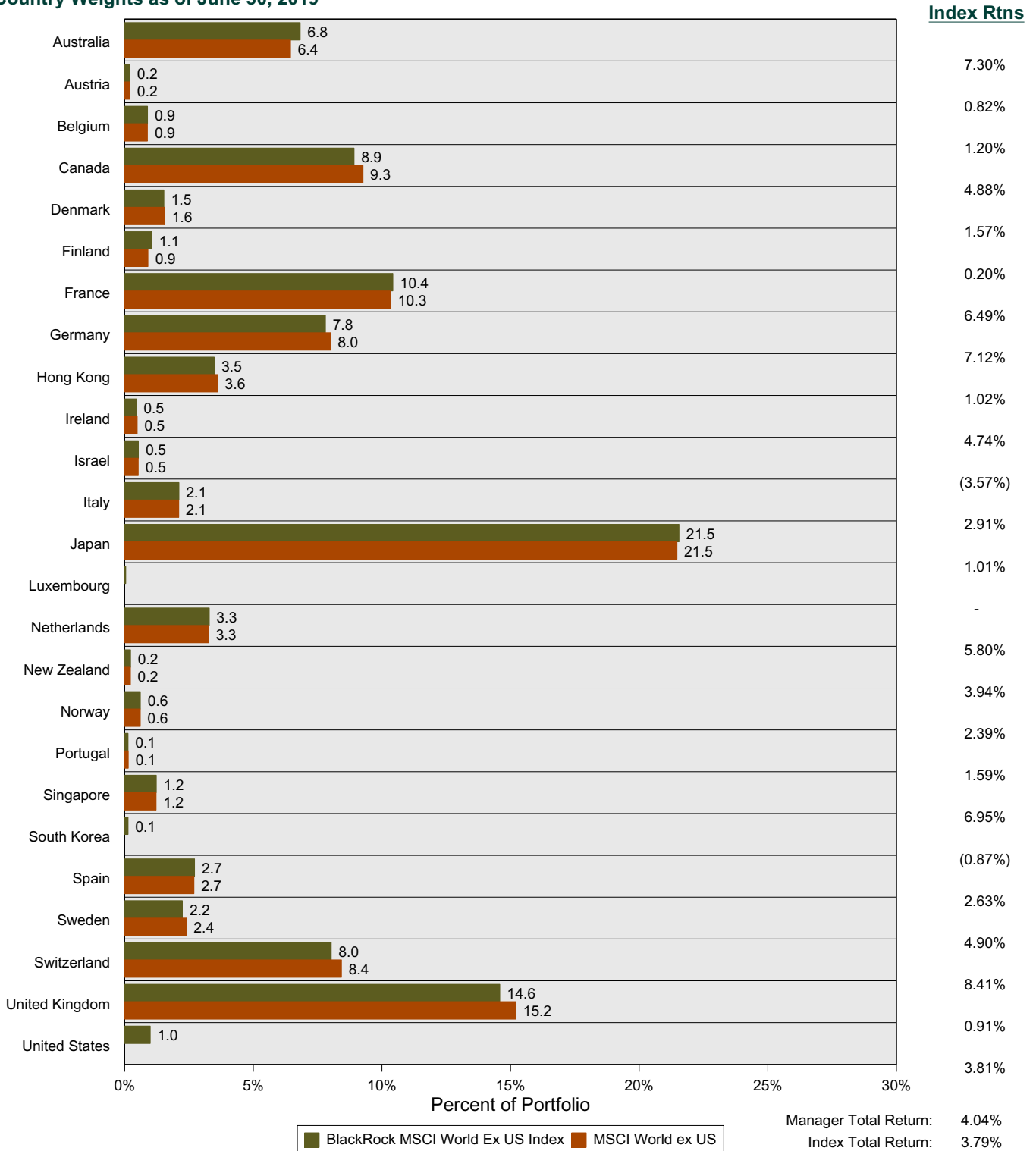
Country Allocation

BlackRock MSCI World Ex US Index VS MSCI World ex US Index (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

Country Weights as of June 30, 2019



FIS Group Non-U.S. Small Cap Period Ended June 30, 2019

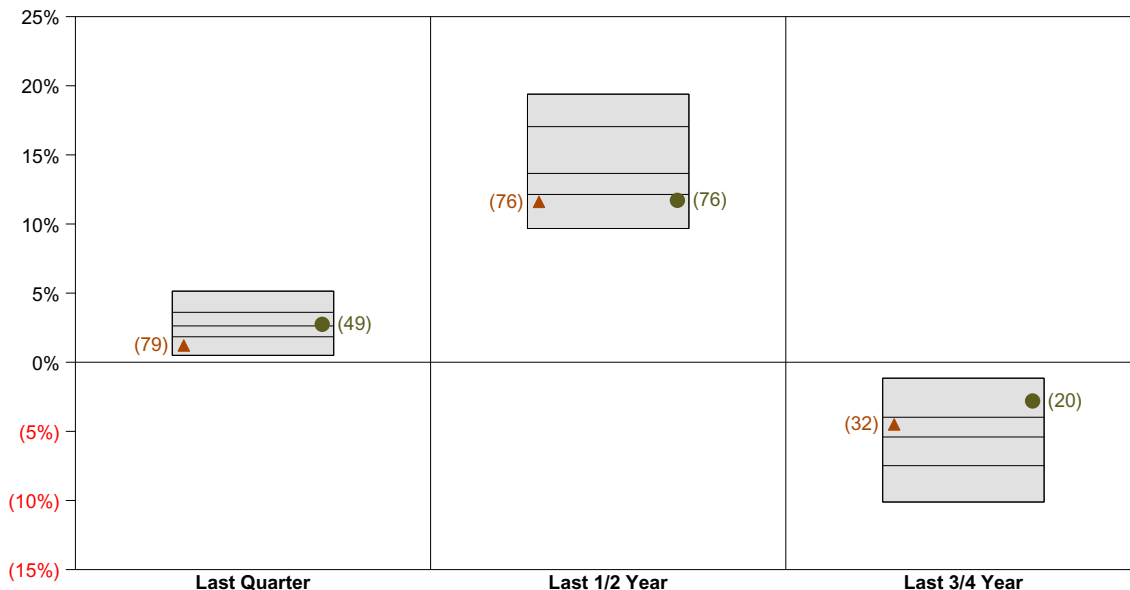
Quarterly Summary and Highlights

- FIS Group Non-U.S. Small Cap's portfolio posted a 2.74% return for the quarter placing it in the 49 percentile of the Callan International Small Cap group for the quarter and in the 20 percentile for the last three-quarter year.
- FIS Group Non-U.S. Small Cap's portfolio outperformed the MSCI ACWI ex US Small Cap by 1.53% for the quarter and outperformed the MSCI ACWI ex US Small Cap for the three-quarter year by 1.70%.

Quarterly Asset Growth

Beginning Market Value	\$189,588,000
Net New Investment	\$0
Investment Gains/(Losses)	\$5,200,000
Ending Market Value	\$194,788,000

Performance vs Callan International Small Cap (Gross)



10th Percentile
25th Percentile
Median
75th Percentile
90th Percentile

Last Quarter

Last 1/2 Year

Last 3/4 Year

5.14
3.61
2.63
1.84
0.50

19.39
17.04
13.66
12.14
9.67

(1.15)
(3.98)
(5.41)
(7.48)
(10.11)

**FIS Group
Non-U.S. Small Cap** ●

2.74

11.71

(2.80)

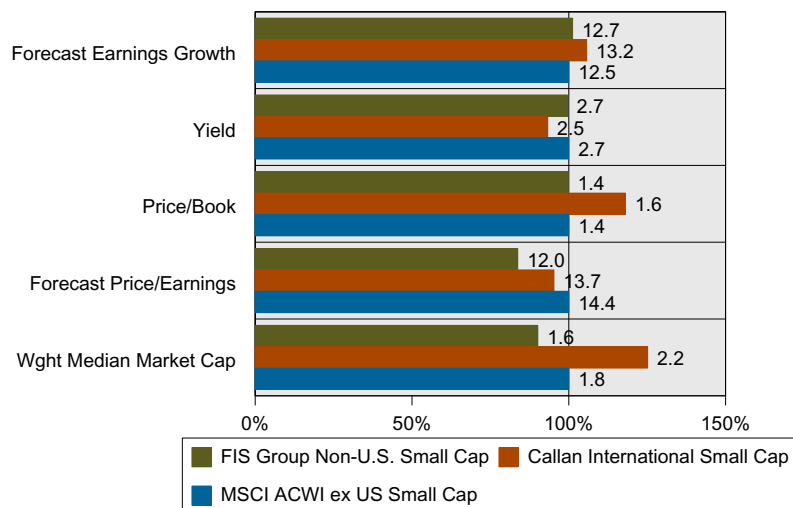
MSCI ACWI ex
US Small Cap ▲

1.21

11.60

(4.50)

Portfolio Characteristics as a Percentage of the MSCI ACWI ex US Small Cap



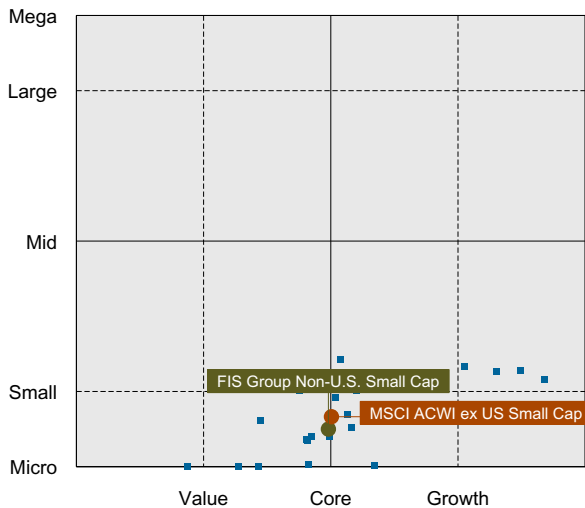
Current Holdings Based Style Analysis

FIS Group Non-U.S. Small Cap

As of June 30, 2019

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 chart illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right chart displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

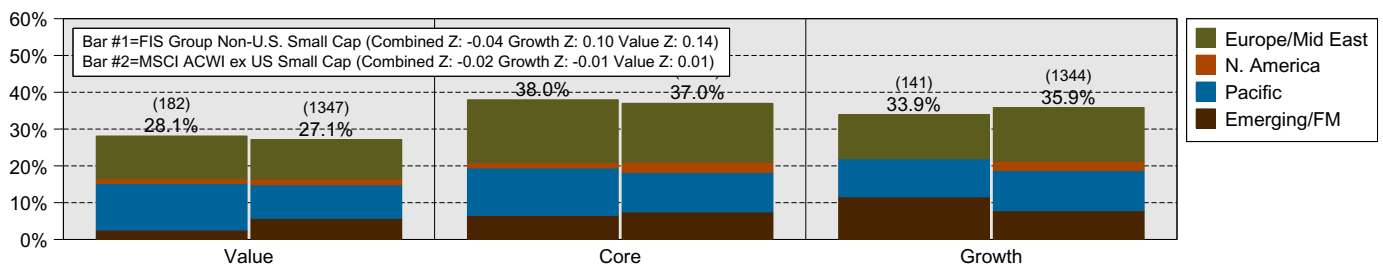
Style Map vs Callan Intl Small Cap Holdings as of June 30, 2019



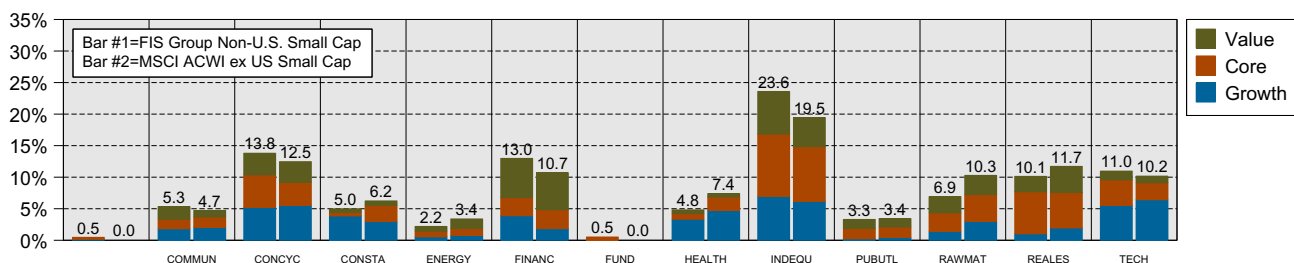
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Europe/ Mid East	11.6% (70)	17.1% (70)	12.0% (34)	40.7% (174)
N. America	10.7% (330)	16.0% (393)	14.6% (326)	41.2% (1049)
Pacific	1.3% (8)	1.4% (9)	0.0% (0)	2.7% (17)
Emerging/ FM	1.6% (69)	2.7% (76)	2.5% (66)	6.9% (211)
Total	28.1% (182)	38.0% (186)	33.9% (141)	100.0% (509)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019



FIS Group Non-U.S. Small Cap Equity Characteristics Analysis Summary

Portfolio Characteristics

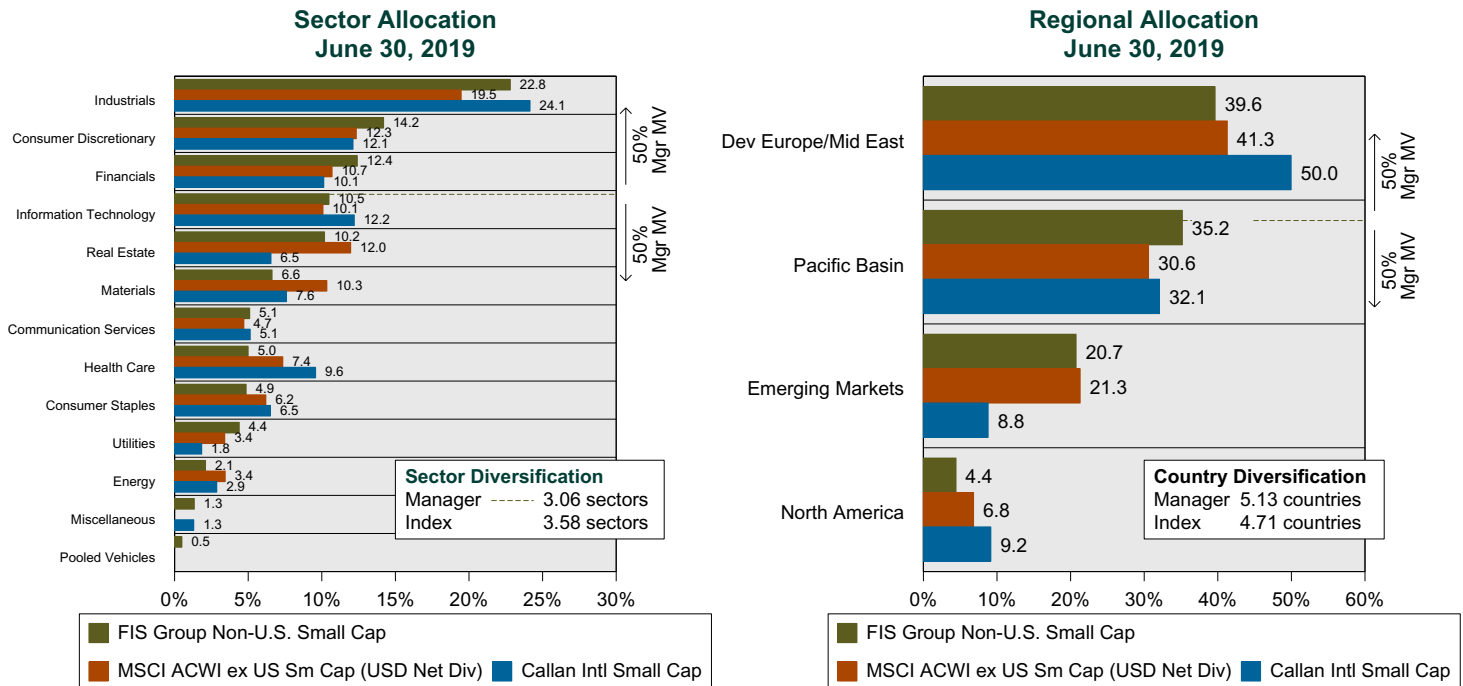
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan International Small Cap as of June 30, 2019



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.



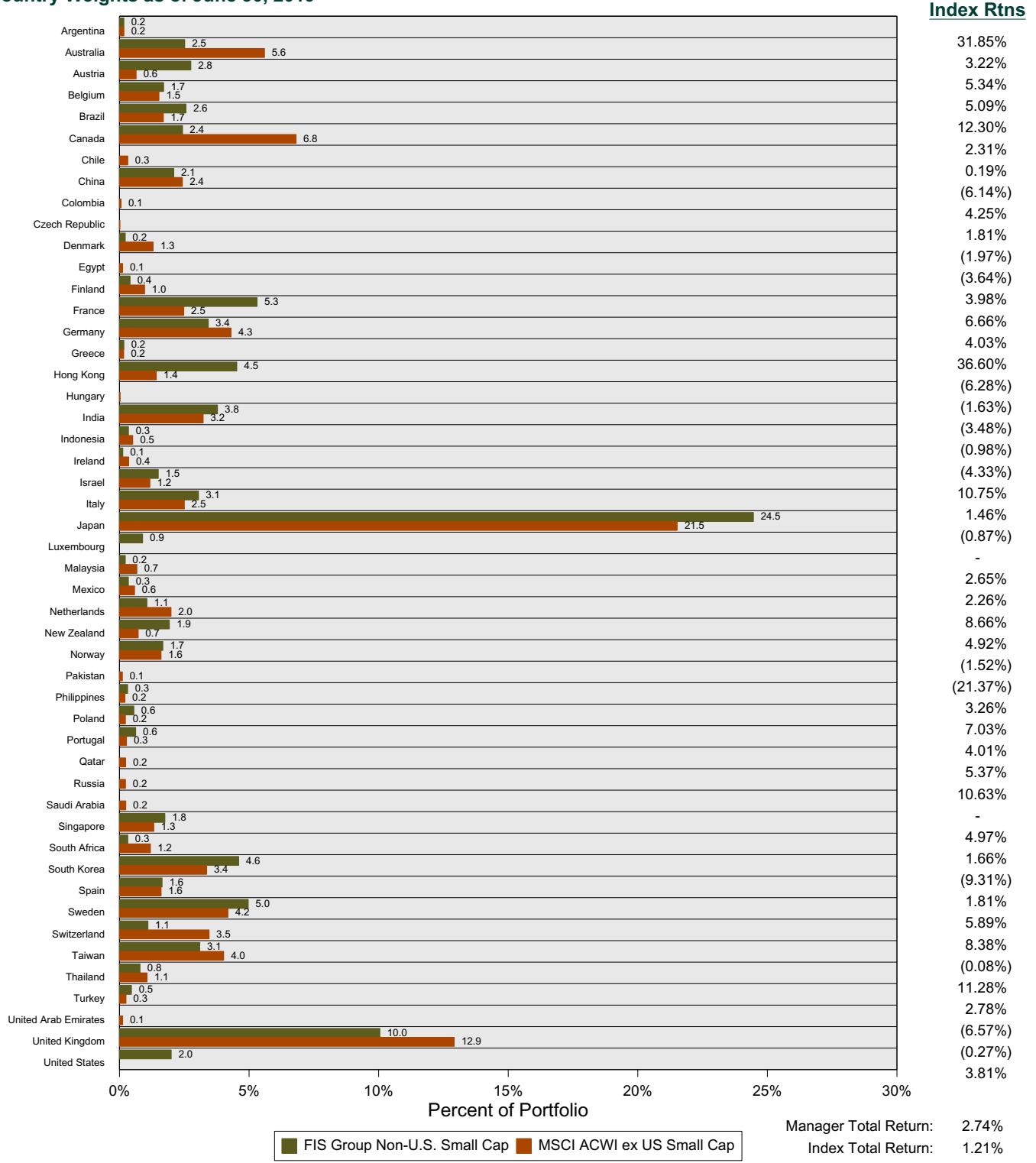
Country Allocation

FIS Group Non-U.S. Small Cap VS MSCI ACWI ex US Sm Cap (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

Country Weights as of June 30, 2019



Harris Assoc Int'l SCV

Period Ended June 30, 2019

Investment Philosophy

The team seeks to invest in companies that trade at a substantial discount to their underlying business values and are run by managers who think and act as owners. Portfolio managers believe that purchasing a quality business at a discount to its underlying value minimizes risk while providing substantial profit potential.

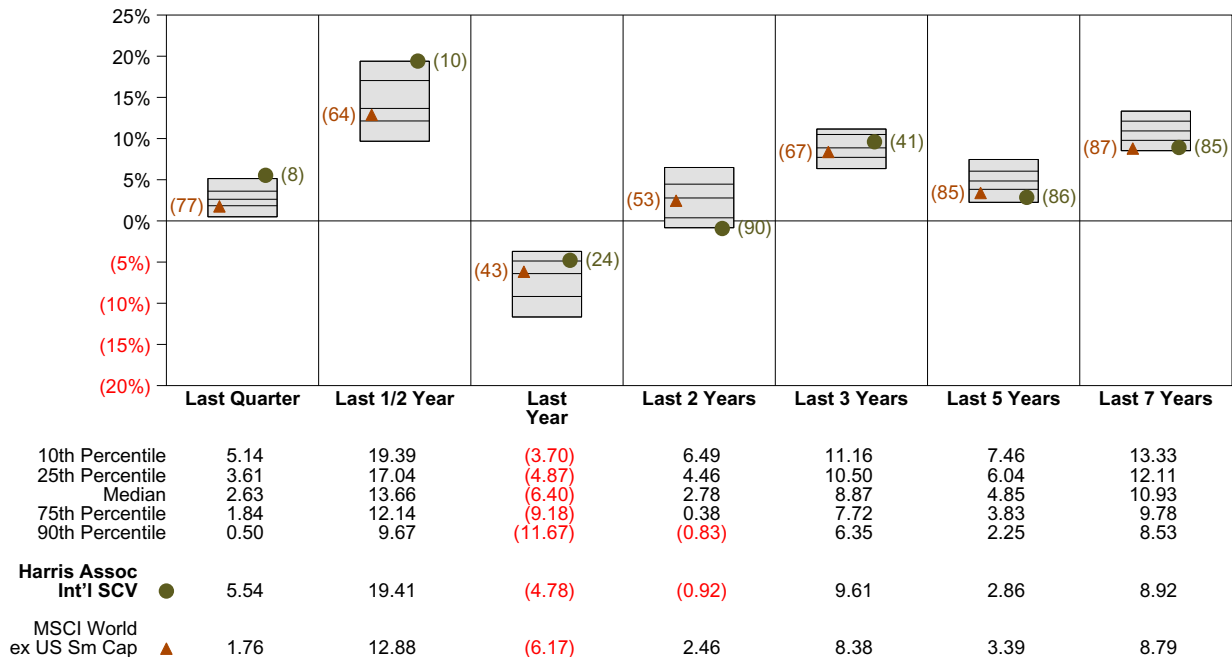
Quarterly Summary and Highlights

- Harris Assoc Int'l SCV's portfolio posted a 5.54% return for the quarter placing it in the 8 percentile of the Callan International Small Cap group for the quarter and in the 24 percentile for the last year.
- Harris Assoc Int'l SCV's portfolio outperformed the MSCI World ex US Sm Cap by 3.78% for the quarter and outperformed the MSCI World ex US Sm Cap for the year by 1.39%.

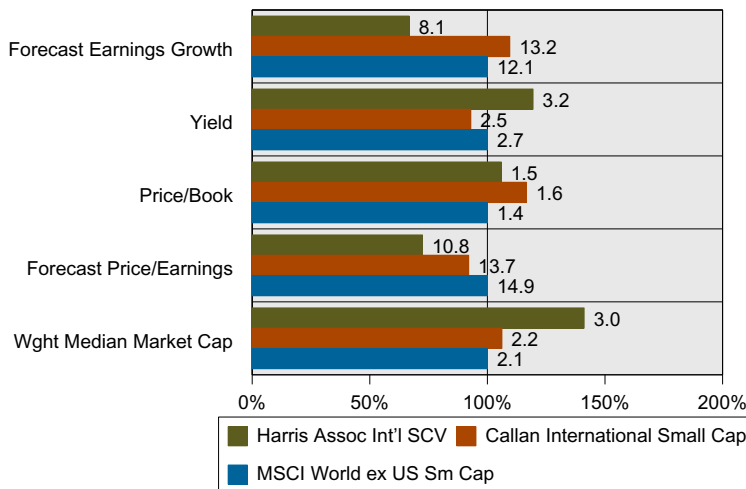
Quarterly Asset Growth

Beginning Market Value	\$542,073,613
Net New Investment	\$0
Investment Gains/(Losses)	\$30,011,843
Ending Market Value	\$572,085,456

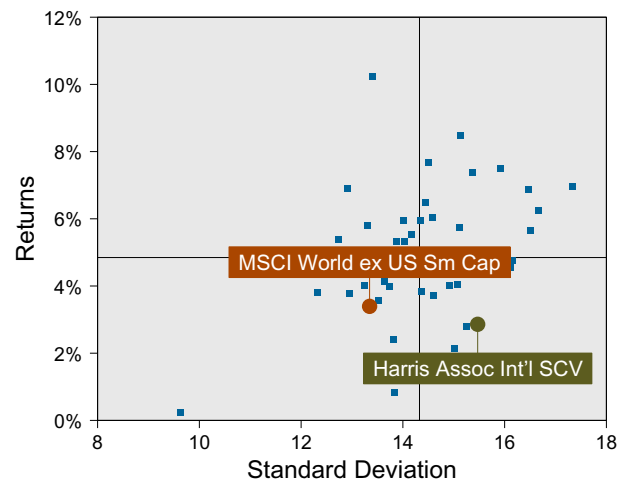
Performance vs Callan International Small Cap (Gross)



Portfolio Characteristics as a Percentage of the MSCI World ex US Sm Cap



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

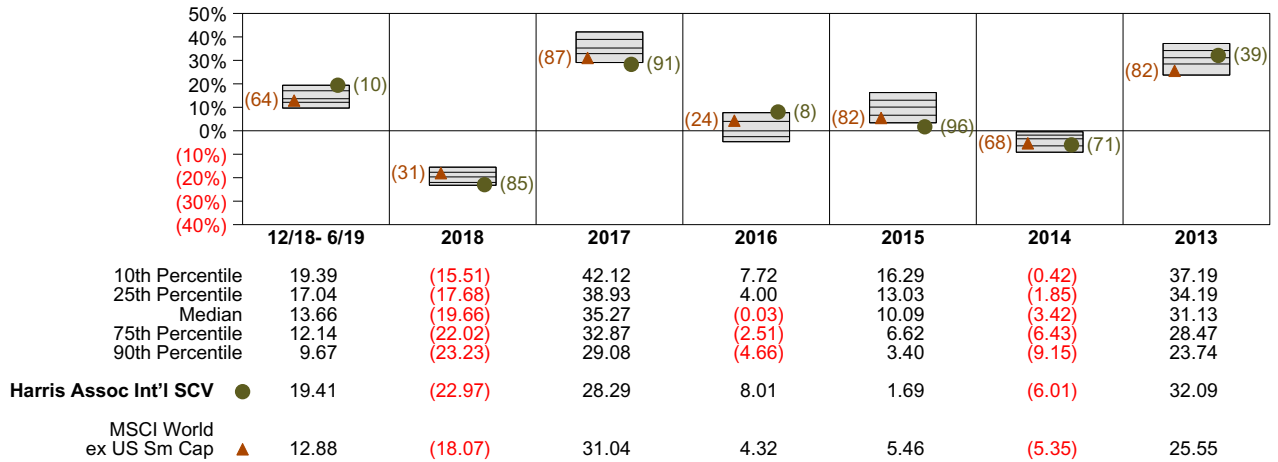


Harris Assoc Int'l SCV Return Analysis Summary

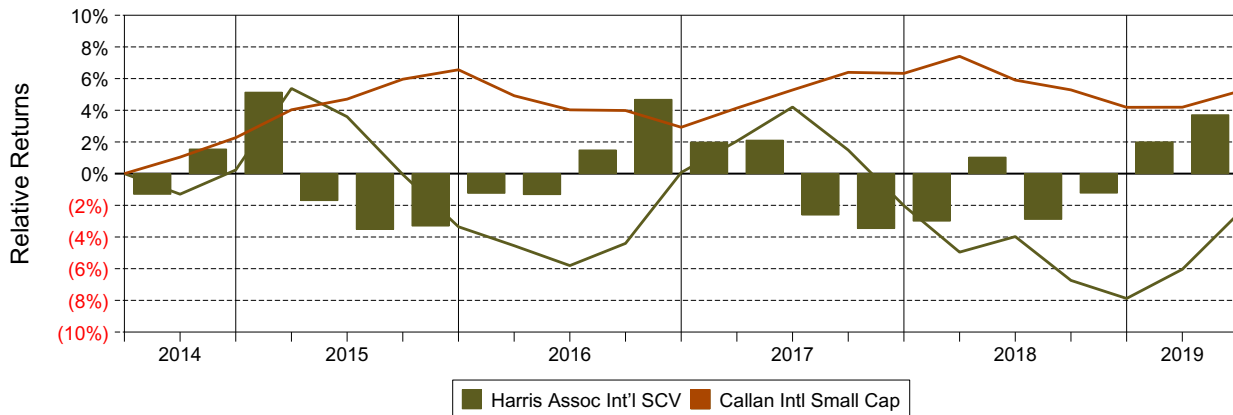
Return Analysis

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.

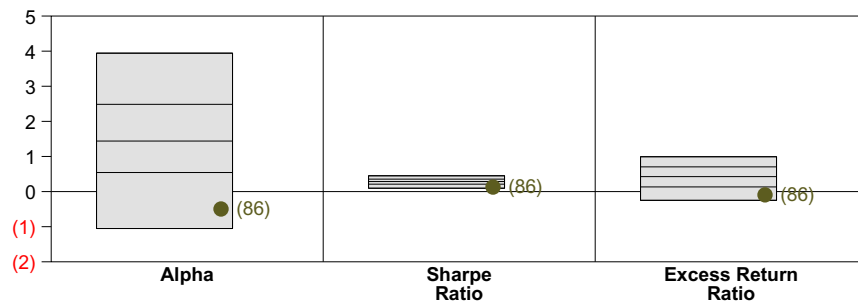
Performance vs Callan International Small Cap (Gross)



Cumulative and Quarterly Relative Return vs MSCI World ex US Sm Cap



Risk Adjusted Return Measures vs MSCI World ex US Sm Cap Rankings Against Callan International Small Cap (Gross) Five Years Ended June 30, 2019



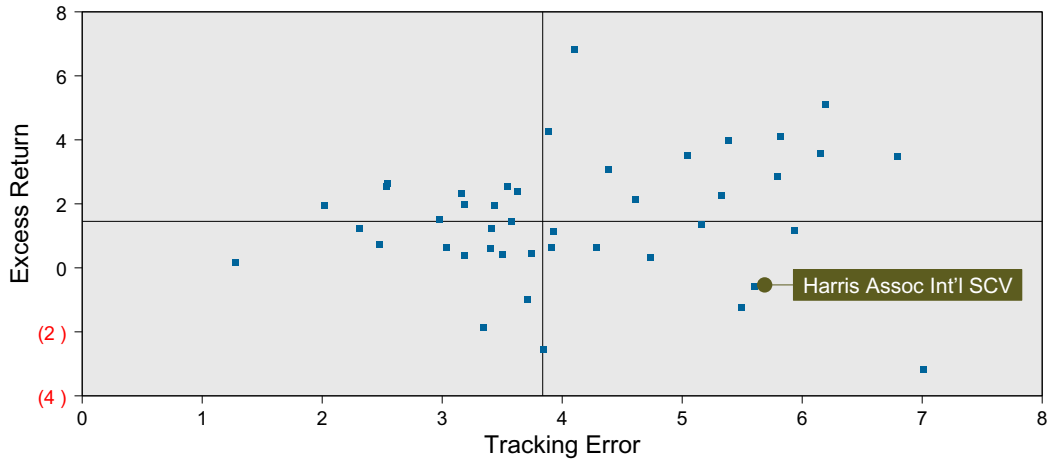
10th Percentile	3.94	0.45	0.99
25th Percentile	2.49	0.35	0.70
Median	1.44	0.29	0.43
75th Percentile	0.54	0.21	0.13
90th Percentile	(1.05)	0.10	(0.25)
Harris Assoc Int'l SCV	(0.50)	0.13	(0.09)

Harris Assoc Int'l SCV Risk Analysis Summary

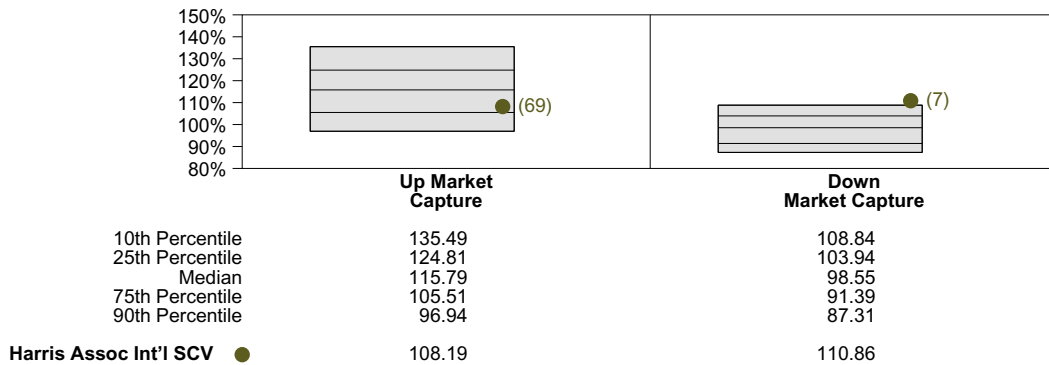
Risk Analysis

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.

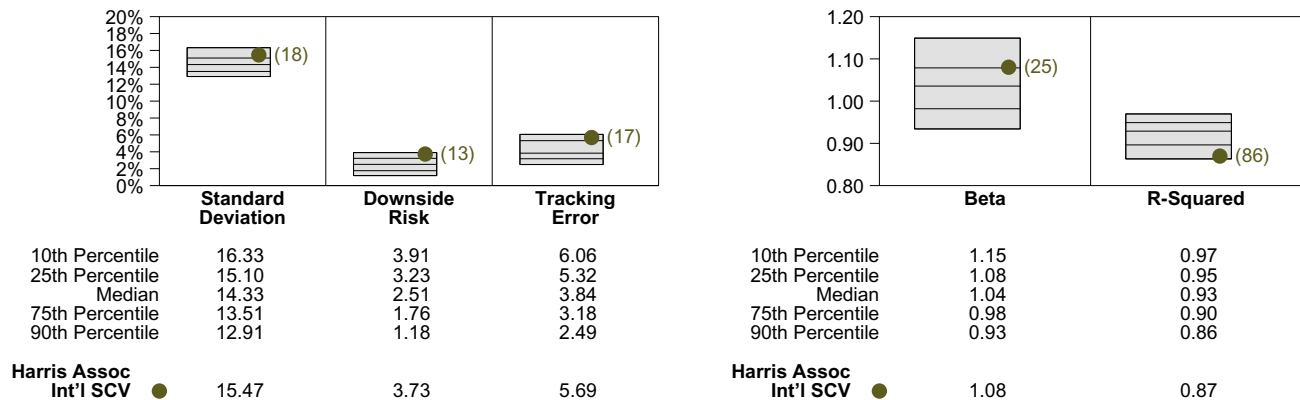
Risk Analysis vs Callan International Small Cap (Gross) Five Years Ended June 30, 2019



Market Capture vs MSCI World ex US Small Cap (USD Net Div) Rankings Against Callan International Small Cap (Gross) Five Years Ended June 30, 2019



Risk Statistics Rankings vs MSCI World ex US Small Cap (USD Net Div) Rankings Against Callan International Small Cap (Gross) Five Years Ended June 30, 2019



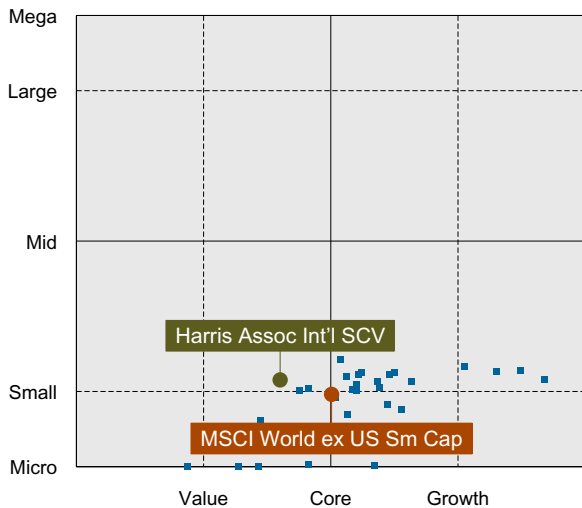
Current Holdings Based Style Analysis

Harris Assoc Int'l SCV

As of June 30, 2019

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

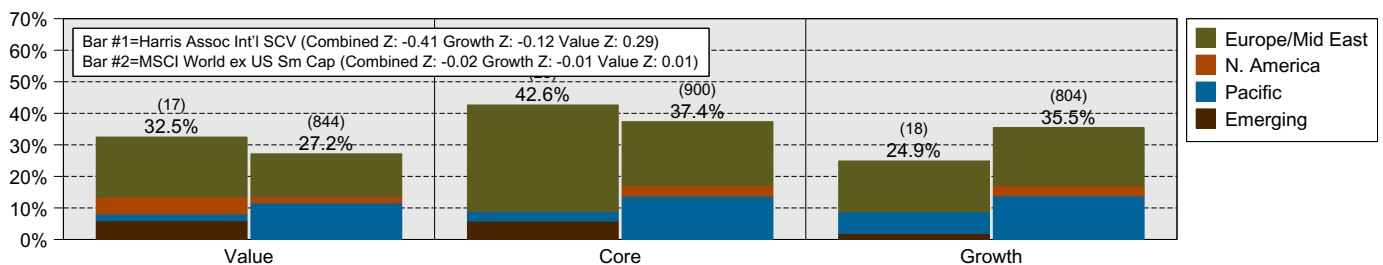
Style Map vs Callan Intl Small Cap Holdings as of June 30, 2019



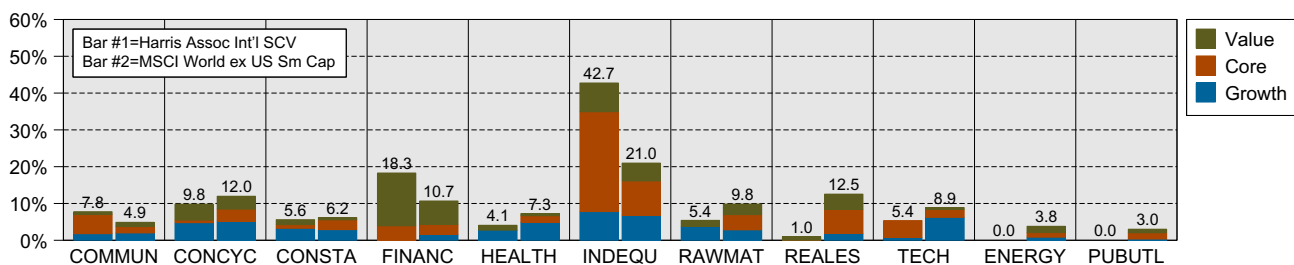
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Europe/ Mid East	18.9% (10) 13.5% (330)	33.8% (18) 20.2% (393)	16.1% (13) 18.5% (326)	68.9% (41) 52.2% (1049)
N. America	5.5% (3) 2.1% (69)	0.0% (0) 3.4% (76)	0.0% (0) 3.2% (66)	5.5% (3) 8.7% (211)
Pacific	2.1% (2) 11.6% (445)	3.0% (3) 13.7% (431)	6.8% (3) 13.8% (412)	11.9% (8) 39.1% (1288)
Emerging	6.0% (2) 0.0% (0)	5.8% (4) 0.0% (0)	1.9% (2) 0.0% (0)	13.8% (8) 0.0% (0)
Total	32.5% (17) 27.2% (844)	42.6% (25) 37.4% (900)	24.9% (18) 35.5% (804)	100.0% (60) 100.0% (2548)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

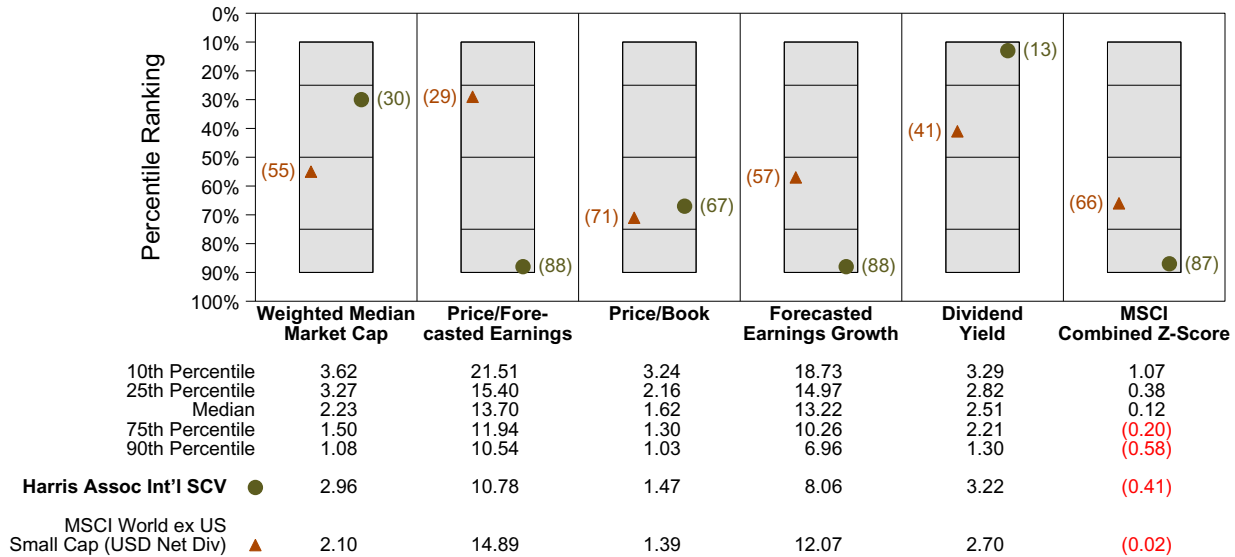


Harris Assoc Int'l SCV Equity Characteristics Analysis Summary

Portfolio Characteristics

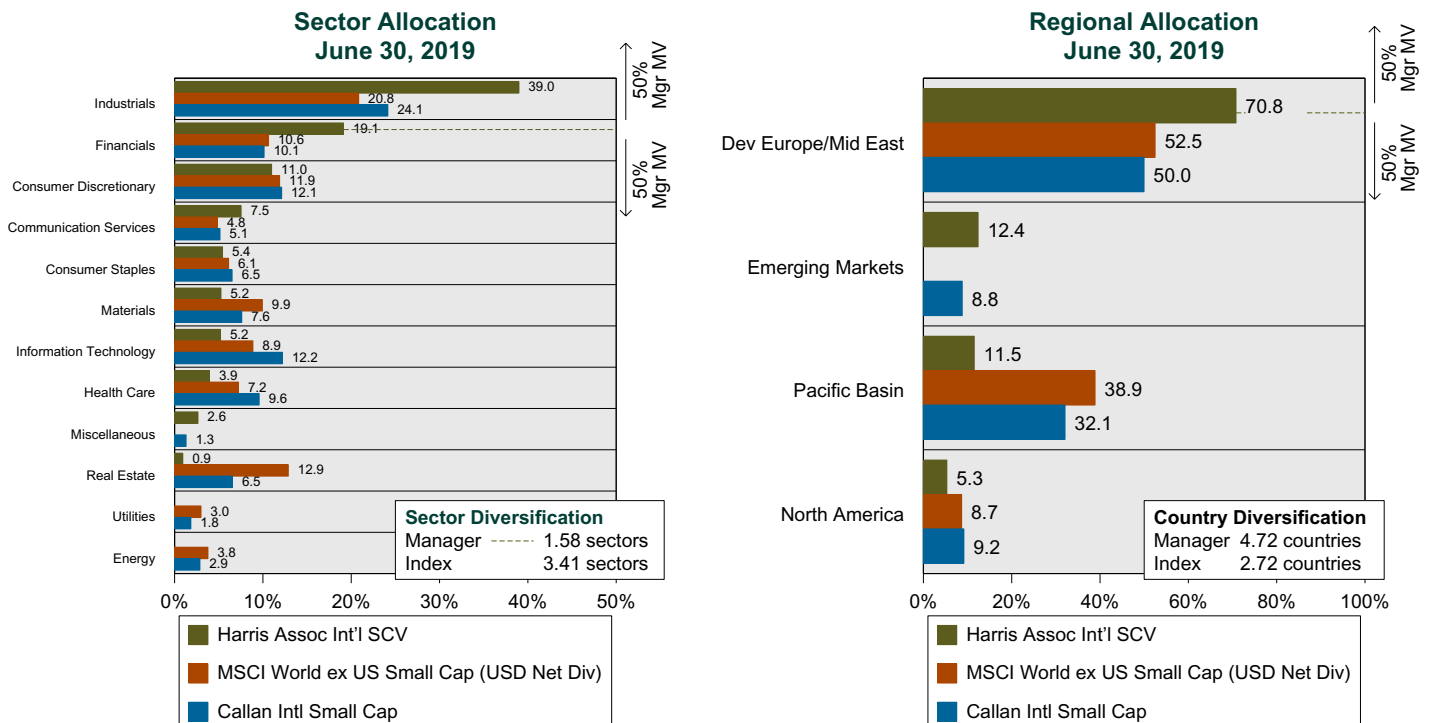
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan International Small Cap as of June 30, 2019



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.



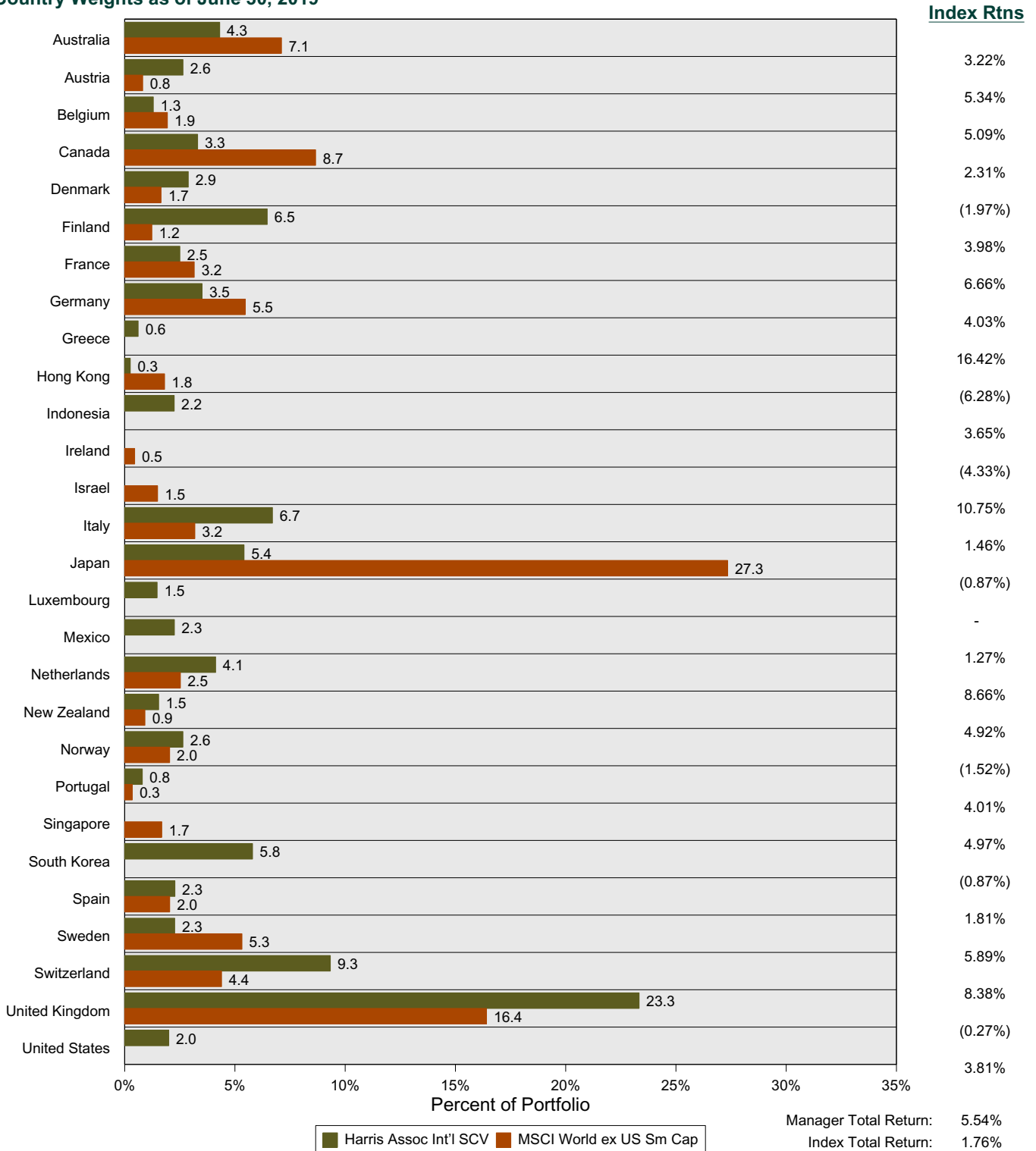
Country Allocation

Harris Assoc Int'l SCV VS MSCI World ex US Small Cap (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

Country Weights as of June 30, 2019



Emerging Mkts Equity Period Ended June 30, 2019

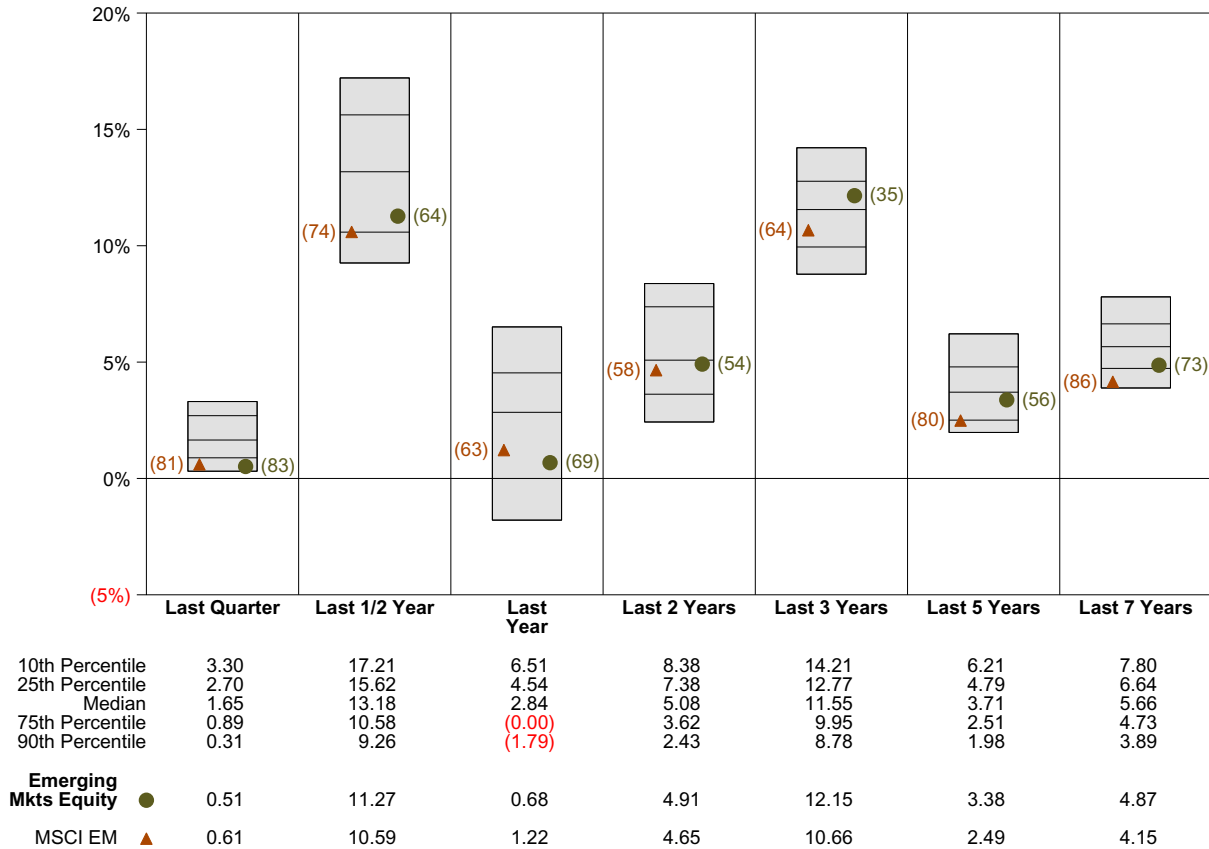
Quarterly Summary and Highlights

- Emerging Mkts Equity's portfolio posted a 0.51% return for the quarter placing it in the 83 percentile of the Callan Emerging Broad group for the quarter and in the 69 percentile for the last year.
- Emerging Mkts Equity's portfolio underperformed the MSCI EM by 0.09% for the quarter and underperformed the MSCI EM for the year by 0.54%.

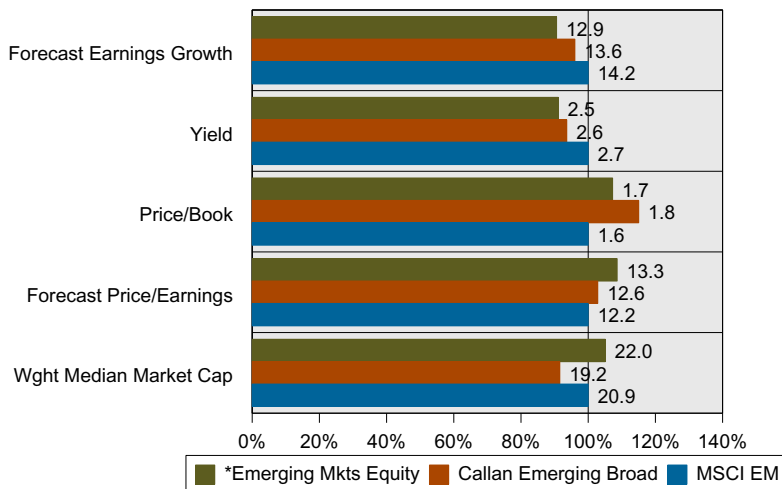
Quarterly Asset Growth

Beginning Market Value	\$1,750,128,612
Net New Investment	\$96,646,151
Investment Gains/(Losses)	\$8,340,645
Ending Market Value	\$1,855,115,408

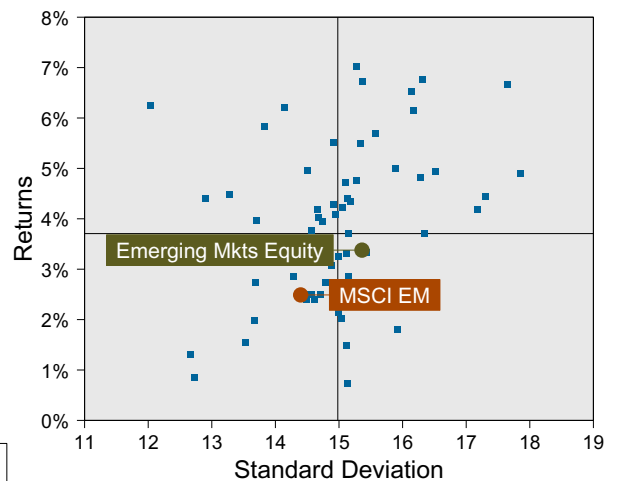
Performance vs Callan Emerging Broad (Gross)



Portfolio Characteristics as a Percentage of the MSCI EM



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



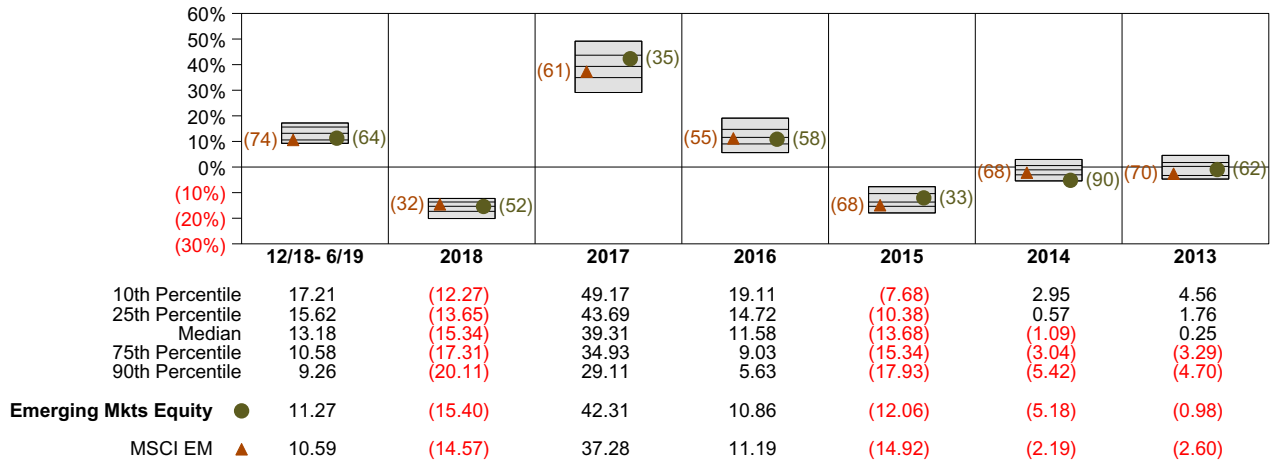
*6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

Emerging Mkts Equity Return Analysis Summary

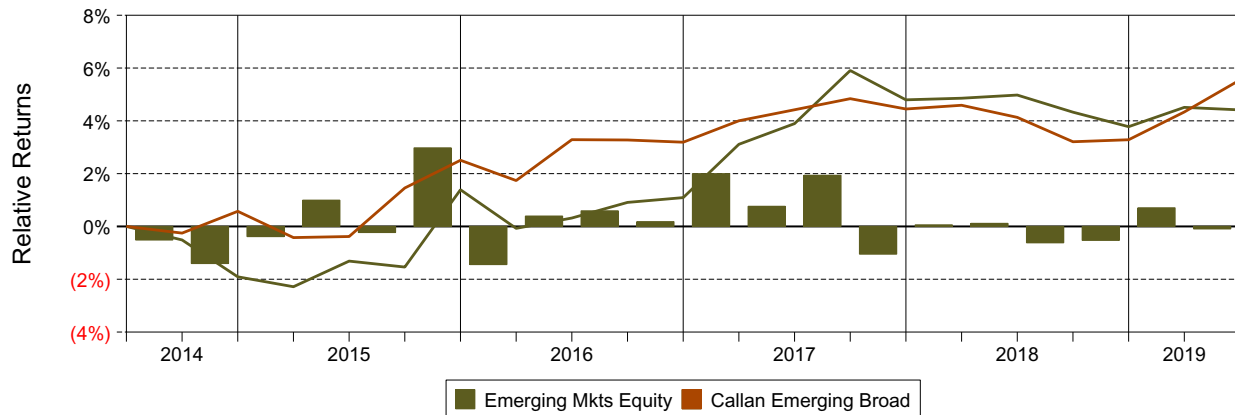
Return Analysis

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.

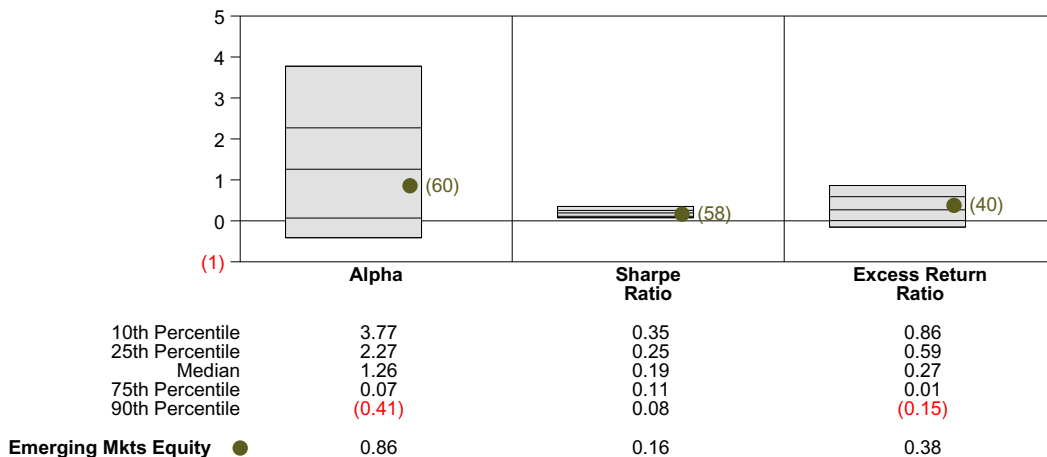
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Return vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019

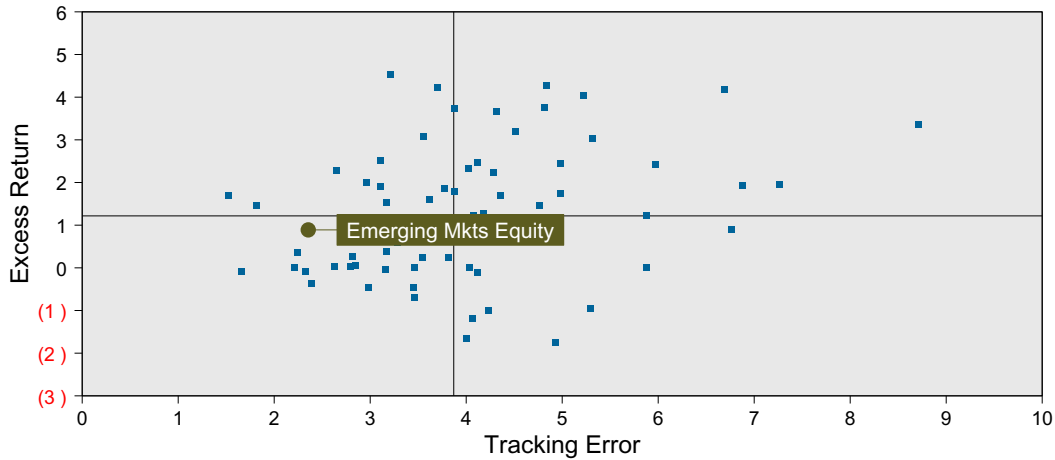


Emerging Mkts Equity Risk Analysis Summary

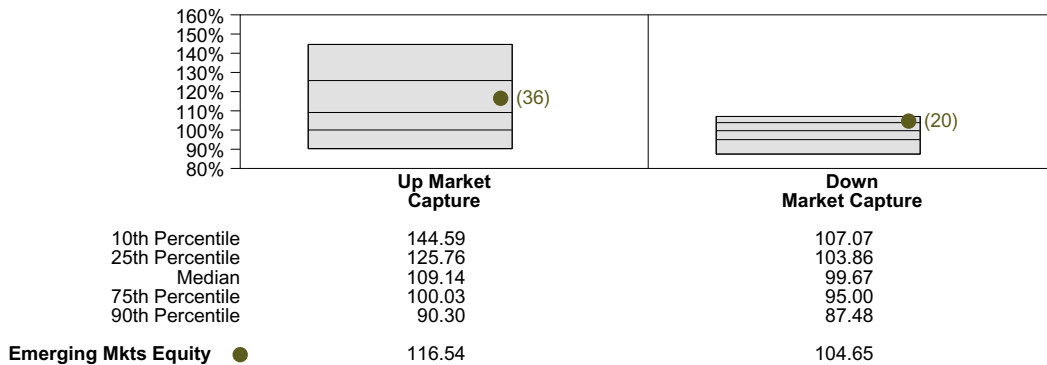
Risk Analysis

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.

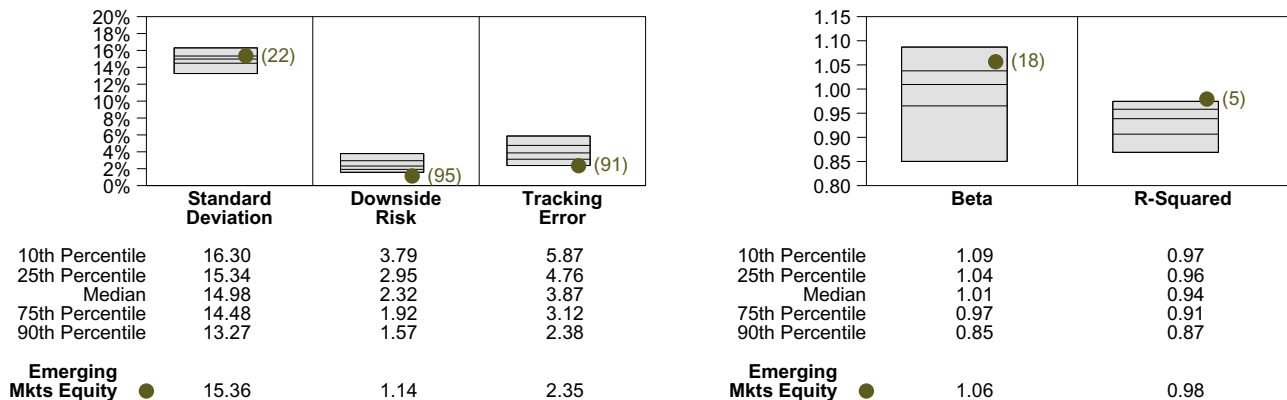
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



Market Capture vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



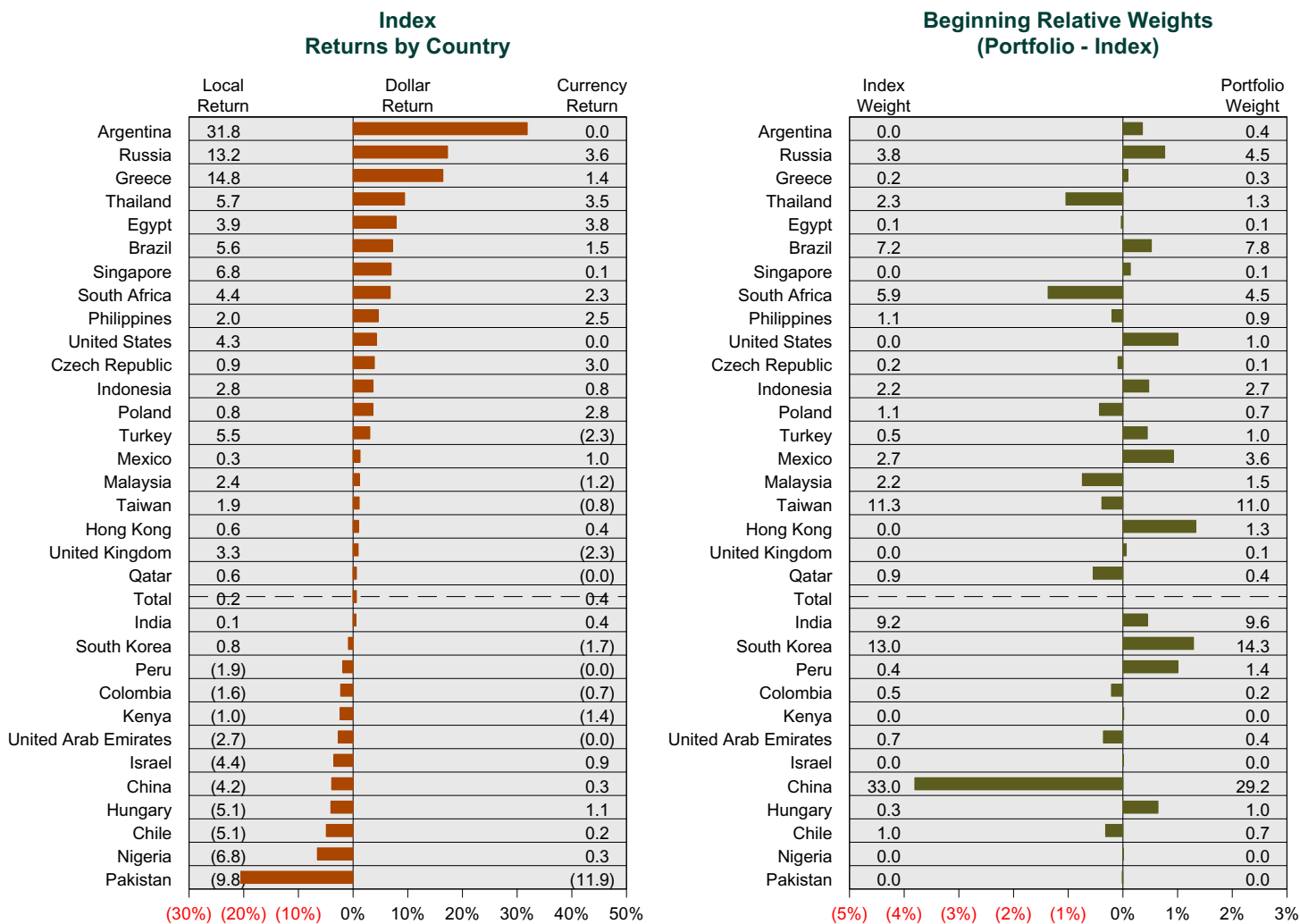
Risk Statistics Rankings vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



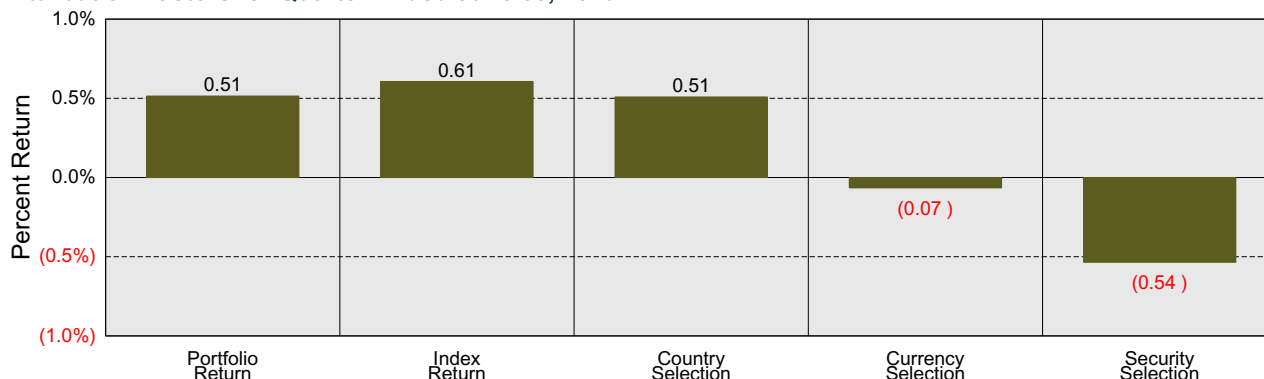
Emerging Mkts Equity vs MSCI EM Attribution for Quarter Ended June 30, 2019

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.



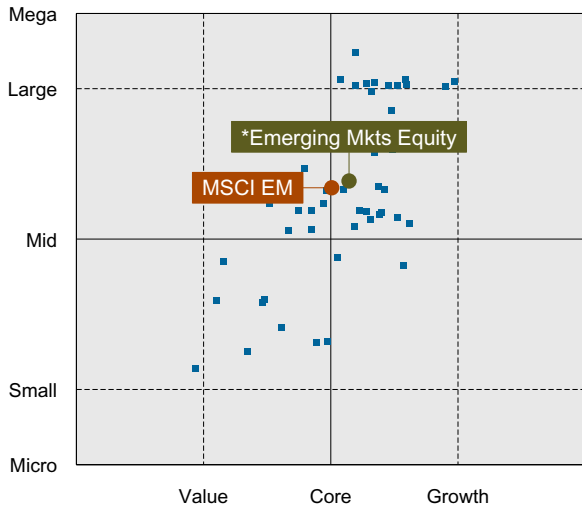
Attribution Factors for Quarter Ended June 30, 2019



Current Holdings Based Style Analysis Emerging Mkts Equity As of June 30, 2019

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.

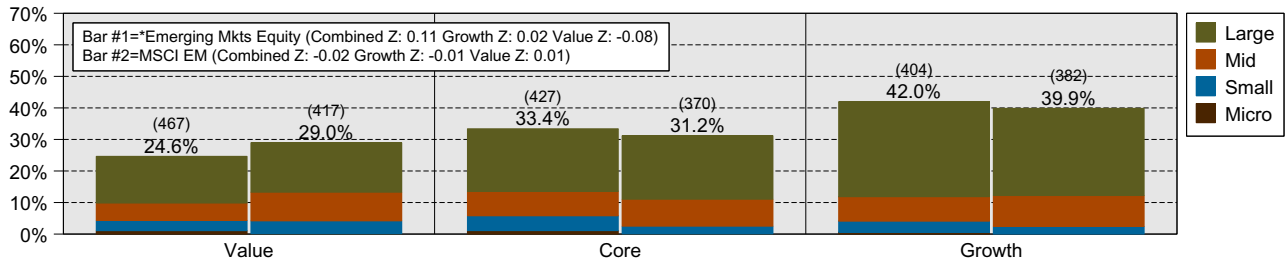
Style Map vs Callan Emerging Broad Holdings as of June 30, 2019



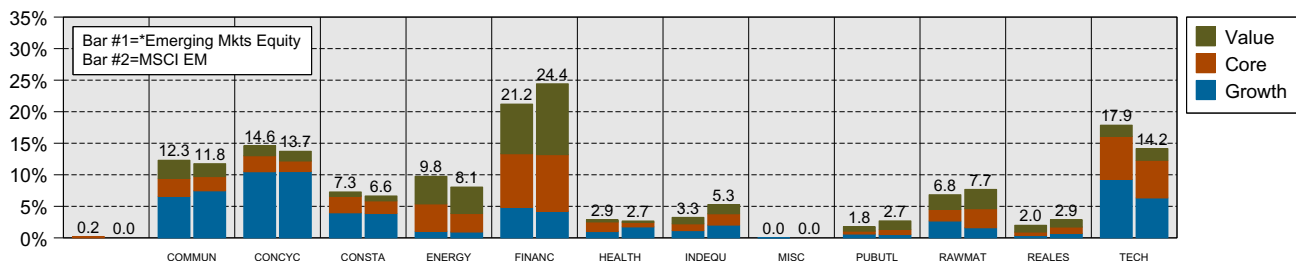
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	14.8% (86)	19.8% (93)	30.1% (88)	64.8% (267)
	15.7% (77)	20.1% (88)	27.6% (81)	63.4% (246)
Mid	5.5% (163)	7.8% (169)	7.8% (181)	21.0% (513)
	9.1% (177)	8.5% (177)	9.8% (205)	27.5% (559)
Small	3.2% (175)	4.7% (130)	3.5% (116)	11.4% (421)
	4.1% (158)	2.5% (103)	2.4% (96)	9.0% (357)
Micro	1.1% (43)	1.1% (35)	0.6% (19)	2.8% (97)
	0.1% (5)	0.0% (2)	0.0% (0)	0.1% (7)
Total	24.6% (467)	33.4% (427)	42.0% (404)	100.0% (1298)
	29.0% (417)	31.2% (370)	39.9% (382)	100.0% (1169)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

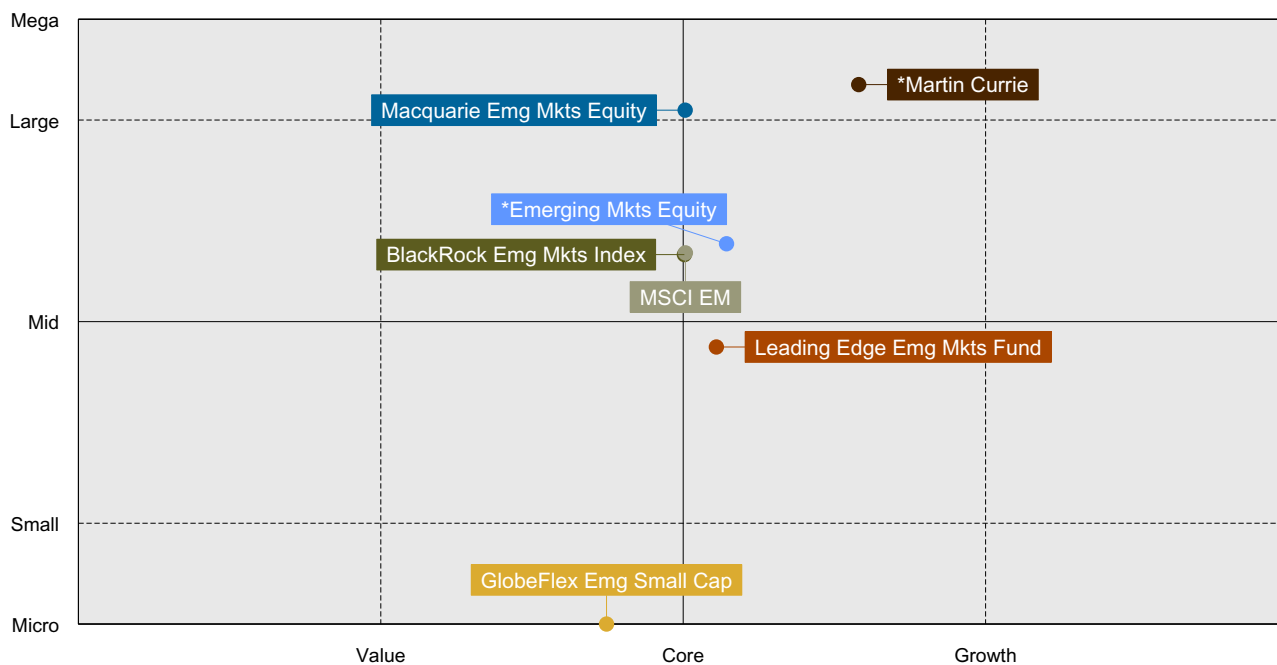


*6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

International Holdings Based Style Analysis For One Quarter Ended June 30, 2019

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 June 30, 2019



	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
BlackRock Emg Mkts Index	37.14%	20.71	(0.02)	(0.01)	0.01	1146	74.42
Leading Edge Emg Mkts Fund	11.85%	11.49	0.08	0.07	(0.00)	232	43.27
Macquarie Emg Mkts Equity	22.41%	43.94	(0.02)	(0.15)	(0.13)	126	14.67
*Martin Currie	23.50%	63.18	0.51	0.20	(0.31)	46	10.67
GlobeFlex Emg Small Cap	5.10%	0.46	(0.27)	0.20	0.48	129	22.62
*Emerging Mkts Equity	100.00%	21.99	0.11	0.02	(0.08)	1434	48.82
MSCI EM	-	20.92	(0.02)	(0.01)	0.01	1179	76.77

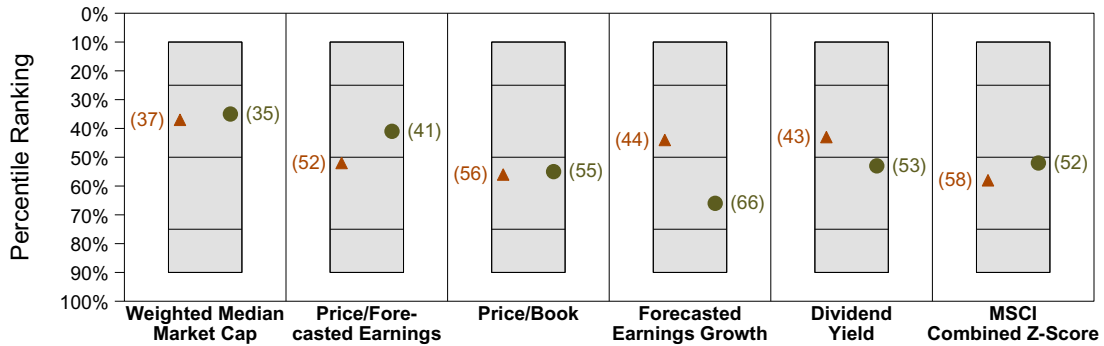
*6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

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 June 30, 2019

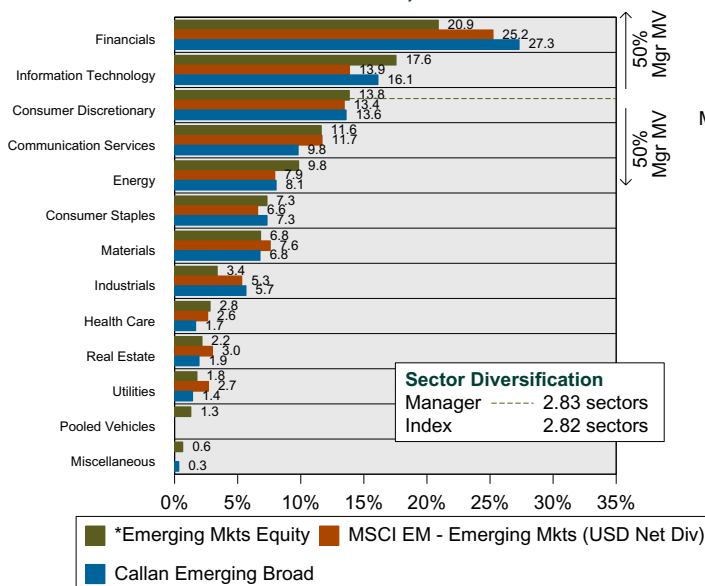


	Weighted Median Market Cap	Price/Forecasted Earnings	Price/Book	Forecasted Earnings Growth	Dividend Yield	MSCI Combined Z-Score
10th Percentile	42.84	17.30	2.62	18.31	3.55	0.52
25th Percentile	33.89	15.03	2.24	16.08	3.14	0.36
Median	19.15	12.57	1.83	13.63	2.57	0.14
75th Percentile	14.31	10.57	1.41	11.32	2.18	(0.35)
90th Percentile	6.72	9.26	1.09	9.83	2.00	(0.55)
*Emerging Mkts Equity	21.99	13.28	1.71	12.86	2.50	0.11
MSCI EM - Emerging Mkts (USD Net Div)	20.92	12.22	1.59	14.19	2.75	(0.02)

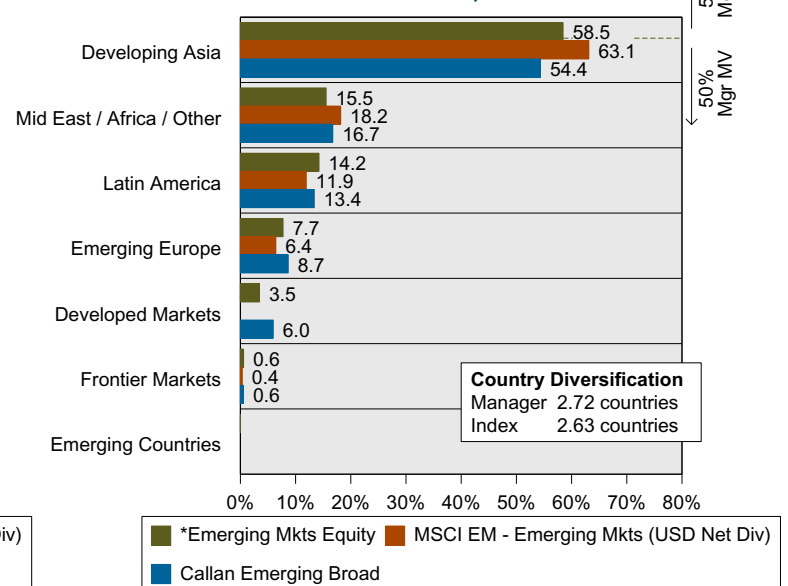
Sector Weights

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.

Sector Allocation June 30, 2019



Regional Allocation June 30, 2019



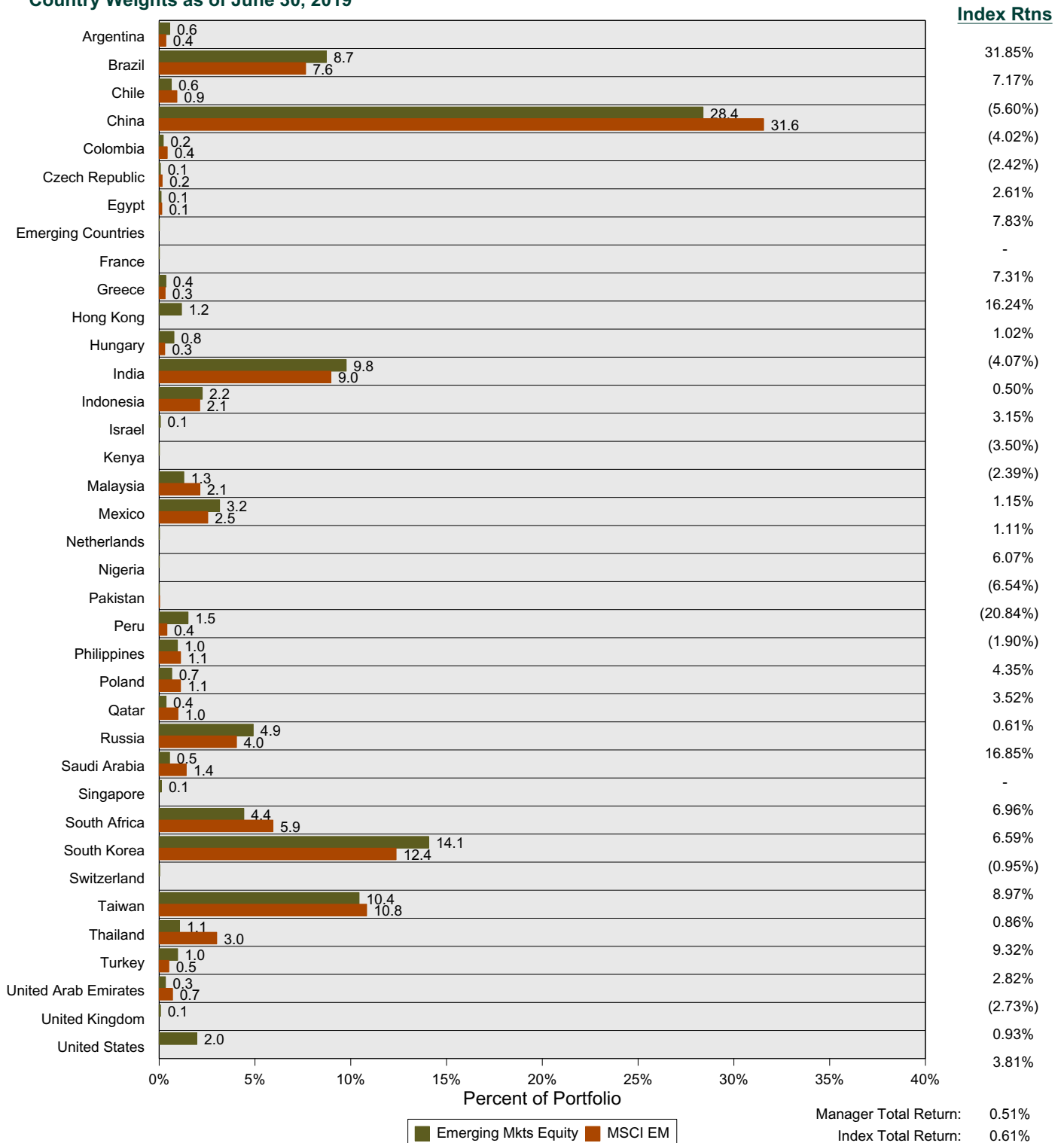
*6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

Country Allocation Emerging Mkts Equity VS MSCI EM - Emerging Mkts (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

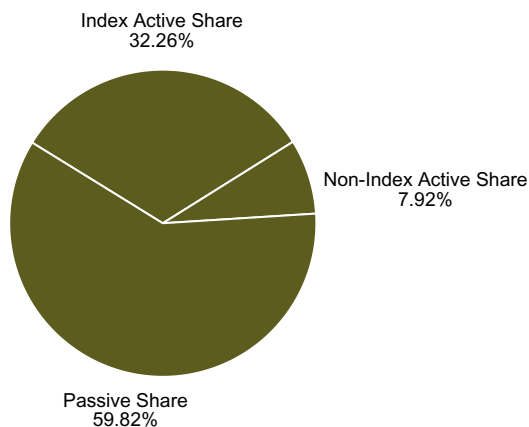
Country Weights as of June 30, 2019



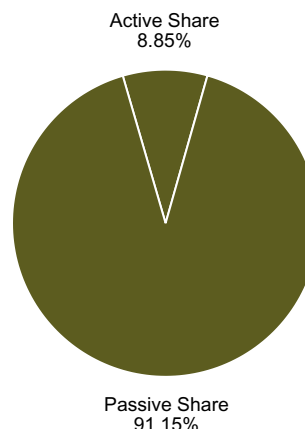
Emerging Mkts Equity Active Share Analysis as of June 30, 2019 vs. MSCI EM - Emerging Mkts (USD Net Div)

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.

Holdings-Level Active Share



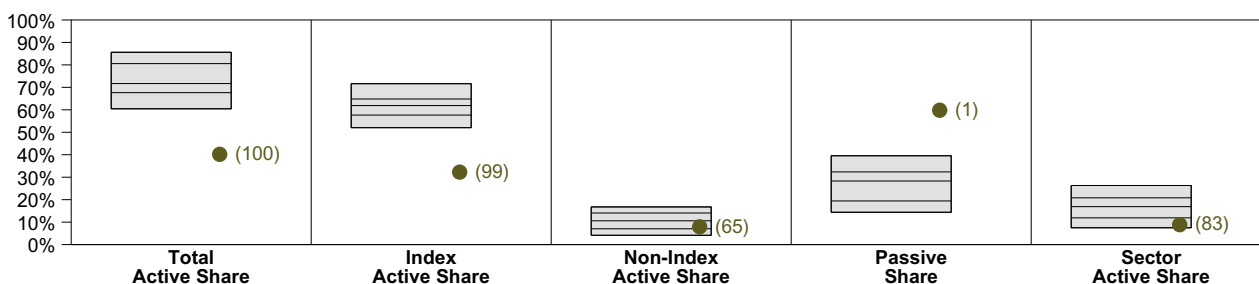
Sector Exposure Active Share



Total Active Share: 40.18%

	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	38.02%	3.73%	41.75%	11.69%	11.63%	4.88%
Consumer Discretionary	27.08%	6.14%	33.23%	13.45%	13.85%	4.55%
Consumer Staples	43.53%	6.11%	49.64%	6.59%	7.33%	3.36%
Energy	30.85%	5.55%	36.39%	7.94%	9.83%	3.01%
Financials	30.42%	8.02%	38.45%	25.24%	20.90%	9.50%
Health Care	40.23%	15.05%	55.28%	2.63%	2.82%	1.49%
Industrials	24.96%	15.22%	40.18%	5.32%	3.38%	2.15%
Information Technology	21.32%	6.37%	27.69%	13.87%	17.55%	4.42%
Materials	40.05%	6.94%	46.99%	7.59%	6.82%	3.48%
Miscellaneous	0.00%	100.00%	100.00%	-	0.65%	0.16%
Pooled Vehicles	0.00%	100.00%	100.00%	-	1.29%	0.62%
Real Estate	26.43%	19.88%	46.31%	3.00%	2.17%	1.38%
Utilities	34.20%	3.33%	37.53%	2.69%	1.78%	1.03%
Total	32.26%	7.92%	40.18%	100.00%	100.00%	40.02%

Active Share vs. Callan Emerging Broad



10th Percentile	85.61	71.63	16.77	39.56	26.30
25th Percentile	80.57	64.82	14.07	32.36	20.82
Median	71.69	61.89	10.59	28.31	16.90
75th Percentile	67.64	57.65	7.04	19.43	11.91
90th Percentile	60.44	52.04	4.14	14.39	7.49
Emerging Mkts Equity	40.18	32.26	7.92	59.82	8.85

BlackRock Emg Mkts Index Period Ended June 30, 2019

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 EM 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.

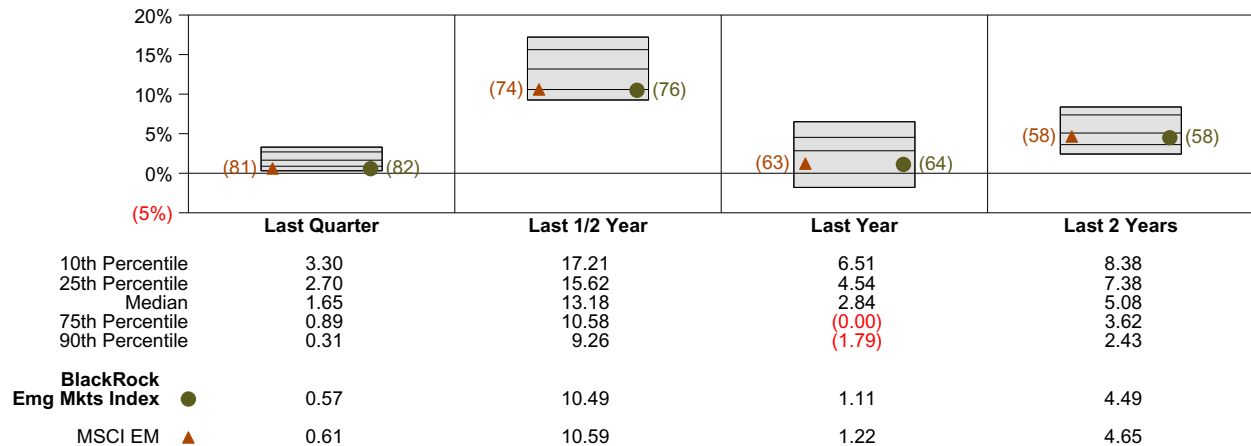
Quarterly Summary and Highlights

- BlackRock Emg Mkts Index's portfolio posted a 0.57% return for the quarter placing it in the 82 percentile of the Callan Emerging Broad group for the quarter and in the 64 percentile for the last year.
- BlackRock Emg Mkts Index's portfolio underperformed the MSCI EM by 0.03% for the quarter and underperformed the MSCI EM for the year by 0.11%.

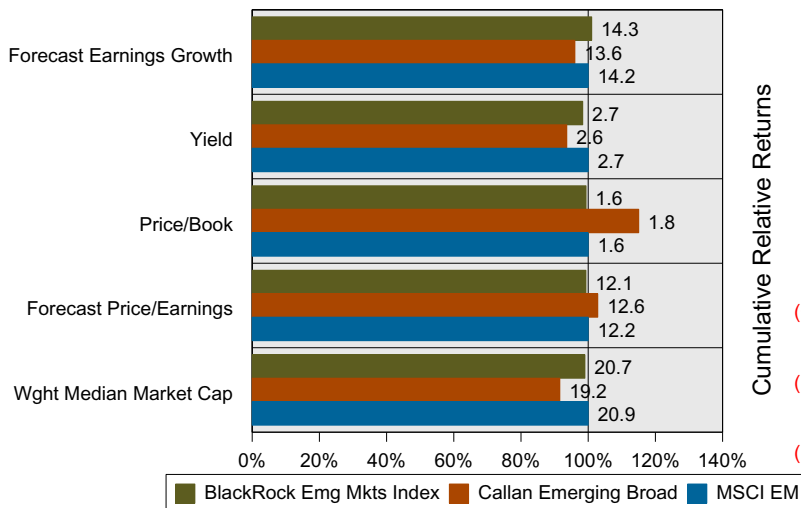
Quarterly Asset Growth

Beginning Market Value	\$684,993,835
Net New Investment	\$-21,250
Investment Gains/(Losses)	\$3,985,447
Ending Market Value	\$688,958,032

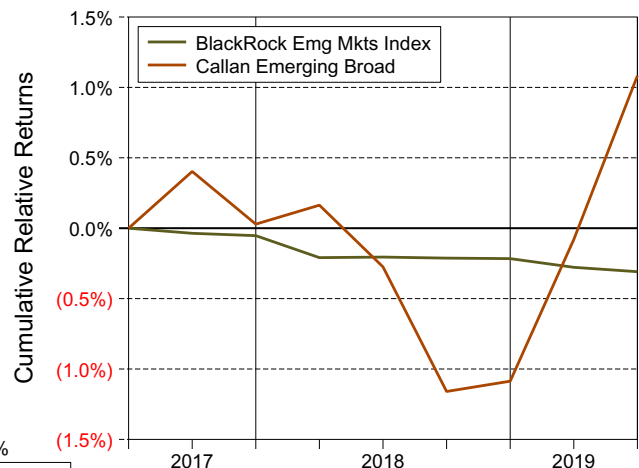
Performance vs Callan Emerging Broad (Gross)



Portfolio Characteristics as a Percentage of the MSCI EM



Cumulative Returns vs MSCI EM



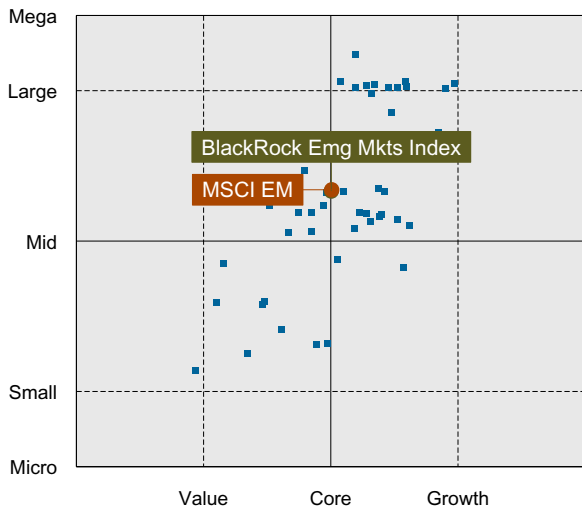
Current Holdings Based Style Analysis

BlackRock Emg Mkts Index

As of June 30, 2019

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.

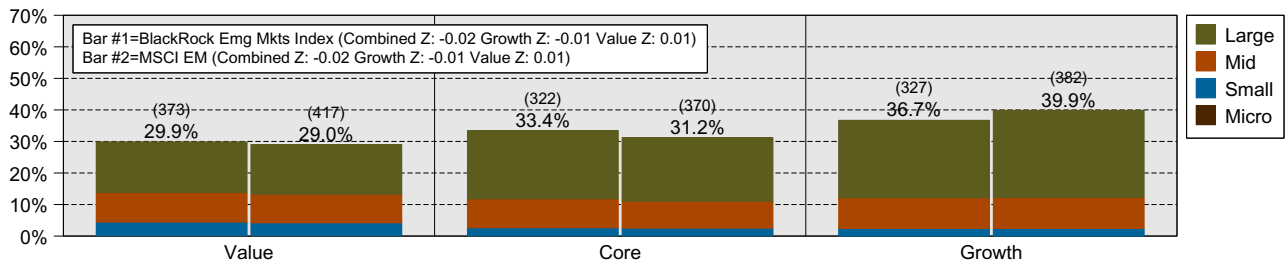
Style Map vs Callan Emerging Broad Holdings as of June 30, 2019



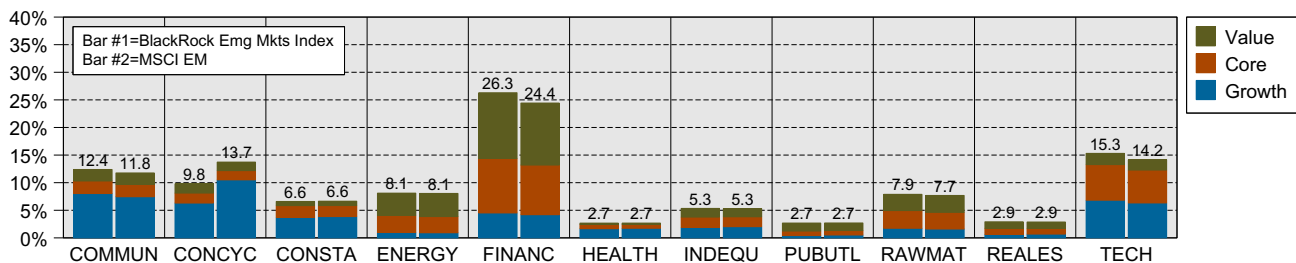
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	16.1% (69)	21.6% (74)	24.6% (74)	62.3% (217)
	15.7% (77)	20.1% (88)	27.6% (81)	63.4% (246)
Mid	9.4% (152)	9.2% (154)	9.6% (167)	28.2% (473)
	9.1% (177)	8.5% (177)	9.8% (205)	27.5% (559)
Small	4.4% (146)	2.6% (92)	2.5% (86)	9.5% (324)
	4.1% (158)	2.5% (103)	2.4% (96)	9.0% (357)
Micro	0.1% (6)	0.0% (2)	0.0% (0)	0.1% (8)
	0.1% (5)	0.0% (2)	0.0% (0)	0.1% (7)
Total	29.9% (373)	33.4% (322)	36.7% (327)	100.0% (1022)
	29.0% (417)	31.2% (370)	39.9% (382)	100.0% (1169)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019



BlackRock Emg Mkts Index Equity Characteristics Analysis Summary

Portfolio Characteristics

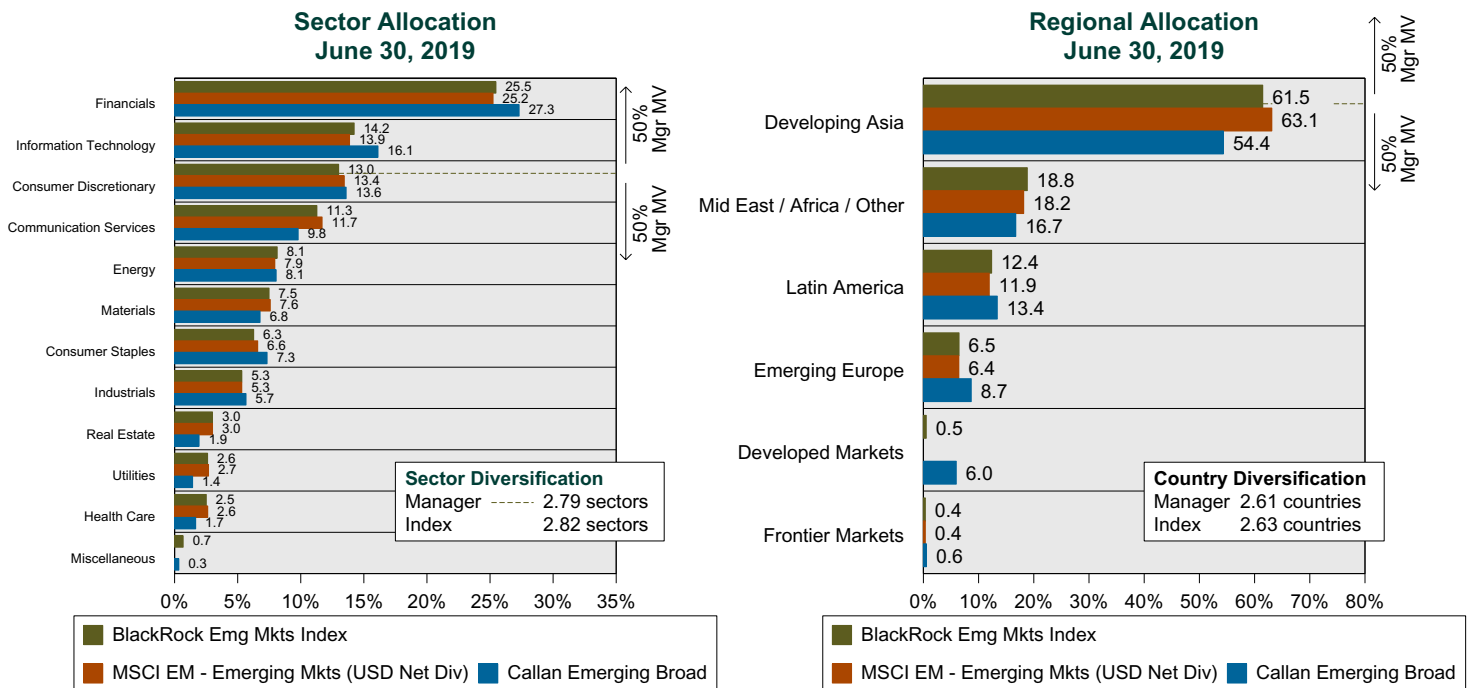
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of June 30, 2019



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.

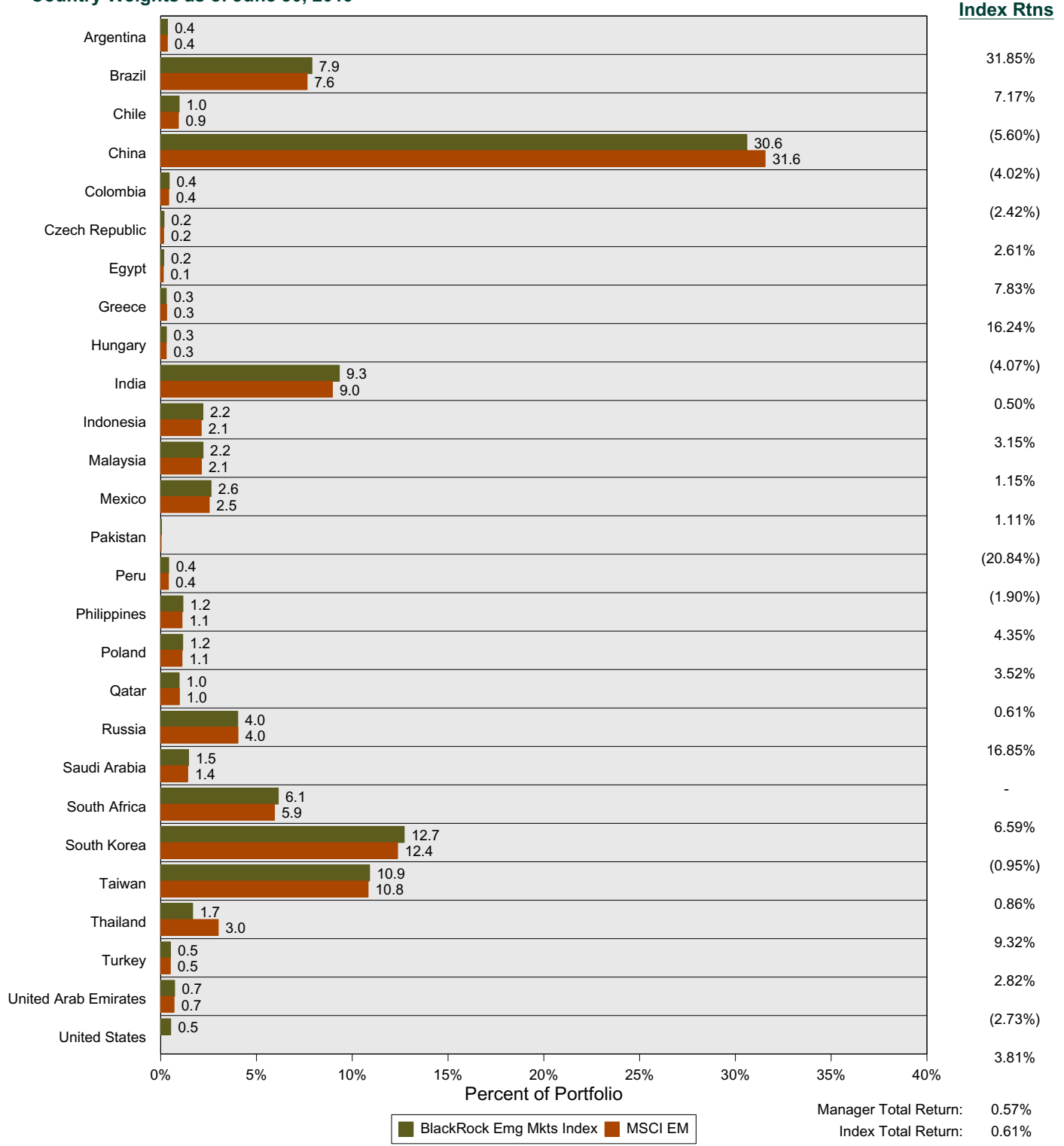


Country Allocation BlackRock Emg Mkts Index VS MSCI EM - Emerging Mkts (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

Country Weights as of June 30, 2019



Leading Edge Emg Mkts Fund

Period Ended June 30, 2019

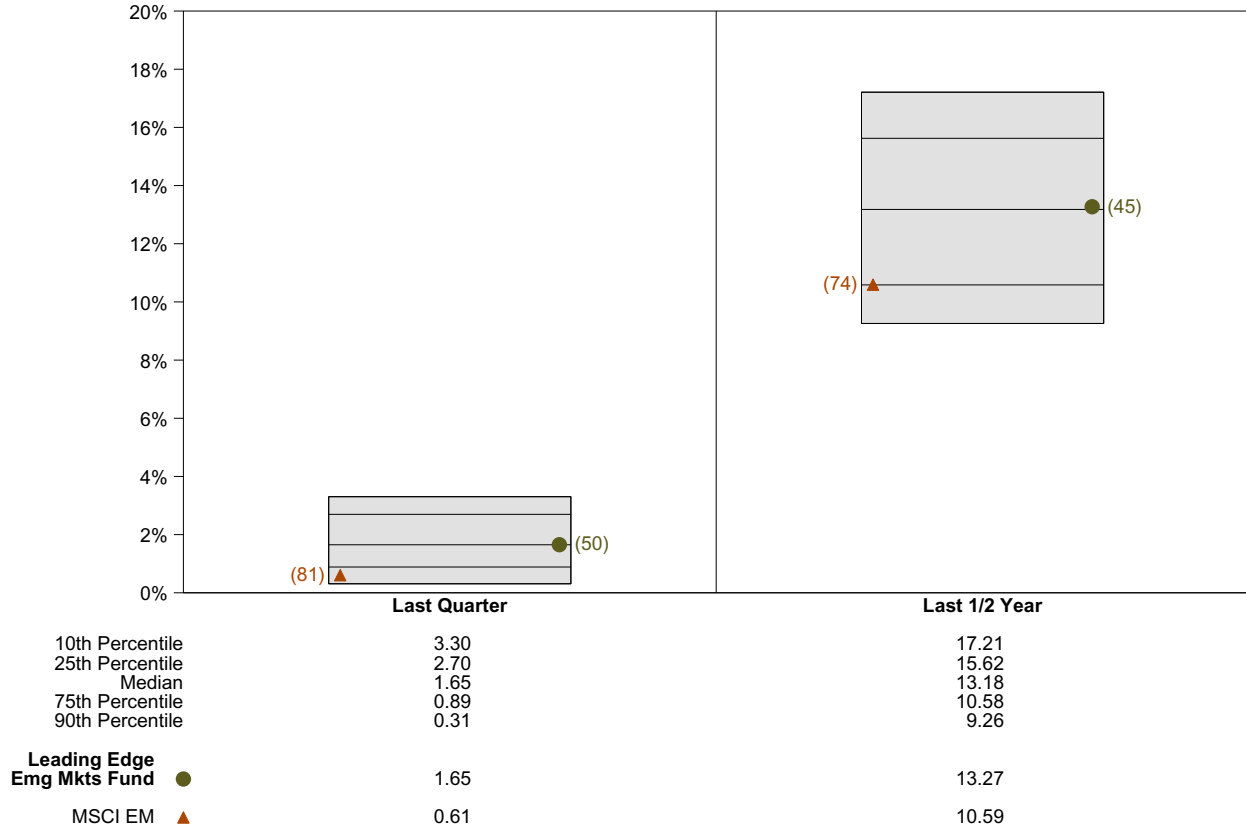
Quarterly Summary and Highlights

- Leading Edge Emg Mkts Fund's portfolio posted a 1.65% return for the quarter placing it in the 50 percentile of the Callan Emerging Broad group for the quarter and in the 45 percentile for the last one-half year.
- Leading Edge Emg Mkts Fund's portfolio outperformed the MSCI EM by 1.05% for the quarter and outperformed the MSCI EM for the one-half year by 2.68%.

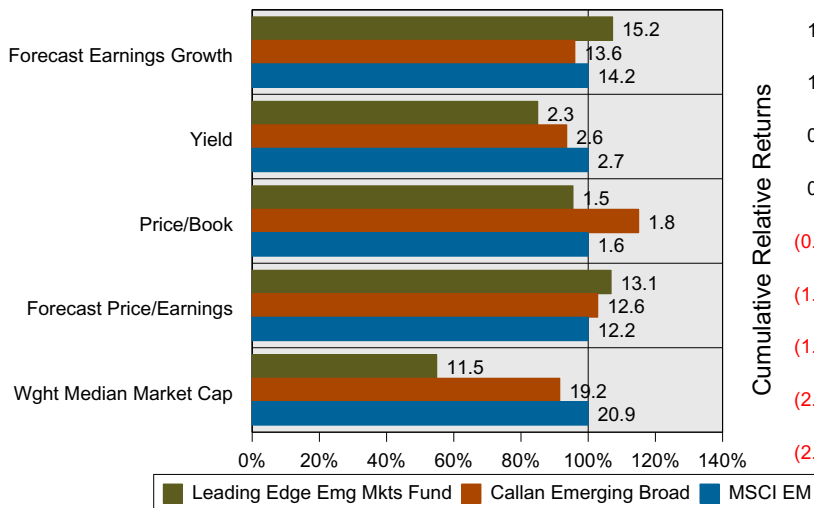
Quarterly Asset Growth

Beginning Market Value	\$216,215,304
Net New Investment	\$0
Investment Gains/(Losses)	\$3,579,176
Ending Market Value	\$219,794,480

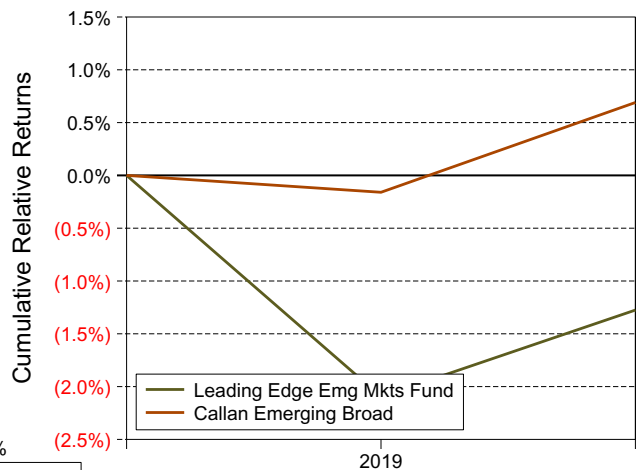
Performance vs Callan Emerging Broad (Gross)



Portfolio Characteristics as a Percentage of the MSCI EM



Cumulative Returns vs MSCI EM



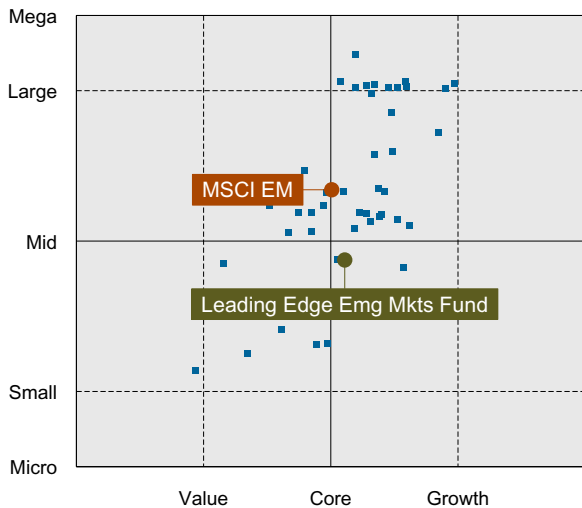
Current Holdings Based Style Analysis

Leading Edge Emg Mkts Fund

As of June 30, 2019

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.

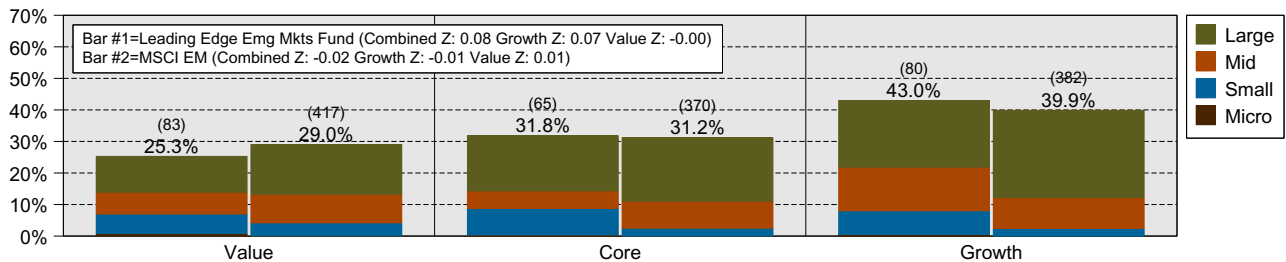
Style Map vs Callan Emerging Broad Holdings as of June 30, 2019



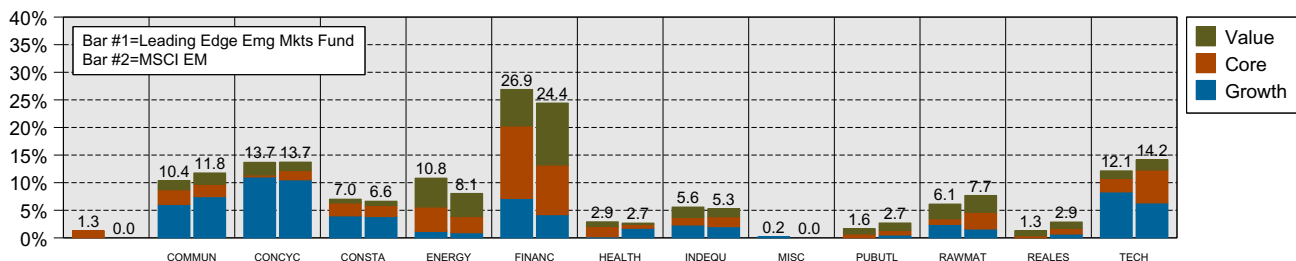
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	11.4% (25)	17.5% (25)	21.1% (22)	50.0% (72)
	15.7% (77)	20.1% (88)	27.6% (81)	63.4% (246)
Mid	6.9% (26)	5.5% (19)	13.8% (32)	26.2% (77)
	9.1% (177)	8.5% (177)	9.8% (205)	27.5% (559)
Small	6.1% (29)	8.5% (20)	7.5% (24)	22.1% (73)
	4.1% (158)	2.5% (103)	2.4% (96)	9.0% (357)
Micro	0.8% (3)	0.3% (1)	0.5% (2)	1.7% (6)
	0.1% (5)	0.0% (2)	0.0% (0)	0.1% (7)
Total	25.3% (83)	31.8% (65)	43.0% (80)	100.0% (228)
	29.0% (417)	31.2% (370)	39.9% (382)	100.0% (1169)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019



Leading Edge Emg Mkts Fund Equity Characteristics Analysis Summary

Portfolio Characteristics

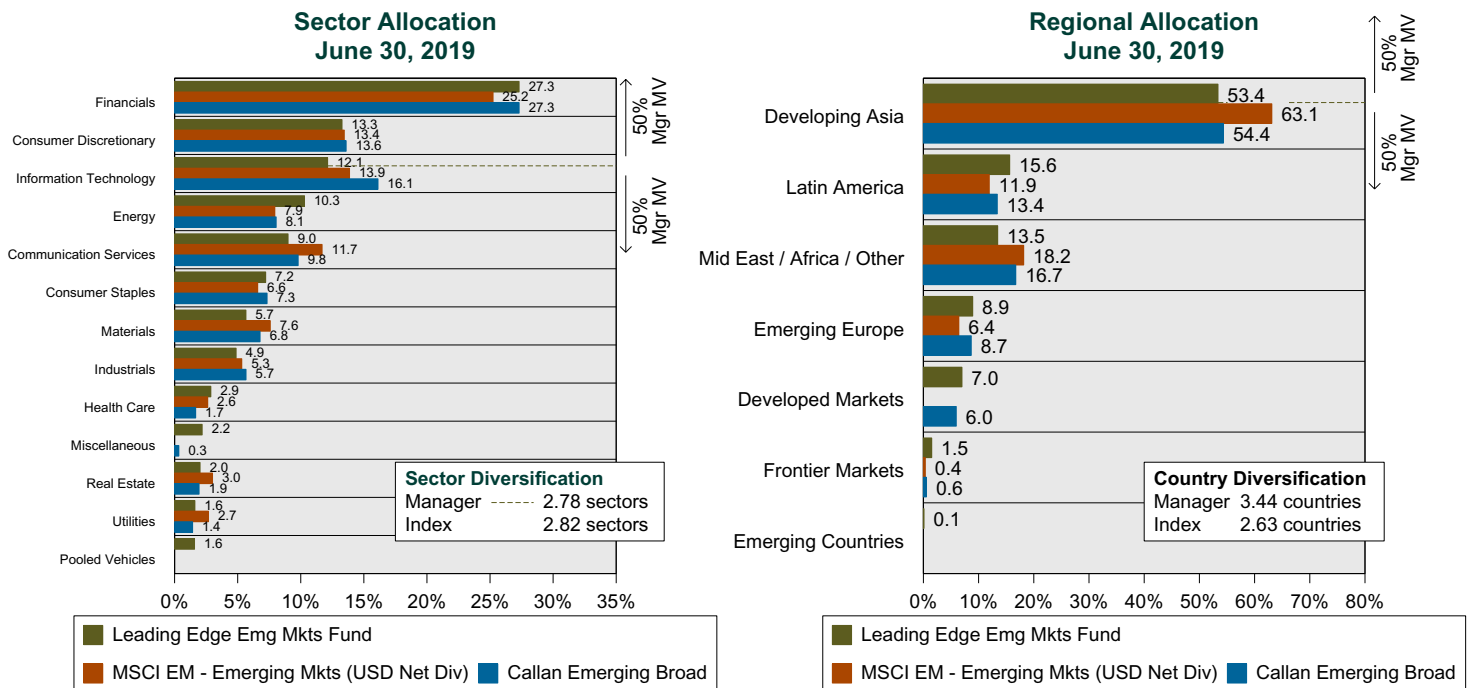
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of June 30, 2019



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.



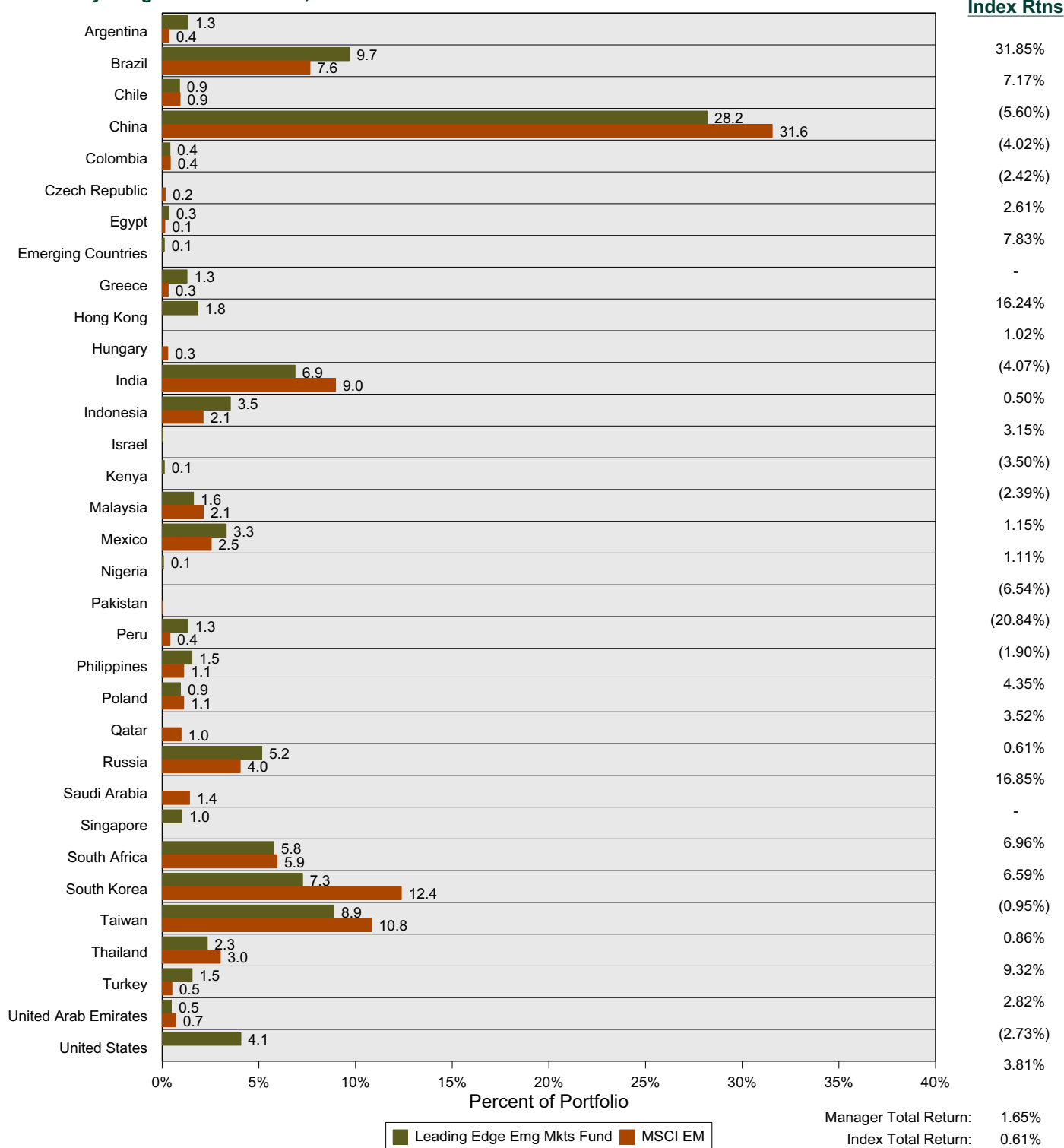
Country Allocation

Leading Edge Emg Mkts Fund VS MSCI EM - Emerging Mkts (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

Country Weights as of June 30, 2019



Macquarie Emerging Markets Equity Period Ended June 30, 2019

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.

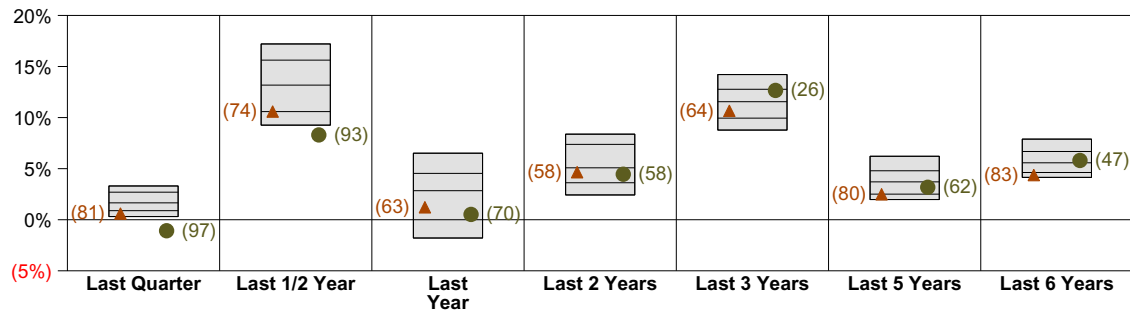
Quarterly Summary and Highlights

- Macquarie Emerging Markets Equity's portfolio posted a (1.08)% return for the quarter placing it in the 97 percentile of the Callan Emerging Broad group for the quarter and in the 70 percentile for the last year.
- Macquarie Emerging Markets Equity's portfolio underperformed the MSCI EM by 1.69% for the quarter and underperformed the MSCI EM for the year by 0.70%.

Quarterly Asset Growth

Beginning Market Value	\$323,950,876
Net New Investment	\$98,875,820
Investment Gains/(Losses)	\$-7,075,586
Ending Market Value	\$415,751,110

Performance vs Callan Emerging Broad (Gross)

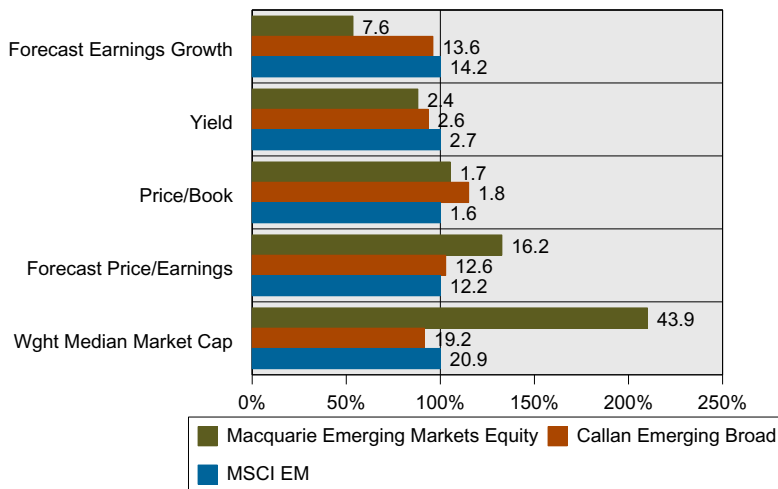


	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6 Years
10th Percentile	3.30	17.21	6.51	8.38	14.21	6.21	7.89
25th Percentile	2.70	15.62	4.54	7.38	12.77	4.79	6.68
Median	1.65	13.18	2.84	5.08	11.55	3.71	5.57
75th Percentile	0.89	10.58	(0.00)	3.62	9.95	2.51	4.62
90th Percentile	0.31	9.26	(1.79)	2.43	8.78	1.98	4.14

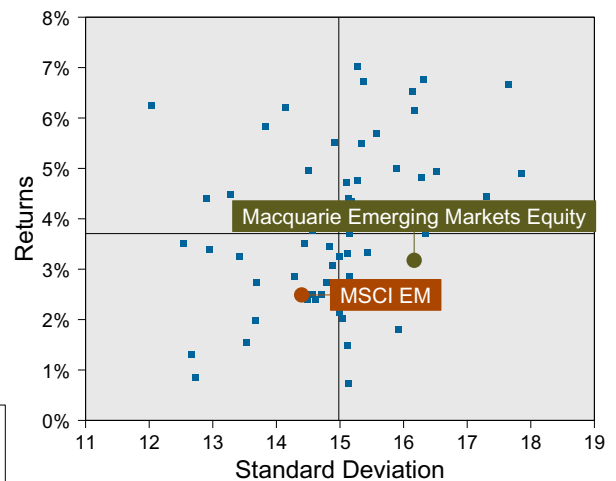
Macquarie Emerging Markets Equity

● (1.08)	8.30	0.52	4.45	12.66	3.18	5.80
▲ 0.61	10.59	1.22	4.65	10.66	2.49	4.37

Portfolio Characteristics as a Percentage of the MSCI EM



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

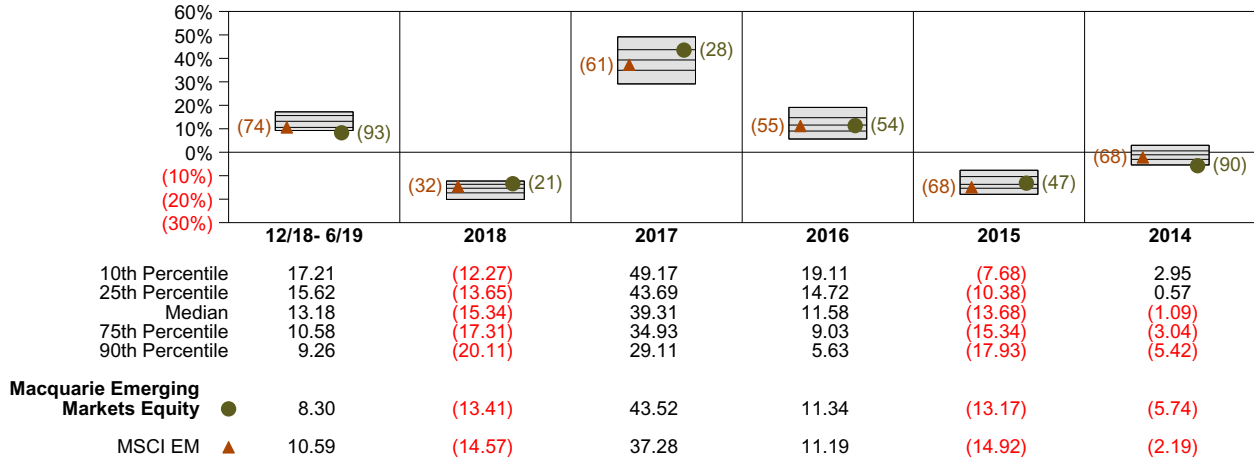


Macquarie Emerging Markets Equity Return Analysis Summary

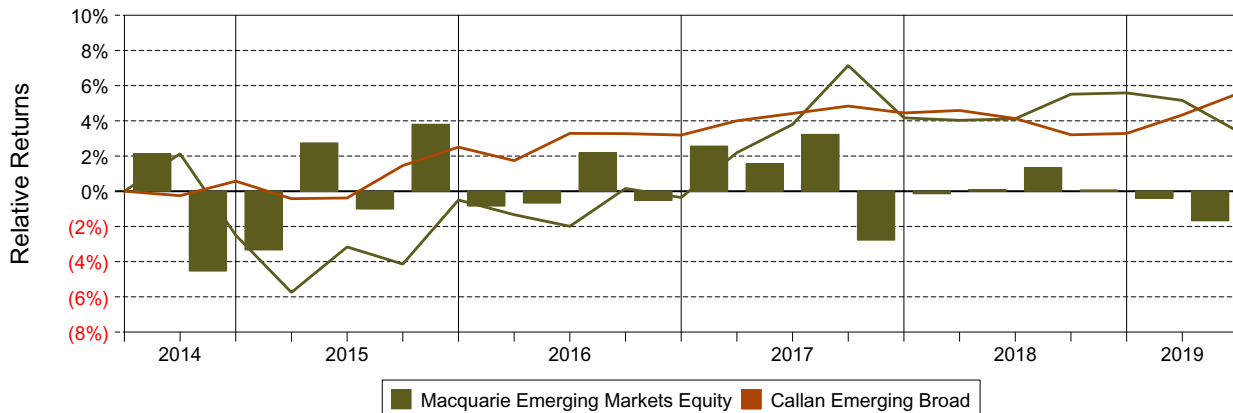
Return Analysis

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.

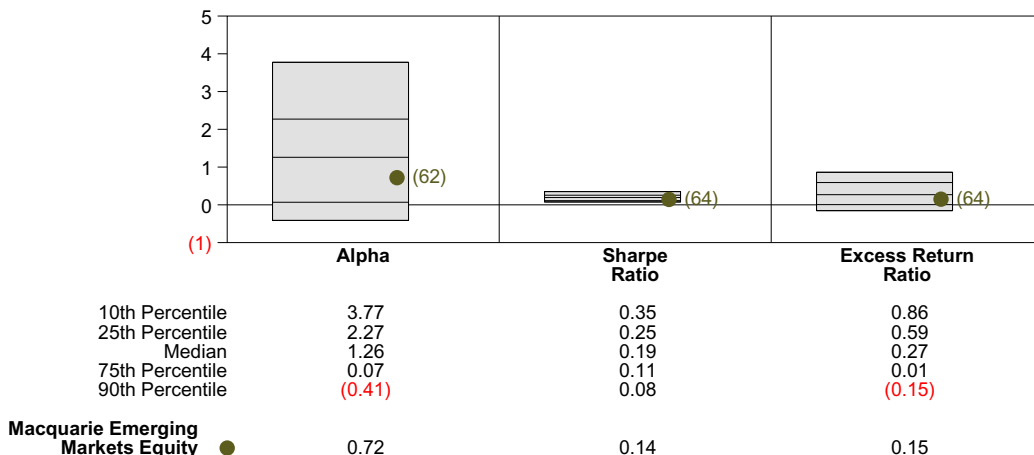
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Return vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019

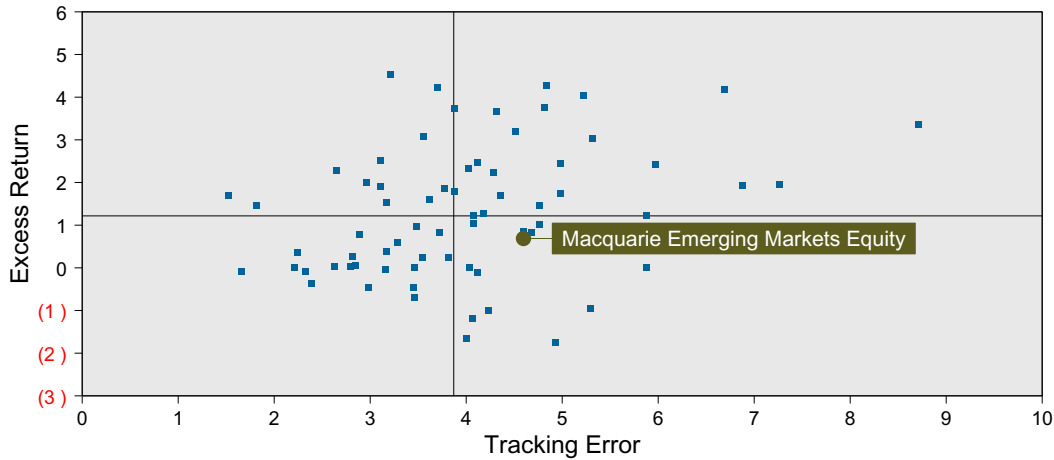


Macquarie Emerging Markets Equity Risk Analysis Summary

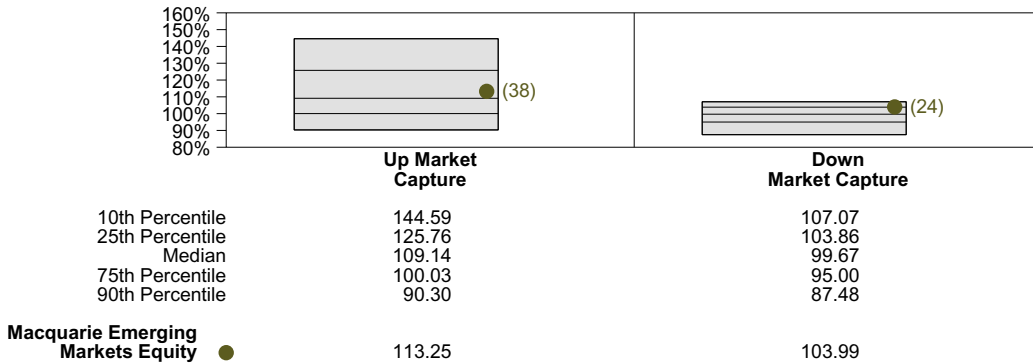
Risk Analysis

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.

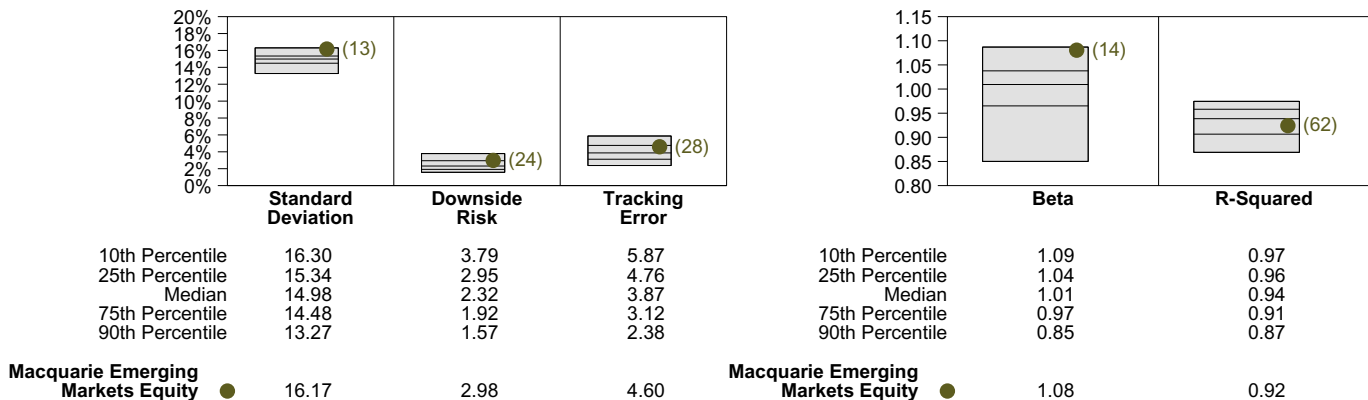
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



Market Capture vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



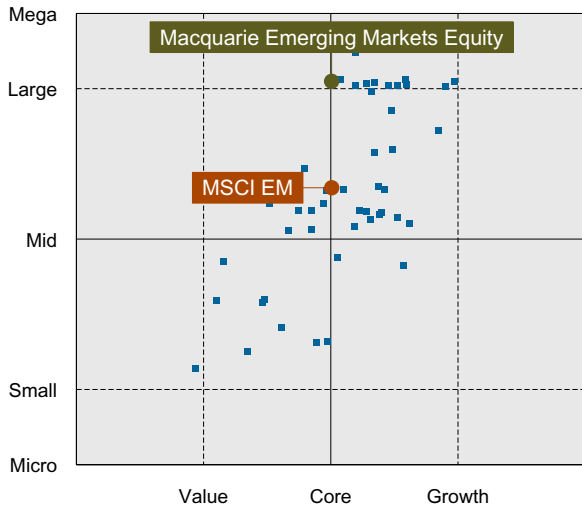
Risk Statistics Rankings vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



Current Holdings Based Style Analysis Macquarie Emerging Markets Equity As of June 30, 2019

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.

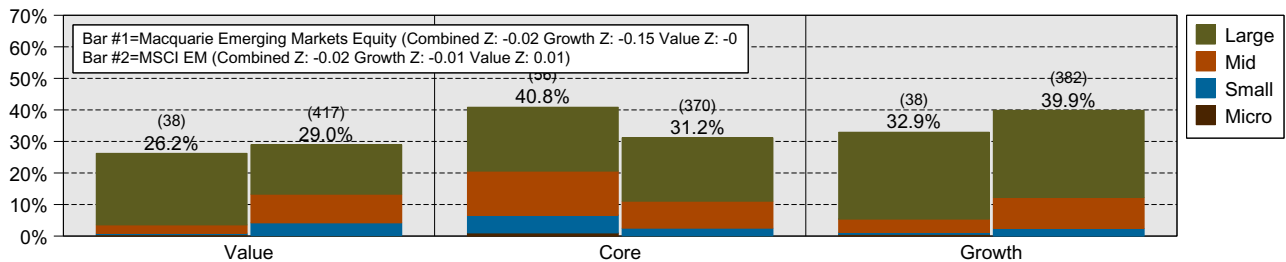
Style Map vs Callan Emerging Broad Holdings as of June 30, 2019



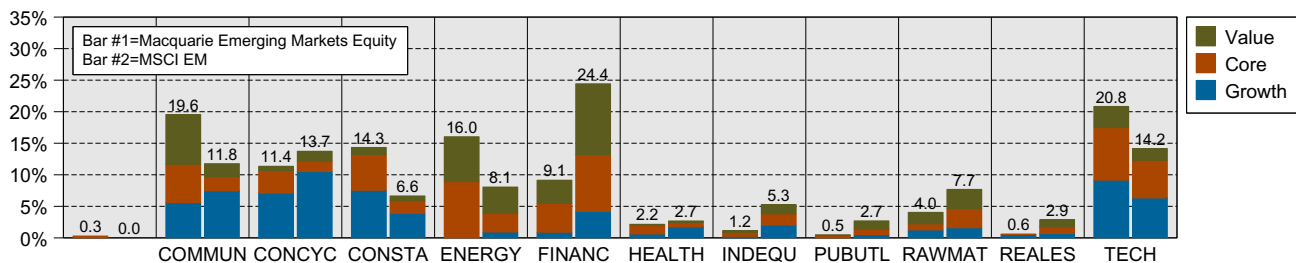
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	22.7% (20) 15.7% (77)	20.3% (11) 20.1% (88)	27.5% (15) 27.6% (81)	70.5% (46) 63.4% (246)
Mid	2.6% (8) 9.1% (177)	14.0% (25) 8.5% (177)	4.2% (14) 9.8% (205)	20.8% (47) 27.5% (559)
Small	0.5% (4) 4.1% (158)	5.6% (14) 2.5% (103)	0.6% (5) 2.4% (96)	6.7% (23) 9.0% (357)
Micro	0.4% (6) 0.1% (5)	1.0% (6) 0.0% (2)	0.5% (4) 0.0% (0)	2.0% (16) 0.1% (7)
Total	26.2% (38) 29.0% (417)	40.8% (56) 31.2% (370)	32.9% (38) 39.9% (382)	100.0% (132) 100.0% (1169)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

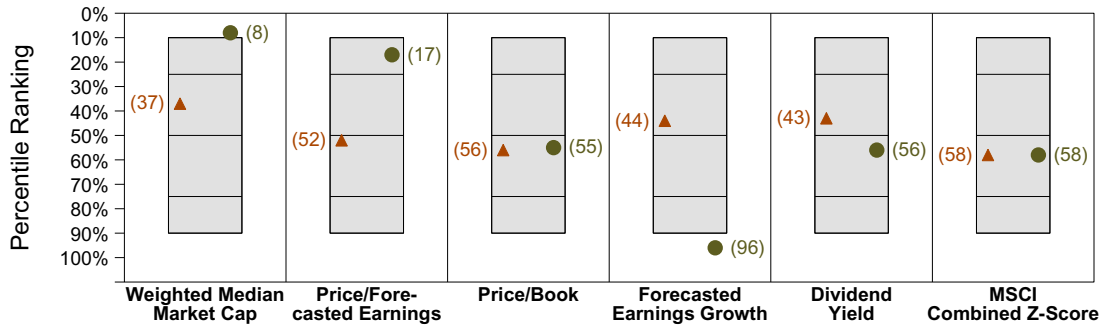


Macquarie Emerging Markets Equity Equity Characteristics Analysis Summary

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 June 30, 2019

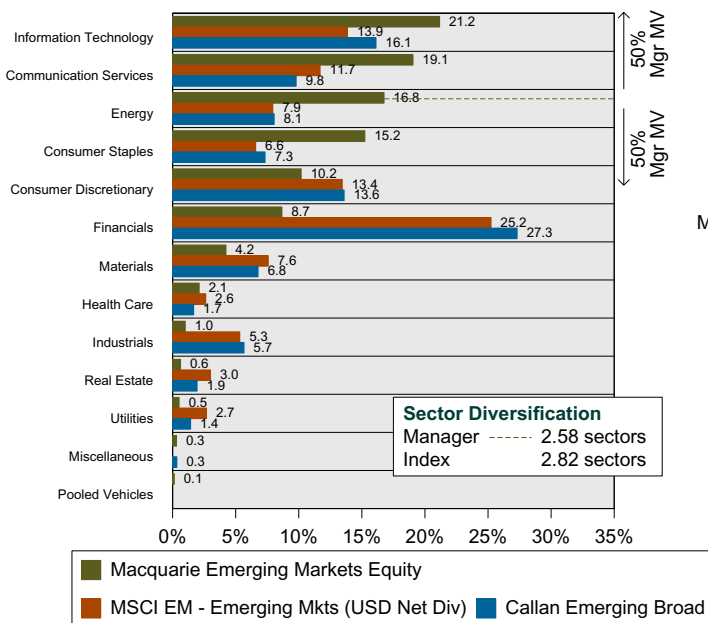


	Weighted Median Market Cap	Price/Forecasted Earnings	Price/Book	Forecasted Earnings Growth	Dividend Yield	MSCI Combined Z-Score
Macquarie Emerging Markets Equity ●	43.94	16.22	1.68	7.60	2.42	(0.02)
MSCI EM - Emerging Mkts (USD Net Div) ▲	20.92	12.22	1.59	14.19	2.75	(0.02)

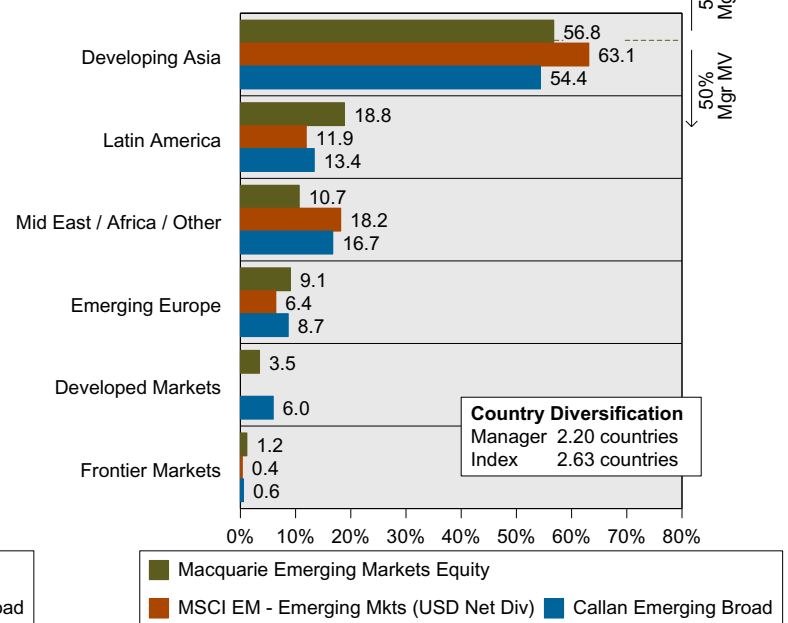
Sector Weights

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.

Sector Allocation June 30, 2019



Regional Allocation June 30, 2019



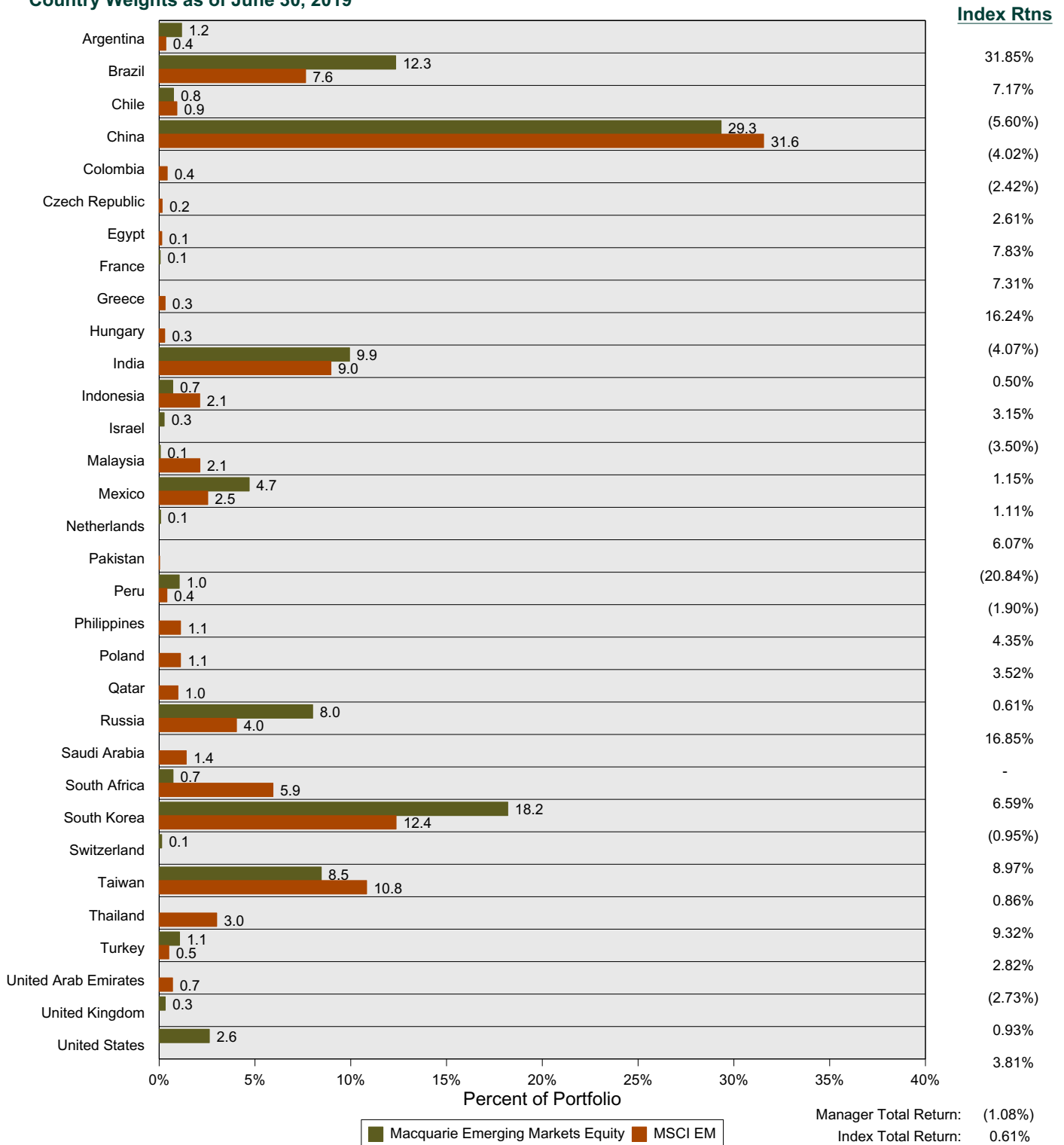
Country Allocation

Macquarie Emerging Markets Equity VS MSCI EM - Emerging Mkts (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

Country Weights as of June 30, 2019



Martin Currie

Period Ended June 30, 2019

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
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3. Exploiting public market and private market valuation discrepancies
4. Buying assets below their replacement costs.

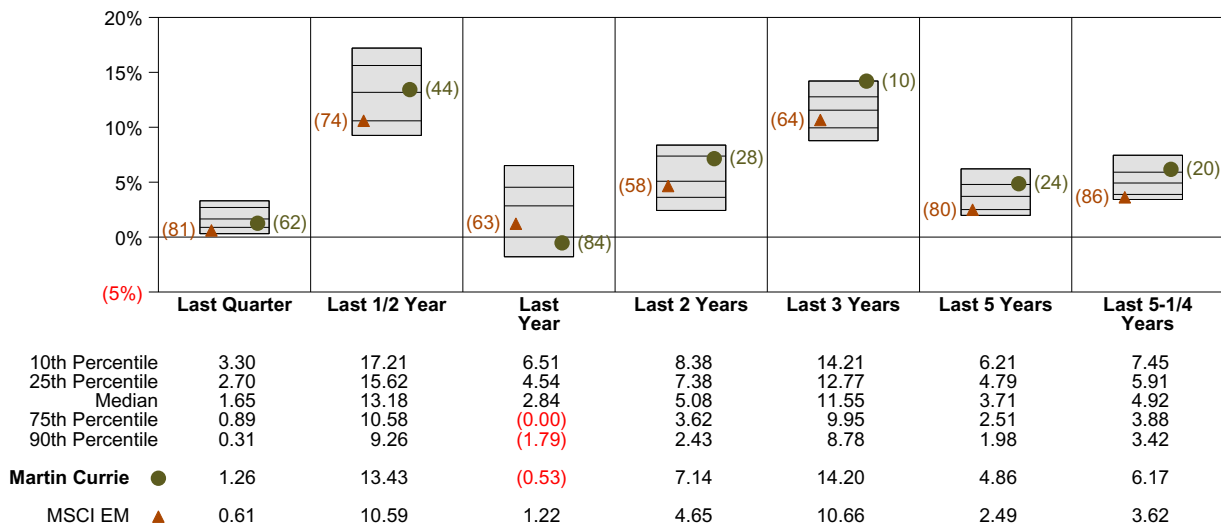
Quarterly Summary and Highlights

- Martin Currie's portfolio posted a 1.26% return for the quarter placing it in the 62 percentile of the Callan Emerging Broad group for the quarter and in the 84 percentile for the last year.
- Martin Currie's portfolio outperformed the MSCI EM by 0.65% for the quarter and underperformed the MSCI EM for the year by 1.75%.

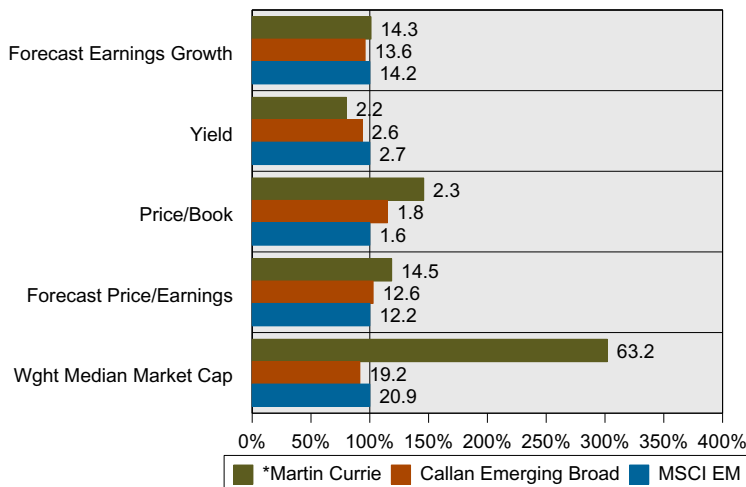
Quarterly Asset Growth

Beginning Market Value	\$432,479,583
Net New Investment	\$-1,924,300
Investment Gains/(Losses)	\$5,376,274
Ending Market Value	\$435,931,557

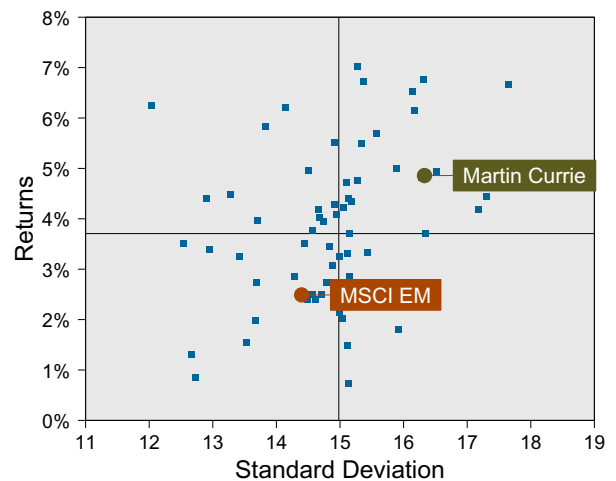
Performance vs Callan Emerging Broad (Gross)



Portfolio Characteristics as a Percentage of the MSCI EM



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



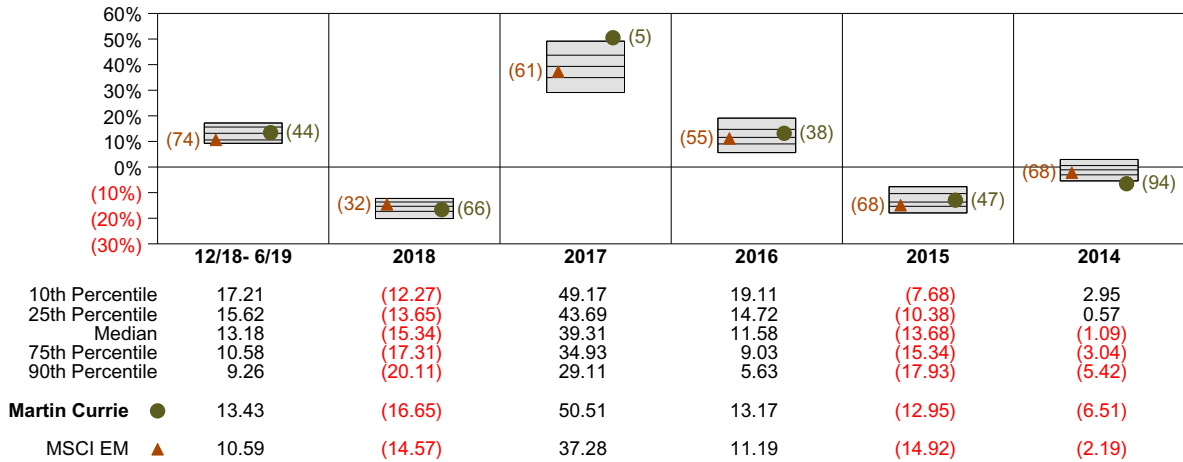
* 6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

Martin Currie Return Analysis Summary

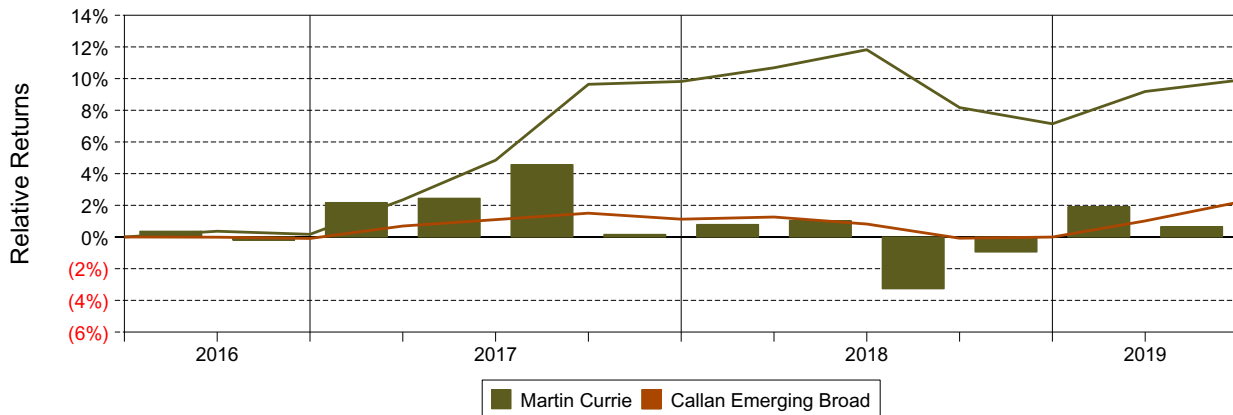
Return Analysis

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.

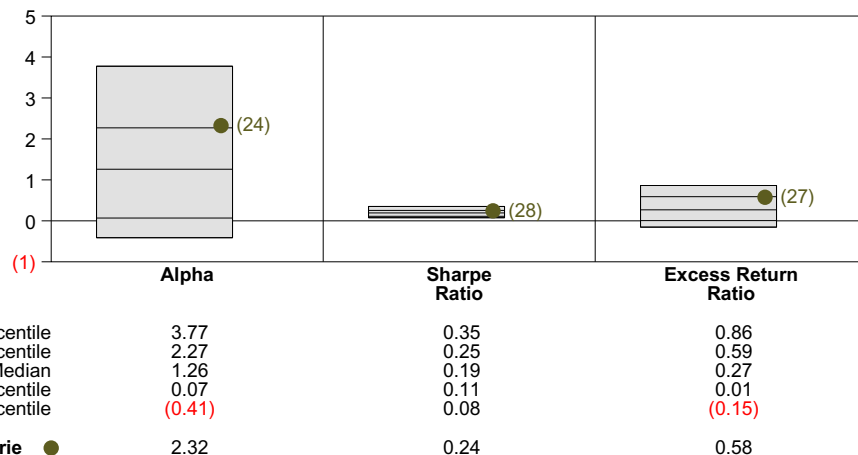
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Return vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019

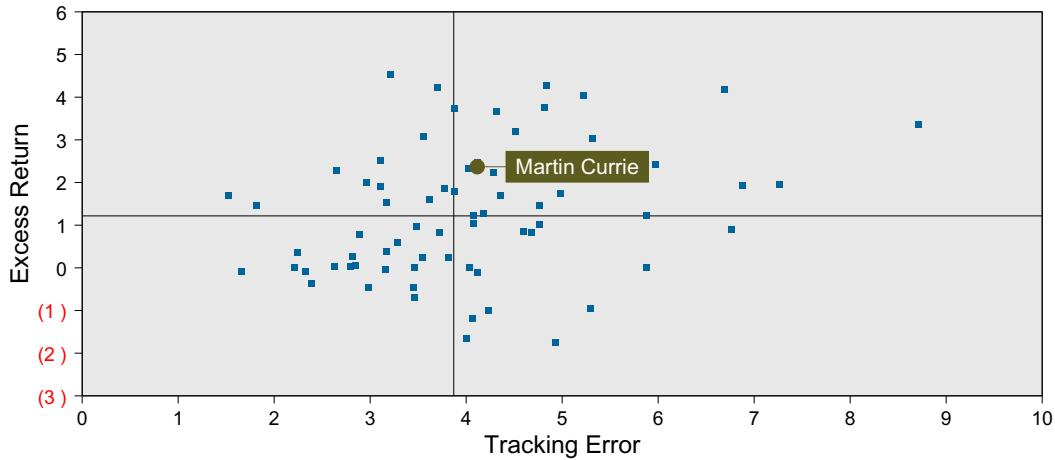


Martin Currie Risk Analysis Summary

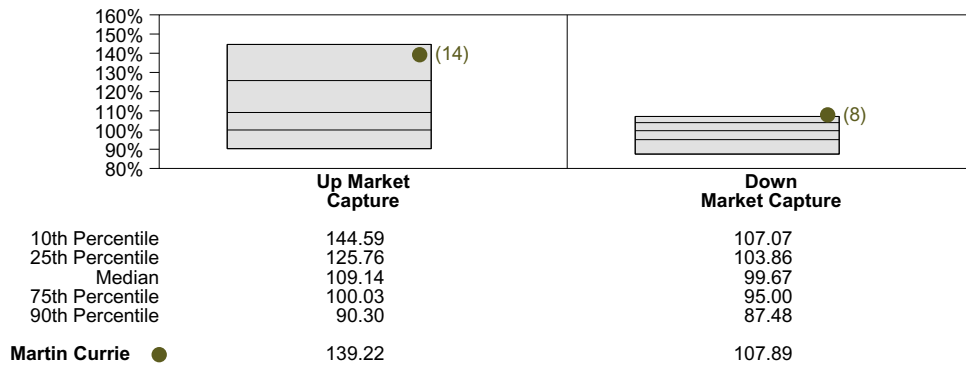
Risk Analysis

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.

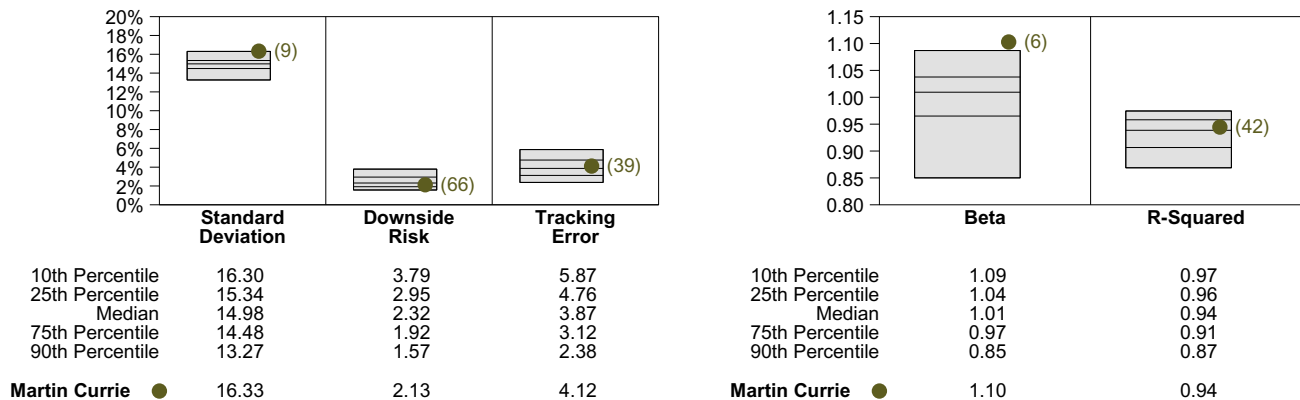
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



Market Capture vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



Risk Statistics Rankings vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



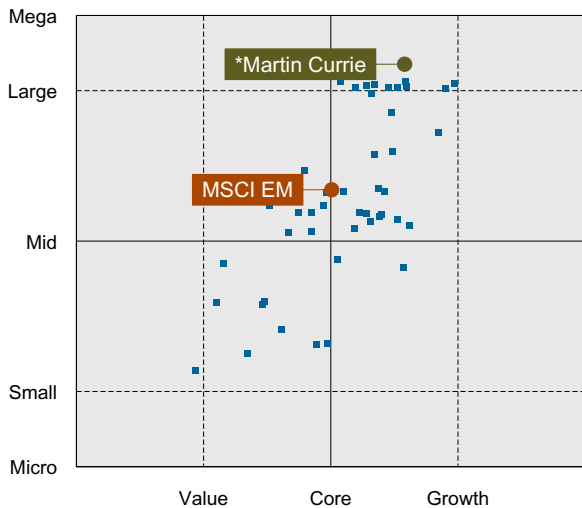
Current Holdings Based Style Analysis

Martin Currie

As of June 30, 2019

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 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.

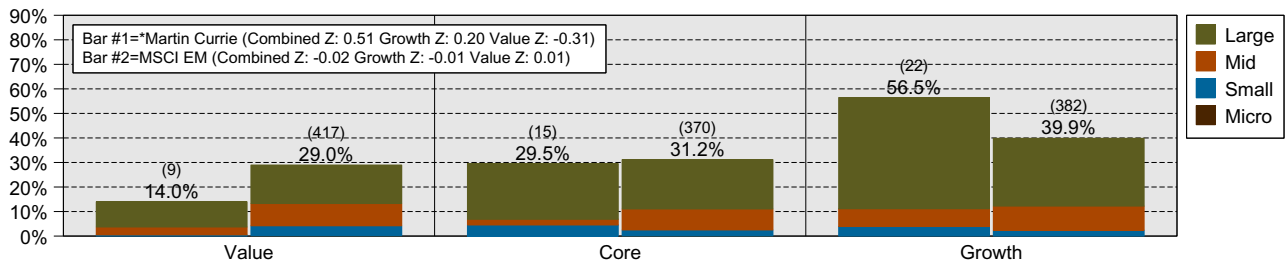
Style Map vs Callan Emerging Broad Holdings as of June 30, 2019



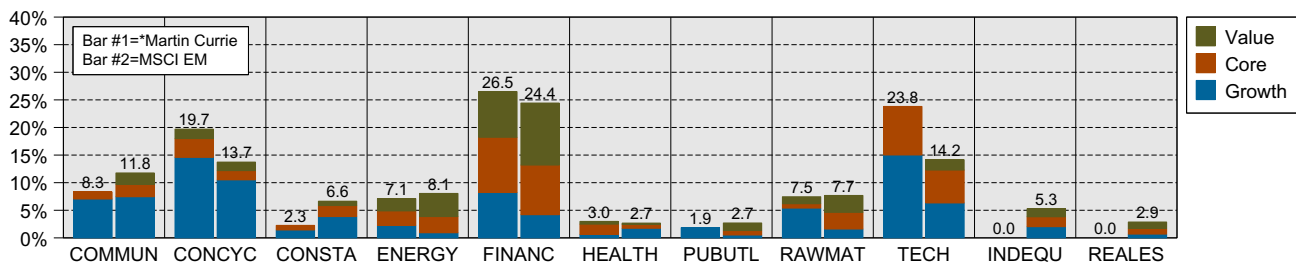
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	10.3% (5) 15.7% (77)	22.7% (7) 20.1% (88)	45.3% (15) 27.6% (81)	78.3% (27) 63.4% (246)
Mid	3.2% (3) 9.1% (177)	2.3% (3) 8.5% (177)	7.3% (4) 9.8% (205)	12.8% (10) 27.5% (559)
Small	0.5% (1) 4.1% (158)	4.5% (5) 2.5% (103)	3.9% (3) 2.4% (96)	8.9% (9) 9.0% (357)
Micro	0.0% (0) 0.1% (5)	0.0% (0) 0.0% (2)	0.0% (0) 0.0% (0)	0.0% (0) 0.1% (7)
Total	14.0% (9) 29.0% (417)	29.5% (15) 31.2% (370)	56.5% (22) 39.9% (382)	100.0% (46) 100.0% (1169)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019



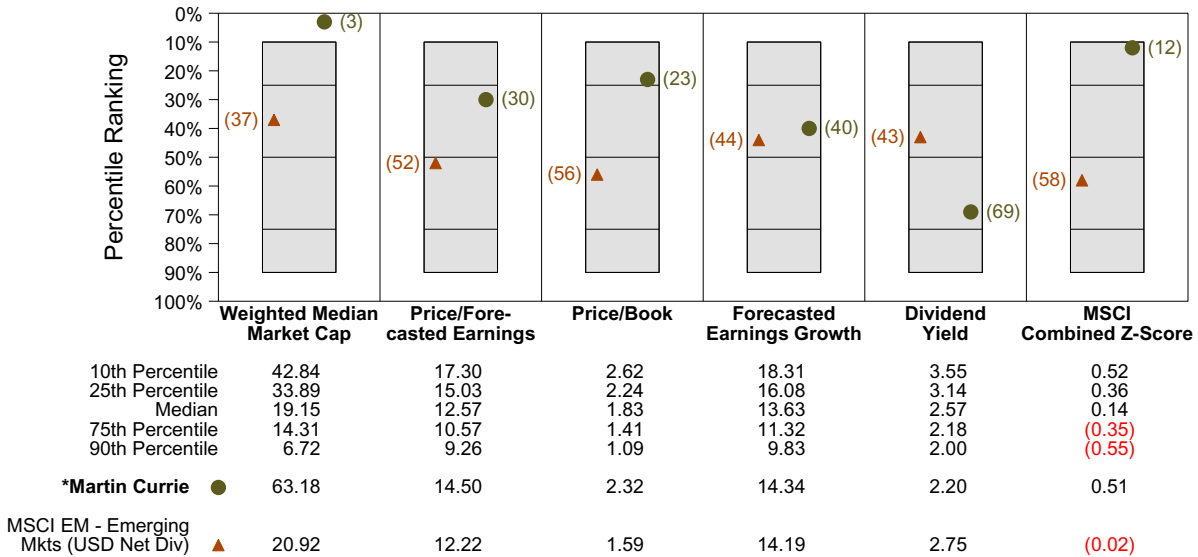
*6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

Martin Currie Equity Characteristics Analysis Summary

Portfolio Characteristics

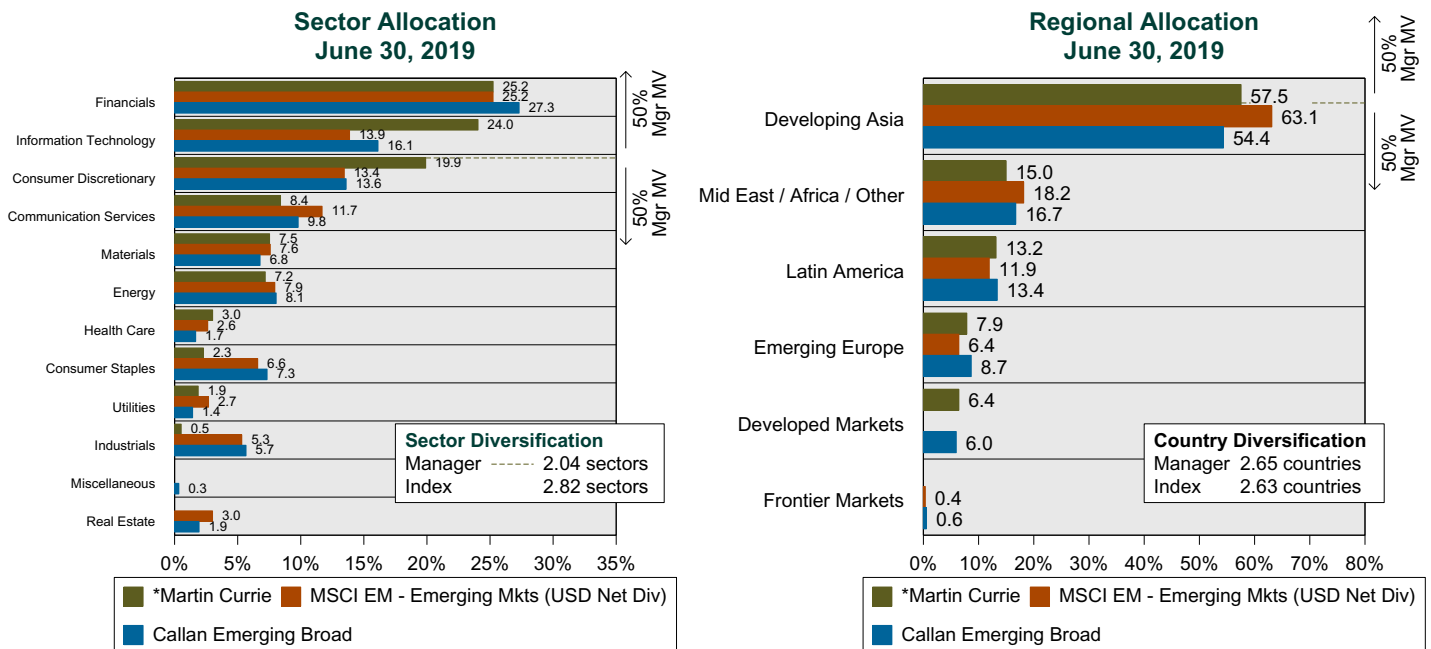
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of June 30, 2019



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.



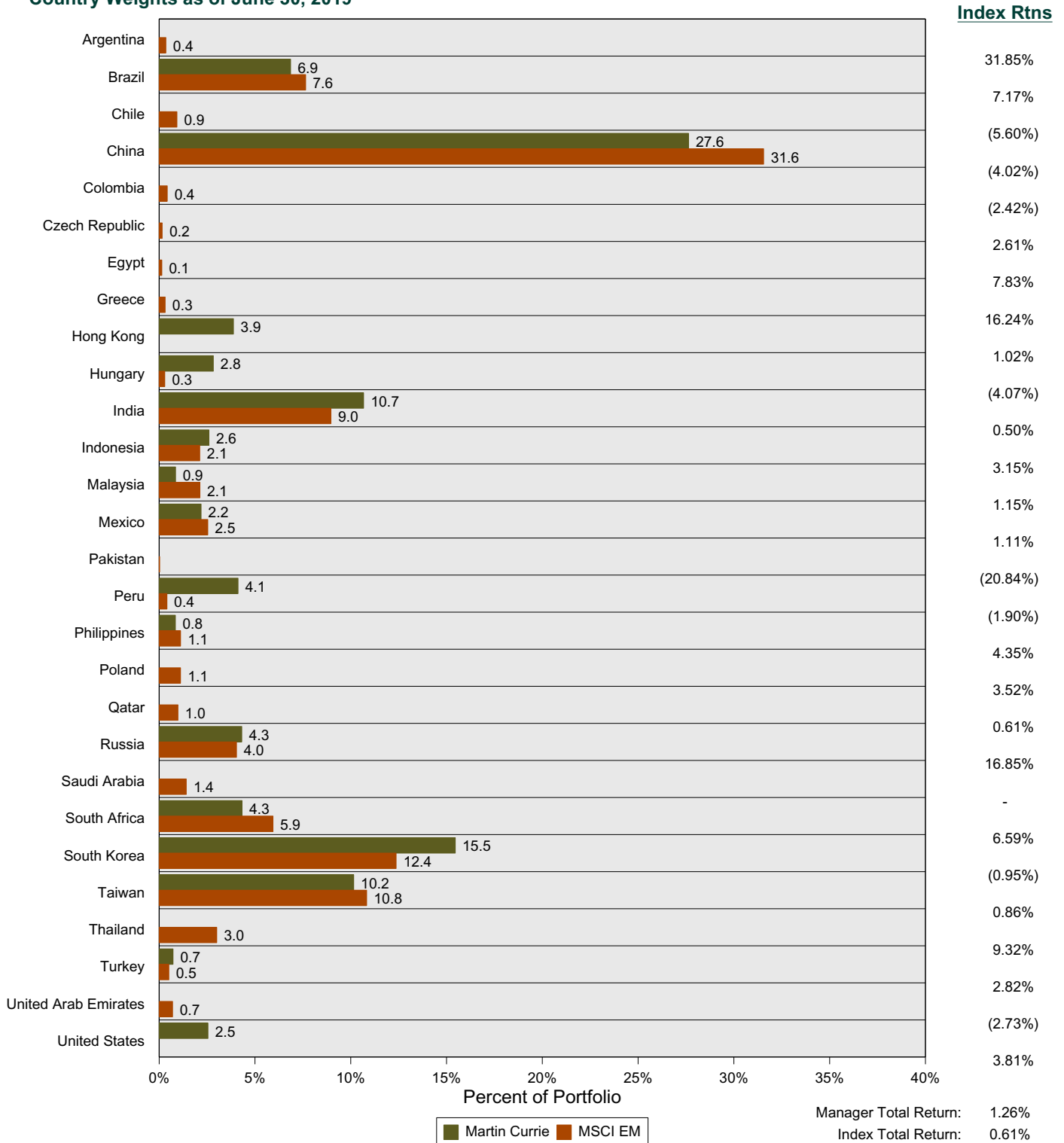
*6/30/19 portfolio characteristics generated using most recently available holdings (3/31/19) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

Country Allocation Martin Currie VS MSCI EM - Emerging Mkts (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

Country Weights as of June 30, 2019



GlobeFlex Emerging Small Cap Period Ended June 30, 2019

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.

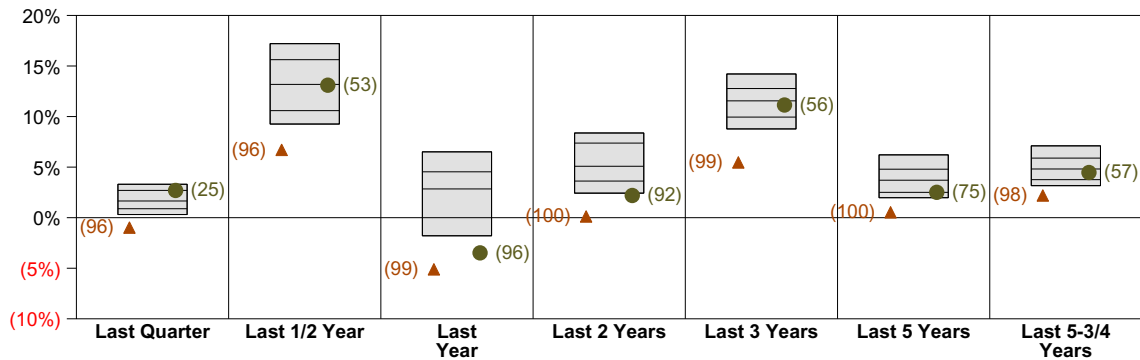
Quarterly Summary and Highlights

- GlobeFlex Emerging Small Cap's portfolio posted a 2.69% return for the quarter placing it in the 25 percentile of the Callan Emerging Broad group for the quarter and in the 96 percentile for the last year.
- GlobeFlex Emerging Small Cap's portfolio outperformed the MSCI EM Small Cap by 3.67% for the quarter and outperformed the MSCI EM Small Cap for the year by 1.63%.

Quarterly Asset Growth

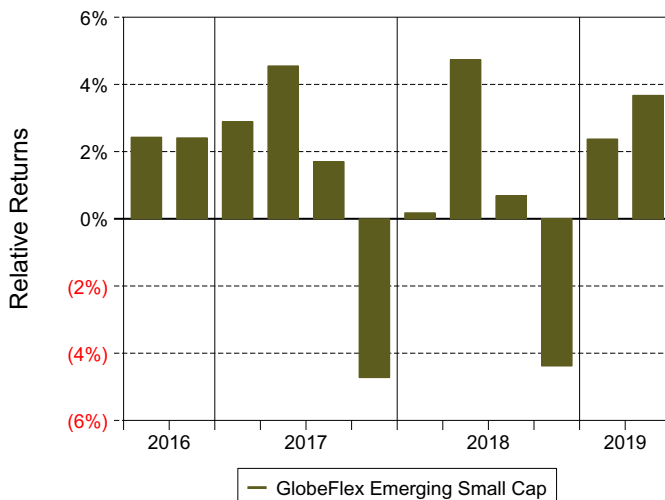
Beginning Market Value	\$92,418,714
Net New Investment	\$-284,120
Investment Gains/(Losses)	\$2,473,177
Ending Market Value	\$94,607,772

Performance vs Callan Emerging Broad (Gross)

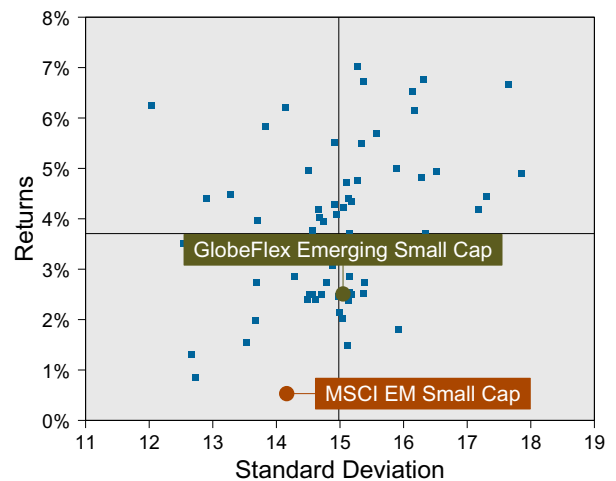


	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 5-3/4 Years
10th Percentile	3.30	17.21	6.51	8.38	14.21	6.21	7.10
25th Percentile	2.70	15.62	4.54	7.38	12.77	4.79	5.89
Median	1.65	13.18	2.84	5.08	11.55	3.71	4.81
75th Percentile	0.89	10.58	(0.00)	3.62	9.95	2.51	3.76
90th Percentile	0.31	9.26	(1.79)	2.43	8.78	1.98	3.17
GlobeFlex Emerging Small Cap ●	2.69	13.10	(3.48)	2.19	11.14	2.51	4.46
MSCI EM Small Cap ▲	(0.98)	6.71	(5.11)	0.12	5.47	0.53	2.20

Relative Return vs MSCI EM Small Cap



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

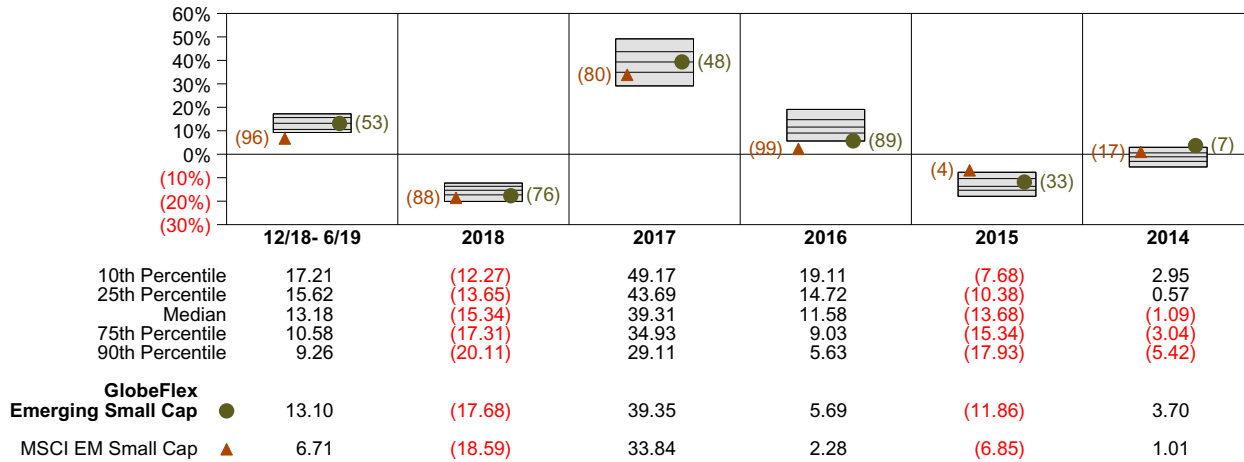


GlobeFlex Emerging Small Cap Return Analysis Summary

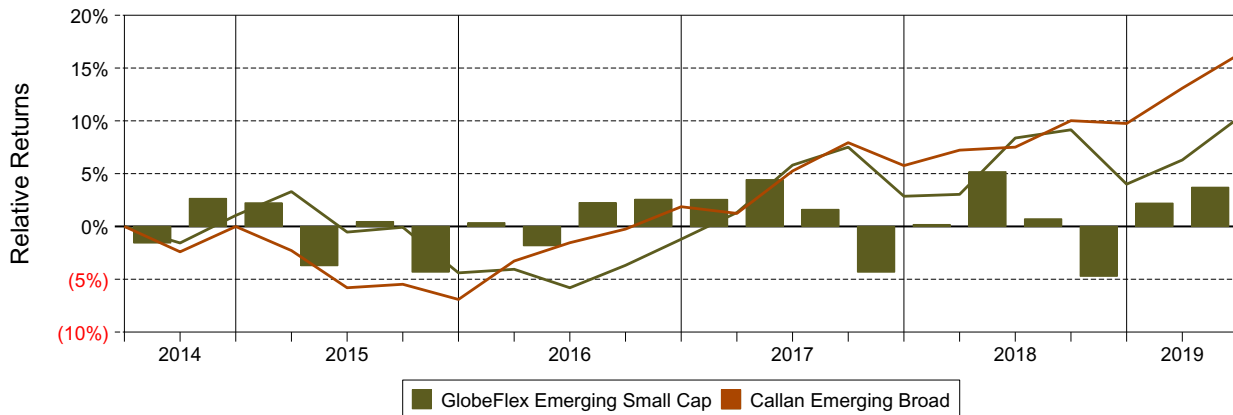
Return Analysis

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.

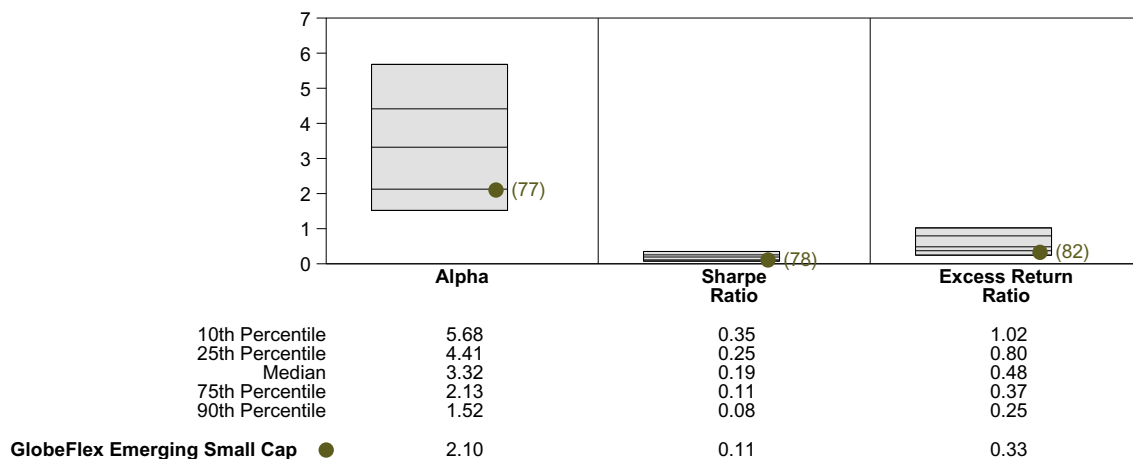
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Return vs MSCI EM Small Cap



Risk Adjusted Return Measures vs MSCI EM Small Cap Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019

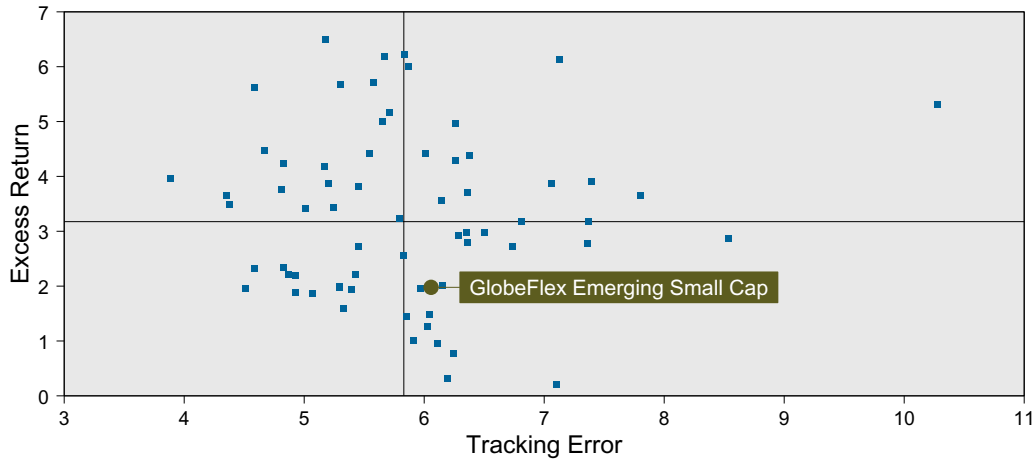


GlobeFlex Emerging Small Cap Risk Analysis Summary

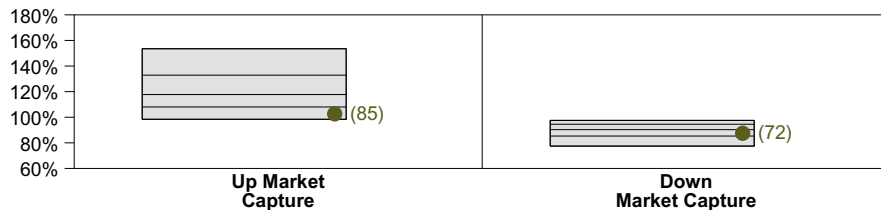
Risk Analysis

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 Broad (Gross) Five Years Ended June 30, 2019

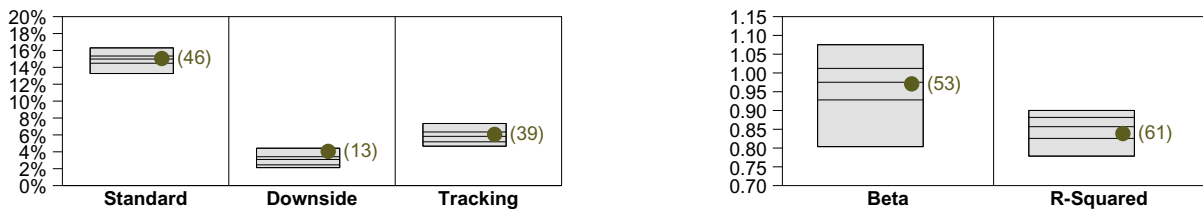


Market Capture vs MSCI EM Small Cap Index (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



	Up Market Capture	Down Market Capture
10th Percentile	153.51	97.54
25th Percentile	132.87	94.53
Median	117.72	90.29
75th Percentile	108.02	85.32
90th Percentile	98.39	77.43
GlobeFlex Emerging Small Cap	102.65	87.45

Risk Statistics Rankings vs MSCI EM Small Cap Index (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended June 30, 2019



	Standard Deviation	Downside Risk	Tracking Error	Beta	R-Squared
10th Percentile	16.30	4.42	7.35	1.08	0.90
25th Percentile	15.34	3.42	6.35	1.01	0.88
Median	14.98	3.09	5.83	0.98	0.86
75th Percentile	14.48	2.46	5.18	0.93	0.83
90th Percentile	13.27	2.13	4.66	0.80	0.78
GlobeFlex Emerging Small Cap	15.05	4.05	6.06	0.97	0.84

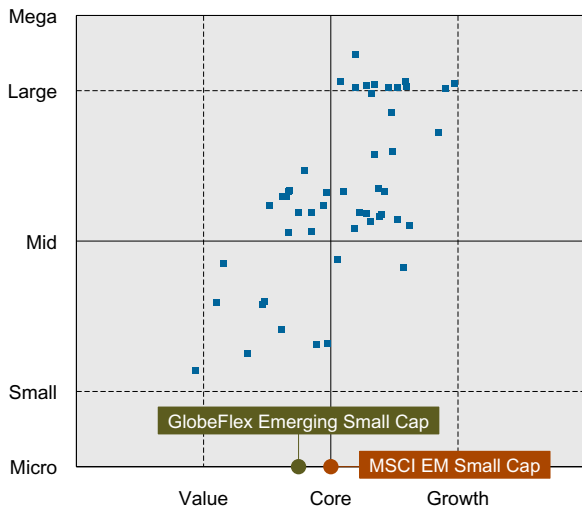
Current Holdings Based Style Analysis

GlobeFlex Emerging Small Cap

As of June 30, 2019

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 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.

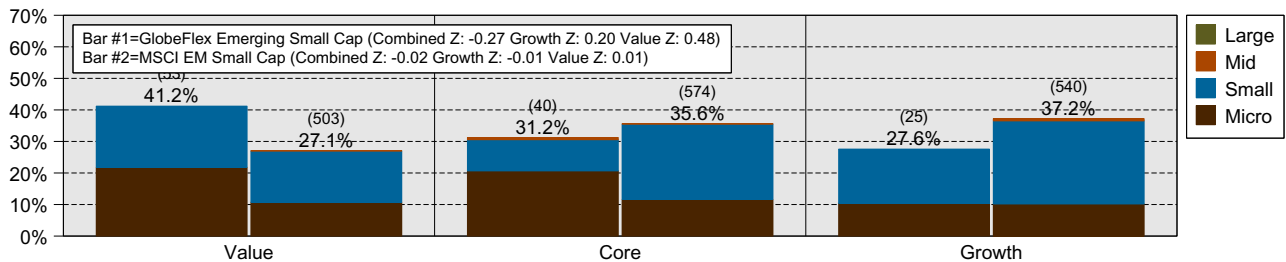
Style Map vs Callan Emerging Broad Holdings as of June 30, 2019



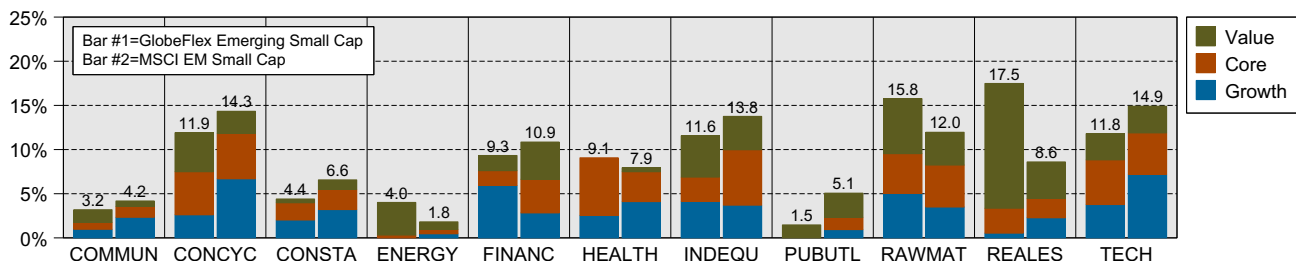
Style Exposure Matrix Holdings as of June 30, 2019

	Value	Core	Growth	Total
Large	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)
Mid	0.0% (0) 0.2% (1)	0.7% (1) 0.1% (1)	0.0% (0) 0.7% (2)	0.7% (1) 1.0% (4)
Small	19.4% (25) 16.2% (181)	9.9% (13) 23.9% (257)	17.2% (12) 26.3% (274)	46.4% (50) 66.4% (712)
Micro	21.8% (28) 10.8% (321)	20.7% (26) 11.6% (316)	10.4% (13) 10.2% (264)	52.9% (67) 32.5% (901)
Total	41.2% (53) 27.1% (503)	31.2% (40) 35.6% (574)	27.6% (25) 37.2% (540)	100.0% (118) 100.0% (1617)

Combined Z-Score Style Distribution Holdings as of June 30, 2019



Sector Weights Distribution Holdings as of June 30, 2019

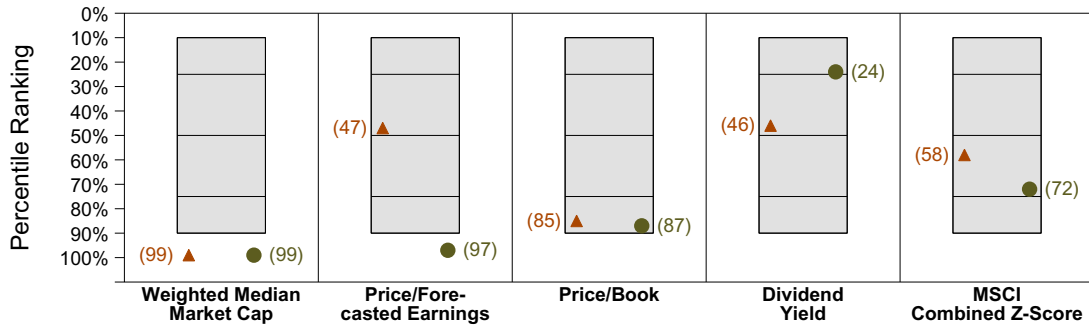


GlobeFlex Emerging Small Cap Equity Characteristics Analysis Summary

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 Broad as of June 30, 2019

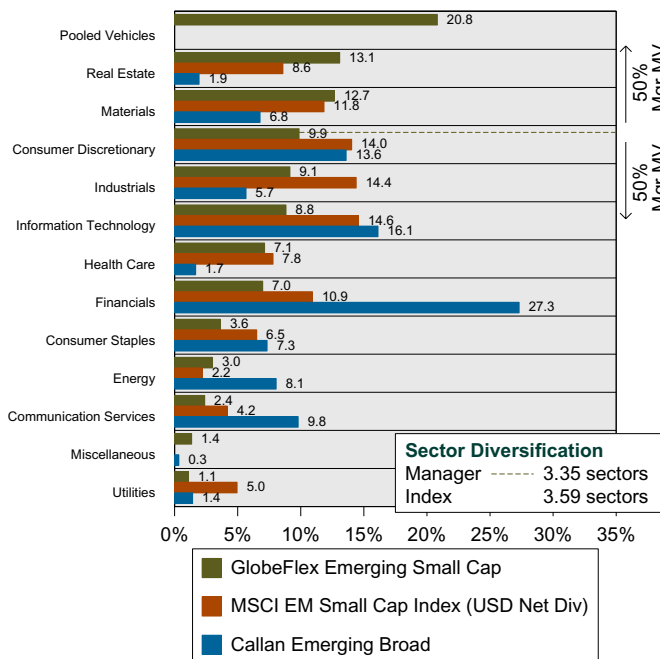


	Weighted Median Market Cap	Price/Forecasted Earnings	Price/Book	Dividend Yield	MSCI Combined Z-Score
10th Percentile	42.84	17.30	2.62	3.55	0.52
25th Percentile	33.89	15.03	2.24	3.14	0.36
Median	19.15	12.57	1.83	2.57	0.14
75th Percentile	14.31	10.57	1.41	2.18	(0.35)
90th Percentile	6.72	9.26	1.09	2.00	(0.55)
GlobeFlex Emerging Small Cap	0.46	8.28	1.20	3.17	(0.27)
MSCI EM Small Cap Index (USD Net Div)	1.06	12.75	1.31	2.65	(0.02)

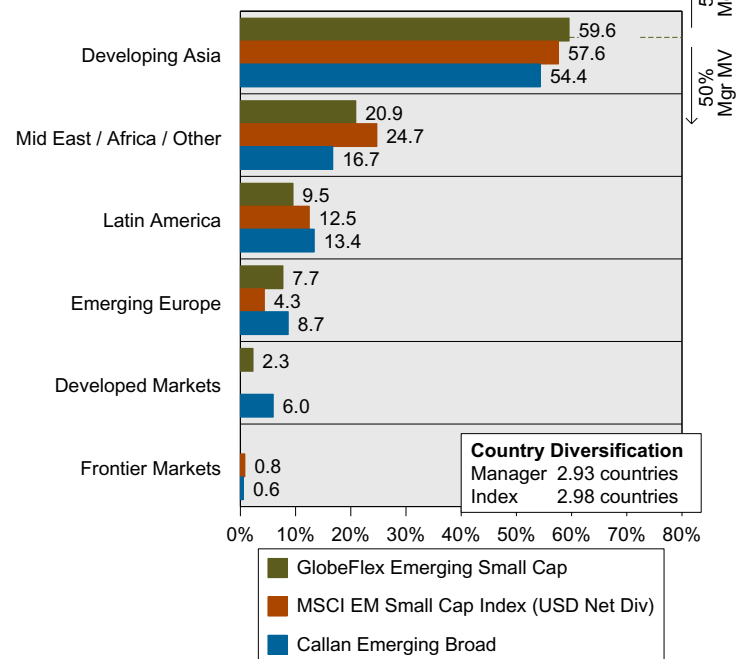
Sector Weights

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.

Sector Allocation June 30, 2019



Regional Allocation June 30, 2019

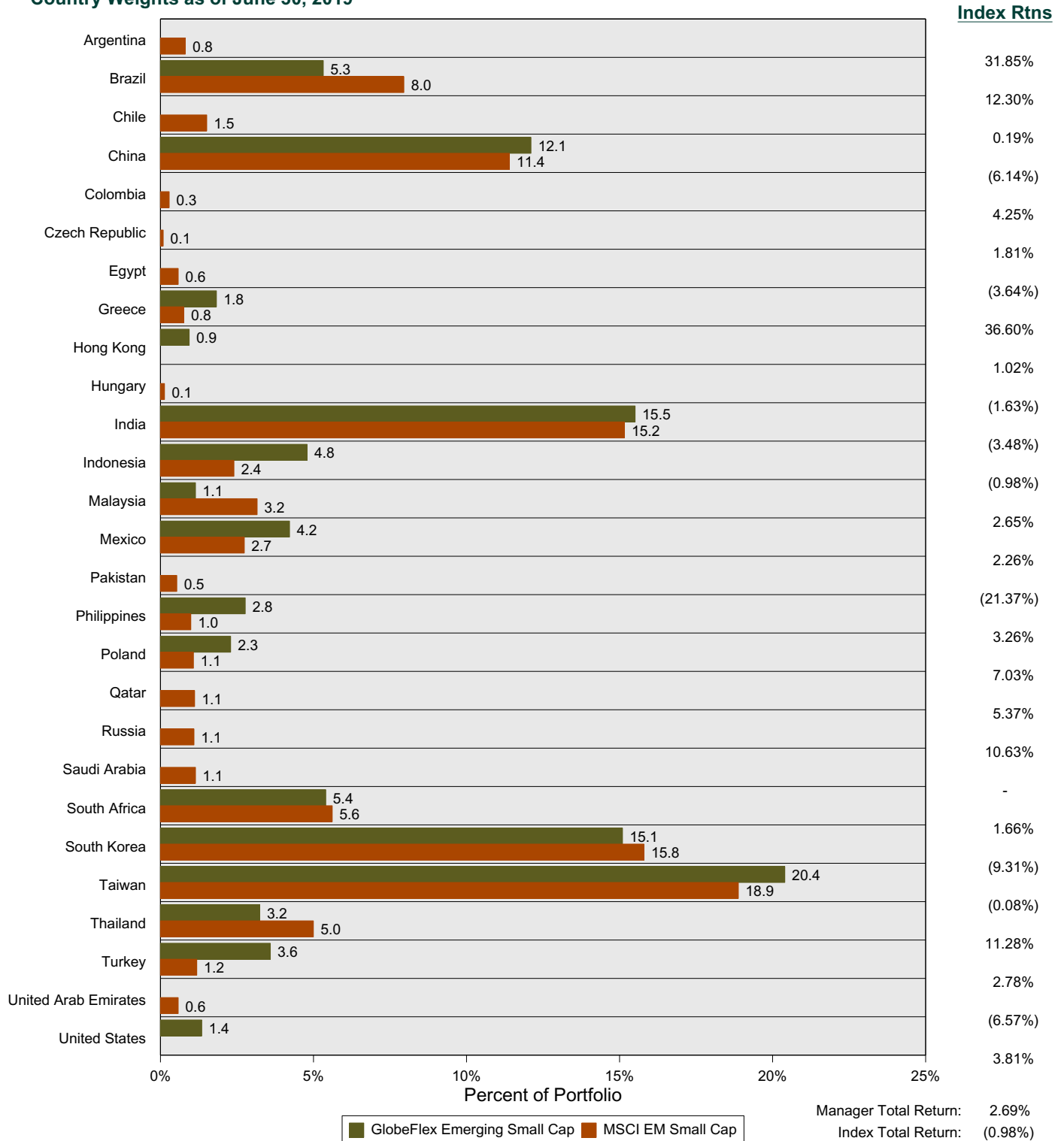


Country Allocation GlobeFlex Emerging Small Cap VS MSCI EM Small Cap Index (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2019. 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.

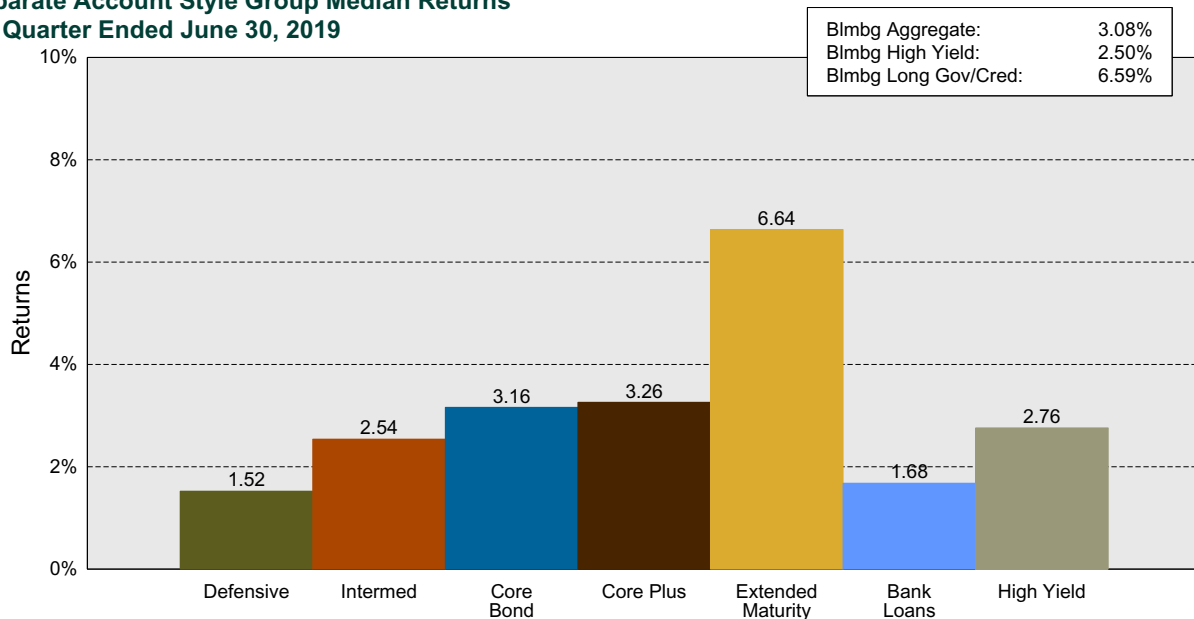
Country Weights as of June 30, 2019



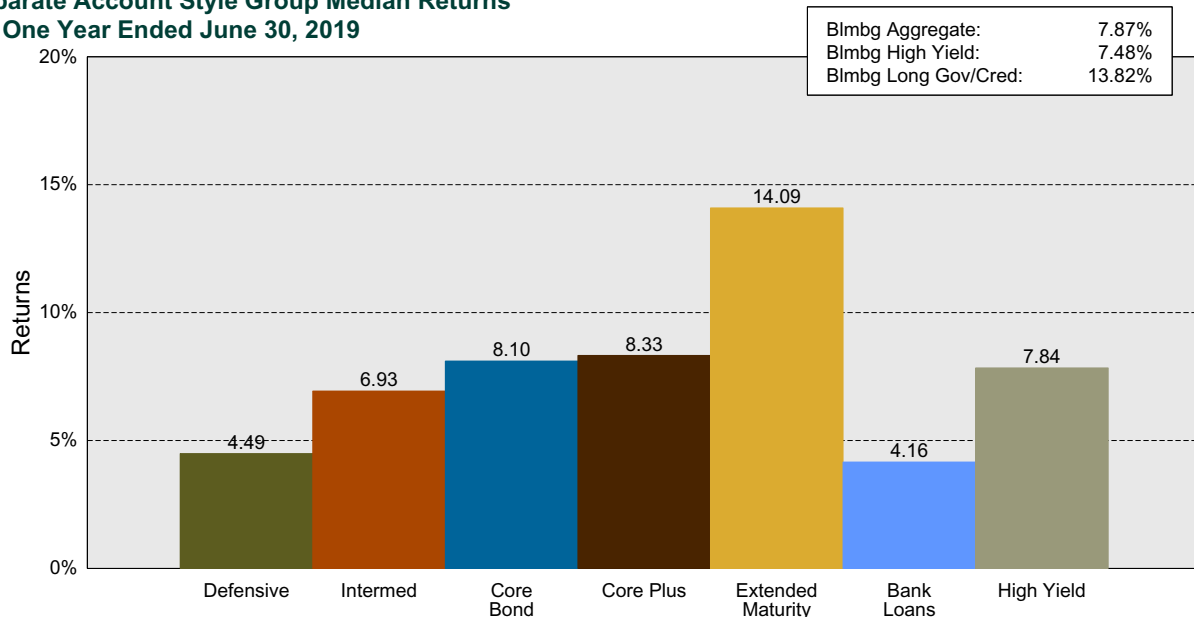
Domestic Fixed Income Active Management Overview

In the U.S., the Bloomberg Barclays US Aggregate Bond Index rose 3.1% for the quarter. U.S. Treasury yields hit multi-year lows in June, and the 10-year closed the quarter at 2.0% (lowest since 11/2016). The curve remained inverted between the 90-day T-bill and the 10-year U.S. Treasury, but the more widely watched spread between the 2- and 10-year widened during the quarter to 25 bps. Investment grade corporate bonds performed best (Blmbg Barclays Corp: +4.5%) with US Treasuries following (+3.0%). Agency mortgages trailed (Blmbg Barclays MBS: +2.0%) as lower rates raised concerns around prepayment risk. TIPS (Blmbg Barclays TIPS: +2.9%) underperformed as inflation expectations fell; the 10-year breakeven spread was only 1.69% as of quarter-end versus 1.88% as of 3/31/2019. The high yield corporate bond market (Blmbg Barclays High Yield: +2.5%) underperformed investment grade but is up nearly 10% ytd. Leveraged loans (S&P LSTA: +1.7%) held their own in spite of negative press and falling rates. Municipal bonds (Blmbg Barclays Municipal Bond: +2.1%) underperformed U.S. Treasuries in Q2.

Separate Account Style Group Median Returns for Quarter Ended June 30, 2019



Separate Account Style Group Median Returns for One Year Ended June 30, 2019

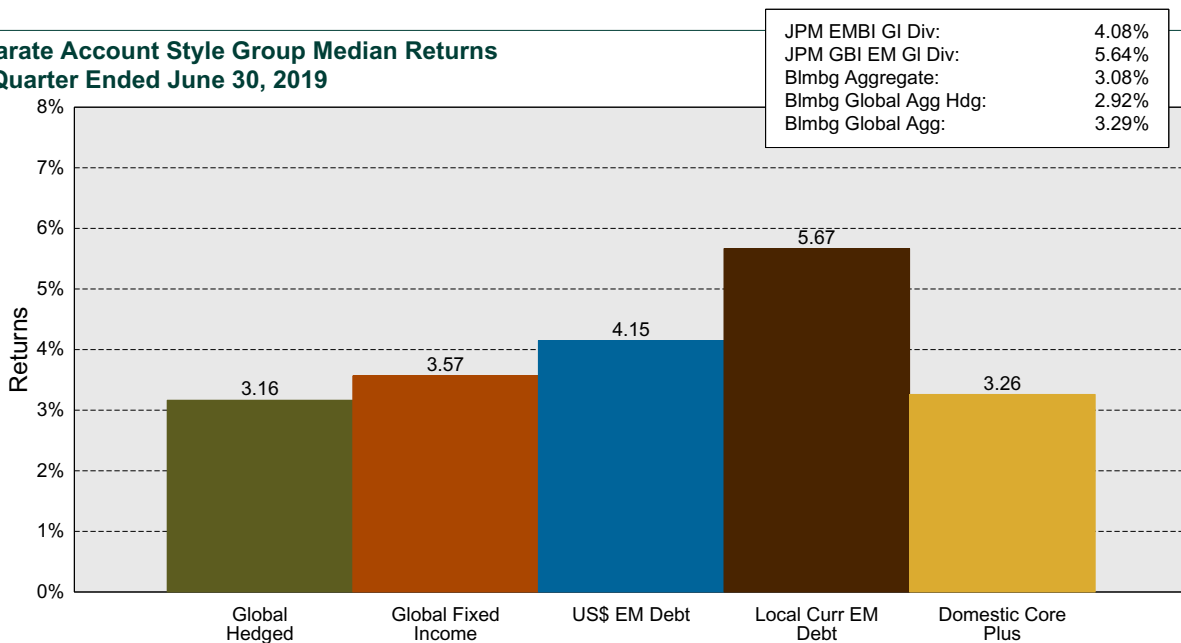


Global Fixed Income Active Management Overview

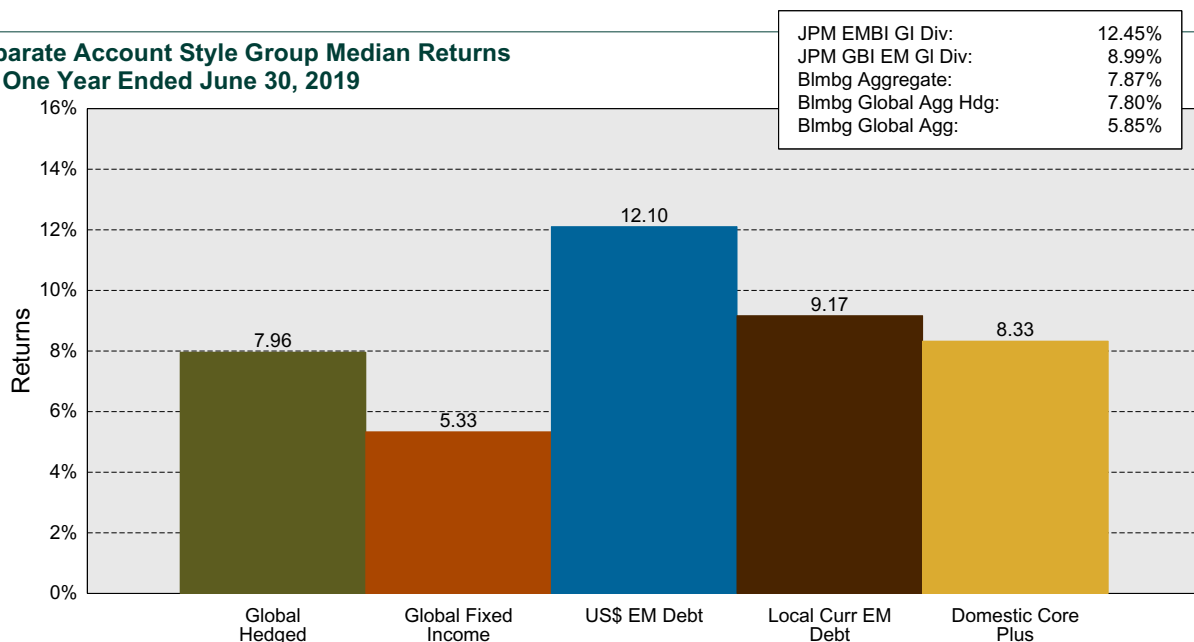
Overseas, yields across developed markets generally fell and reflected similar themes as in the U.S.; concerns over growth, especially manufacturing, mixed with low inflation and expectations for further stimulus measures. The Bloomberg Barclays Global Aggregate Index rose 3.3% for the quarter on an unhedged basis. Hedged into dollars, the Index gained 2.9%. In a reversal from Q1, the dollar lost ground vs. most currencies, with the pound being a notable exception. In Germany, the yield on the 10-year government bond hit an all-time low and closed the quarter at -0.33% and the 2-year ended the quarter at -0.76%. Negative yielding debt globally hit a new high of nearly \$13 trillion and is now roughly 25% of the Global Aggregate Index.

Emerging market debt performed well; the U.S. dollar-denominated JPM EMBI Global Diversified Index gained 4.1% as rates fell. Local currency emerging market debt, as measured by the JPM GBI-EM Global Diversified Index, rose 5.6% with most emerging markets currencies appreciating versus the U.S. dollar. Top performers included Russia: +10.4% and Turkey: +10.1%; Argentina was the worst performer at -5.0%, and one of the few countries to post a negative result.

**Separate Account Style Group Median Returns
for Quarter Ended June 30, 2019**



**Separate Account Style Group Median Returns
for One Year Ended June 30, 2019**

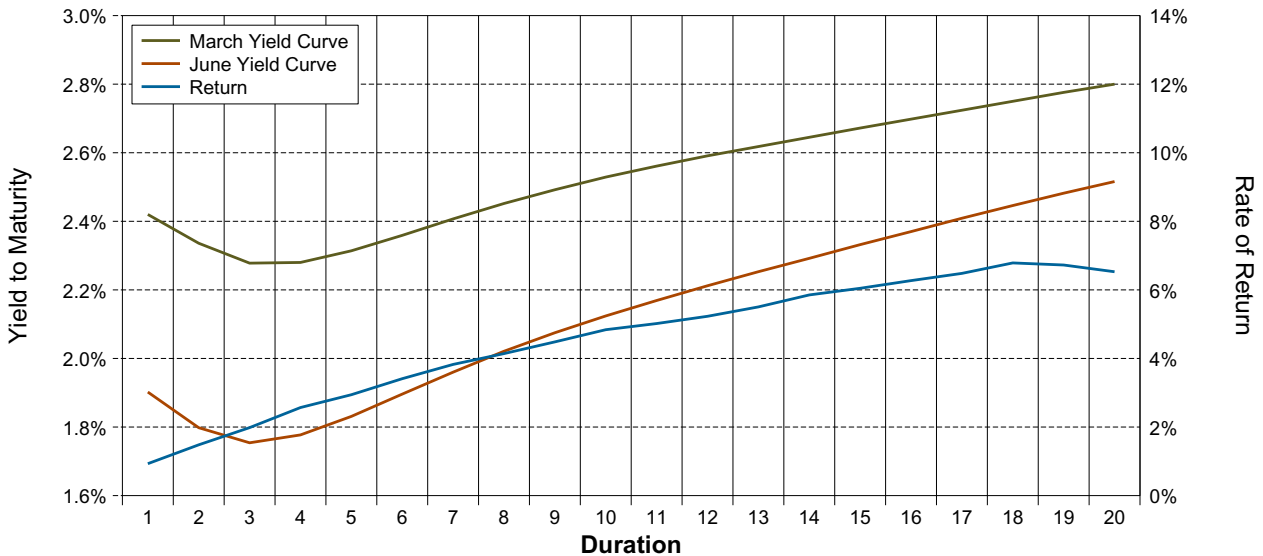


Bond Market Environment

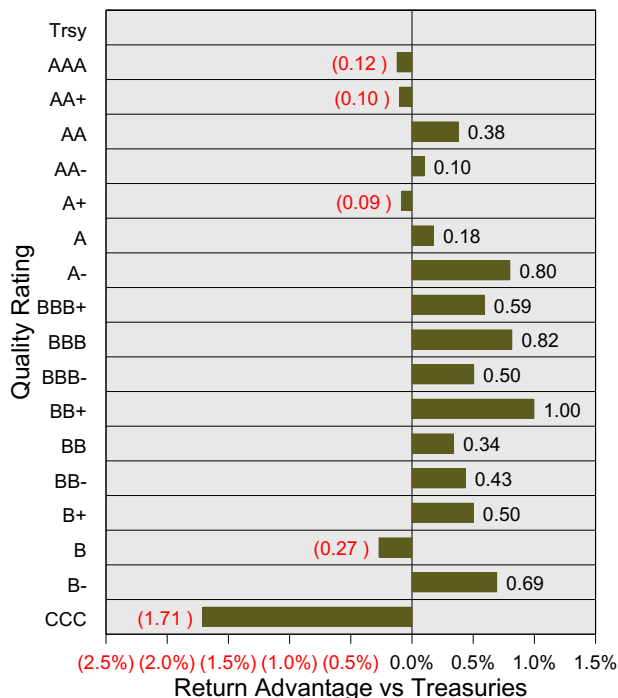
Factors Influencing Bond Returns

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.

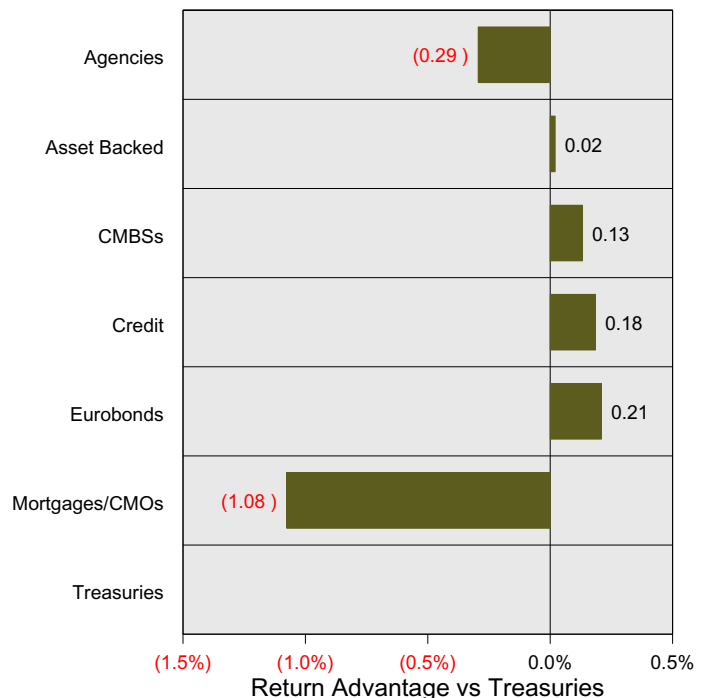
Yield Curve Change and Rate of Return One Quarter Ended June 30, 2019



Duration Adjusted Return Premium to Quality One Quarter Ended June 30, 2019



Quality and Duration Adjusted Return Premium by Sector One Quarter Ended June 30, 2019



Fixed Income Period Ended June 30, 2019

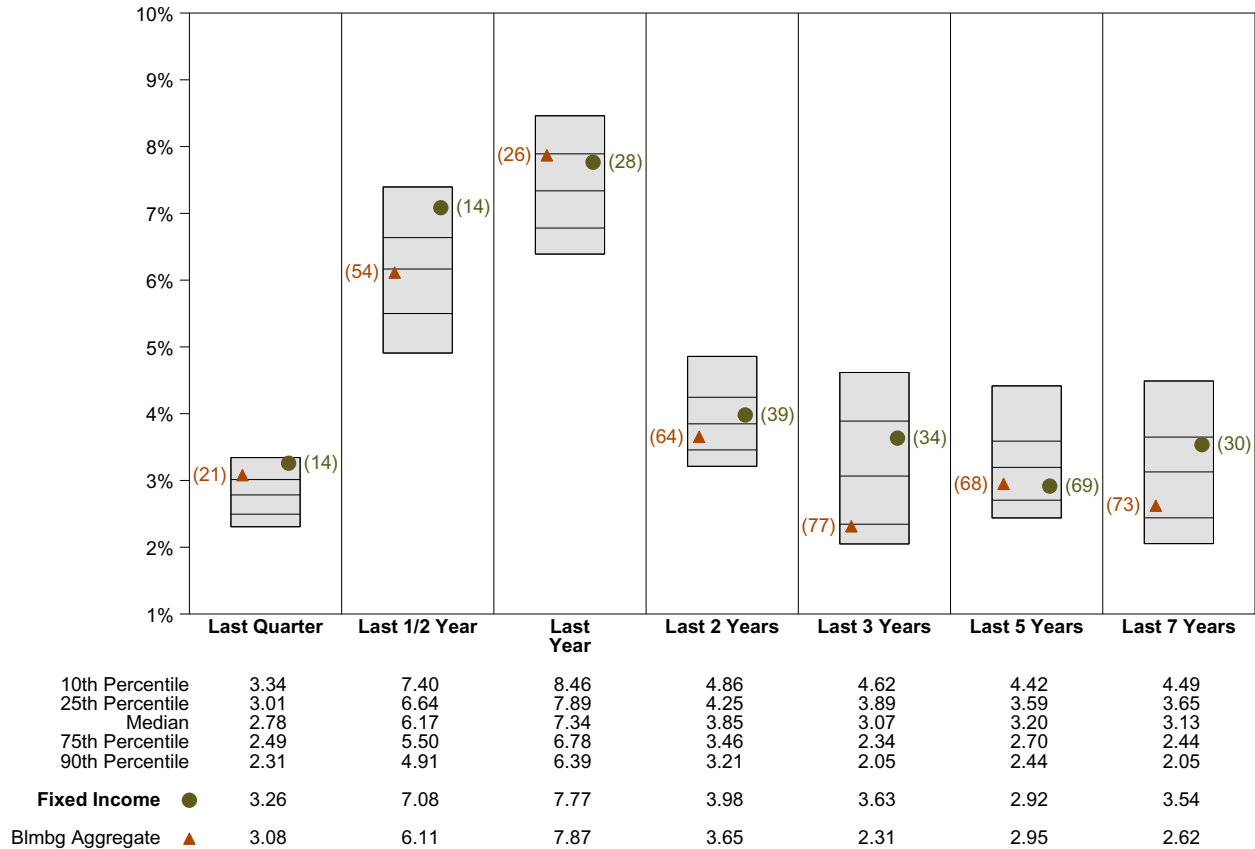
Quarterly Summary and Highlights

- Fixed Income's portfolio posted a 3.26% return for the quarter placing it in the 14 percentile of the Public Fund - Domestic Fixed group for the quarter and in the 28 percentile for the last year.
- Fixed Income's portfolio outperformed the Blmbg Aggregate by 0.18% for the quarter and underperformed the Blmbg Aggregate for the year by 0.10%.

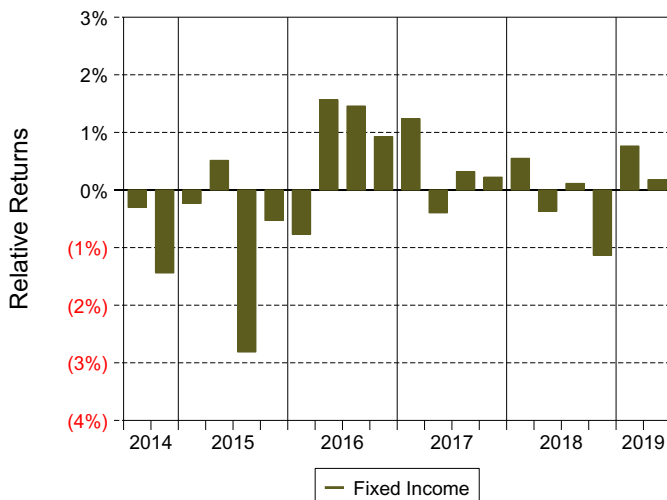
Quarterly Asset Growth

Beginning Market Value	\$4,141,513,288
Net New Investment	\$-2,524,884
Investment Gains/(Losses)	\$134,505,958
Ending Market Value	\$4,273,494,361

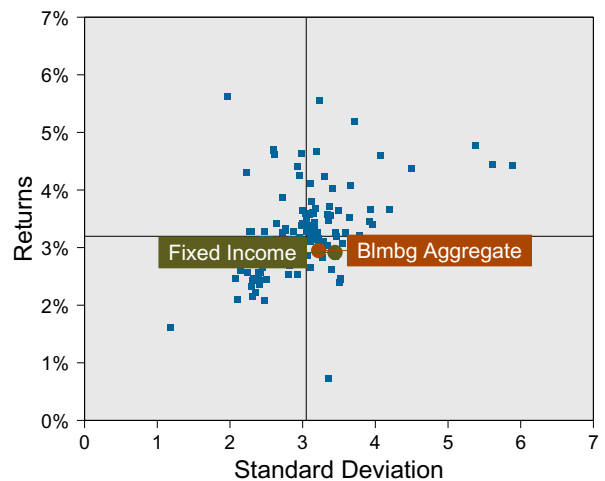
Performance vs Public Fund - Domestic Fixed (Gross)



Relative Return vs Blmbg Aggregate



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

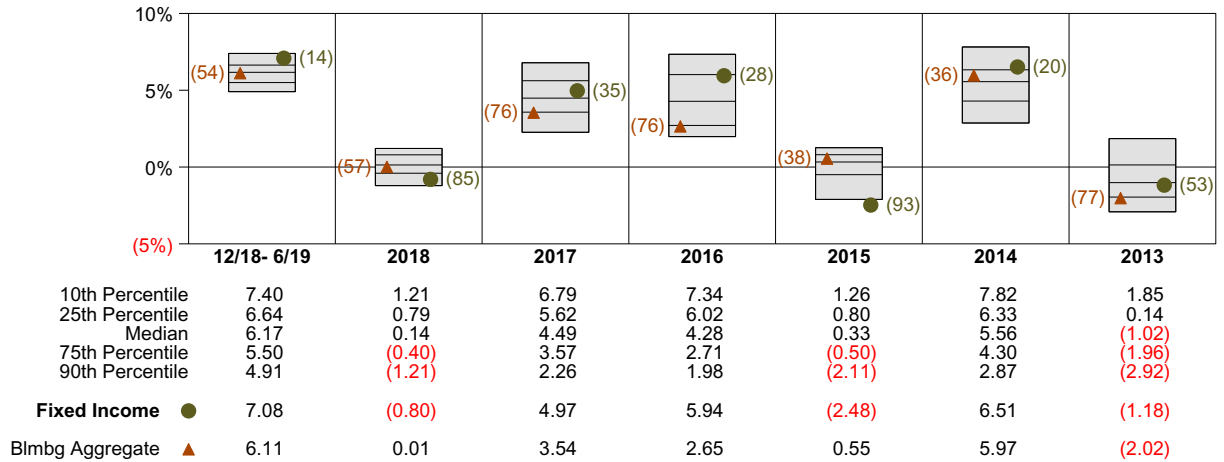


Fixed Income Return Analysis Summary

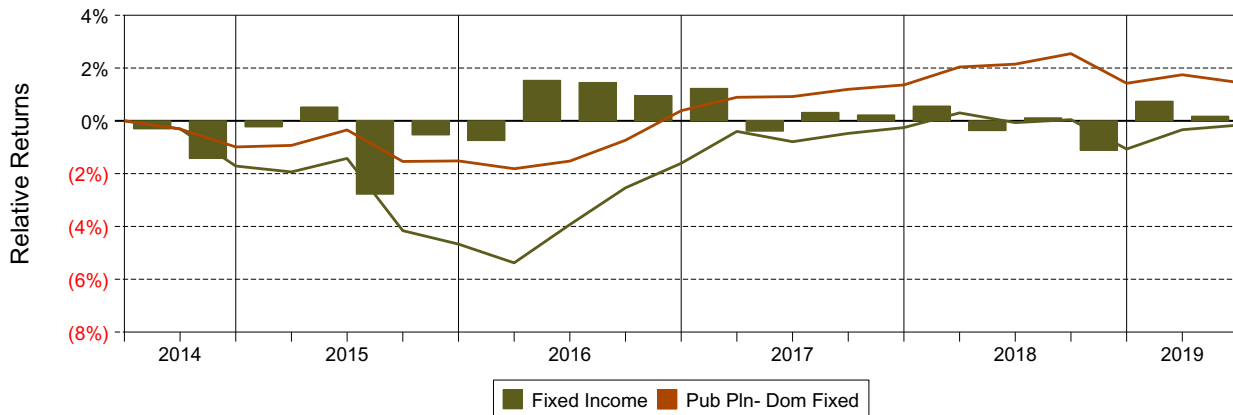
Return Analysis

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.

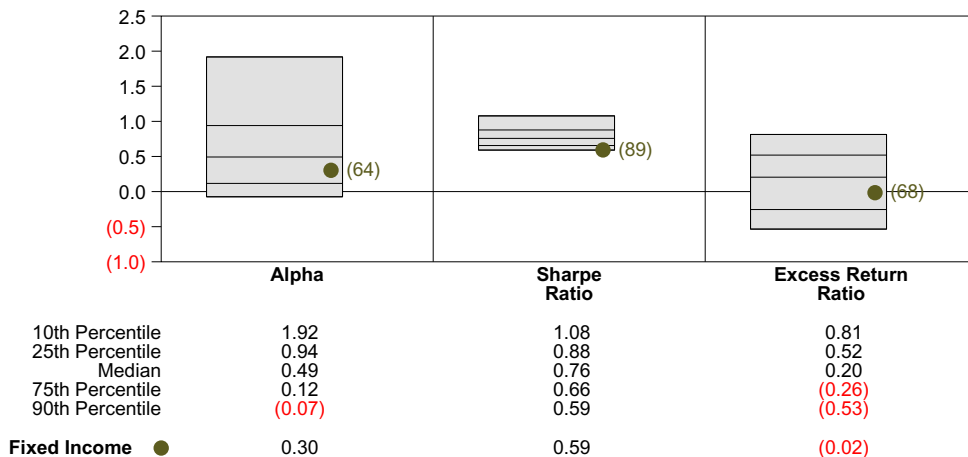
Performance vs Public Fund - Domestic Fixed (Gross)



Cumulative and Quarterly Relative Return vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Public Fund - Domestic Fixed (Gross) Five Years Ended June 30, 2019

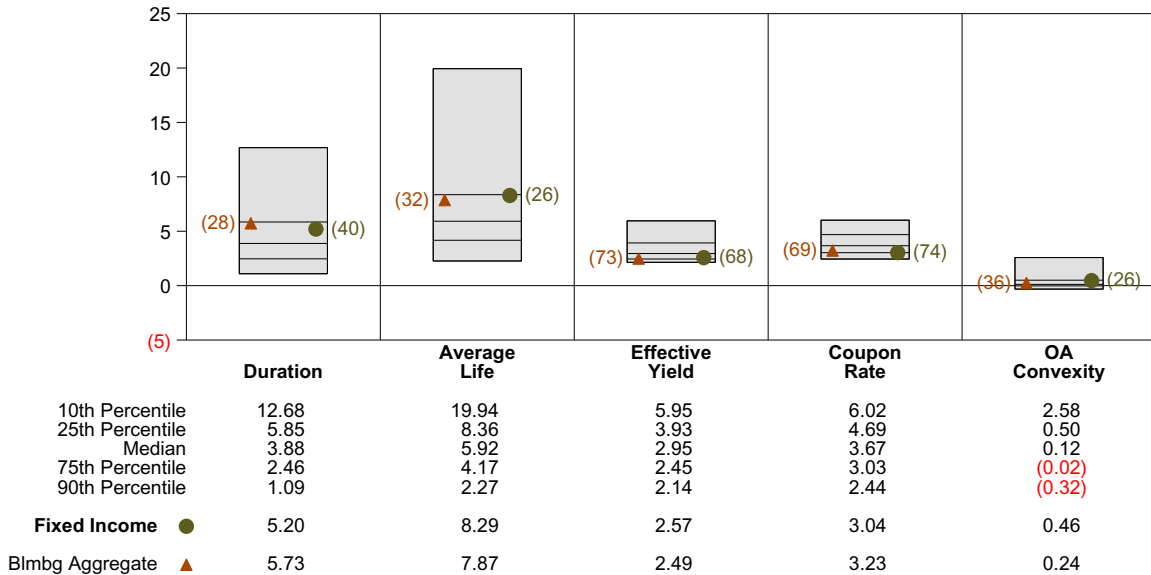


Fixed Income Bond Characteristics Analysis Summary

Portfolio Characteristics

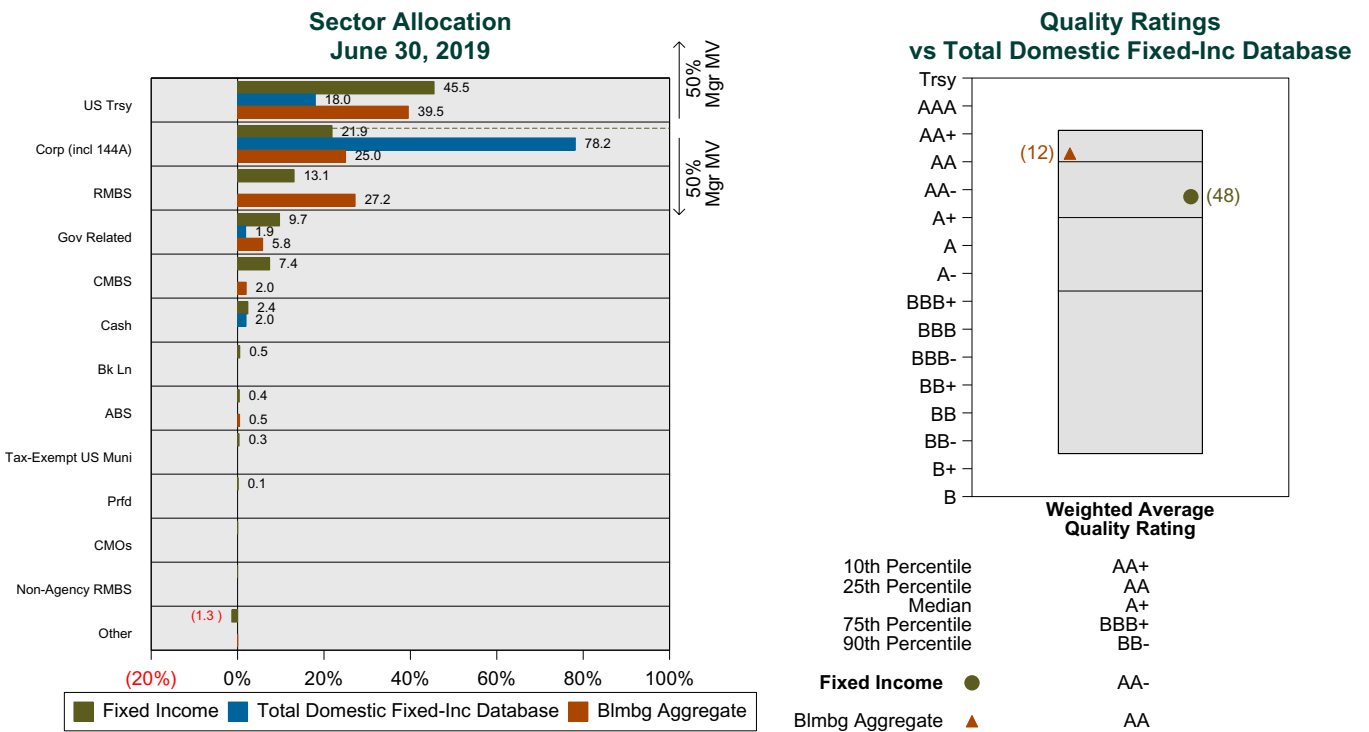
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Total Domestic Fixed-Inc Database as of June 30, 2019



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.

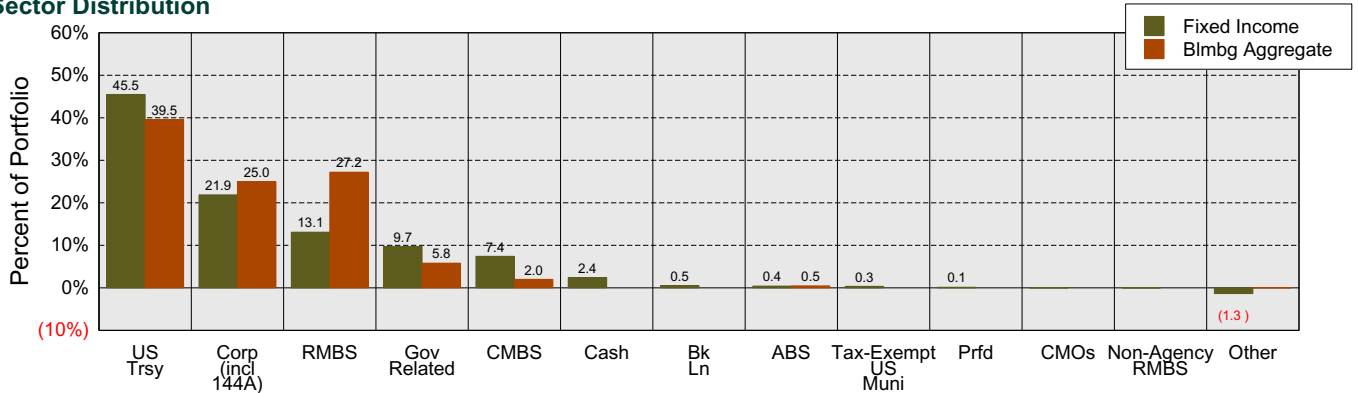


Fixed Income Portfolio Characteristics Summary As of June 30, 2019

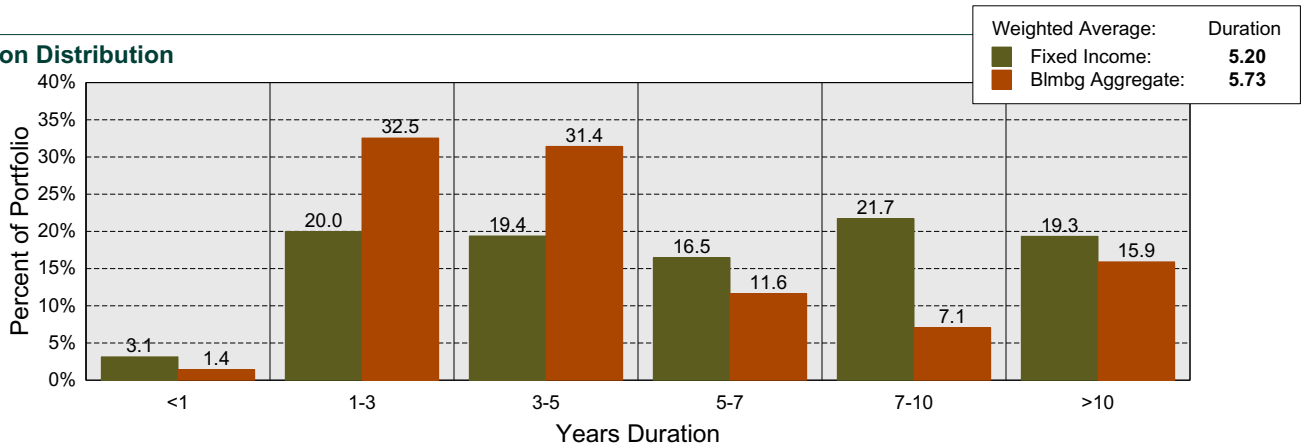
Portfolio Structure Comparison

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.

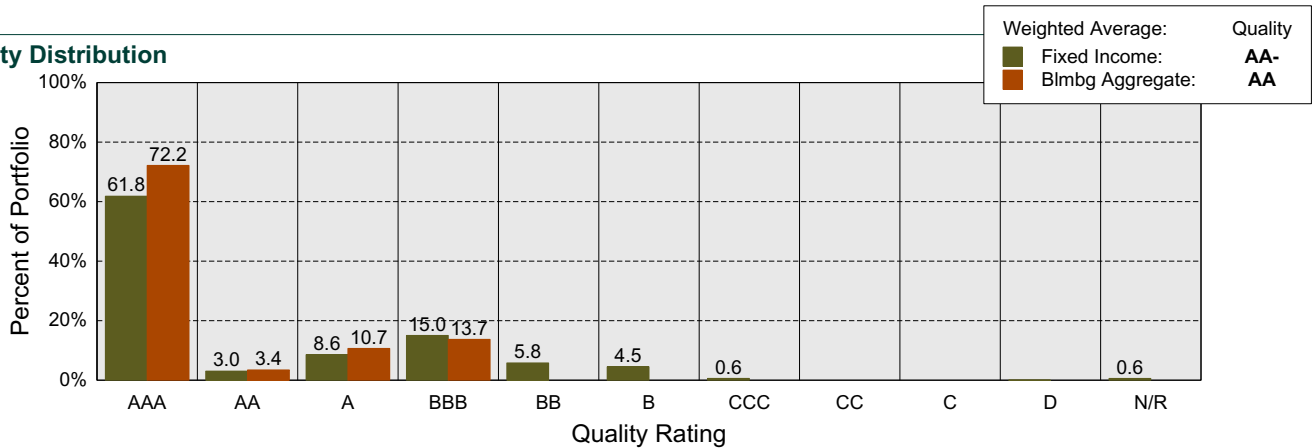
Sector Distribution



Duration Distribution



Quality Distribution



MCM Bond Index Period Ended June 30, 2019

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.

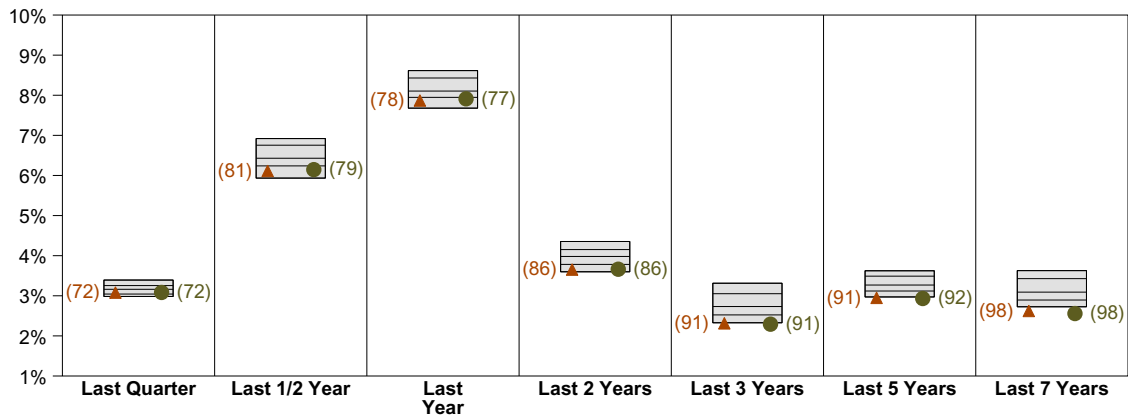
Quarterly Summary and Highlights

- MCM Bond Index's portfolio posted a 3.08% return for the quarter placing it in the 72 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 77 percentile for the last year.
- MCM Bond Index's portfolio outperformed the Blmbg Aggregate by 0.00% for the quarter and outperformed the Blmbg Aggregate for the year by 0.04%.

Quarterly Asset Growth

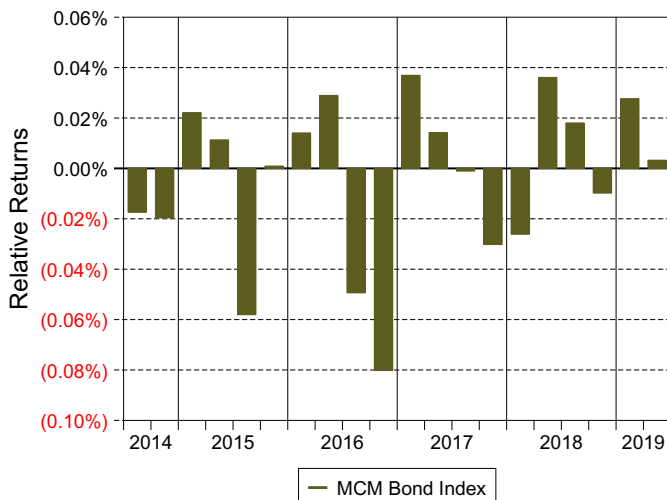
Beginning Market Value	\$1,059,395,998
Net New Investment	\$-128,804
Investment Gains/(Losses)	\$32,654,012
Ending Market Value	\$1,091,921,206

Performance vs Callan Core Bond Fixed Income (Gross)

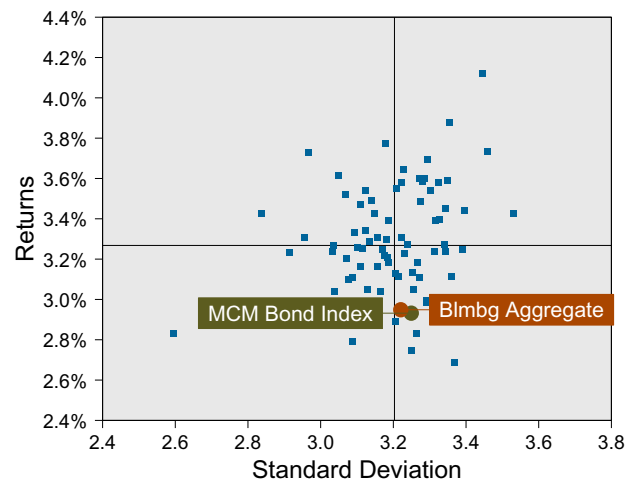


10th Percentile	3.39	6.92	8.61	4.35	3.31	3.62	3.63
25th Percentile	3.25	6.75	8.43	4.15	3.05	3.49	3.43
Median	3.16	6.43	8.10	3.98	2.73	3.27	3.09
75th Percentile	3.04	6.24	7.95	3.78	2.52	3.12	2.89
90th Percentile	2.98	5.93	7.68	3.60	2.33	2.97	2.73
MCM Bond Index ●	3.08	6.14	7.91	3.66	2.29	2.93	2.56
Blmbg Aggregate ▲	3.08	6.11	7.87	3.65	2.31	2.95	2.62

Relative Return vs Blmbg Aggregate



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

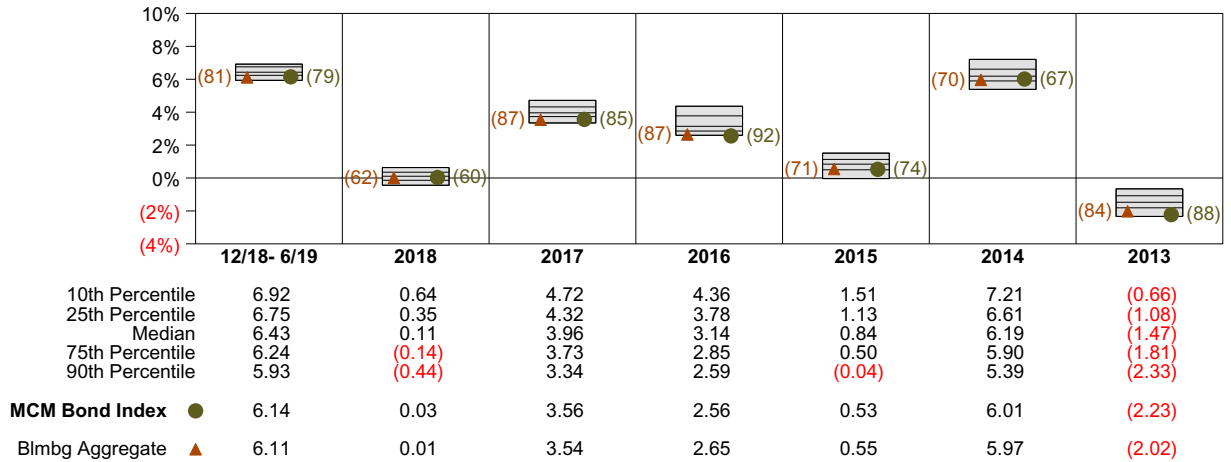


MCM Bond Index Return Analysis Summary

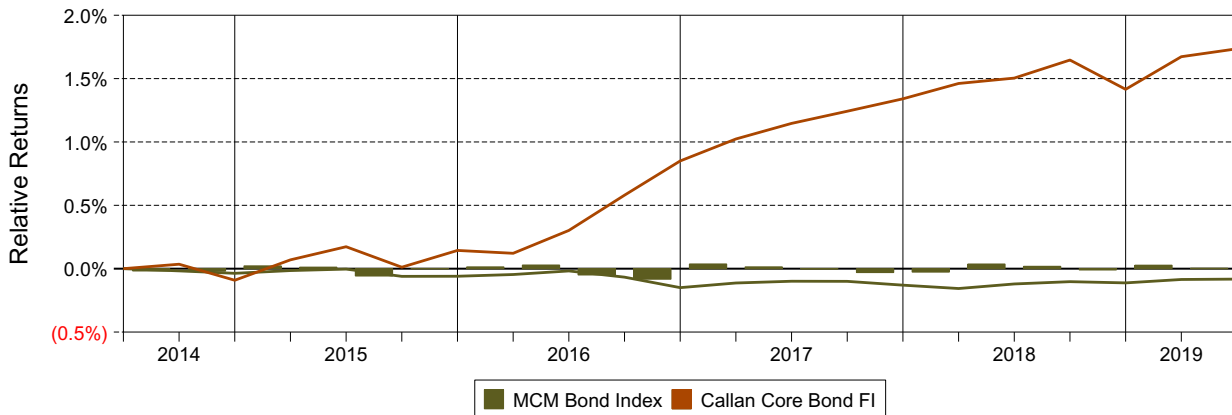
Return Analysis

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.

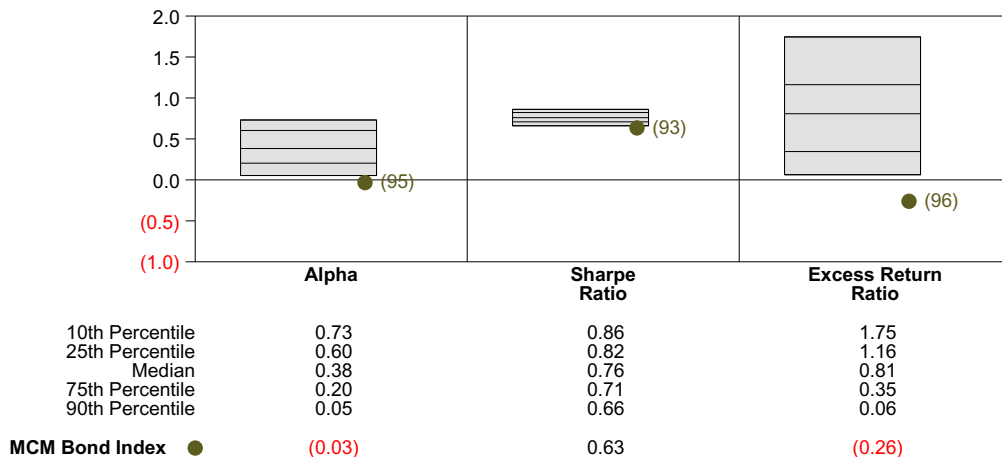
Performance vs Callan Core Bond Fixed Income (Gross)



Cumulative and Quarterly Relative Return vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended June 30, 2019

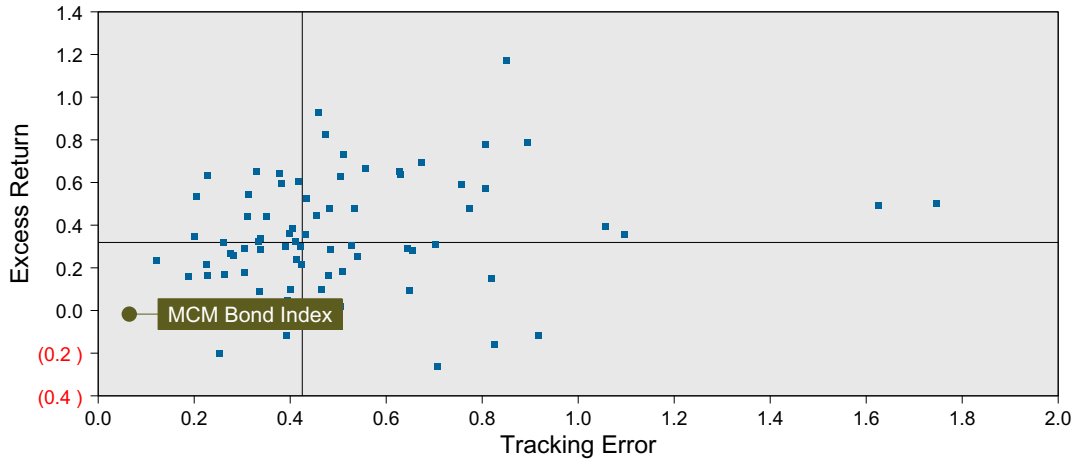


MCM Bond Index Risk Analysis Summary

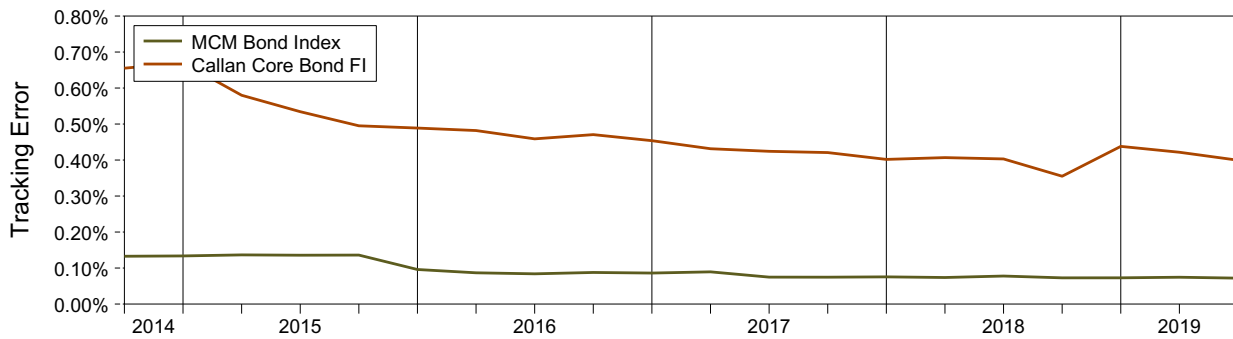
Risk Analysis

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.

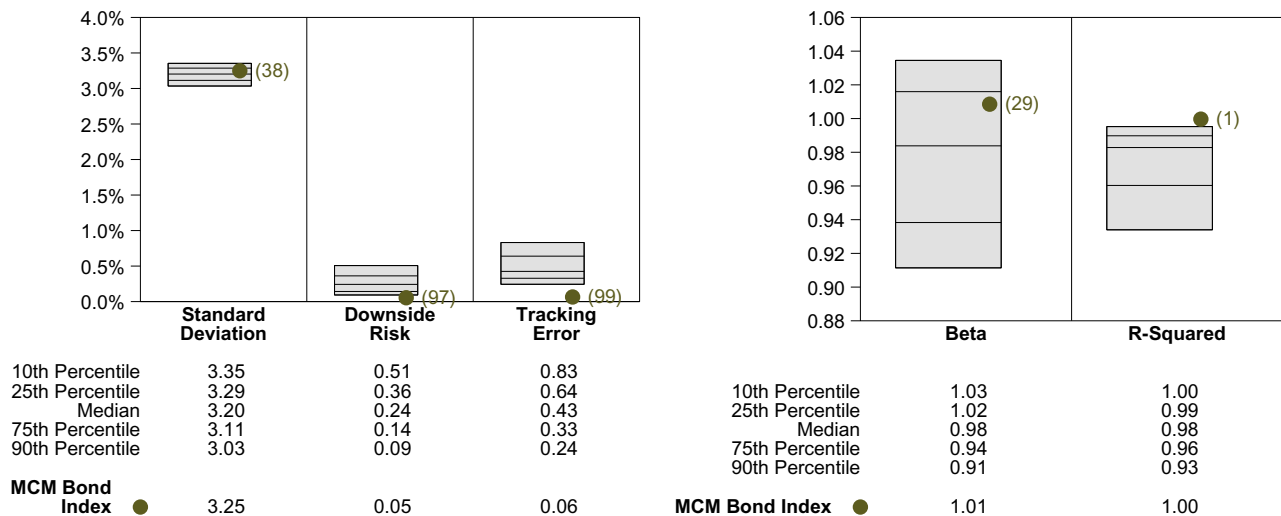
Risk Analysis vs Callan Core Bond Fixed Income (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs Bloomberg Barclays Aggregate



Risk Statistics Rankings vs Bloomberg Barclays Aggregate Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended June 30, 2019

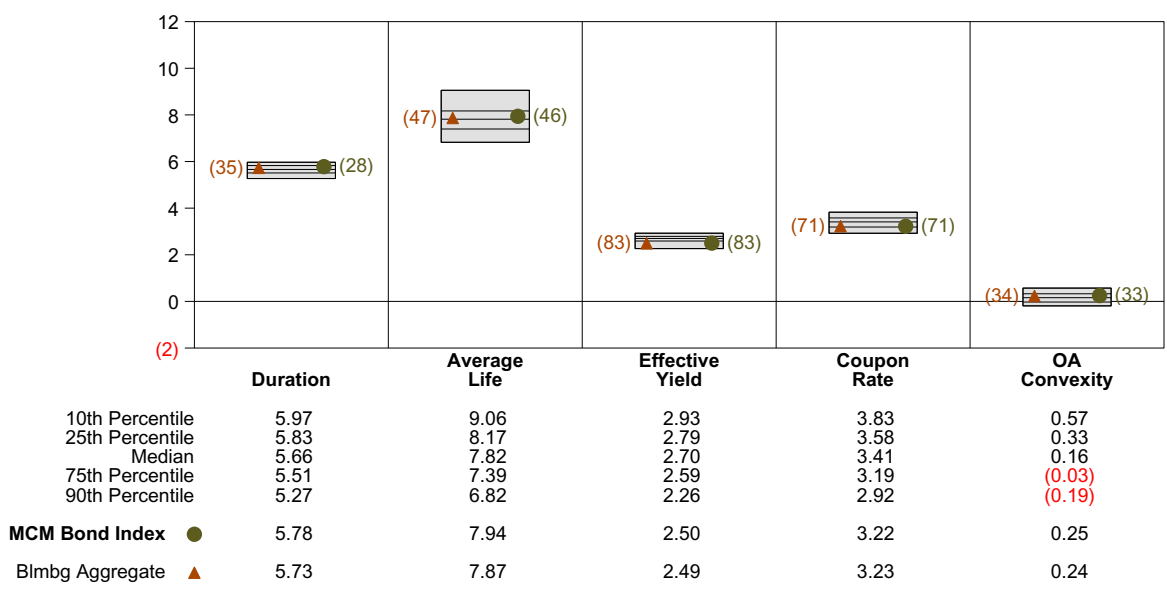


MCM Bond Index Bond Characteristics Analysis Summary

Portfolio Characteristics

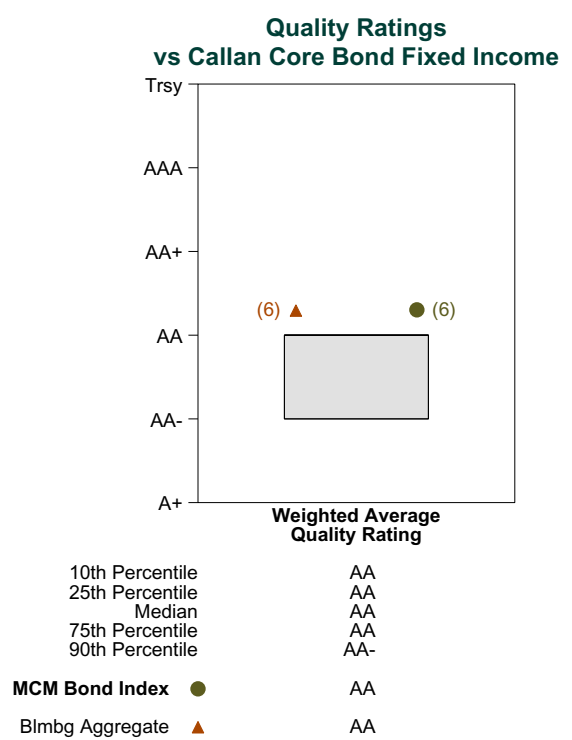
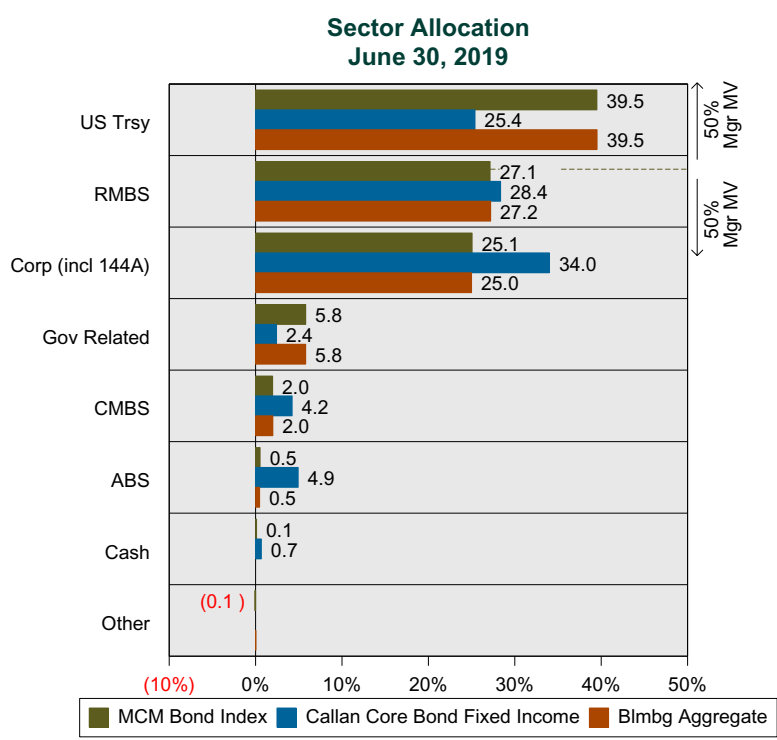
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of June 30, 2019



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.

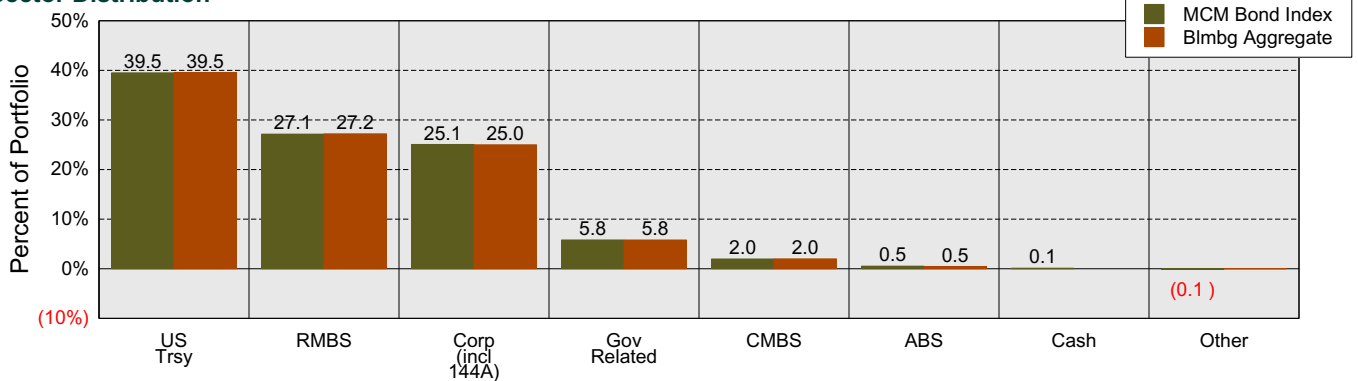


MCM Bond Index Portfolio Characteristics Summary As of June 30, 2019

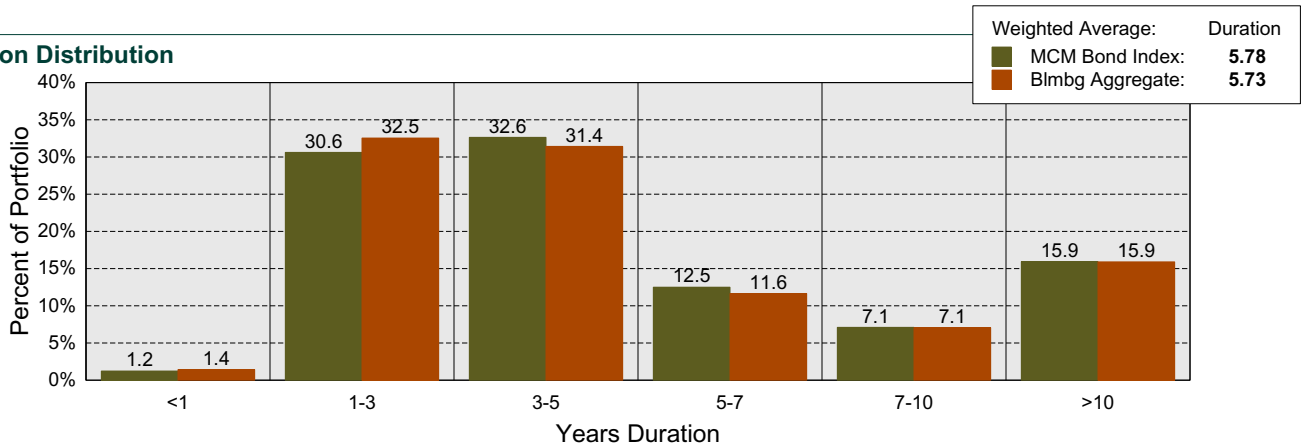
Portfolio Structure Comparison

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.

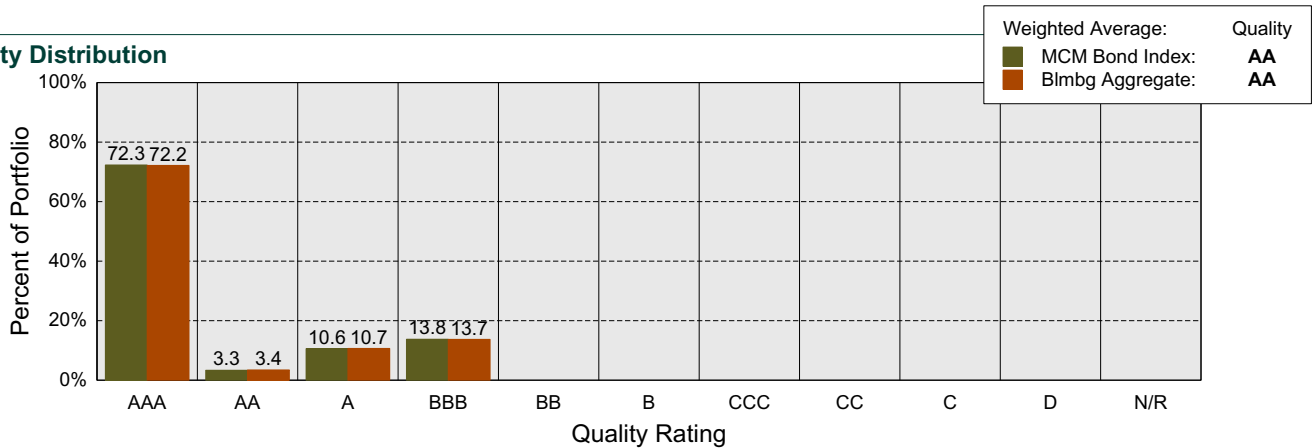
Sector Distribution



Duration Distribution



Quality Distribution



PIMCO Core Bond Fund

Period Ended June 30, 2019

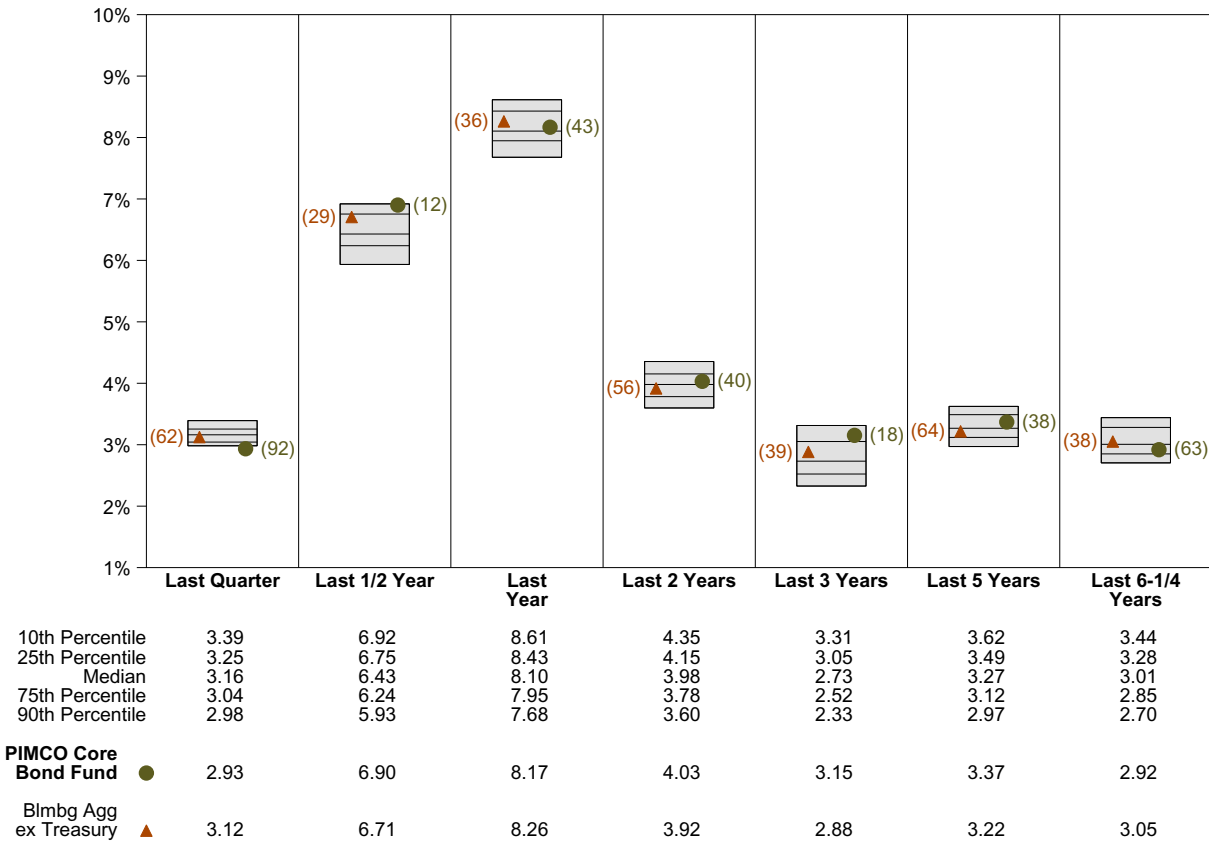
Quarterly Summary and Highlights

- PIMCO Core Bond Fund's portfolio posted a 2.93% return for the quarter placing it in the 92 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 43 percentile for the last year.
- PIMCO Core Bond Fund's portfolio underperformed the Blmbg Agg ex Treasury by 0.19% for the quarter and underperformed the Blmbg Agg ex Treasury for the year by 0.10%.

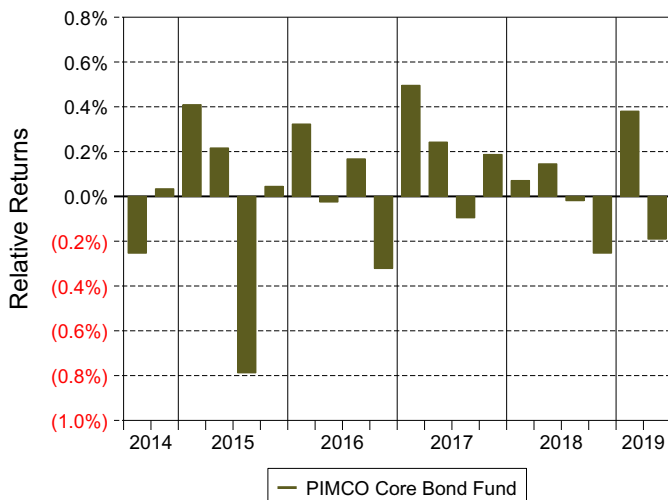
Quarterly Asset Growth

Beginning Market Value	\$634,593,049
Net New Investment	\$-492,667
Investment Gains/(Losses)	\$18,615,214
Ending Market Value	\$652,715,596

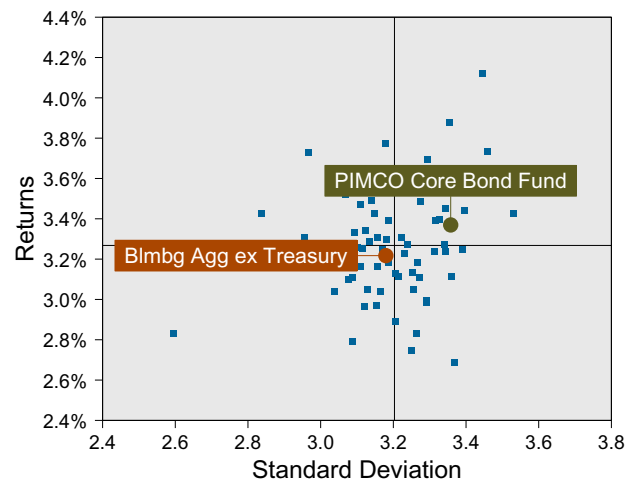
Performance vs Callan Core Bond Fixed Income (Gross)



Relative Return vs Blmbg Agg ex Treasury



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

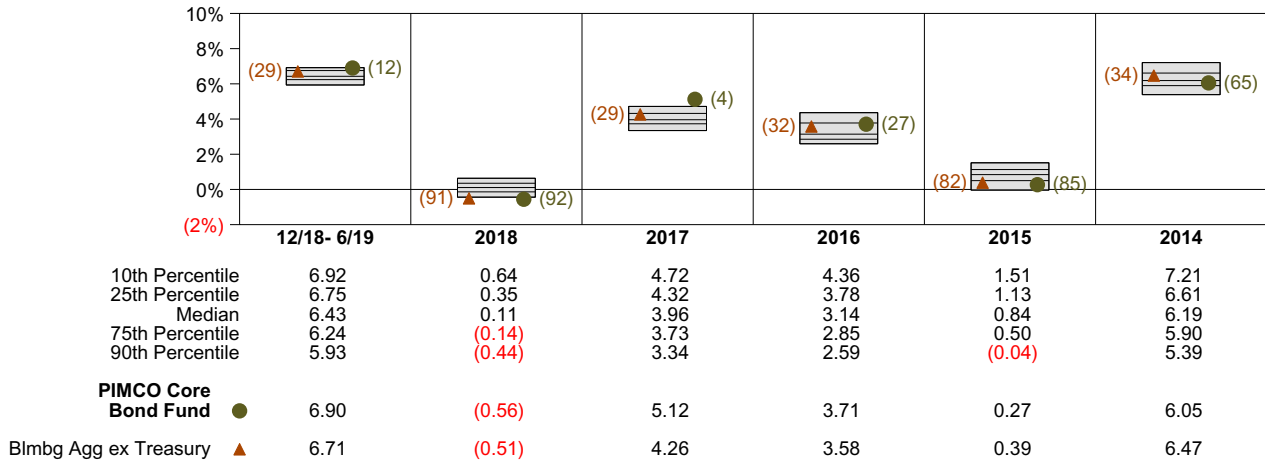


PIMCO Core Bond Fund Return Analysis Summary

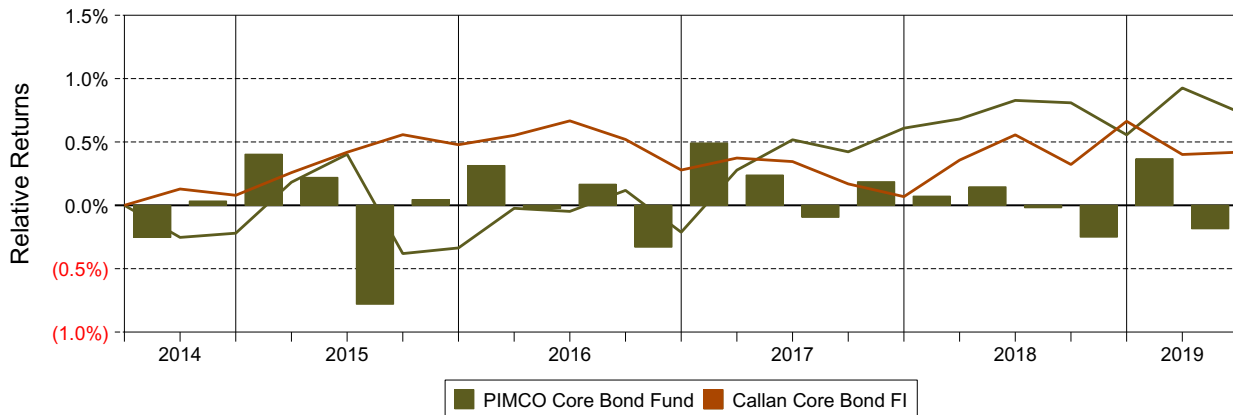
Return Analysis

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.

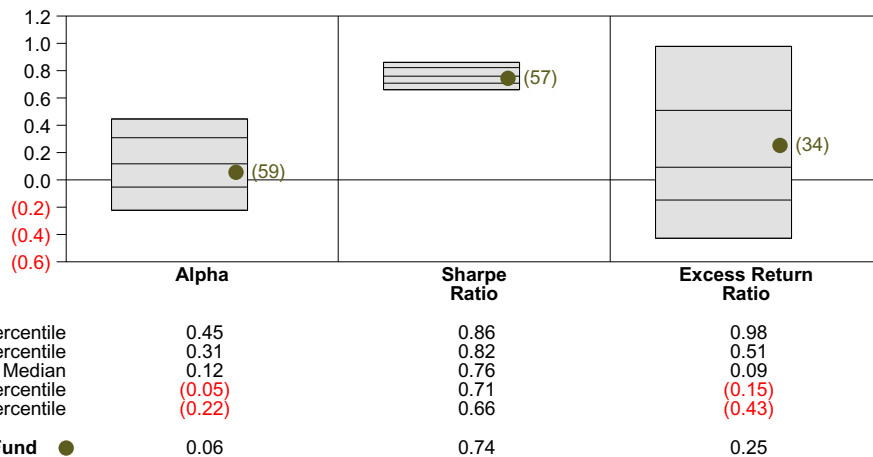
Performance vs Callan Core Bond Fixed Income (Gross)



Cumulative and Quarterly Relative Return vs Blmbg Agg ex Treasury



Risk Adjusted Return Measures vs Blmbg Agg ex Treasury Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended June 30, 2019

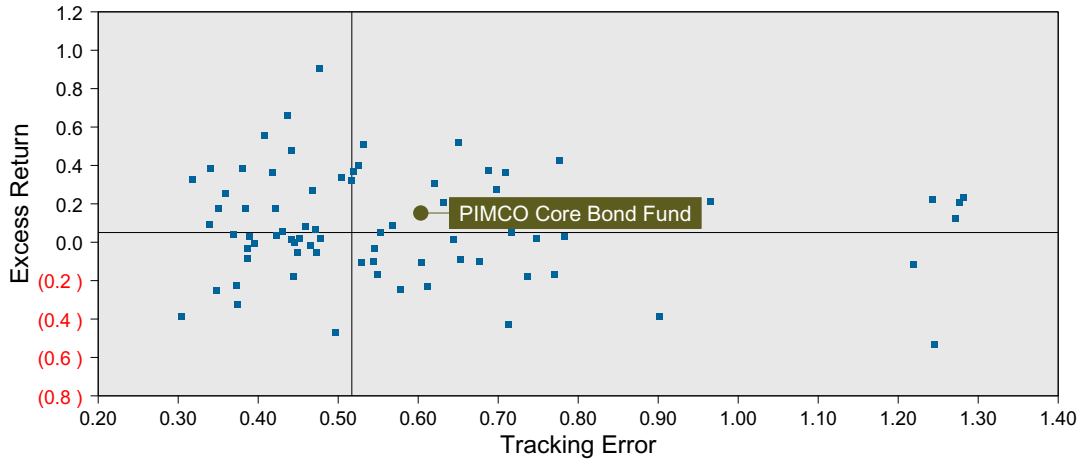


PIMCO Core Bond Fund Risk Analysis Summary

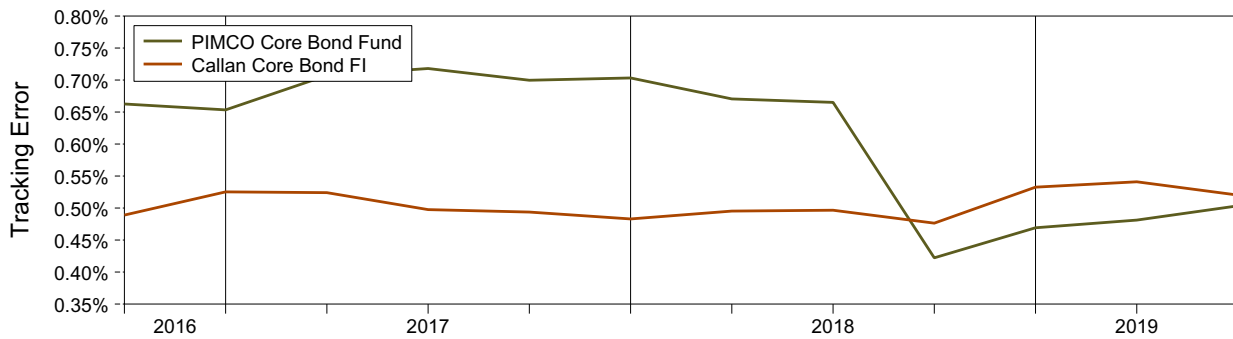
Risk Analysis

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.

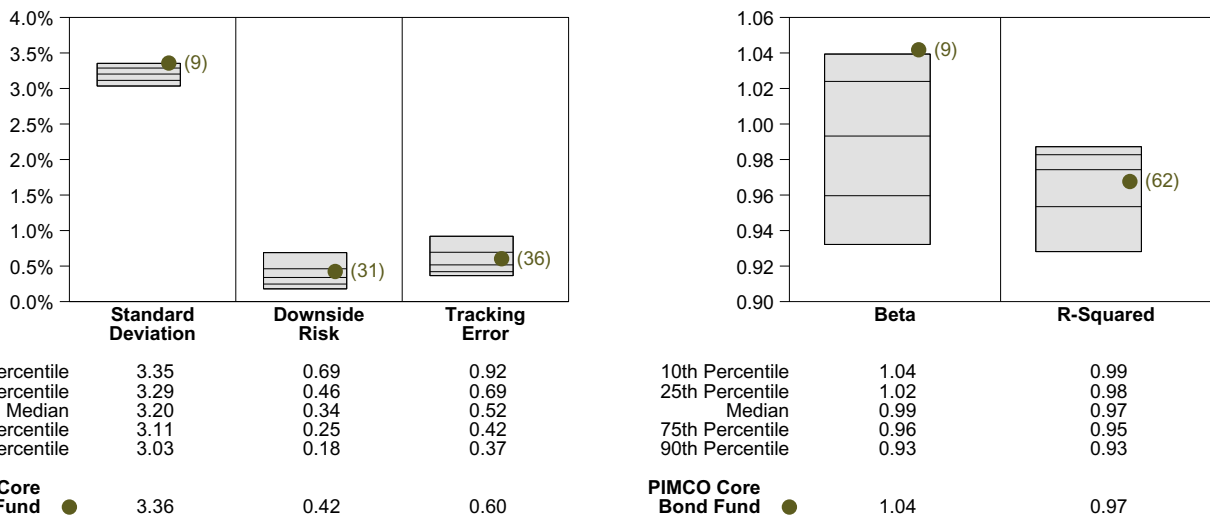
Risk Analysis vs Callan Core Bond Fixed Income (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs Bloomberg Barclays Aggregate ex Treasury



Risk Statistics Rankings vs Bloomberg Barclays Aggregate ex Treasury Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended June 30, 2019

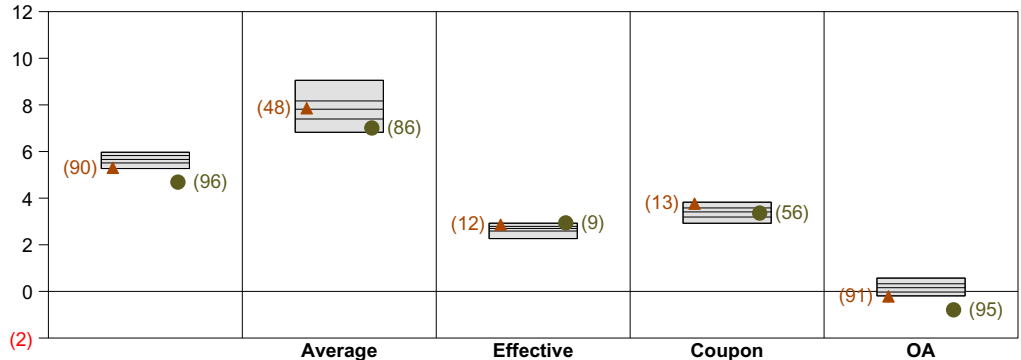


PIMCO Core Bond Fund Bond Characteristics Analysis Summary

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.

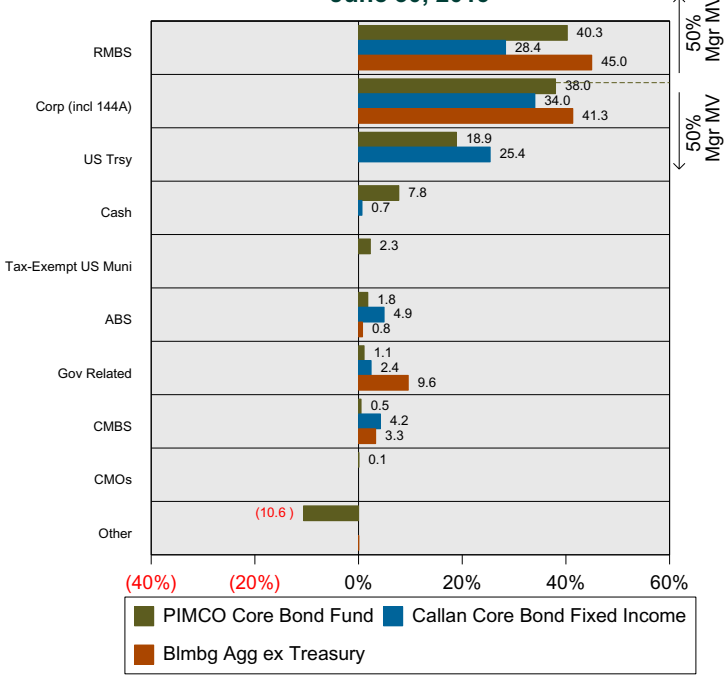
Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of June 30, 2019



Sector Allocation and Quality Ratings

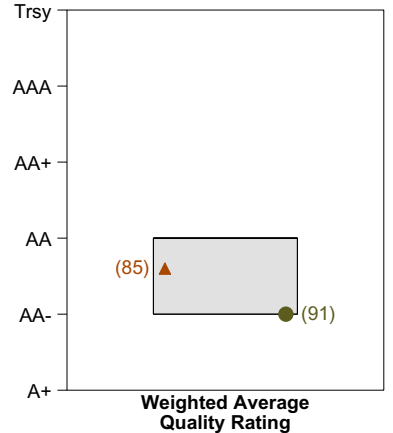
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

Sector Allocation June 30, 2019



Quality Ratings vs Callan Core Bond Fixed Income

Trsy



10th Percentile	AA
25th Percentile	AA
Median	AA
75th Percentile	AA
90th Percentile	AA-
PIMCO Core Bond Fund ●	AA-
Blmbg Agg ex Treasury ▲	AA

PIMCO Core Bond Fund

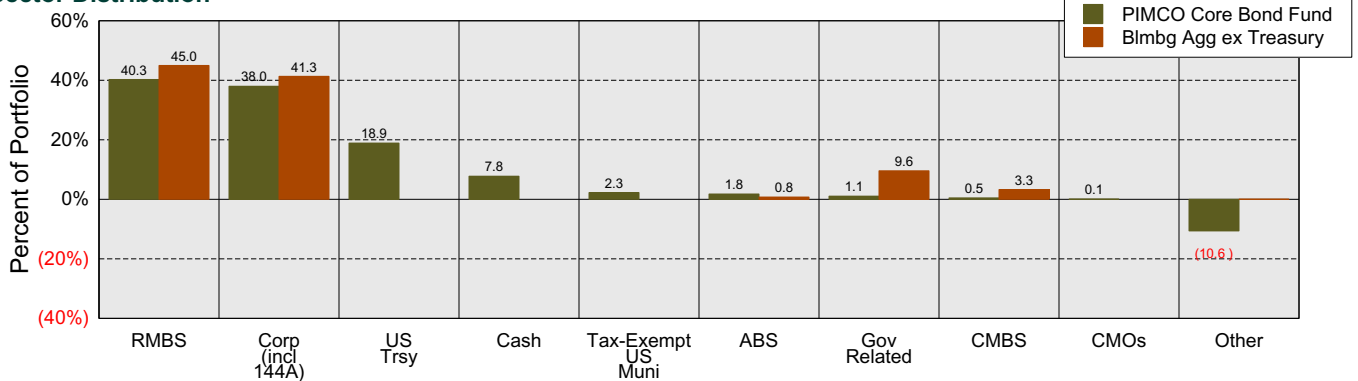
Portfolio Characteristics Summary

As of June 30, 2019

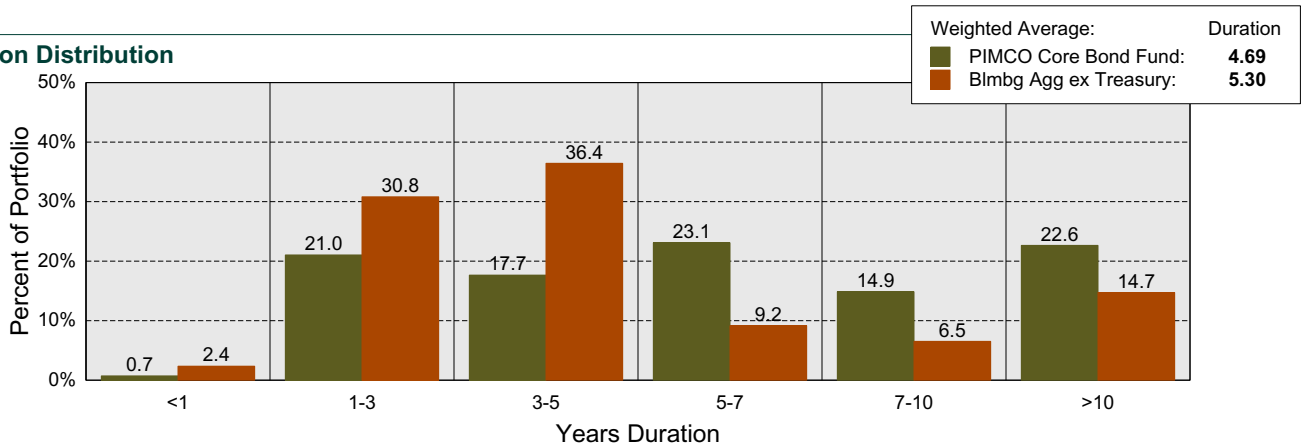
Portfolio Structure Comparison

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.

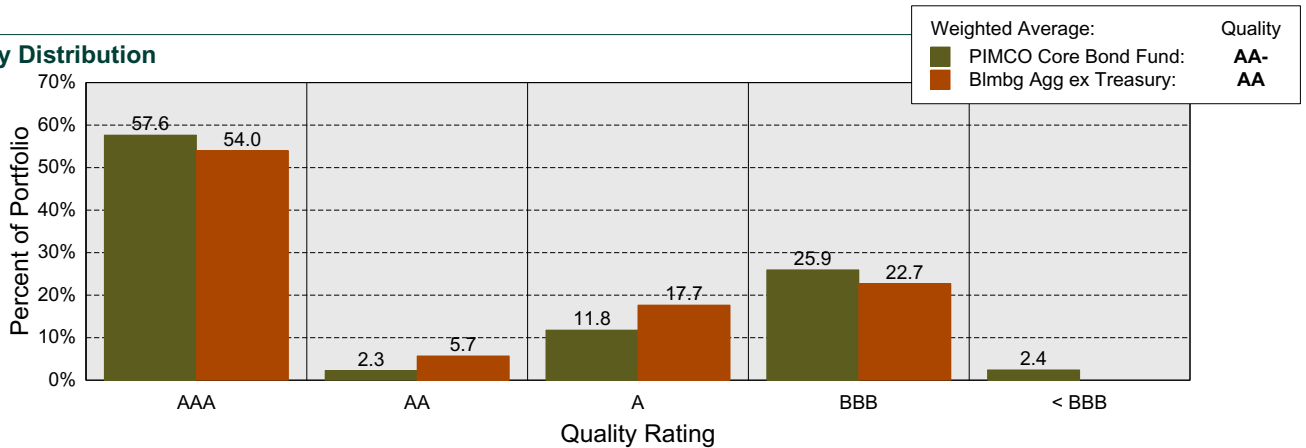
Sector Distribution



Duration Distribution



Quality Distribution



Taplin, Canida & Habacht Corp FI Period Ended June 30, 2019

Investment Philosophy

Taplin's philosophy in managing credit accounts is to add value above the benchmark index by following a strict relative value discipline, emphasizing debt securities valued too cheaply relative to the issuers fundamental creditworthiness. Yield curve positioning adds further value by focusing on the most attractive portions of the yield curve. Portfolios are constructed within a narrow duration band relative to their benchmark indices. This approach minimizes market timing and emphasizes attractive sector and issue spread opportunities within the credit universe.

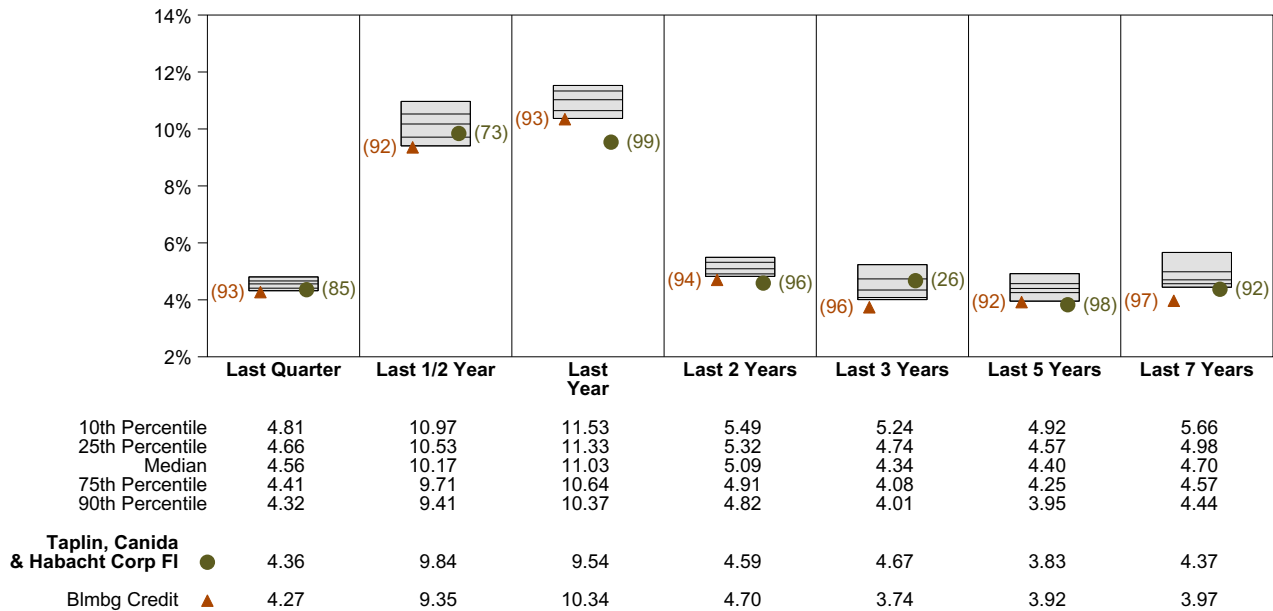
Quarterly Summary and Highlights

- Taplin, Canida & Habacht Corp FI's portfolio posted a 4.36% return for the quarter placing it in the 85 percentile of the Callan Investment Grade Credit Fixed Inc group for the quarter and in the 99 percentile for the last year.
- Taplin, Canida & Habacht Corp FI's portfolio outperformed the Blmbg Credit by 0.08% for the quarter and underperformed the Blmbg Credit for the year by 0.81%.

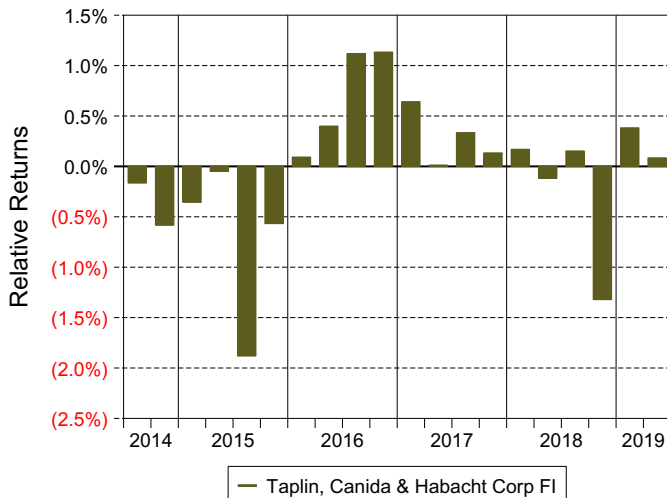
Quarterly Asset Growth

Beginning Market Value	\$187,883,394
Net New Investment	\$-211,299
Investment Gains/(Losses)	\$8,190,610
Ending Market Value	\$195,862,705

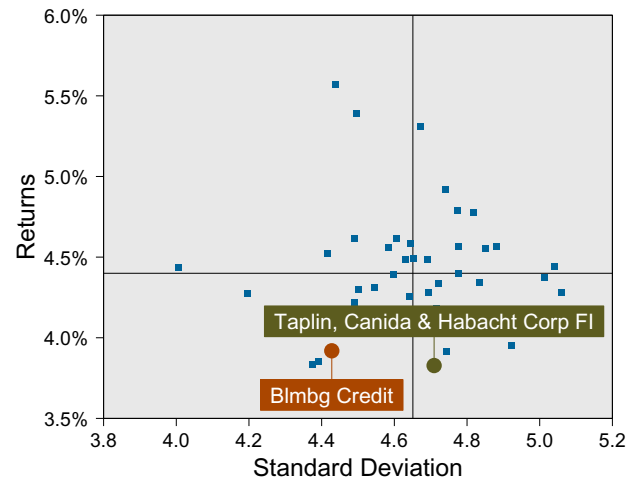
Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



Relative Return vs Blmbg Credit



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

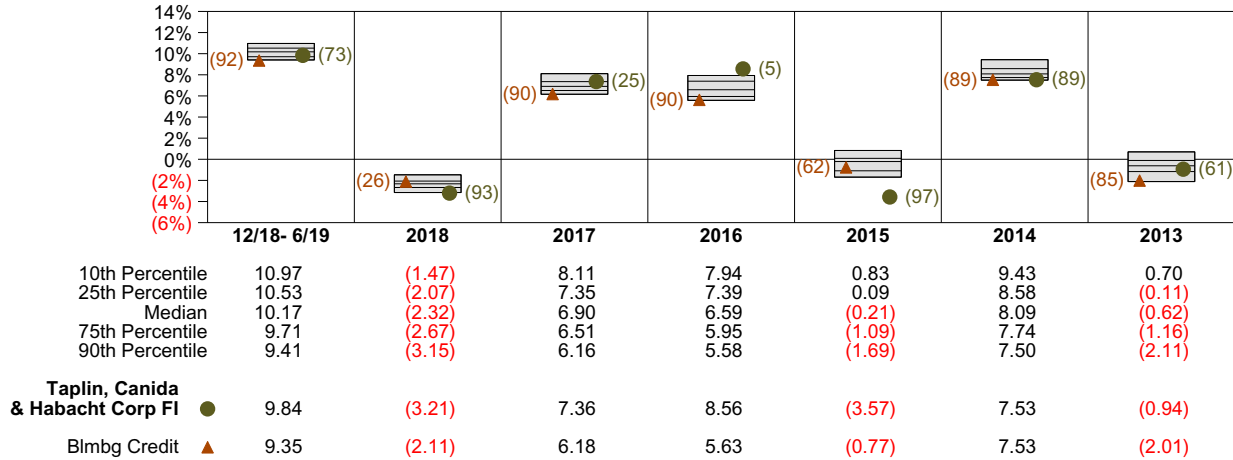


Taplin, Canida & Habacht Corp FI Return Analysis Summary

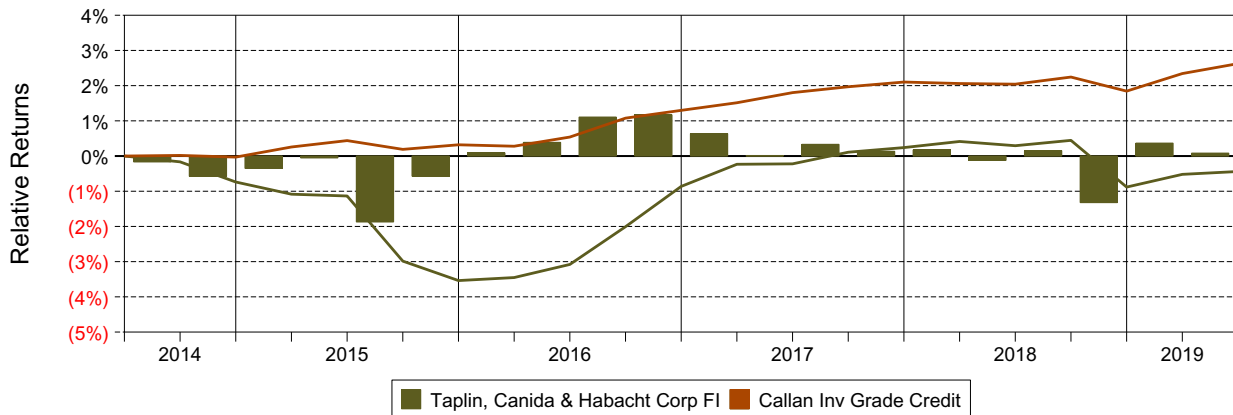
Return Analysis

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

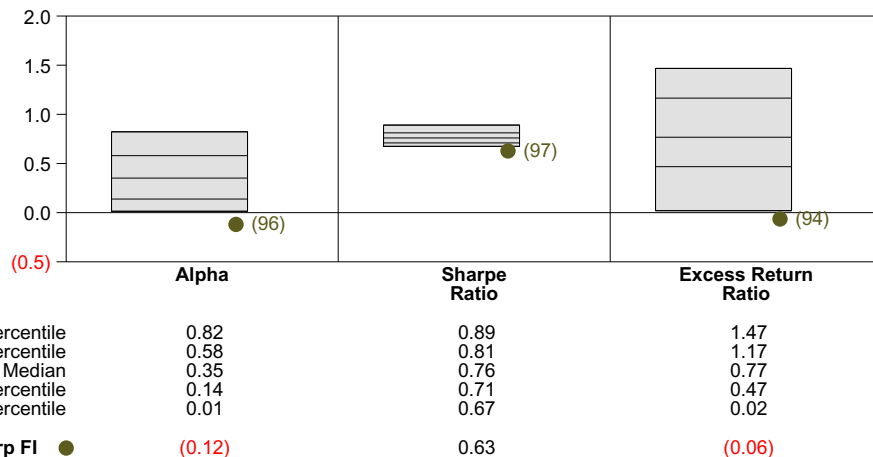
Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



Cumulative and Quarterly Relative Return vs Blmbg Credit



Risk Adjusted Return Measures vs Blmbg Credit Rankings Against Callan Investment Grade Credit Fixed Inc (Gross) Five Years Ended June 30, 2019

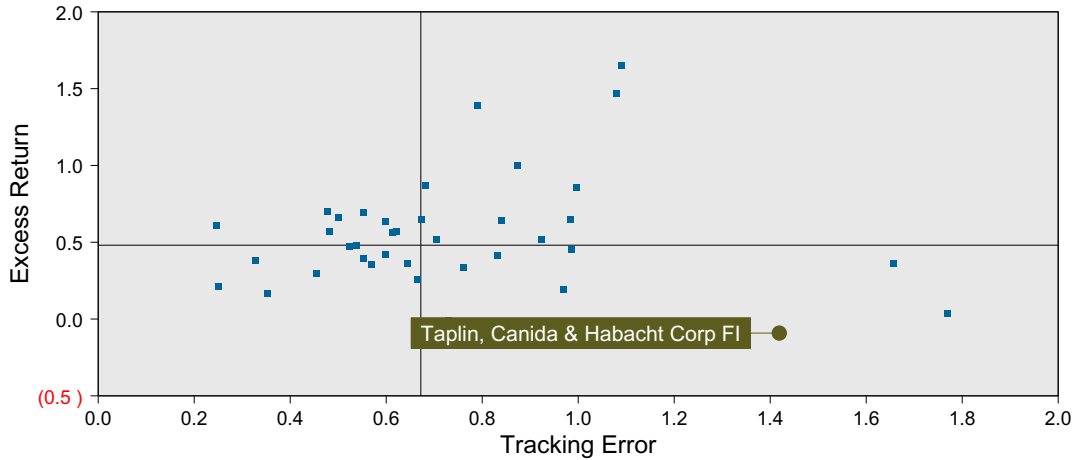


Taplin, Canida & Habacht Corp FI Risk Analysis Summary

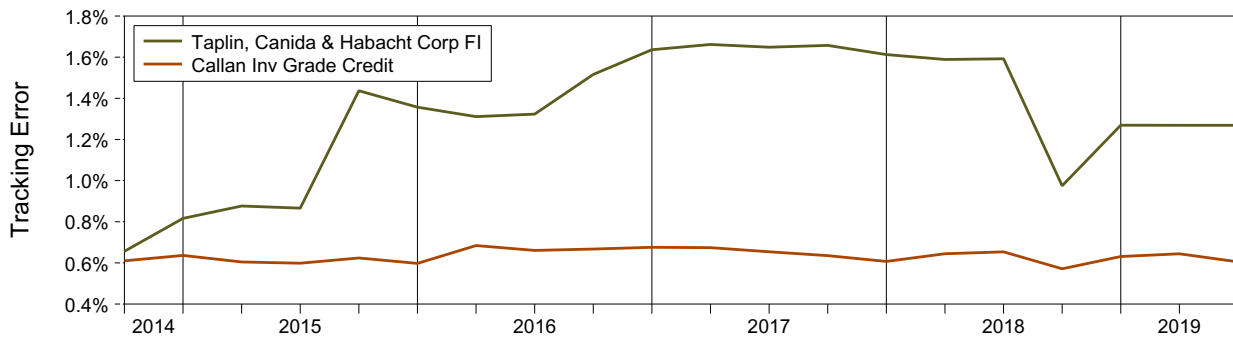
Risk Analysis

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

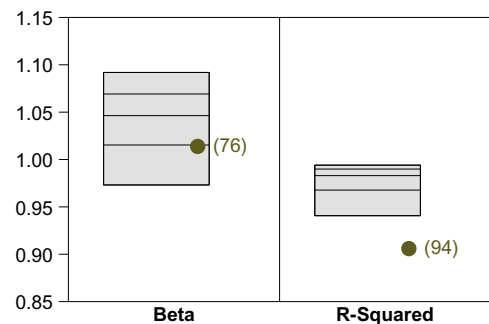
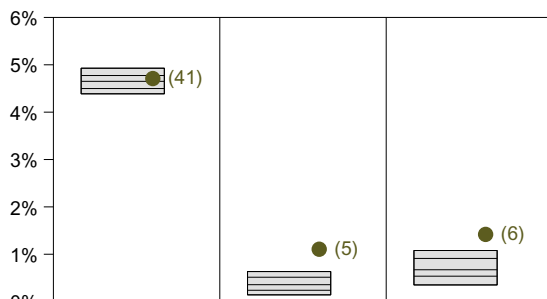
Risk Analysis vs Callan Investment Grade Credit Fixed Inc (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs Bloomberg Barclays Credit



Risk Statistics Rankings vs Bloomberg Barclays Credit Rankings Against Callan Investment Grade Credit Fixed Inc (Gross) Five Years Ended June 30, 2019



	Standard Deviation	Downside Risk	Tracking Error
10th Percentile	4.93	0.63	1.08
25th Percentile	4.77	0.51	0.91
Median	4.65	0.36	0.67
75th Percentile	4.50	0.24	0.54
90th Percentile	4.39	0.14	0.35

	Beta	R-Squared
10th Percentile	1.09	0.99
25th Percentile	1.07	0.99
Median	1.05	0.98
75th Percentile	1.02	0.97
90th Percentile	0.97	0.94

Taplin, Canida & Habacht Corp FI ●

4.71

1.11

1.42

Taplin, Canida & Habacht Corp FI ●

1.01

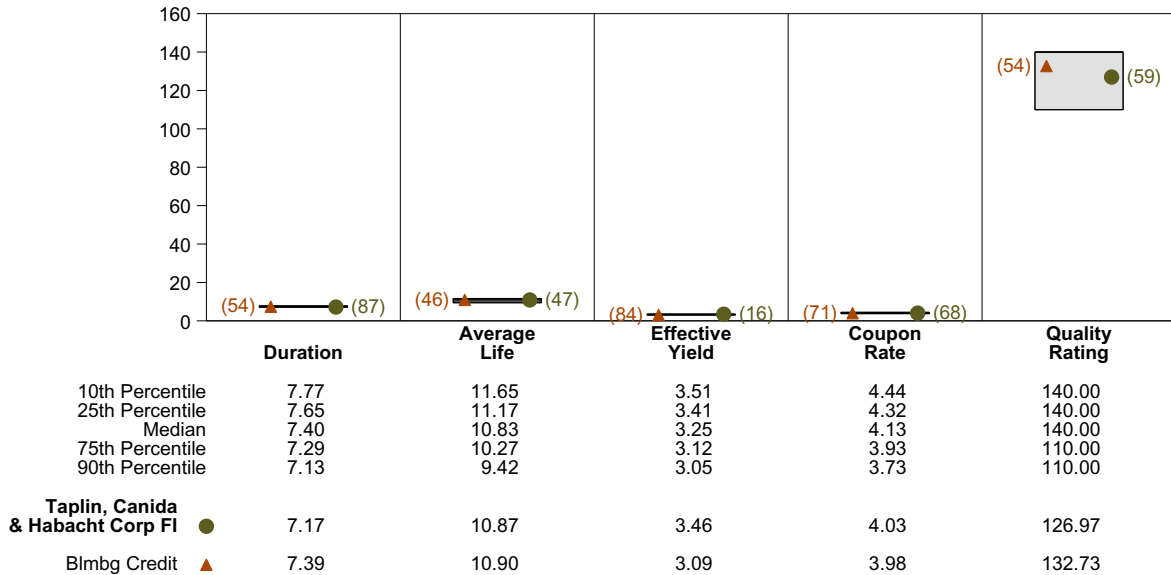
0.91

Taplin, Canida & Habacht Corp FI Bond Characteristics Analysis Summary

Portfolio Characteristics

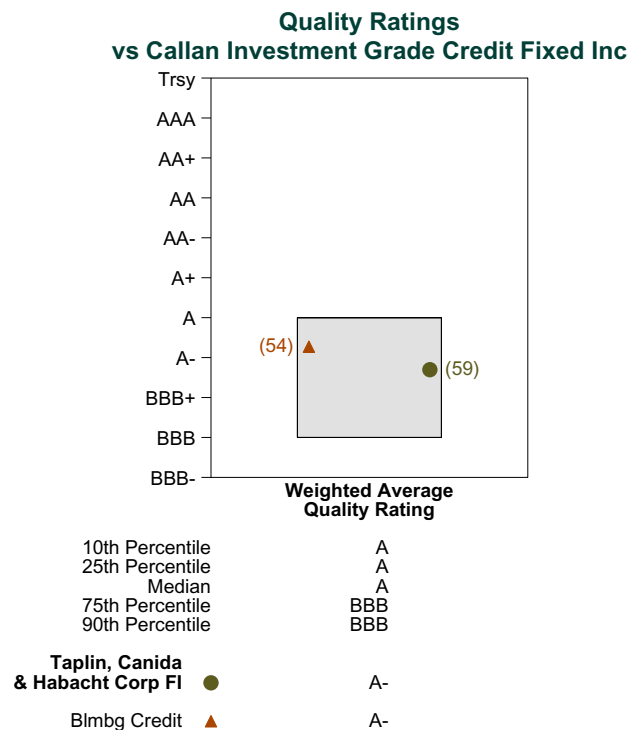
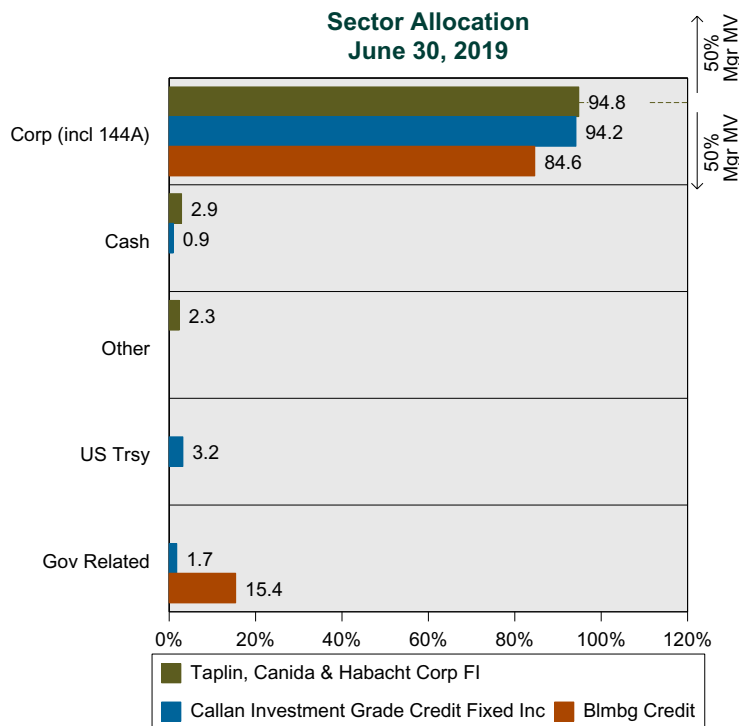
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Investment Grade Credit Fixed Inc as of June 30, 2019



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.



Taplin, Canida & Habacht Corp FI Portfolio Characteristics Summary As of June 30, 2019

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.

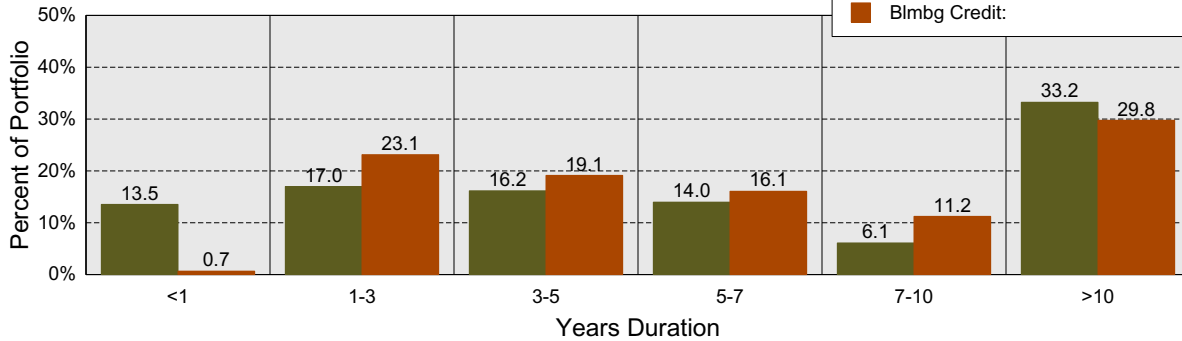
Sector Allocation



Taplin, Canida & Habacht Corp FI

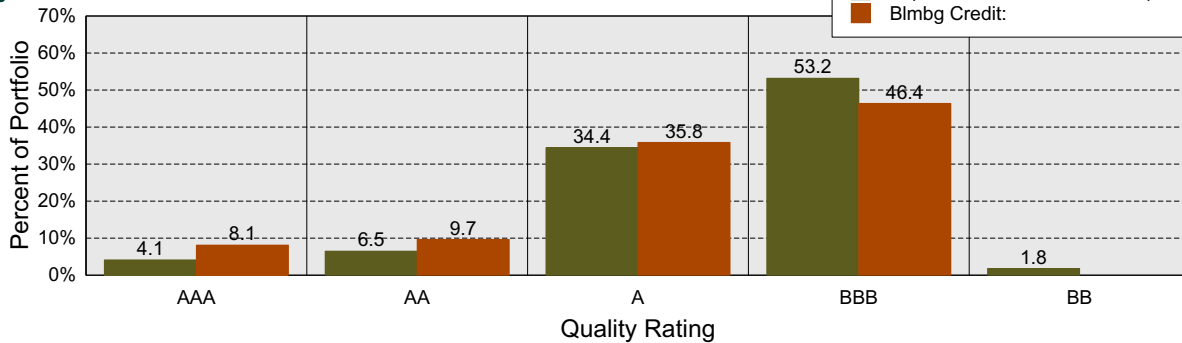
Blmbg Credit

Duration Distribution



Weighted Average:	Duration
Taplin, Canida & Habacht Corp FI:	7.17
Blmbg Credit:	7.39

Quality Distribution



Weighted Average:	Quality
Taplin, Canida & Habacht Corp FI:	A-
Blmbg Credit:	A-

Brandywine Global Opp Period Ended June 30, 2019

Investment Philosophy

Brandywine's Global Opportunistic Fixed Income philosophy is a value-driven, active, strategic approach. This strategy allows for a 0-15% allocation to emerging markets and for a 0-15% allocation to high yield debt. Value is defined as a combination of above-average real interest rates and an under-valued currency. They concentrate investments where existing economic and market conditions can enable that value to be realized in an intermediate time frame. They capture excess returns through strategic investment in countries, sectors, and securities, rather than by maintaining minimum, core commitments.

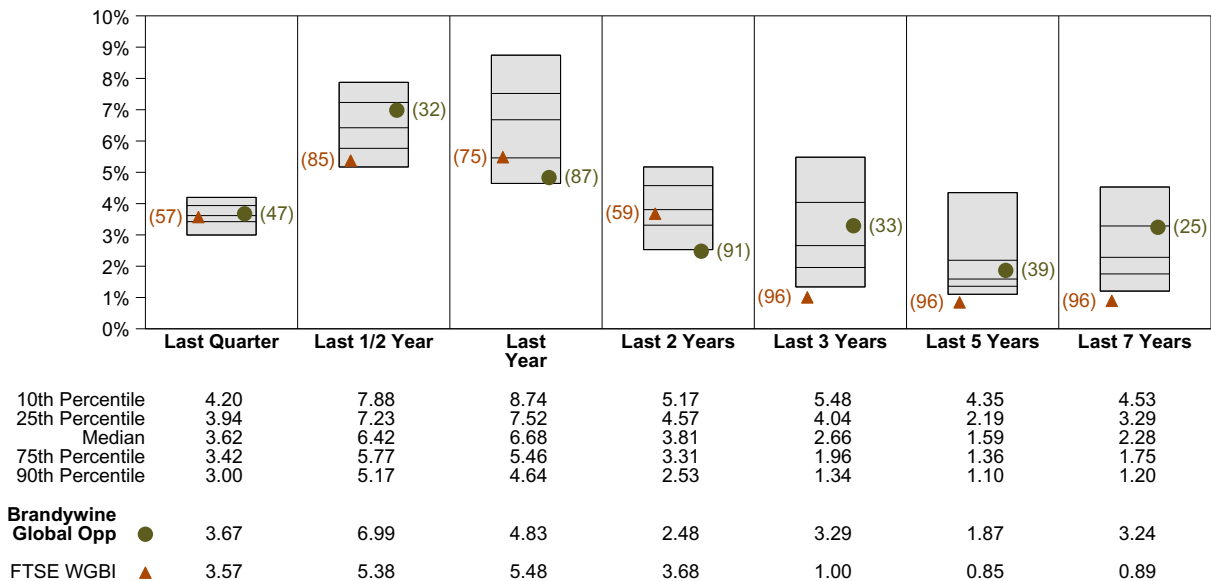
Quarterly Summary and Highlights

- Brandywine Global Opp's portfolio posted a 3.67% return for the quarter placing it in the 47 percentile of the Callan Global Fixed Income (Unhedged) group for the quarter and in the 87 percentile for the last year.
- Brandywine Global Opp's portfolio outperformed the FTSE WGBI by 0.10% for the quarter and underperformed the FTSE WGBI for the year by 0.65%.

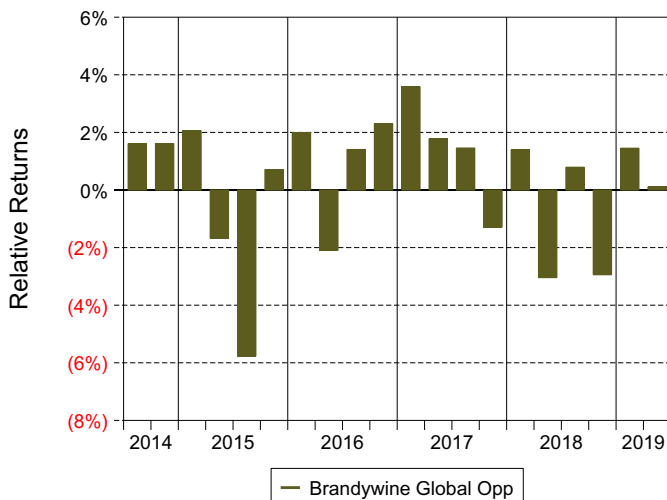
Quarterly Asset Growth

Beginning Market Value	\$192,441,910
Net New Investment	\$-187,064
Investment Gains/(Losses)	\$7,072,372
Ending Market Value	\$199,327,218

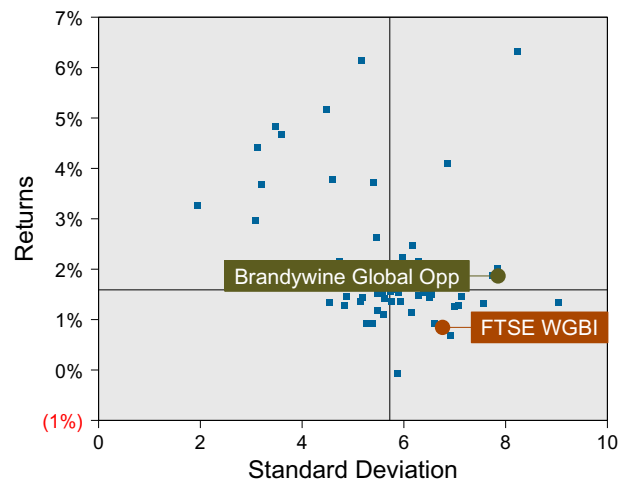
Performance vs Callan Global Fixed Income (Unhedged) (Gross)



Relative Return vs FTSE WGBI



Callan Global Fixed Income (Unhedged) (Gross) Annualized Five Year Risk vs Return

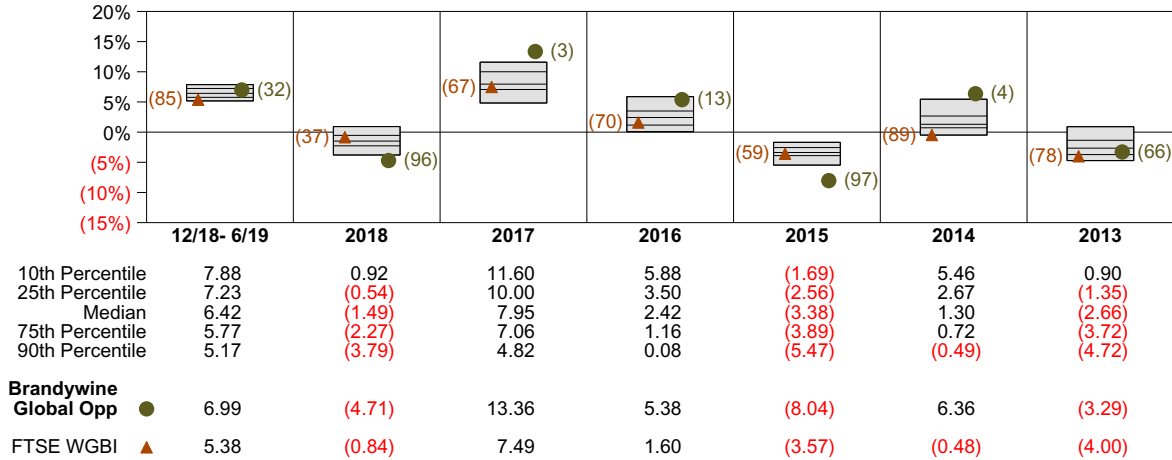


Brandywine Global Opp Return Analysis Summary

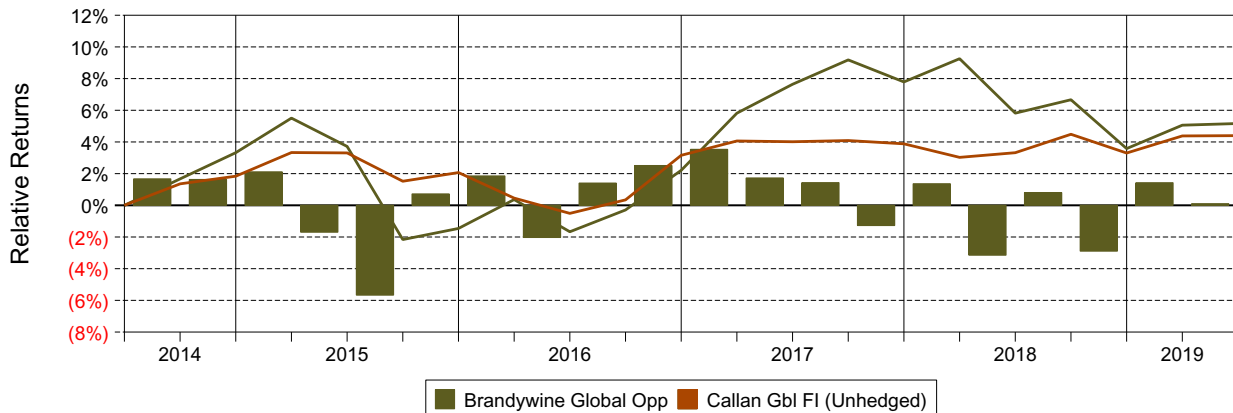
Return Analysis

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.

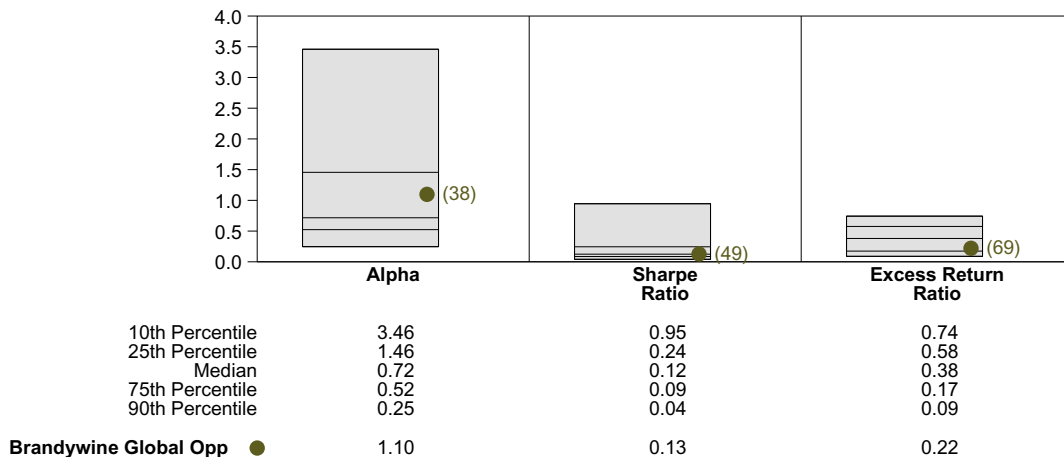
Performance vs Callan Global Fixed Income (Unhedged) (Gross)



Cumulative and Quarterly Relative Return vs FTSE WGBI



Risk Adjusted Return Measures vs FTSE WGBI Rankings Against Callan Global Fixed Income (Unhedged) (Gross) Five Years Ended June 30, 2019

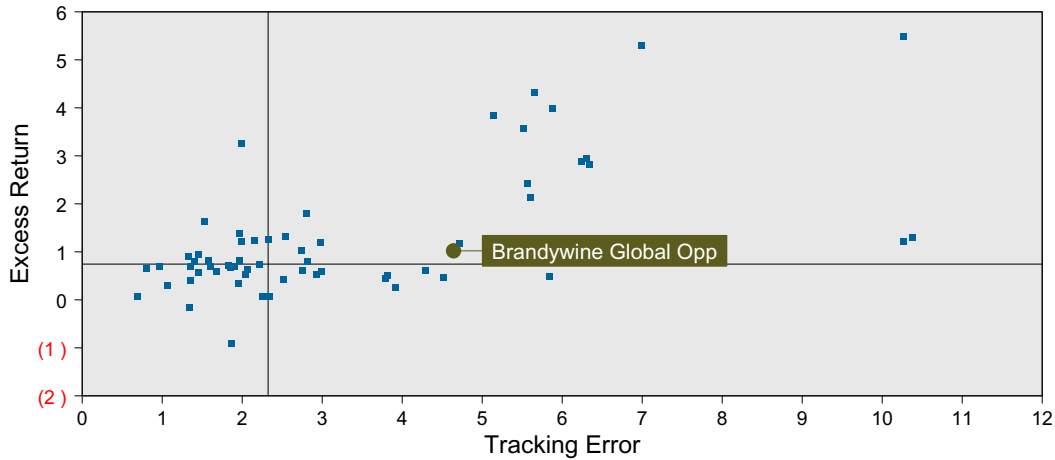


Brandywine Global Opp Risk Analysis Summary

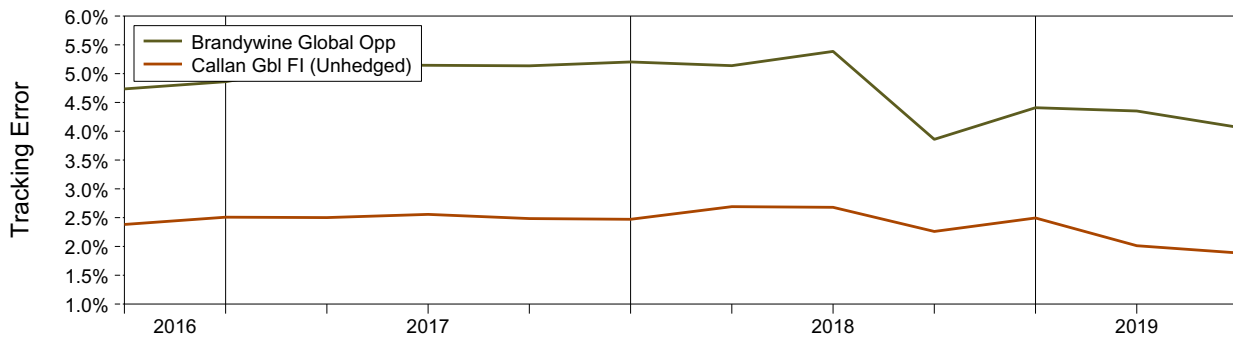
Risk Analysis

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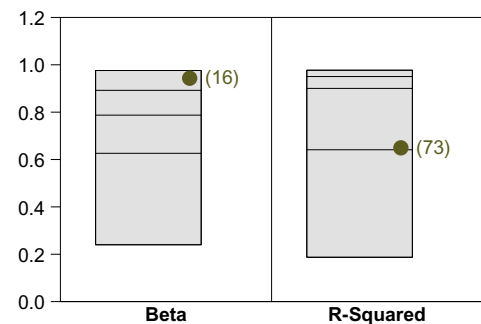
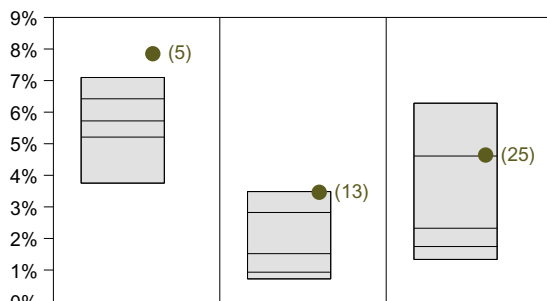
Risk Analysis vs Callan Global Fixed Income (Unhedged) (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs FTSE World Govt Bond Index (WGBI)



Risk Statistics Rankings vs FTSE World Govt Bond Index (WGBI) Rankings Against Callan Global Fixed Income (Unhedged) (Gross) Five Years Ended June 30, 2019



10th Percentile
25th Percentile
Median
75th Percentile
90th Percentile

7.10
6.42
5.72
5.21
3.75

3.48
2.82
1.52
0.93
0.72

6.28
4.61
2.32
1.74
1.34

10th Percentile
25th Percentile
Median
75th Percentile
90th Percentile

0.98
0.89
0.79
0.63
0.24

0.98
0.95
0.90
0.64
0.19

Brandywine Global Opp

7.85

3.46

4.64

Brandywine Global Opp

0.94

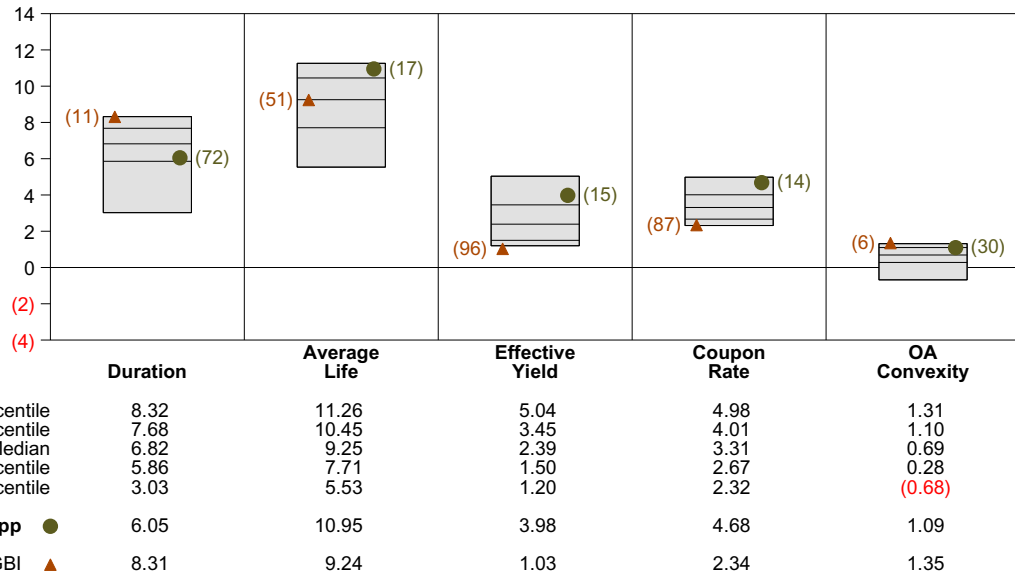
0.65

Brandywine Global Opp Bond Characteristics Analysis Summary

Portfolio Characteristics

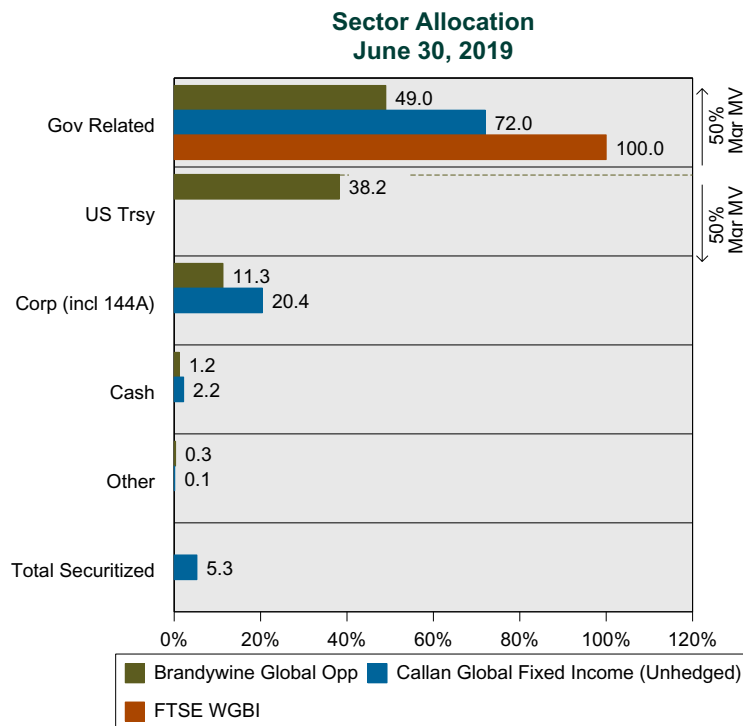
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Global Fixed Income (Unhedged) as of June 30, 2019

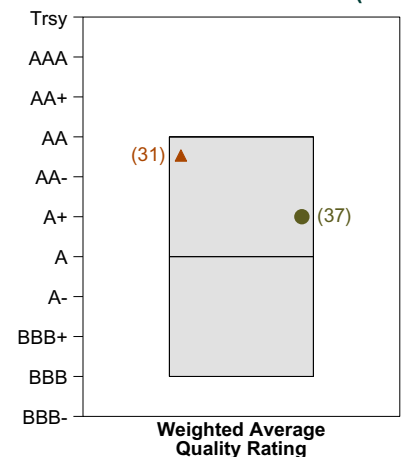


Sector Allocation and Quality Ratings

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



Quality Ratings vs Callan Global Fixed Income (Unhedged)



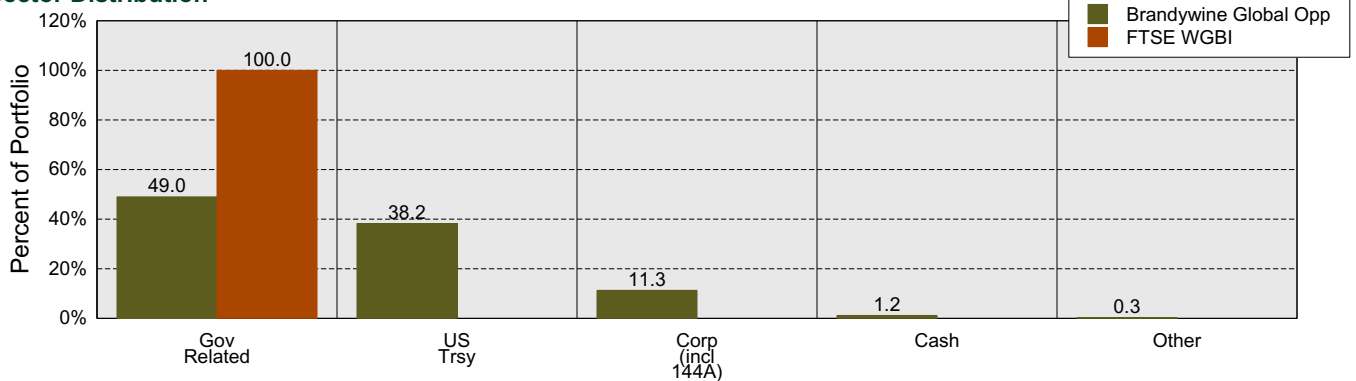
10th Percentile	AA
25th Percentile	AA
Median	A
75th Percentile	A
90th Percentile	BBB
Brandywine Global Opp ●	A+
FTSE WGBI ▲	AA

Brandywine Global Opp Portfolio Characteristics Summary As of June 30, 2019

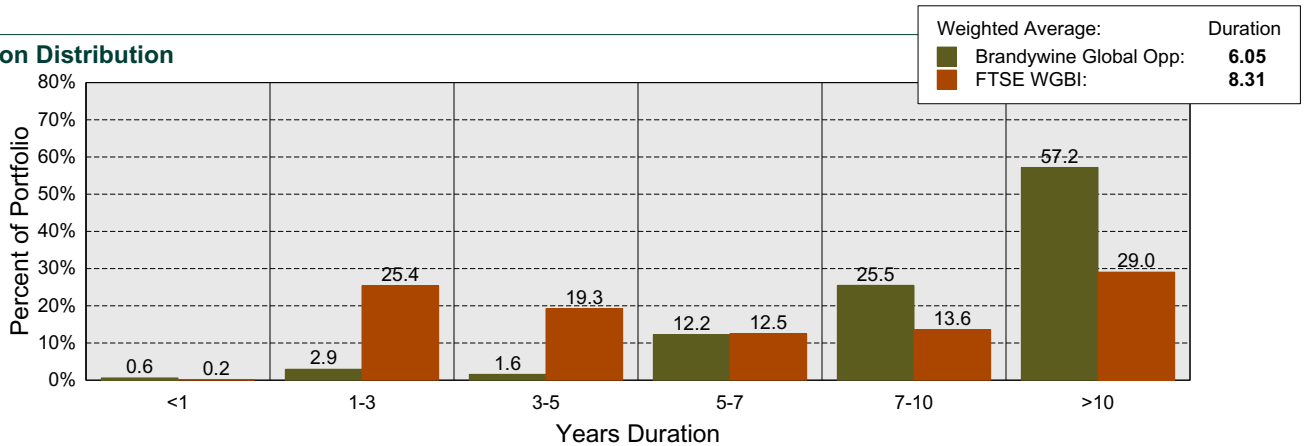
Portfolio Structure Comparison

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.

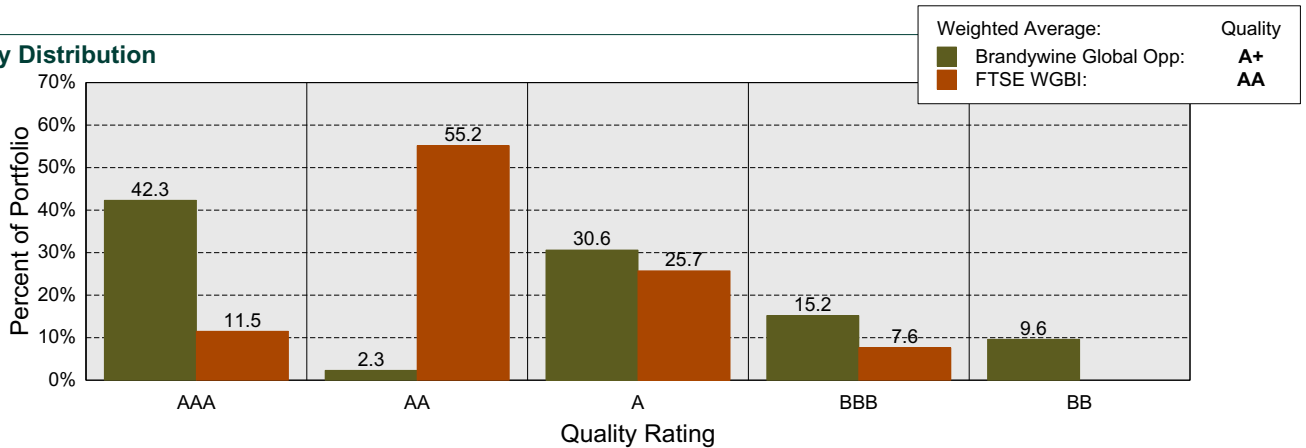
Sector Distribution



Duration Distribution



Quality Distribution



Pyramis Gbl Adv HY CMBS Period Ended June 30, 2019

Investment Philosophy

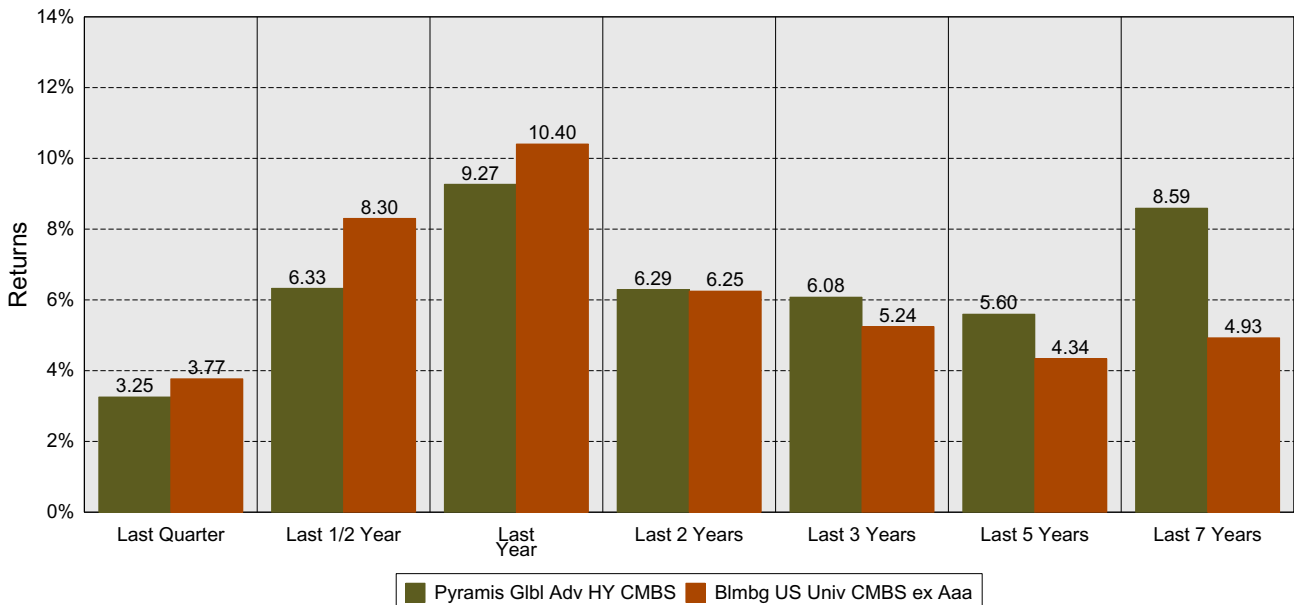
FIAM believes that unsurpassed bottom-up research on more CMBS issues than other investors will yield premiums relative to others.

Quarterly Summary and Highlights

- Pyramis Gbl Adv HY CMBS's portfolio posted a 3.25% return for the quarter placing it in the 29 percentile of the Callan Global Fixed High Yield group for the quarter and in the 28 percentile for the last year.
- Pyramis Gbl Adv HY CMBS's portfolio underperformed the Blmbg US Univ CMBS ex Aaa by 0.51% for the quarter and underperformed the Blmbg US Univ CMBS ex Aaa for the year by 1.14%.

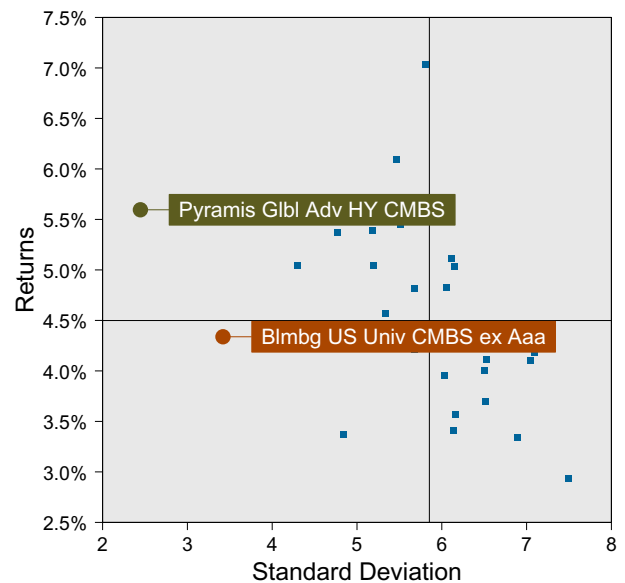
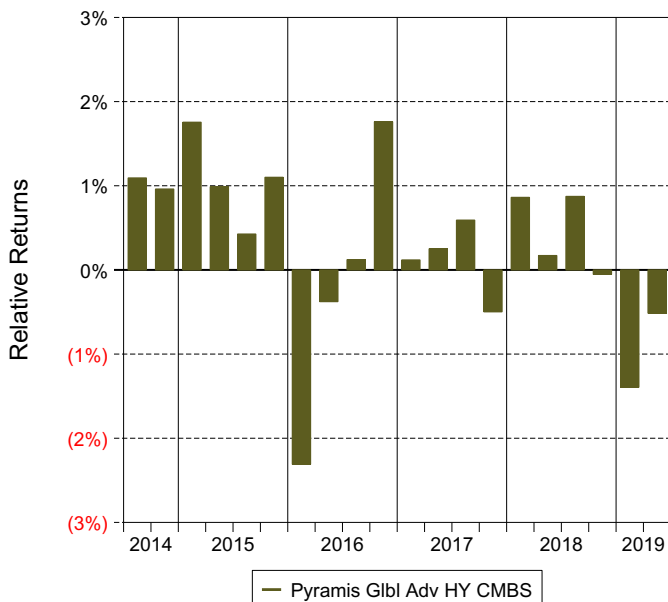
Quarterly Asset Growth

Beginning Market Value	\$323,701,326
Net New Investment	\$-501,168
Investment Gains/(Losses)	\$10,510,065
Ending Market Value	\$333,710,222



Relative Returns vs Blmbg US Univ CMBS ex Aaa

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

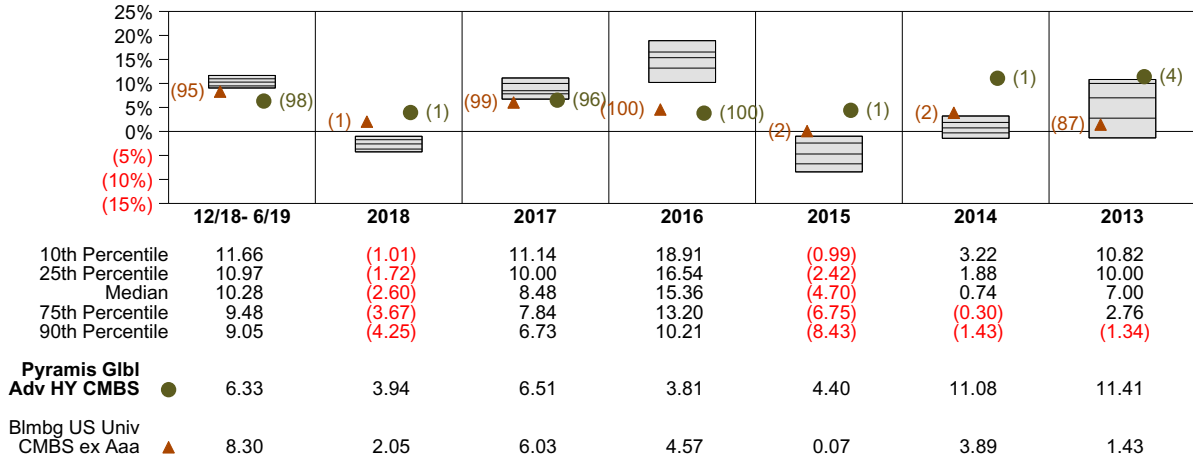


Pyramis Gbl Adv HY CMBS Return Analysis Summary

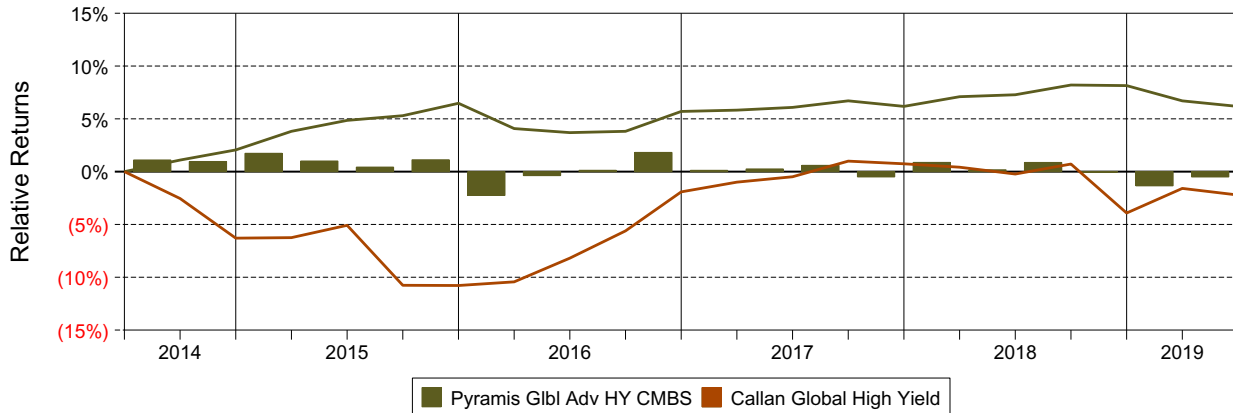
Return Analysis

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.

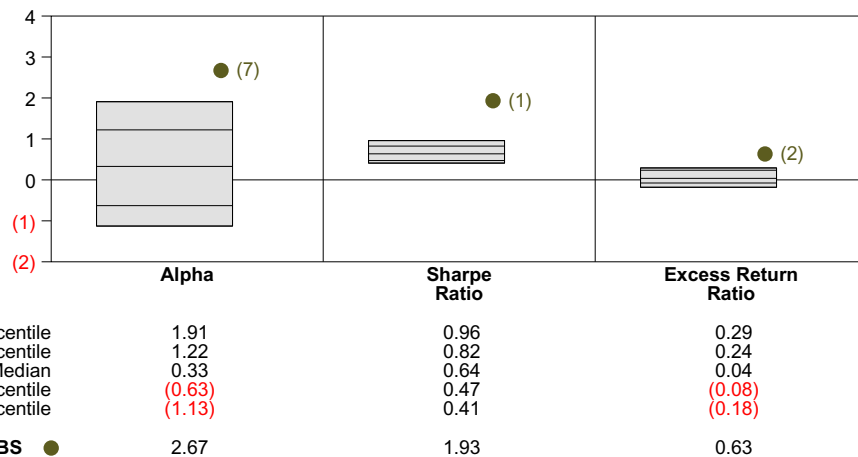
Performance vs Callan Global Fixed High Yield (Gross)



Cumulative and Quarterly Relative Return vs Blmbg US Univ CMBS ex Aaa



Risk Adjusted Return Measures vs Blmbg US Univ CMBS ex Aaa Rankings Against Callan Global Fixed High Yield (Gross) Five Years Ended June 30, 2019

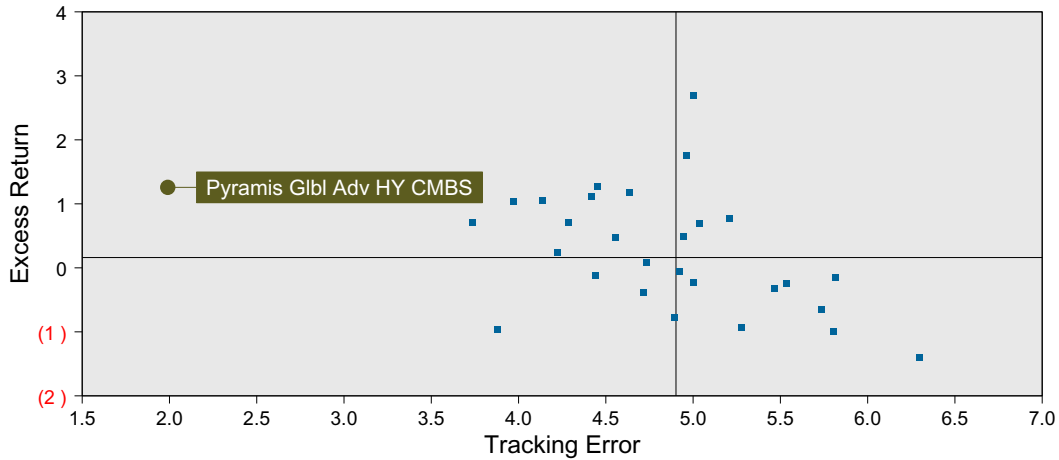


Pyramis Gbl Adv HY CMBS Risk Analysis Summary

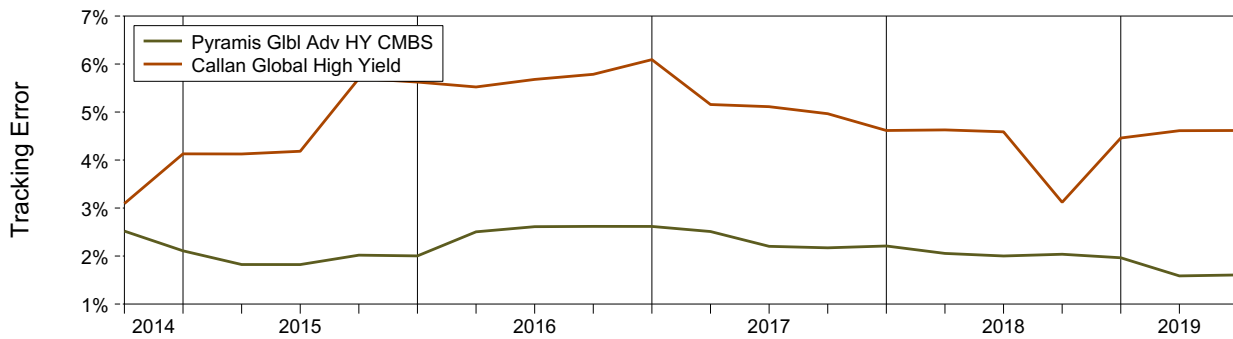
Risk Analysis

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.

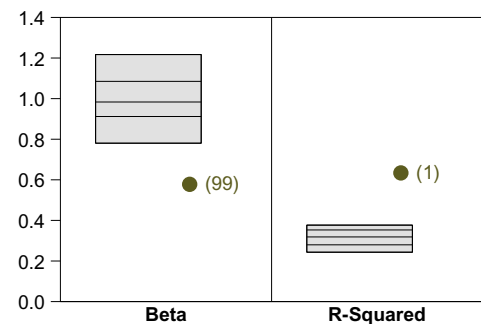
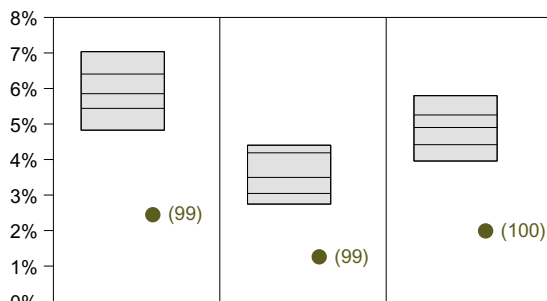
Risk Analysis vs Callan Global Fixed High Yield (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs Bloomberg Barclays US Univ CMBS ex Aaa



Risk Statistics Rankings vs Bloomberg Barclays US Univ CMBS ex Aaa Rankings Against Callan Global Fixed High Yield (Gross) Five Years Ended June 30, 2019



	Standard Deviation	Downside Risk	Tracking Error
10th Percentile	7.04	4.40	5.80
25th Percentile	6.41	4.19	5.25
Median	5.85	3.50	4.90
75th Percentile	5.44	3.04	4.42
90th Percentile	4.83	2.74	3.96

	Beta	R-Squared
10th Percentile	1.22	0.38
25th Percentile	1.09	0.35
Median	0.98	0.32
75th Percentile	0.91	0.28
90th Percentile	0.78	0.24

Pyramis Gbl Adv HY CMBS ● 2.45 1.26 1.99

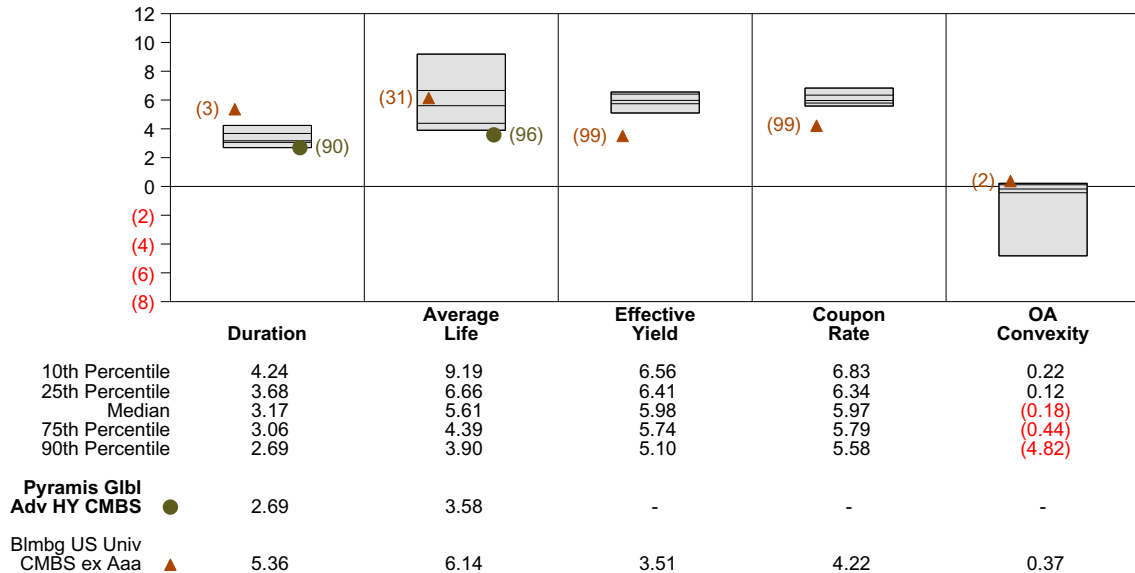
Pyramis Gbl Adv HY CMBS ● 0.58 0.63

Pyramis Gbl Adv HY CMBS Bond Characteristics Analysis Summary

Portfolio Characteristics

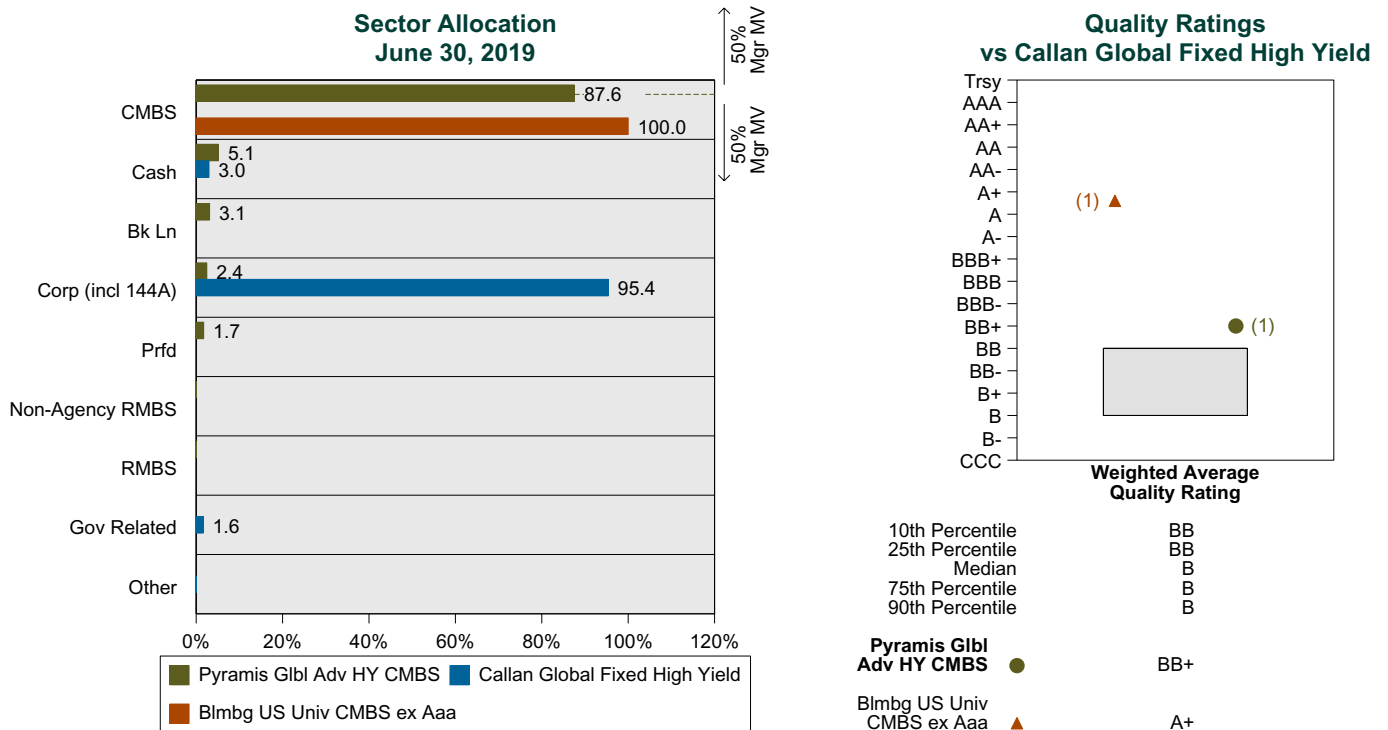
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Global Fixed High Yield as of June 30, 2019



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.

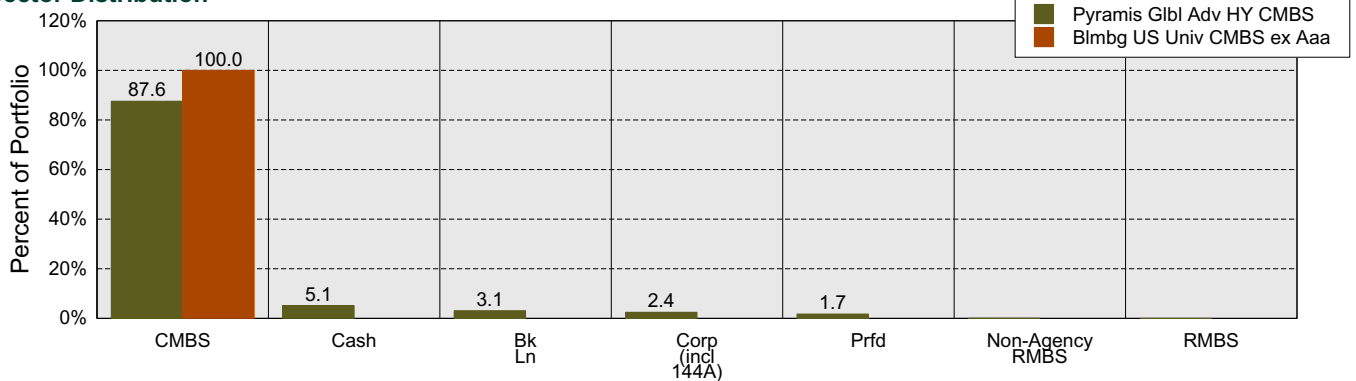


Pyramis Gbl Adv HY CMBS Portfolio Characteristics Summary As of June 30, 2019

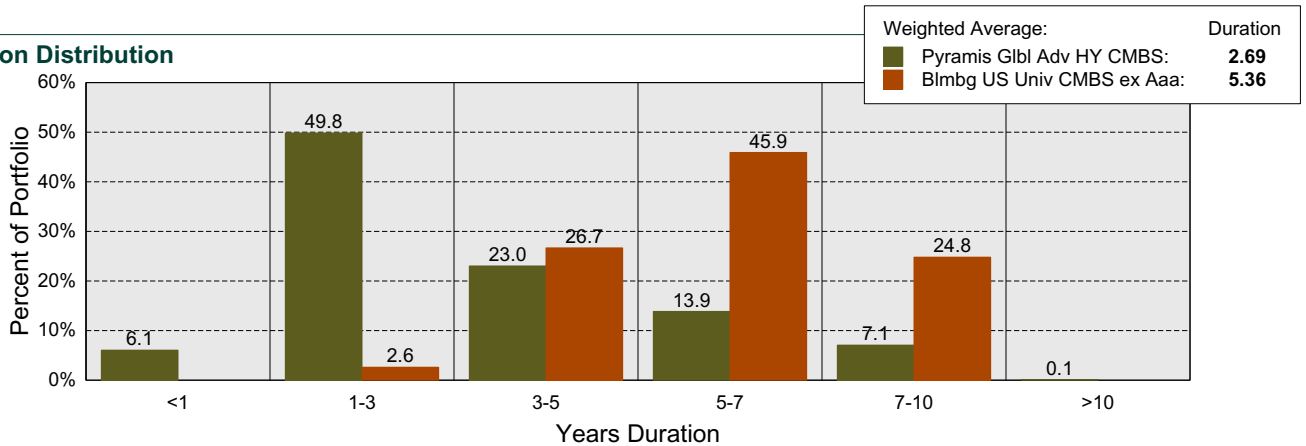
Portfolio Structure Comparison

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.

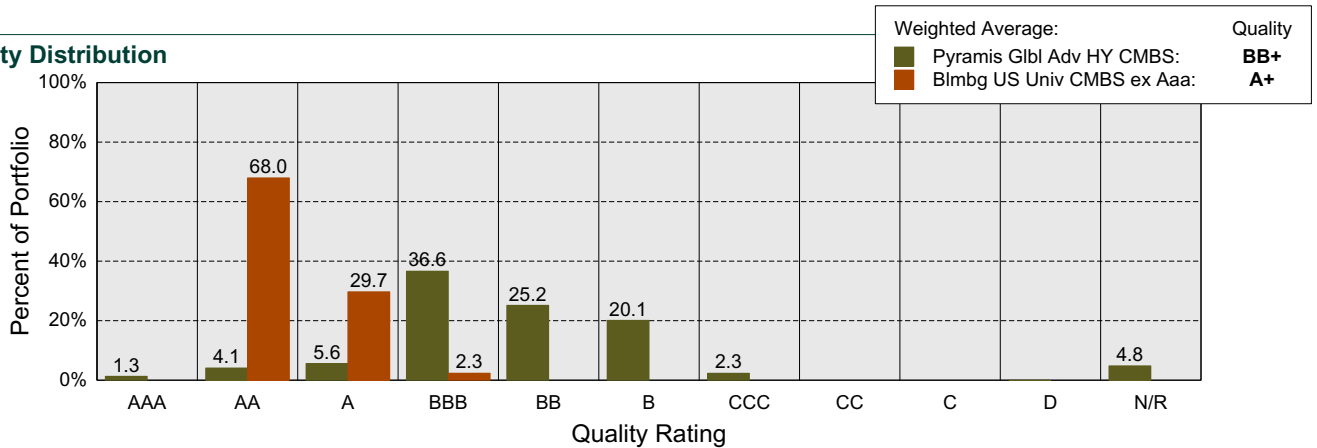
Sector Distribution



Duration Distribution



Quality Distribution



Stone Harbor EMD Period Ended June 30, 2019

Investment Philosophy

Stone Harbor believes that a disciplined credit and relative value approach will best capture what the investment team views as a secular trend towards the expansion and development of the emerging debt markets. The team also believes that investing in a diversified portfolio of improving emerging markets debt instruments will result in strong, long-term performance. Also, they believe the key to successfully generating excess returns is through a process of rigorous credit analysis. The team's active style of investment management is characterized by fundamental credit analysis.

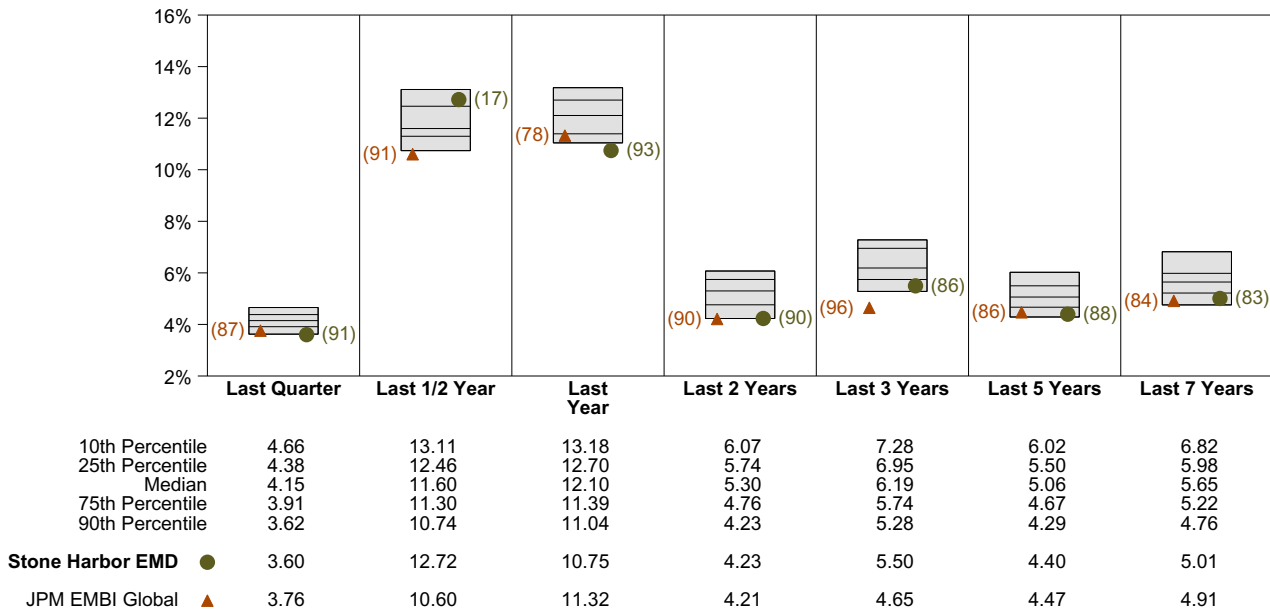
Quarterly Summary and Highlights

- Stone Harbor EMD's portfolio posted a 3.60% return for the quarter placing it in the 91 percentile of the Callan Emerging Debt USD group for the quarter and in the 93 percentile for the last year.
- Stone Harbor EMD's portfolio underperformed the JPM EMBI Global by 0.16% for the quarter and underperformed the JPM EMBI Global for the year by 0.58%.

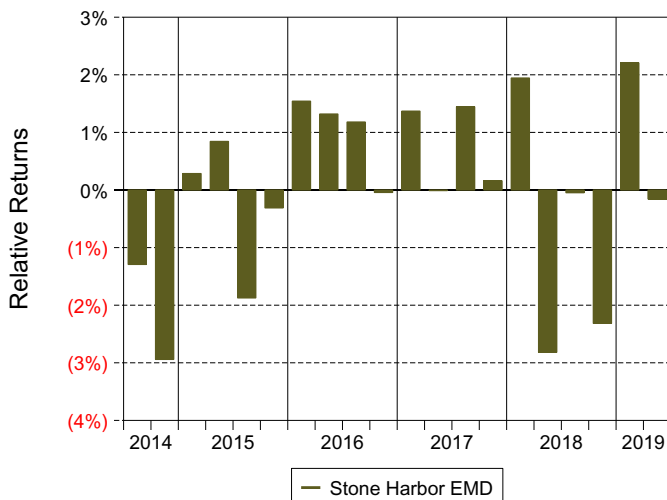
Quarterly Asset Growth

Beginning Market Value	\$162,569,205
Net New Investment	\$-11,731,980
Investment Gains/(Losses)	\$5,477,799
Ending Market Value	\$156,315,025

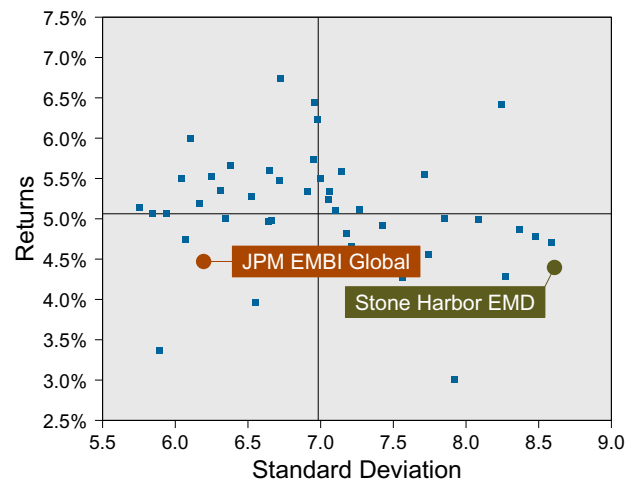
Performance vs Callan Emerging Debt USD (Gross)



Relative Return vs JPM EMBI Global



Callan Emerging Debt USD (Gross) Annualized Five Year Risk vs Return

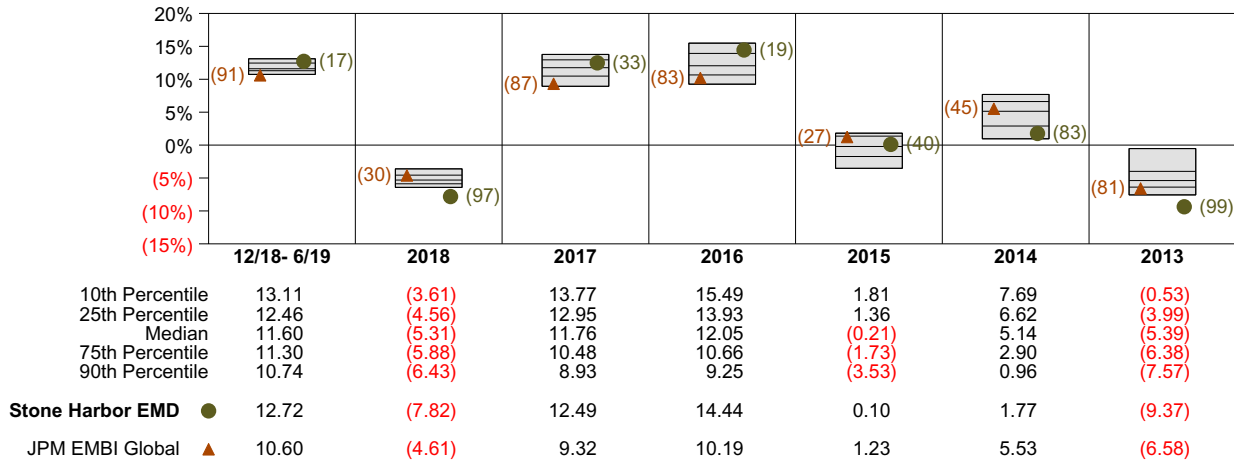


Stone Harbor EMD Return Analysis Summary

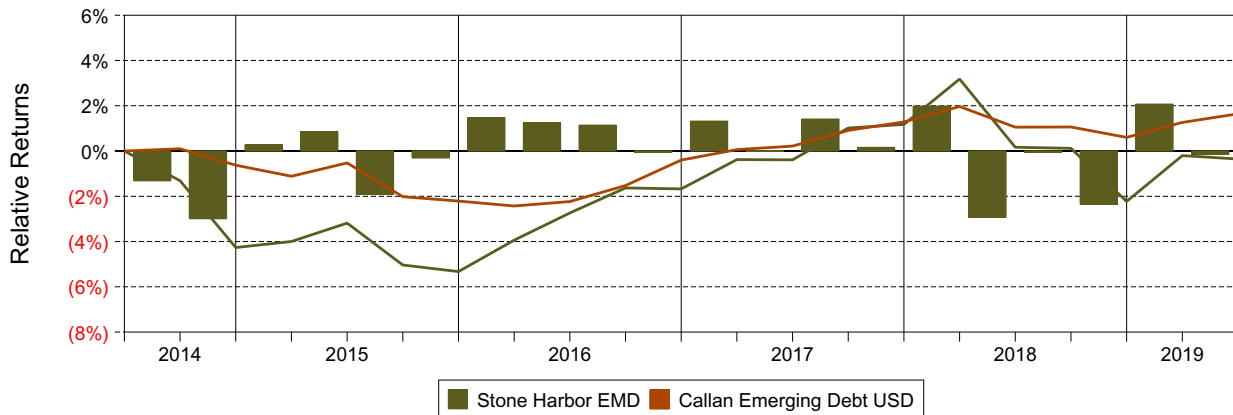
Return Analysis

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.

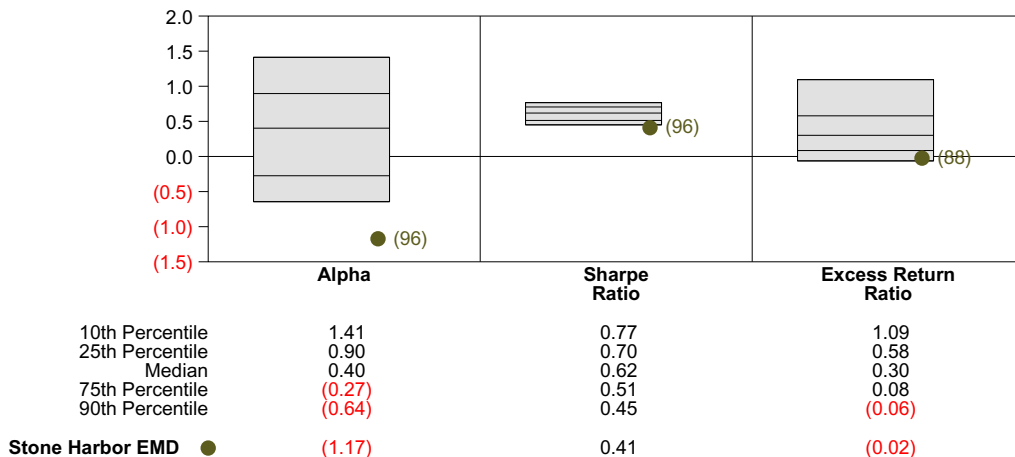
Performance vs Callan Emerging Debt USD (Gross)



Cumulative and Quarterly Relative Return vs JPM EMBI Global



Risk Adjusted Return Measures vs JPM EMBI Global Rankings Against Callan Emerging Debt USD (Gross) Five Years Ended June 30, 2019

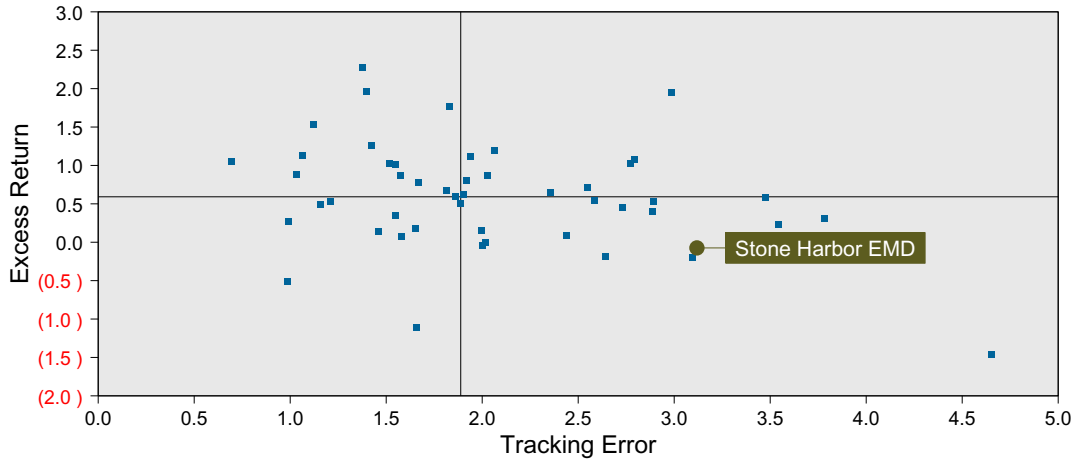


Stone Harbor EMD Risk Analysis Summary

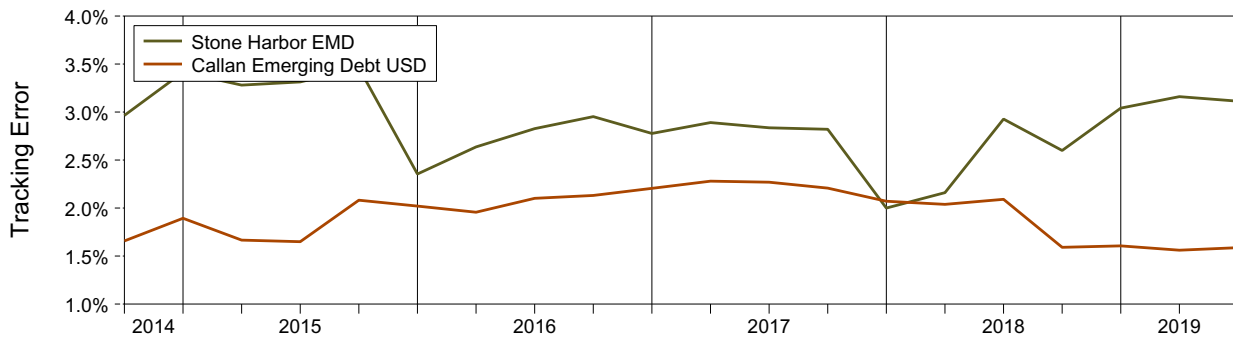
Risk Analysis

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.

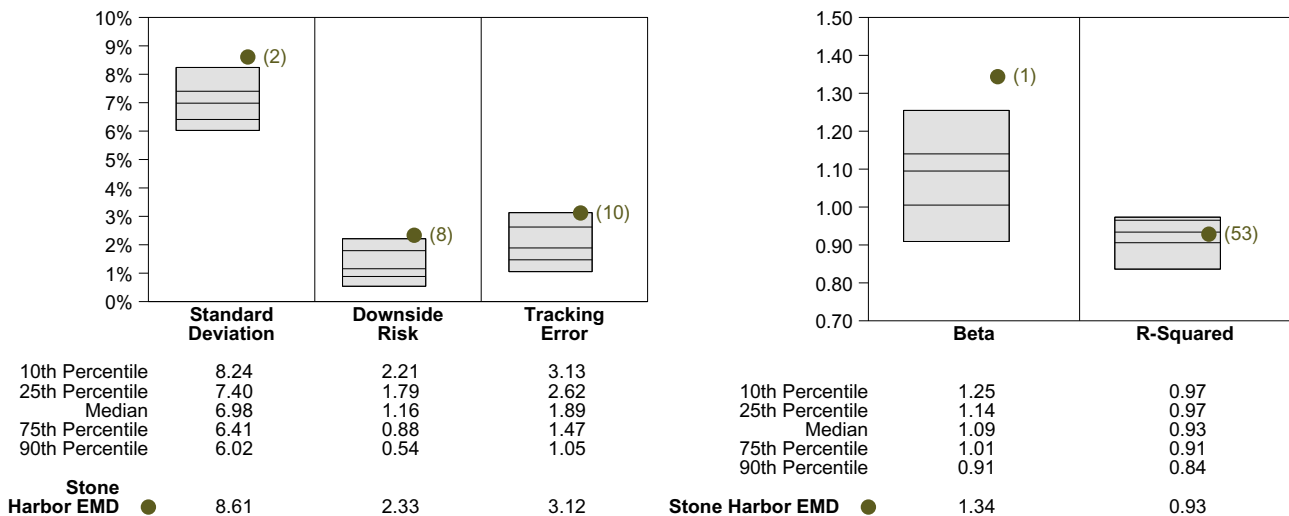
Risk Analysis vs Callan Emerging Debt USD (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs JPM Emerging Markets Bond Idx Global



Risk Statistics Rankings vs JPM Emerging Markets Bond Idx Global Rankings Against Callan Emerging Debt USD (Gross) Five Years Ended June 30, 2019

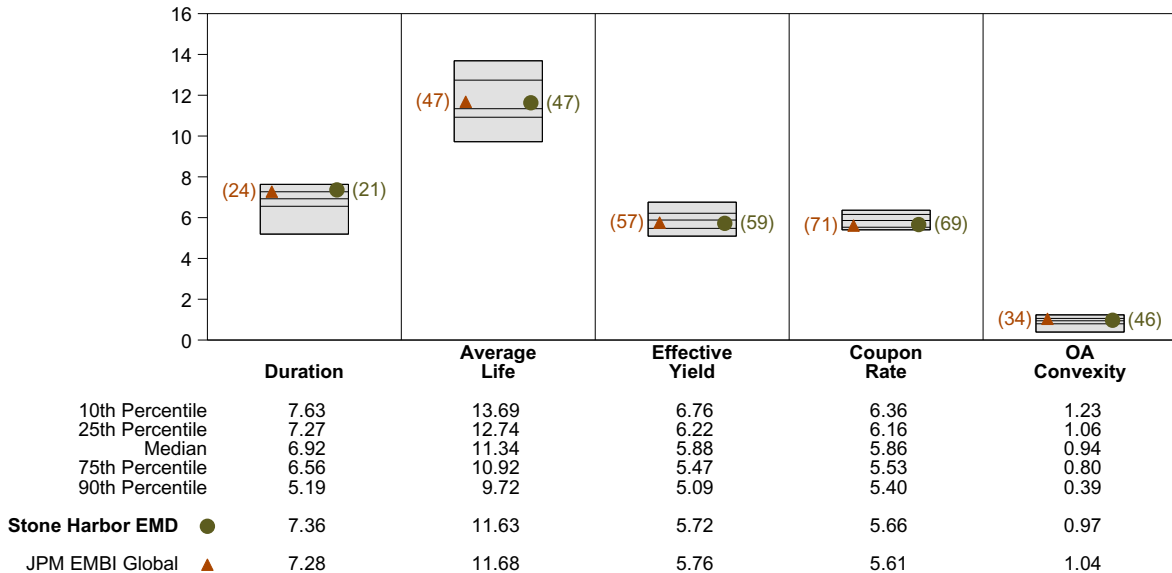


Stone Harbor EMD Bond Characteristics Analysis Summary

Portfolio Characteristics

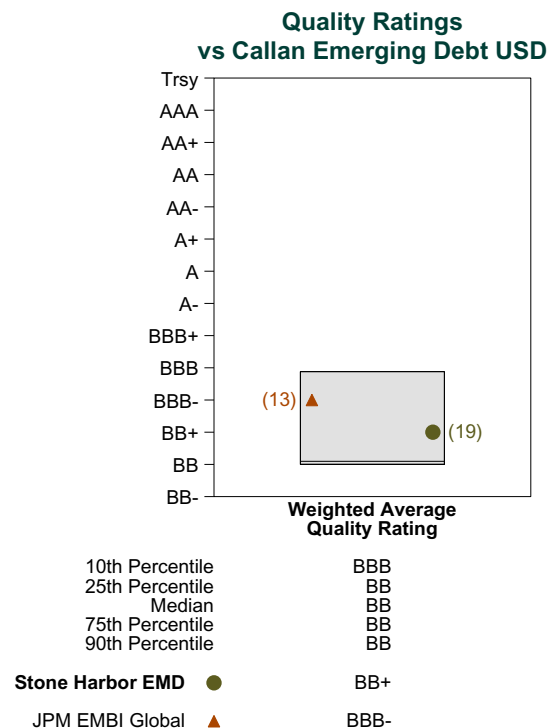
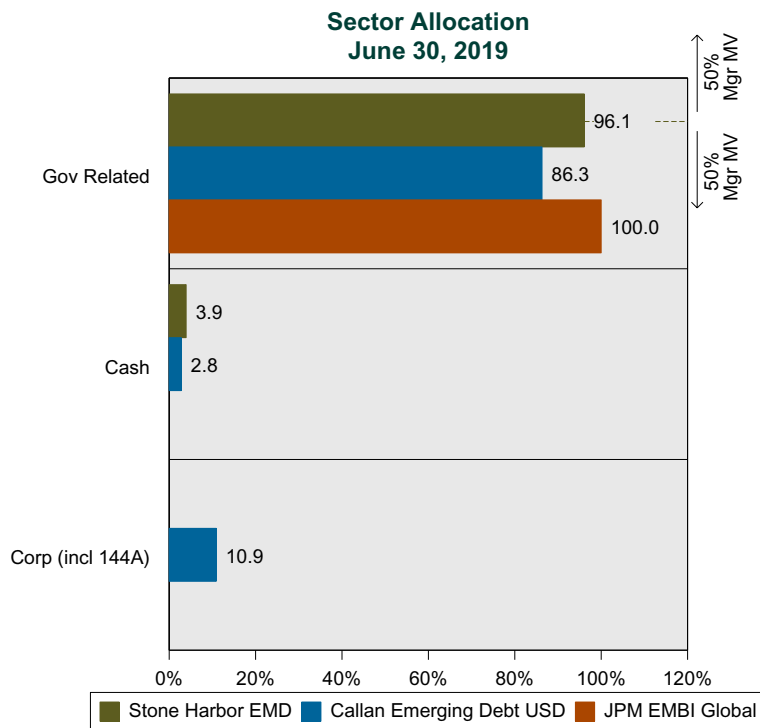
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Emerging Debt USD as of June 30, 2019



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.

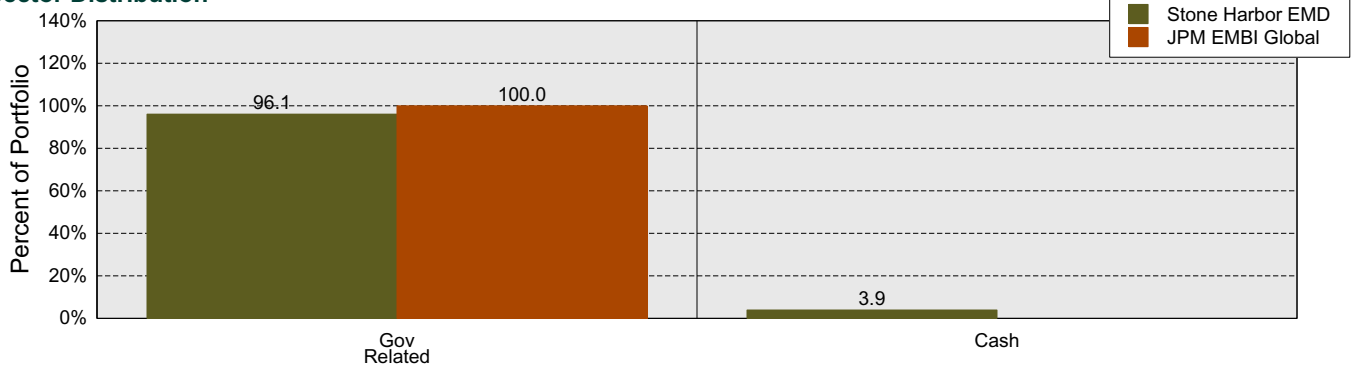


Stone Harbor EMD Portfolio Characteristics Summary As of June 30, 2019

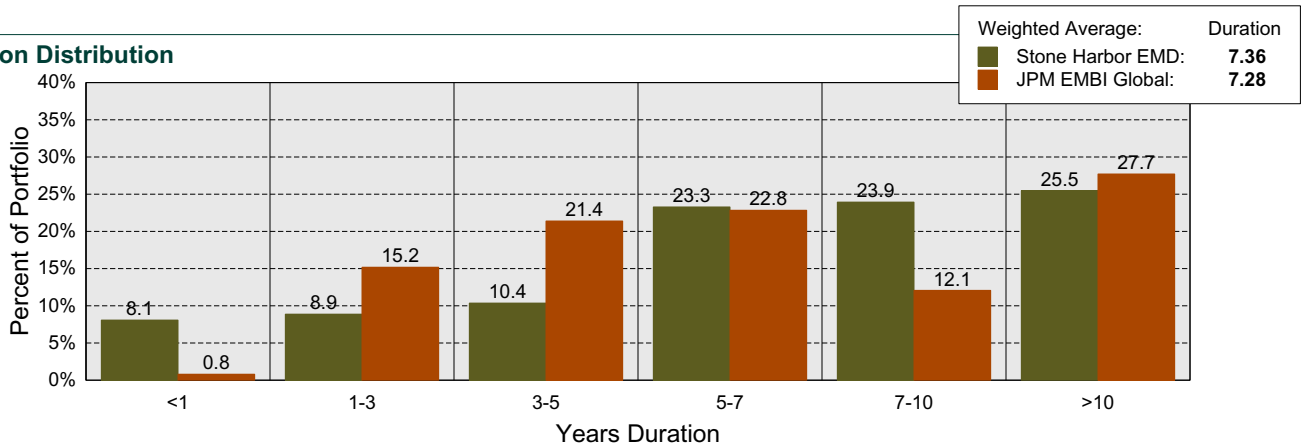
Portfolio Structure Comparison

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.

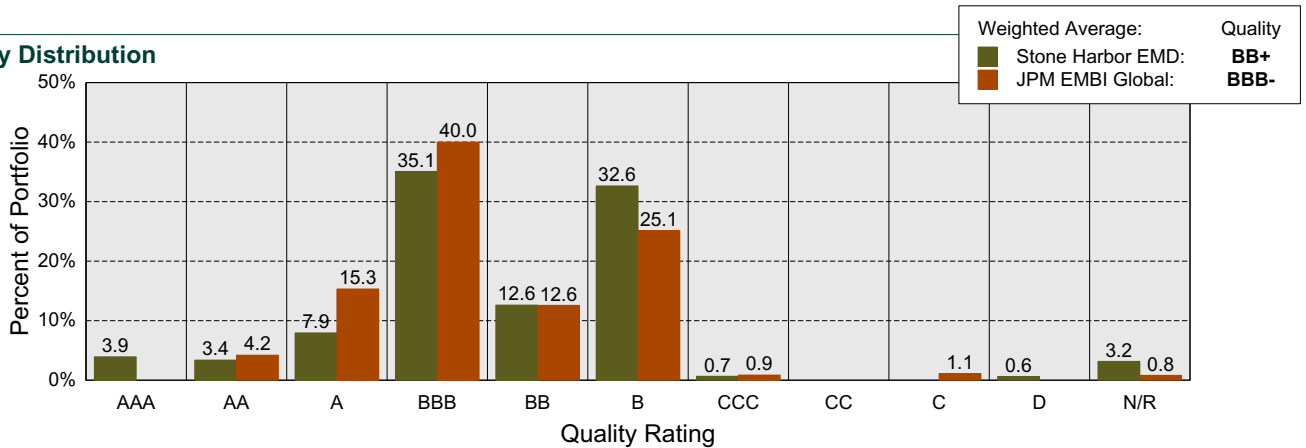
Sector Distribution



Duration Distribution



Quality Distribution



Stone Harbor Gbl HY Period Ended June 30, 2019

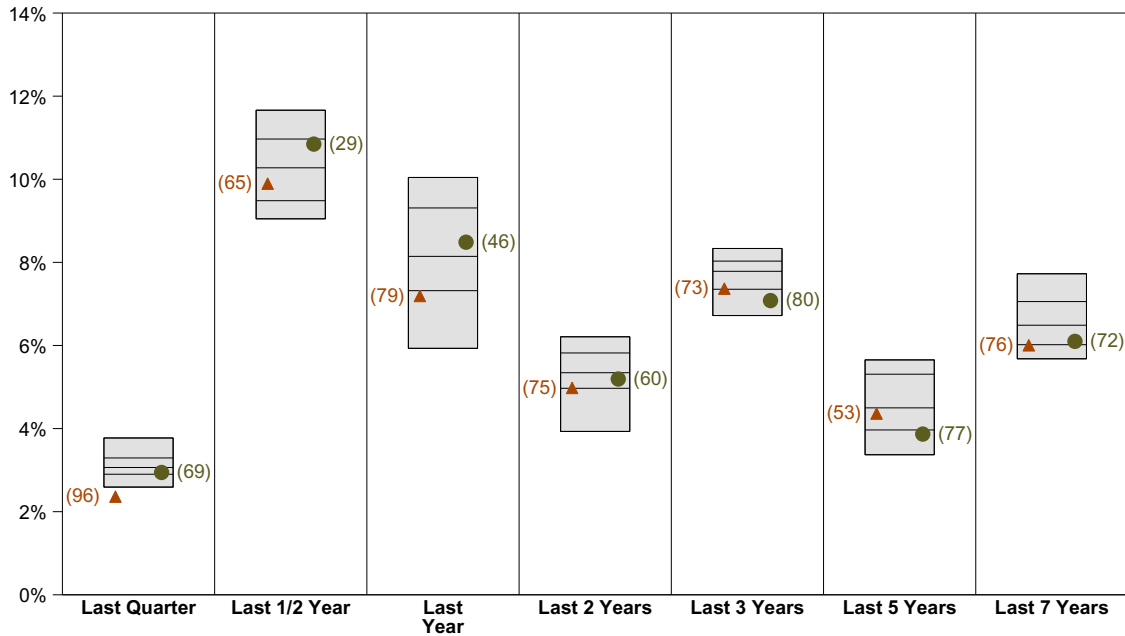
Quarterly Summary and Highlights

- Stone Harbor Gbl HY's portfolio posted a 2.94% return for the quarter placing it in the 69 percentile of the Callan Global Fixed High Yield group for the quarter and in the 46 percentile for the last year.
- Stone Harbor Gbl HY's portfolio outperformed the FTSE US High Yield by 0.58% for the quarter and outperformed the FTSE US High Yield for the year by 1.29%.

Quarterly Asset Growth

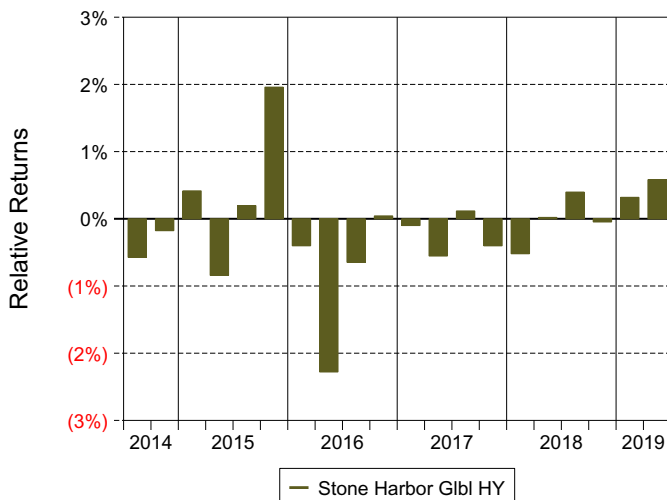
Beginning Market Value	\$183,422,522
Net New Investment	\$11,731,980
Investment Gains/(Losses)	\$5,691,712
Ending Market Value	\$200,846,214

Performance vs Callan Global Fixed High Yield (Gross)

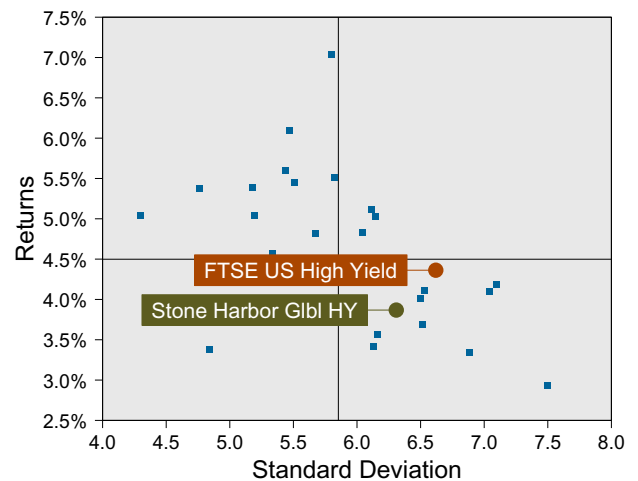


10th Percentile	3.77	11.66	10.04	6.21	8.33	5.65	7.73
25th Percentile	3.29	10.97	9.31	5.82	8.03	5.31	7.06
Median	3.06	10.28	8.14	5.34	7.78	4.50	6.49
75th Percentile	2.90	9.48	7.32	4.97	7.35	3.97	6.02
90th Percentile	2.59	9.05	5.93	3.93	6.72	3.37	5.68
Stone Harbor Gbl HY ●	2.94	10.85	8.49	5.19	7.08	3.87	6.10
FTSE US High Yield ▲	2.36	9.89	7.19	4.98	7.37	4.36	6.00

Relative Return vs FTSE US High Yield



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

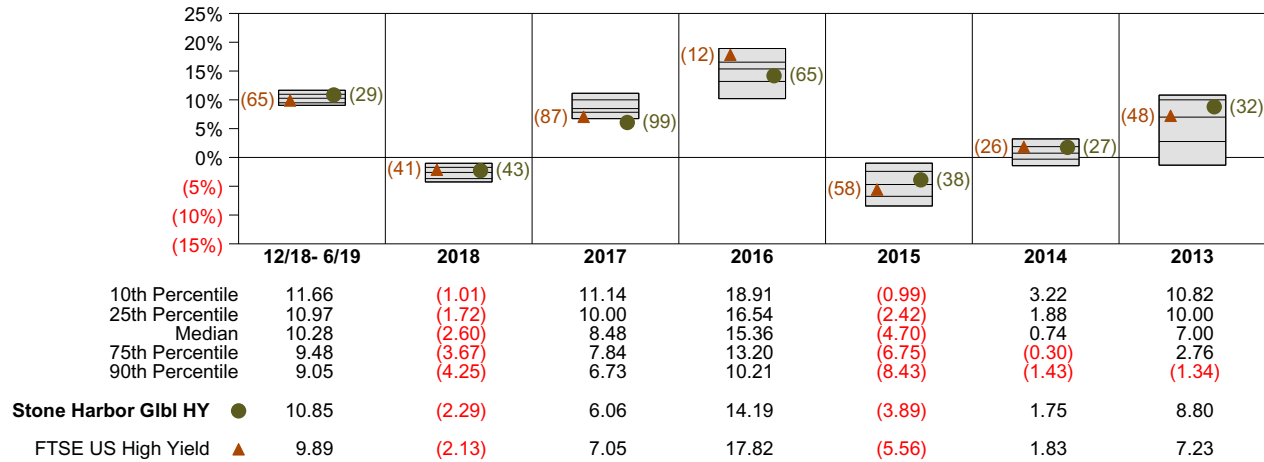


Stone Harbor Gbl HY Return Analysis Summary

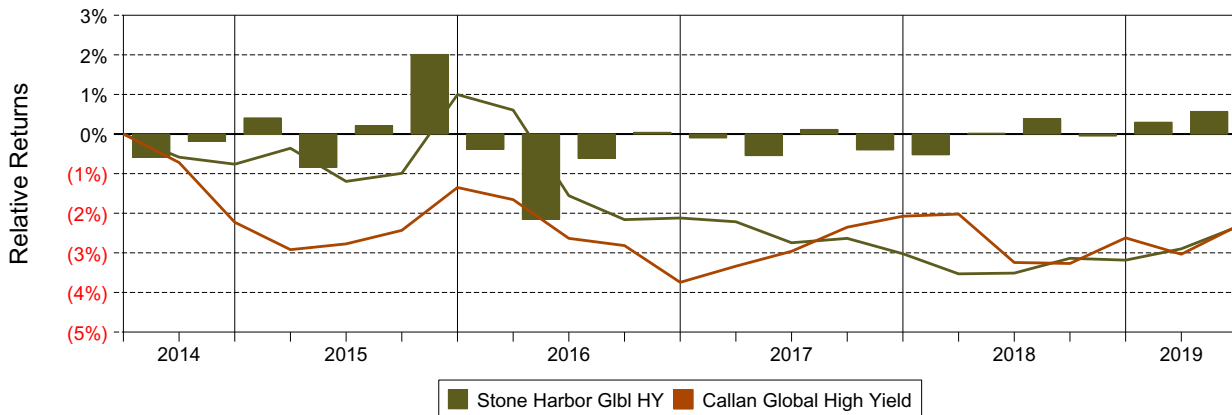
Return Analysis

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.

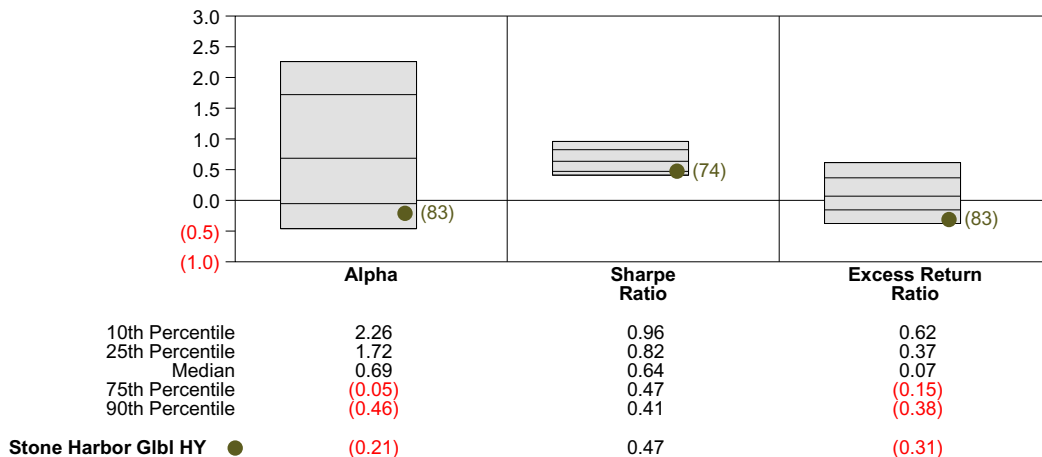
Performance vs Callan Global Fixed High Yield (Gross)



Cumulative and Quarterly Relative Return vs FTSE US High Yield



Risk Adjusted Return Measures vs FTSE US High Yield Rankings Against Callan Global Fixed High Yield (Gross) Five Years Ended June 30, 2019

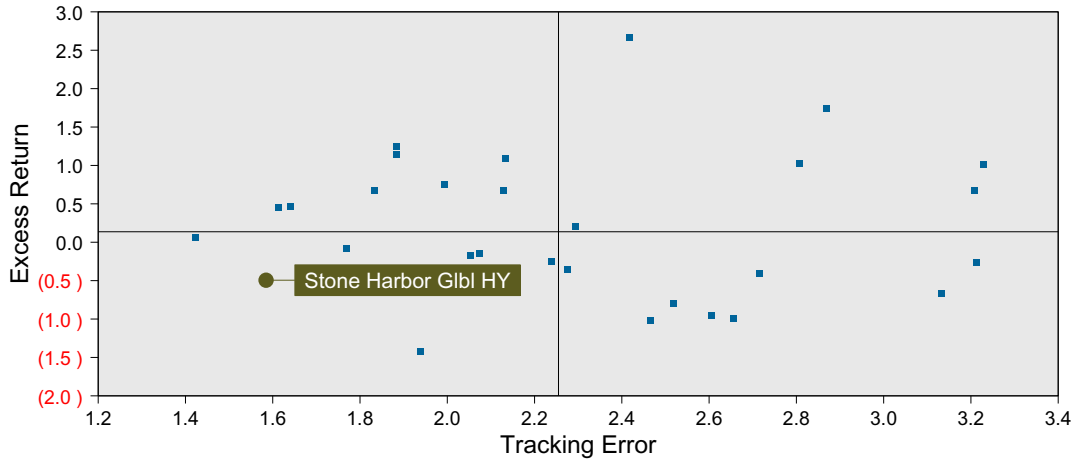


Stone Harbor Gbl HY Risk Analysis Summary

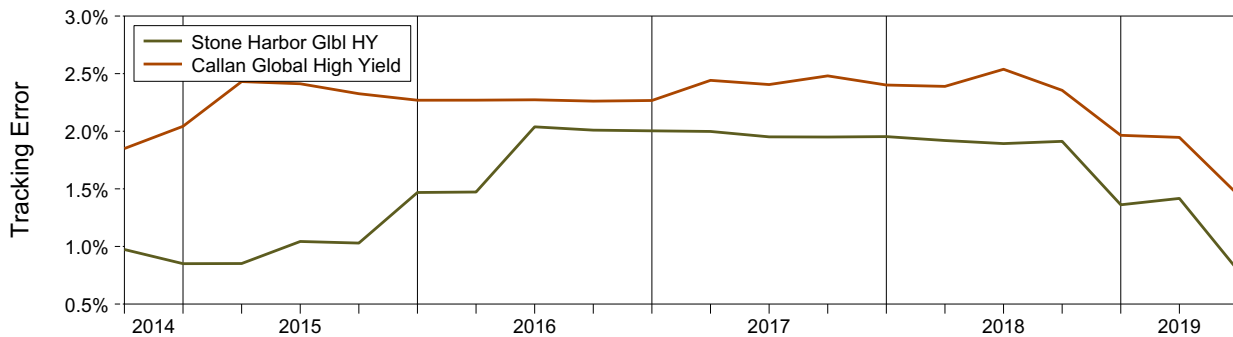
Risk Analysis

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.

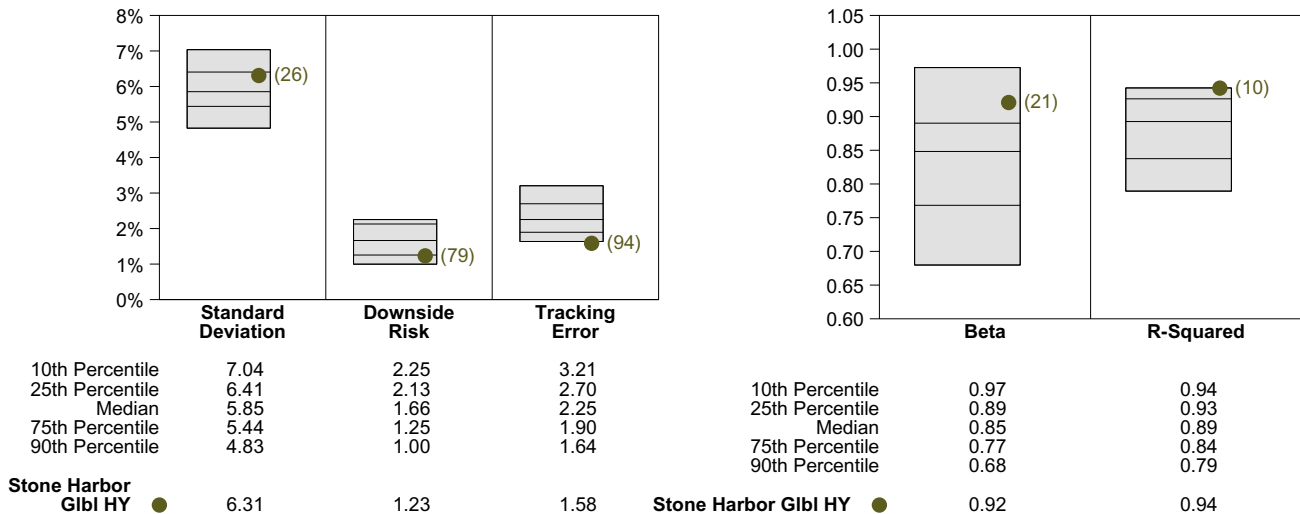
Risk Analysis vs Callan Global Fixed High Yield (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs FTSE US High Yield Market



Risk Statistics Rankings vs FTSE US High Yield Market Rankings Against Callan Global Fixed High Yield (Gross) Five Years Ended June 30, 2019

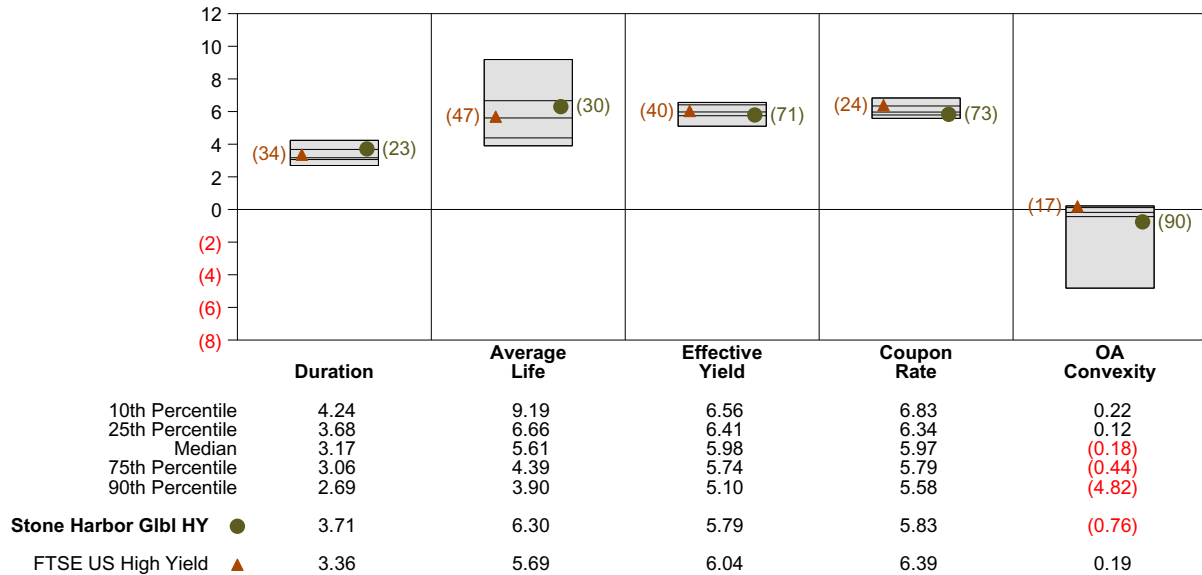


Stone Harbor Gbl HY Bond Characteristics Analysis Summary

Portfolio Characteristics

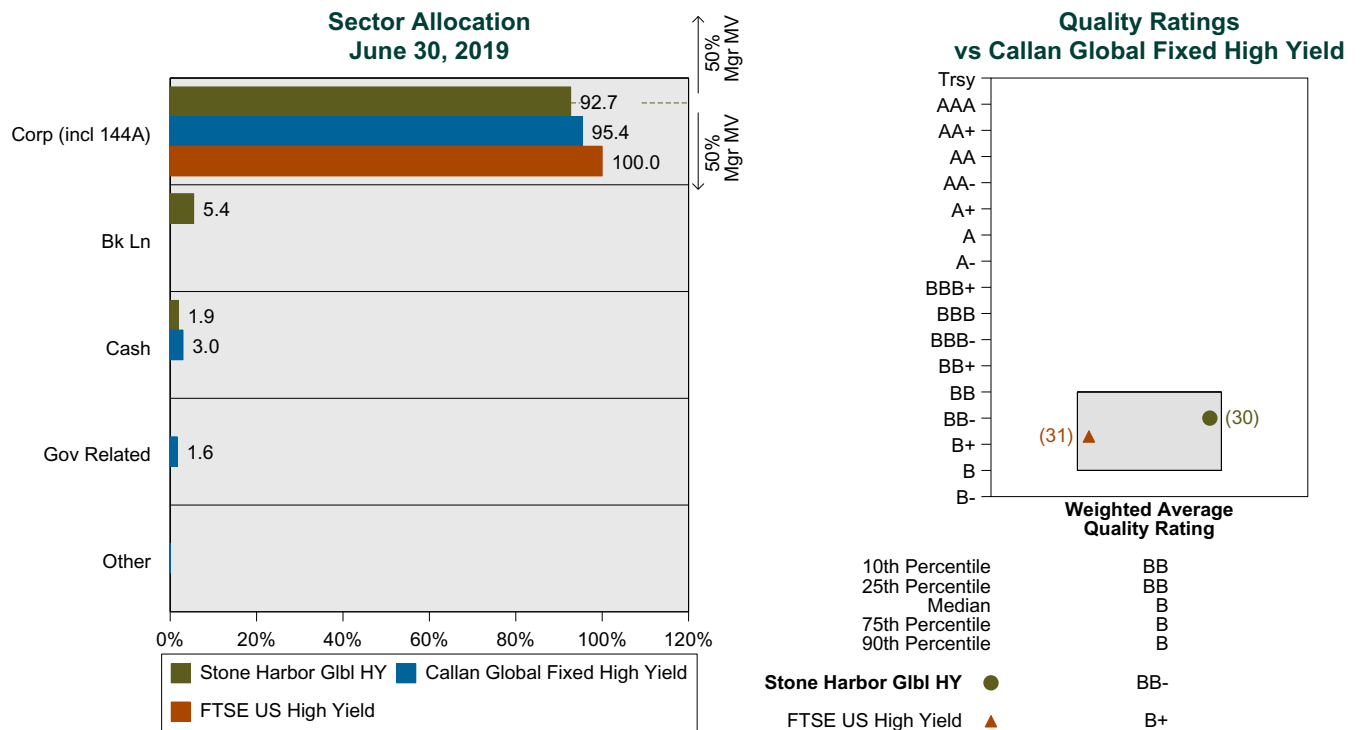
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Global Fixed High Yield as of June 30, 2019



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.



Stone Harbor Gbl HY Portfolio Characteristics Summary As of June 30, 2019

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.

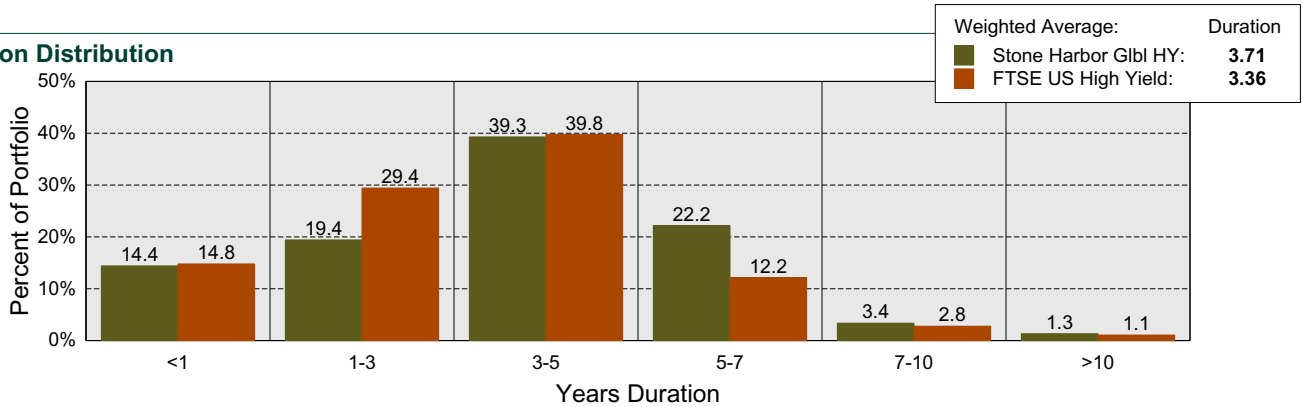
Sector Allocation



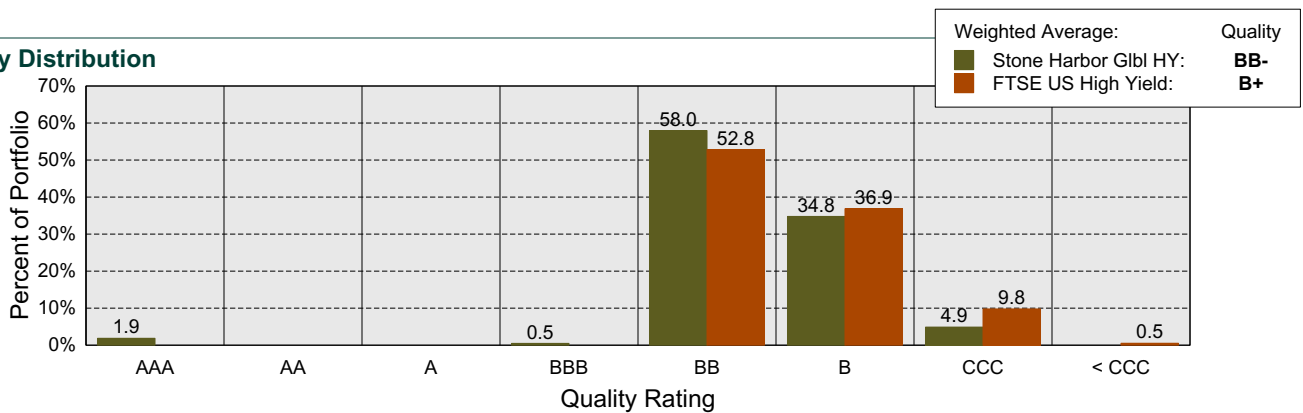
Stone Harbor Gbl HY

FTSE US High Yield

Duration Distribution



Quality Distribution



Brown Brothers TIPS Period Ended June 30, 2019

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.

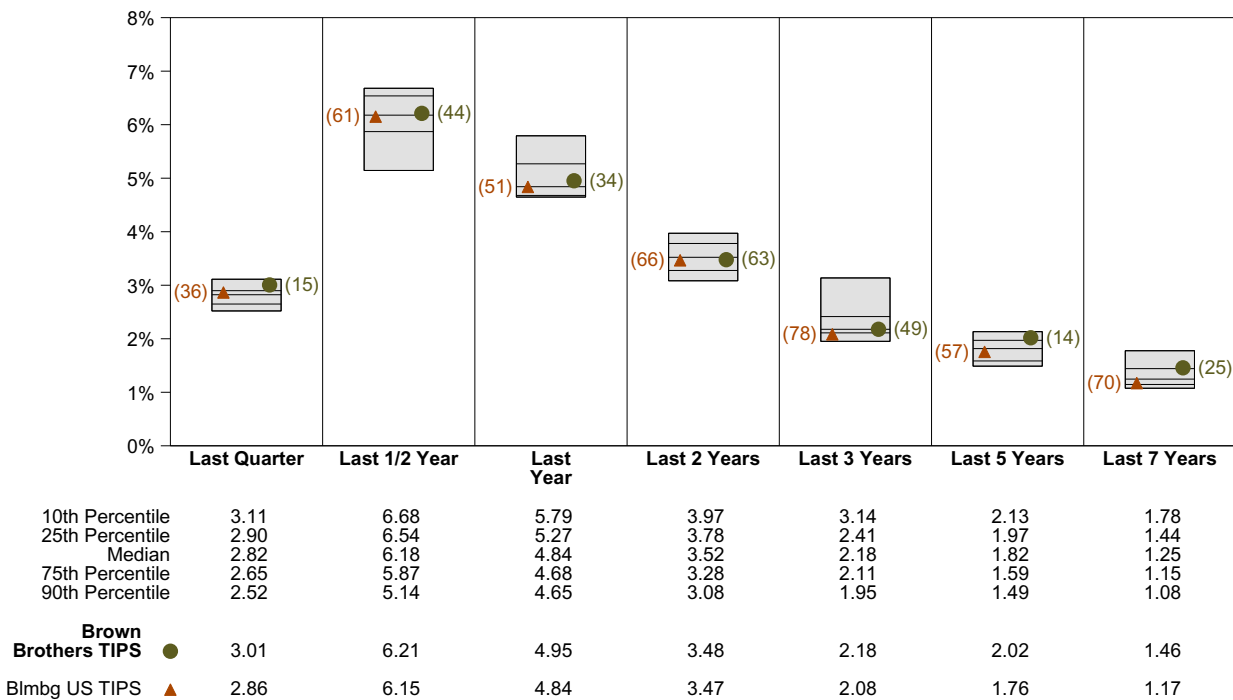
Quarterly Summary and Highlights

- Brown Brothers TIPS's portfolio posted a 3.01% return for the quarter placing it in the 15 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 34 percentile for the last year.
- Brown Brothers TIPS's portfolio outperformed the Blmbg US TIPS by 0.14% for the quarter and outperformed the Blmbg US TIPS for the year by 0.12%.

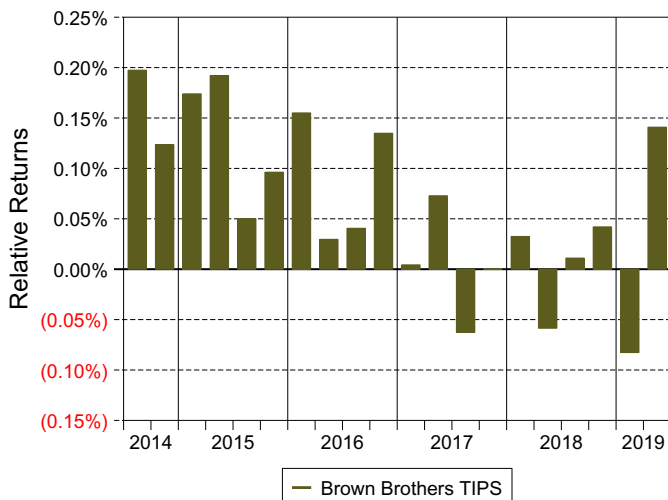
Quarterly Asset Growth

Beginning Market Value	\$220,256,812
Net New Investment	\$-66,967
Investment Gains/(Losses)	\$6,628,781
Ending Market Value	\$226,818,626

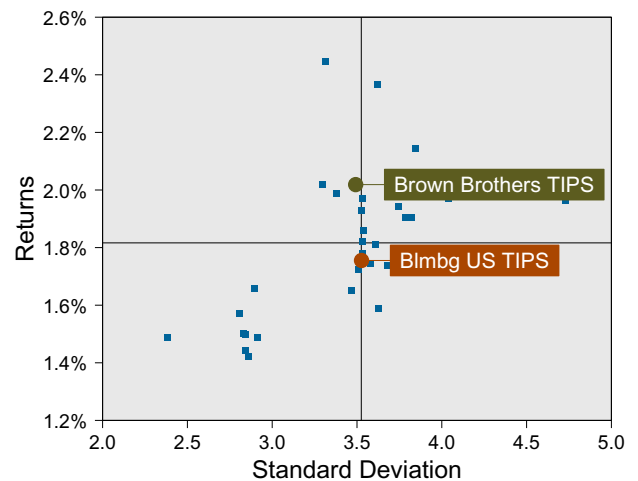
Performance vs Callan Inflation Linked Bonds (Gross)



Relative Return vs Blmbg US TIPS



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

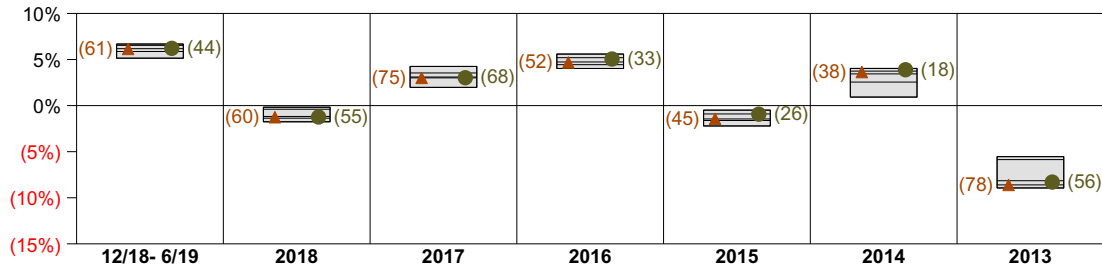


Brown Brothers TIPS Return Analysis Summary

Return Analysis

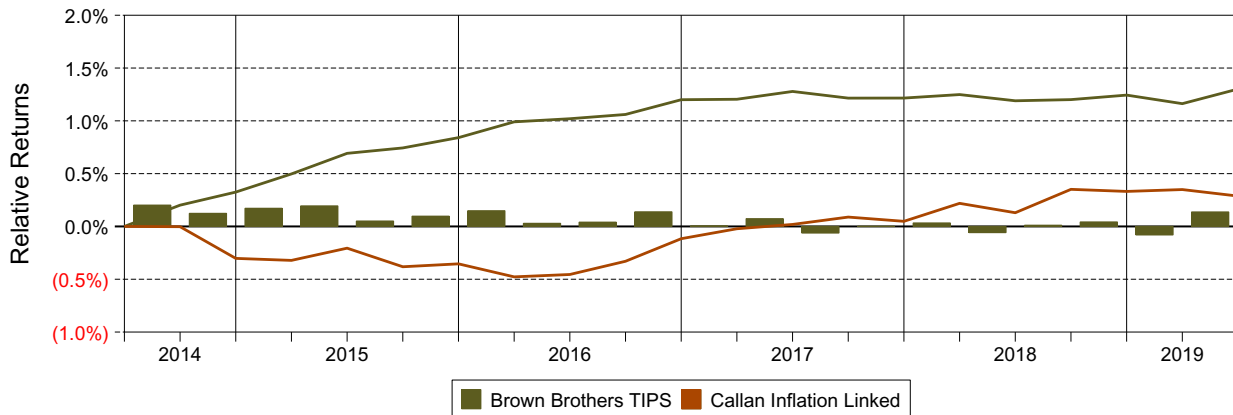
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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

Performance vs Callan Inflation Linked Bonds (Gross)

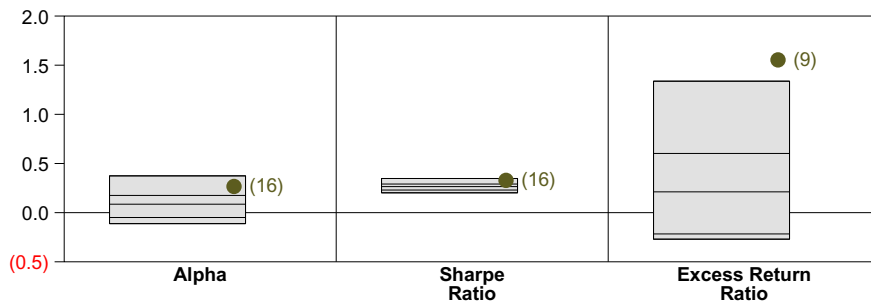


10th Percentile	6.68	(0.17)	4.25	5.59	(0.49)	4.03	(5.54)
25th Percentile	6.54	(0.39)	3.54	5.20	(0.91)	3.74	(5.86)
Median	6.18	(1.18)	3.10	4.73	(1.45)	3.44	(8.15)
75th Percentile	5.87	(1.37)	3.01	4.44	(1.62)	2.55	(8.60)
90th Percentile	5.14	(1.76)	1.98	4.03	(2.21)	0.92	(8.94)
Brown Brothers TIPS	6.21	(1.23)	3.02	5.06	(0.93)	3.89	(8.30)
Blmbg US TIPS	6.15	(1.26)	3.01	4.68	(1.44)	3.64	(8.61)

Cumulative and Quarterly Relative Return vs Blmbg US TIPS



Risk Adjusted Return Measures vs Blmbg US TIPS Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended June 30, 2019



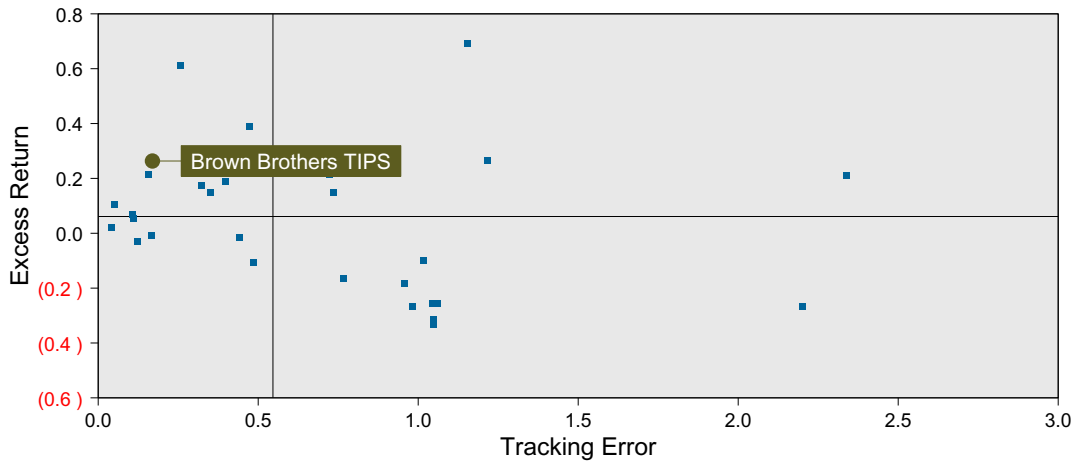
10th Percentile	0.37	0.35	1.34
25th Percentile	0.18	0.29	0.60
Median	0.09	0.27	0.21
75th Percentile	(0.05)	0.23	(0.22)
90th Percentile	(0.11)	0.20	(0.27)
Brown Brothers TIPS	0.27	0.33	1.55

Brown Brothers TIPS Risk Analysis Summary

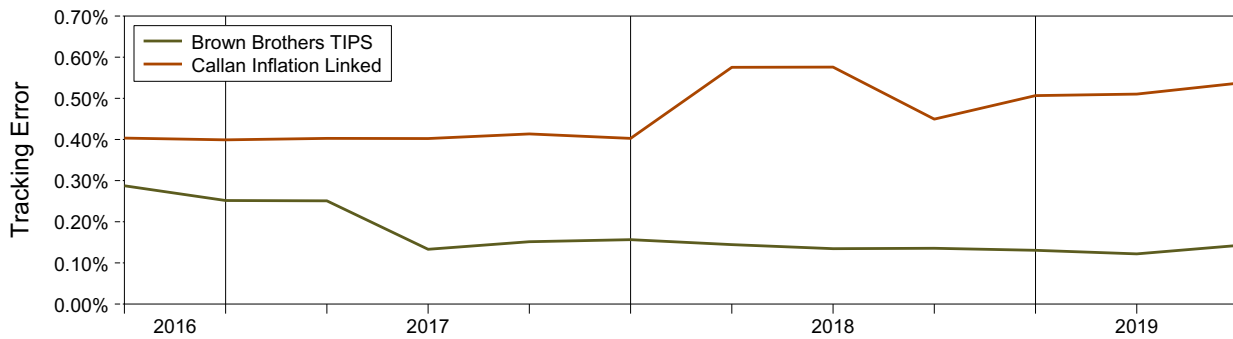
Risk Analysis

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.

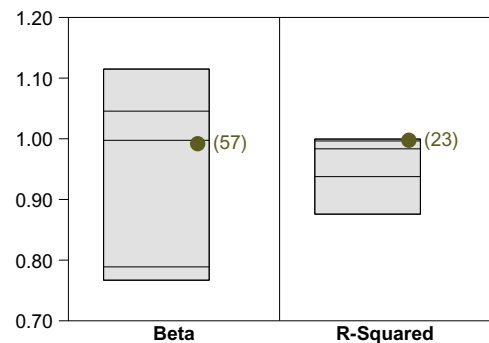
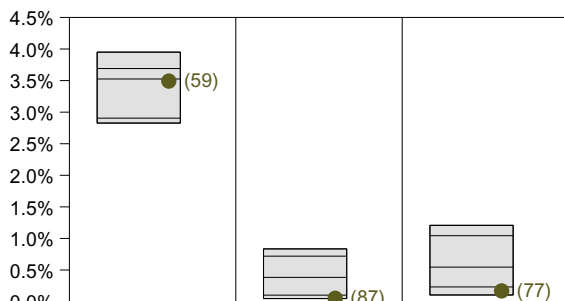
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs Bloomberg Barclays US TIPS



Risk Statistics Rankings vs Bloomberg Barclays US TIPS Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended June 30, 2019



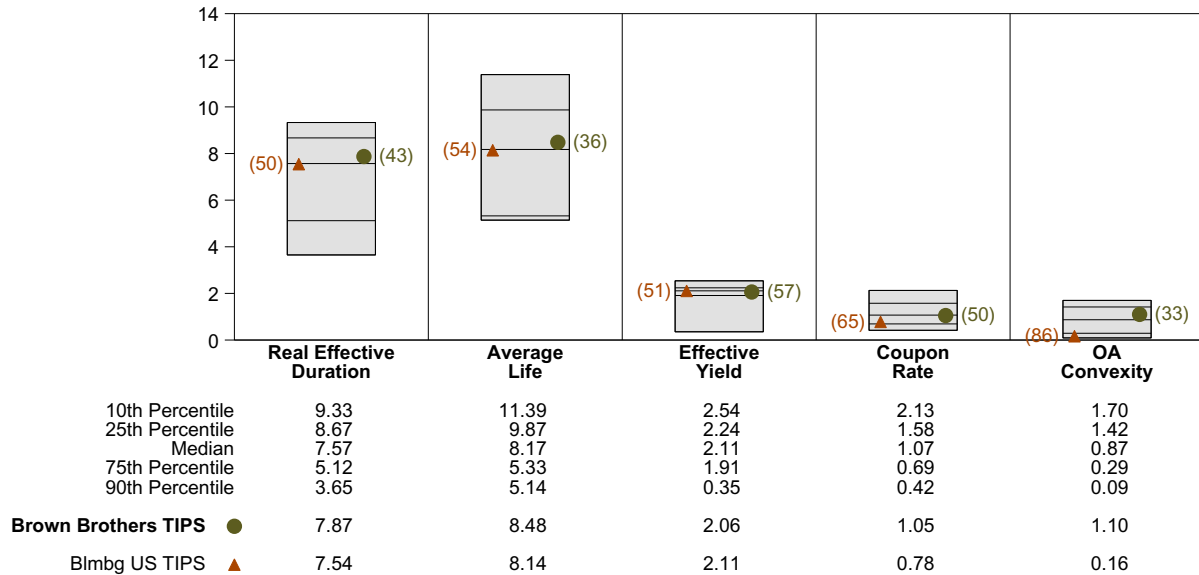
	Standard Deviation	Downside Risk	Tracking Error	Beta	R-Squared
10th Percentile	3.95	0.83	1.21	1.11	1.00
25th Percentile	3.69	0.72	1.04	1.05	1.00
Median	3.53	0.38	0.55	1.00	0.98
75th Percentile	2.90	0.10	0.23	0.79	0.94
90th Percentile	2.83	0.05	0.10	0.77	0.88
Brown Brothers TIPS	3.49	0.05	0.17	0.99	1.00

Brown Brothers TIPS Bond Characteristics Analysis Summary

Portfolio Characteristics

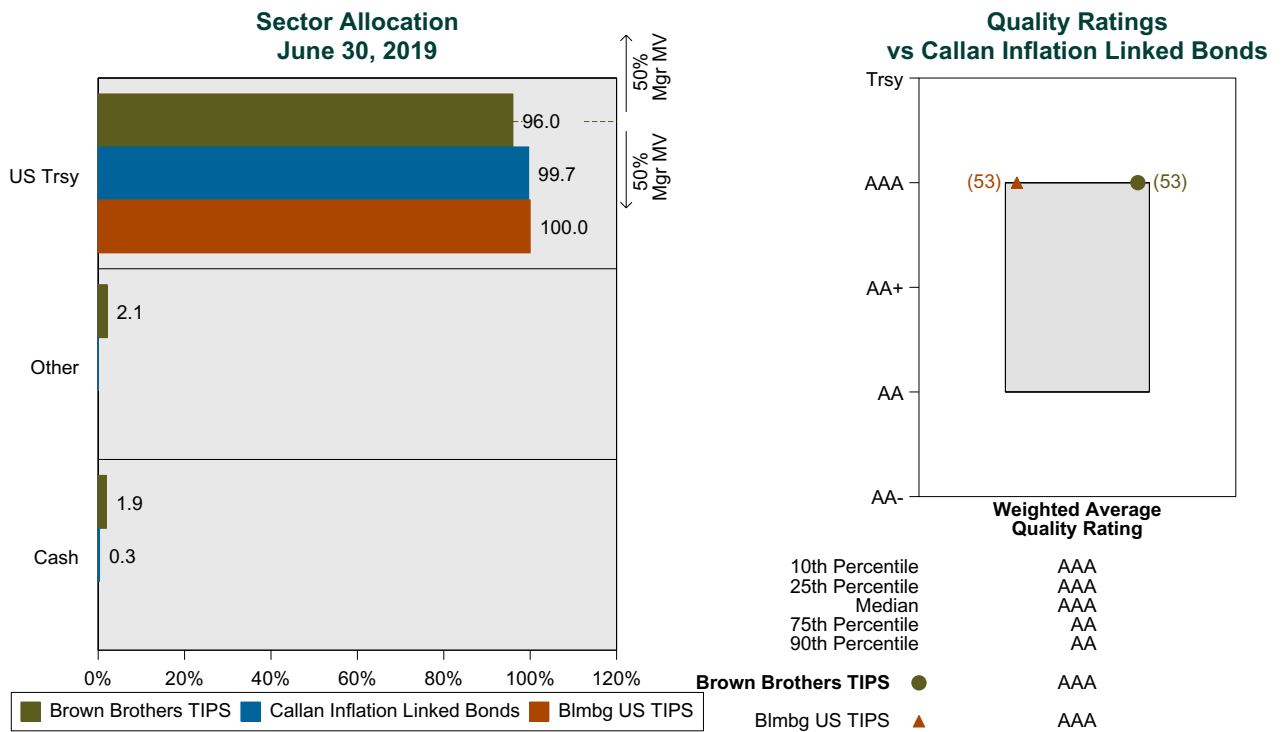
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds as of June 30, 2019



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 June 30, 2019**

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.

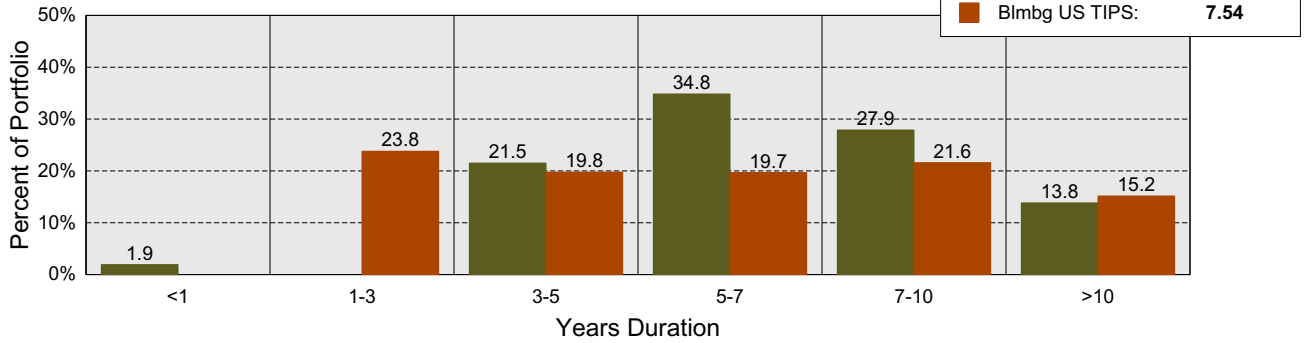
Sector Allocation



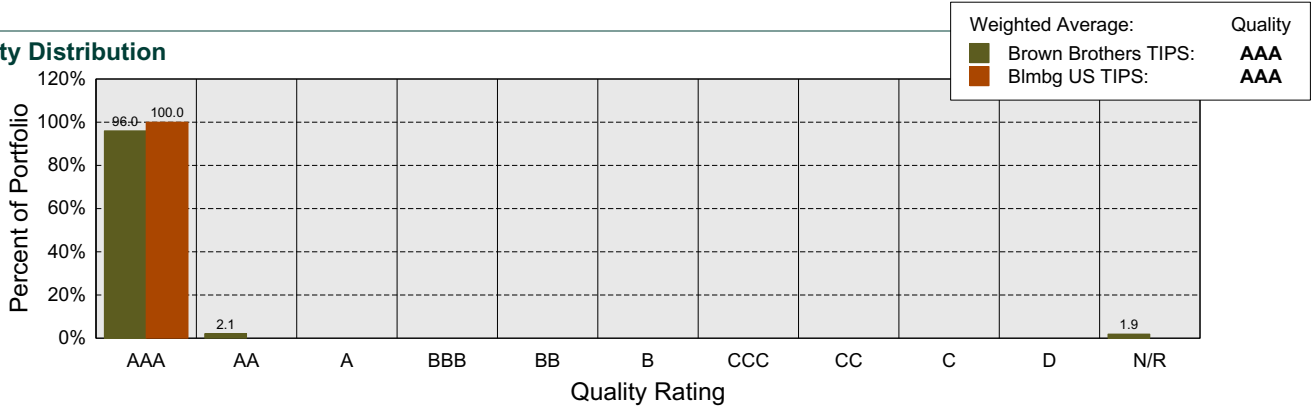
Brown Brothers TIPS

Blmbg US TIPS

Duration Distribution



Quality Distribution



New Century Global TIPS Period Ended June 30, 2019

Investment Philosophy

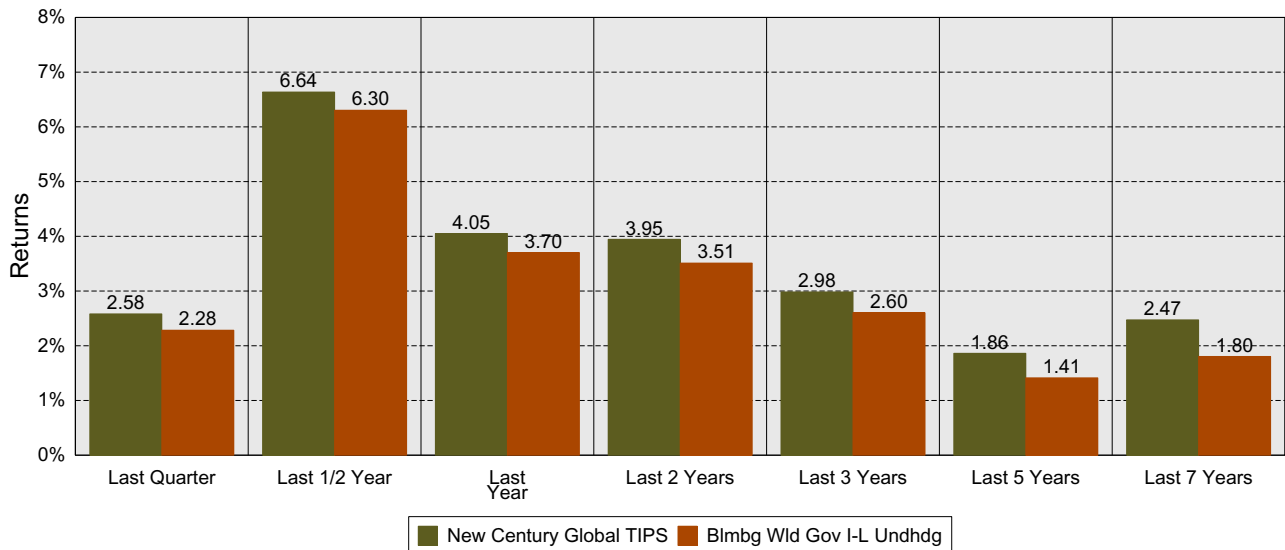
New Century Advisors believes there are five main sources of excess return that an active manager can capture in the Global Inflation Linked Bond Product: duration management, country selection, currency management, yield curve positioning, and nominal/linker relative value. New Century Advisors approach 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

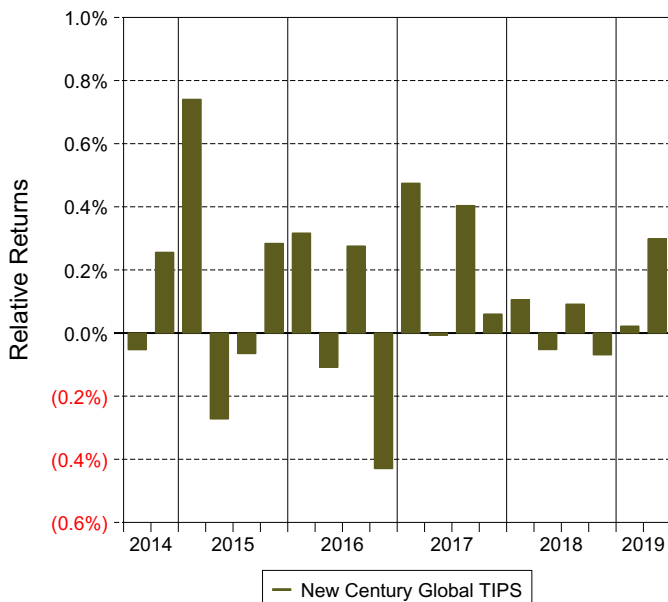
- New Century Global TIPS's portfolio posted a 2.58% return for the quarter placing it in the 77 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 99 percentile for the last year.
- New Century Global TIPS's portfolio outperformed the Blmbg Wld Gov I-L Undhdg by 0.30% for the quarter and outperformed the Blmbg Wld Gov I-L Undhdg for the year by 0.35%.

Quarterly Asset Growth

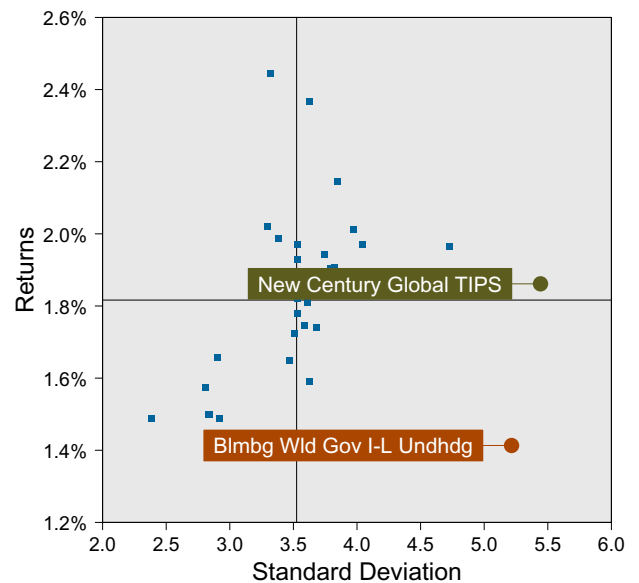
Beginning Market Value	\$115,341,580
Net New Investment	\$-134,077
Investment Gains/(Losses)	\$2,980,913
Ending Market Value	\$118,188,416



Relative Return vs Blmbg Wld Gov I-L Undhdg



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

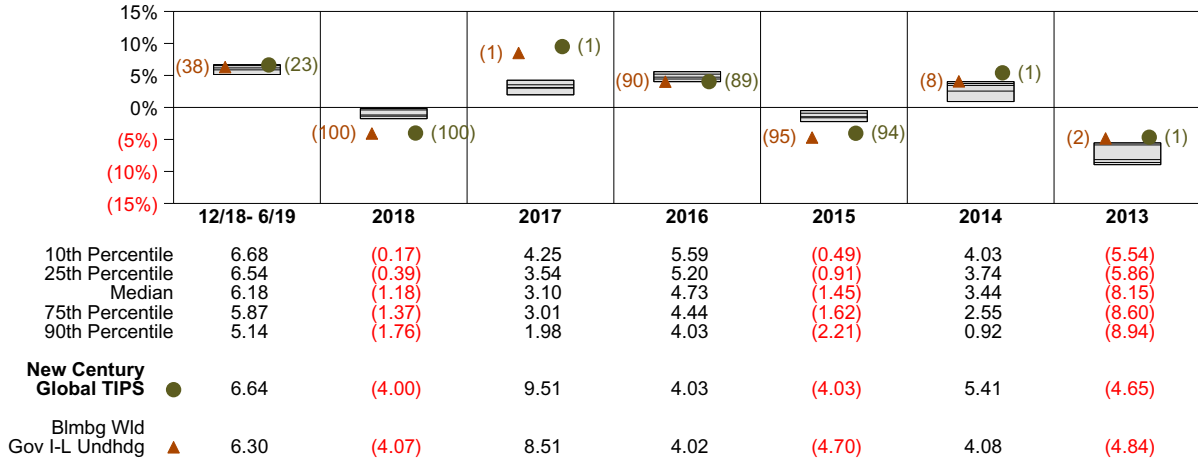


New Century Global TIPS Return Analysis Summary

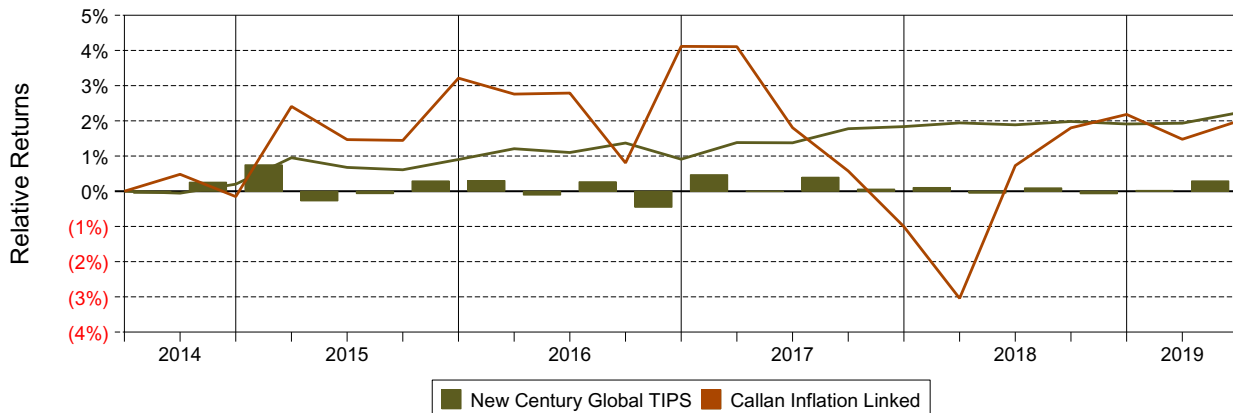
Return Analysis

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.

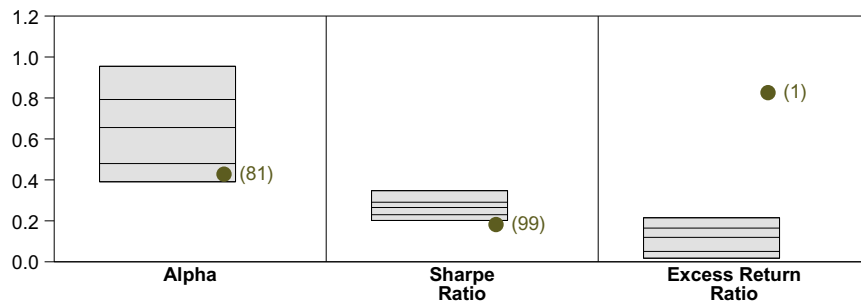
Performance vs Callan Inflation Linked Bonds (Gross)



Cumulative and Quarterly Relative Return vs Bimbg Wld Gov I-L Undhdg



Risk Adjusted Return Measures vs Bimbg Wld Gov I-L Undhdg Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended June 30, 2019



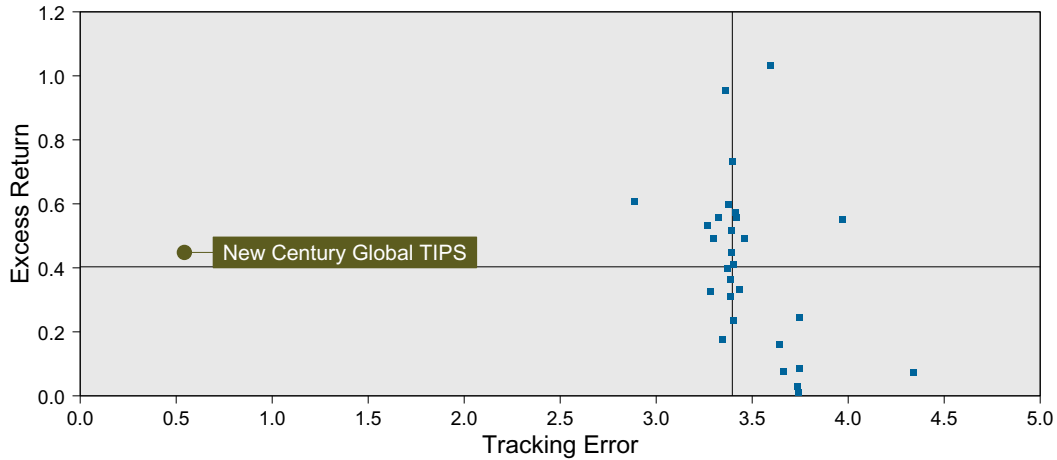
10th Percentile	0.95	0.35	0.22
25th Percentile	0.79	0.29	0.16
Median	0.66	0.27	0.12
75th Percentile	0.48	0.23	0.05
90th Percentile	0.39	0.20	0.02
New Century Global TIPS ●	0.43	0.18	0.83

New Century Global TIPS Risk Analysis Summary

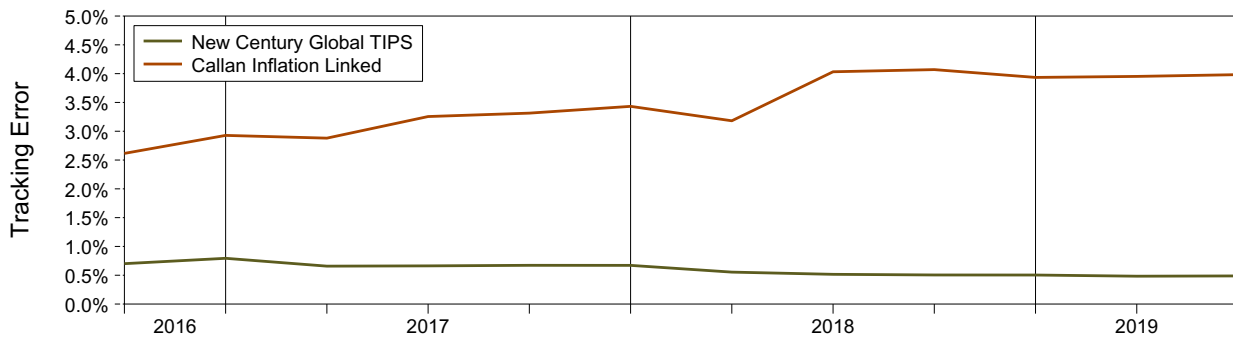
Risk Analysis

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.

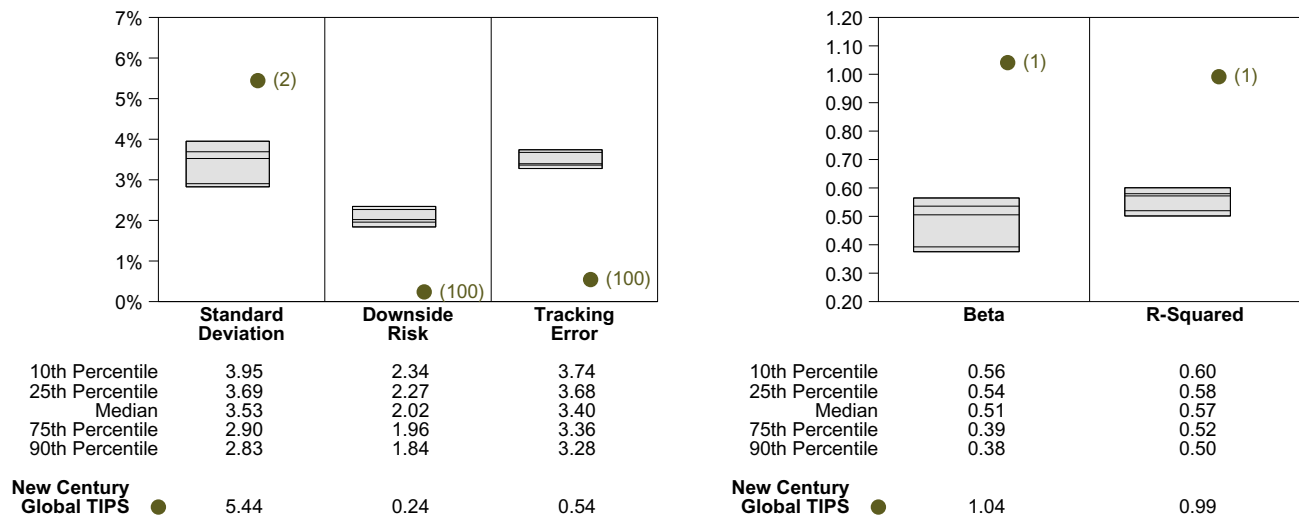
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs Bloomberg Barclays Wid Gov Inf Lnk Unhdg



Risk Statistics Rankings vs Bloomberg Barclays Wid Gov Inf Lnk Unhdg Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended June 30, 2019

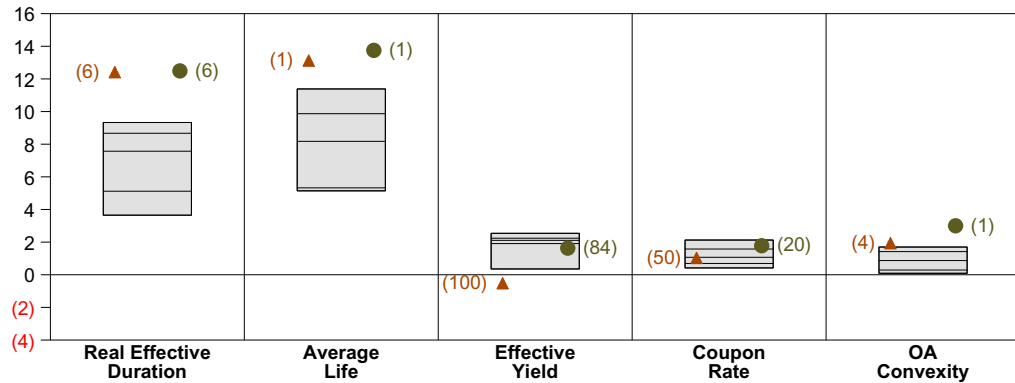


New Century Global TIPS Bond Characteristics Analysis Summary

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.

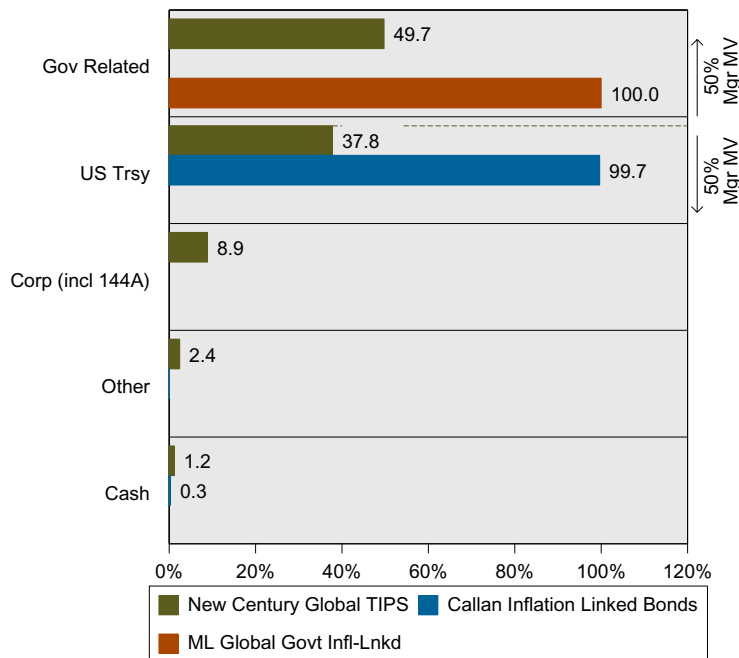
Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds as of June 30, 2019



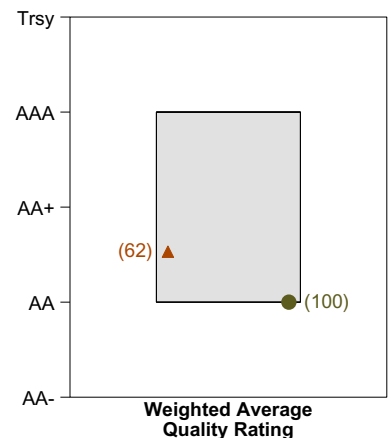
Sector Allocation and Quality Ratings

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.

Sector Allocation June 30, 2019



Quality Ratings vs Callan Inflation Linked Bonds



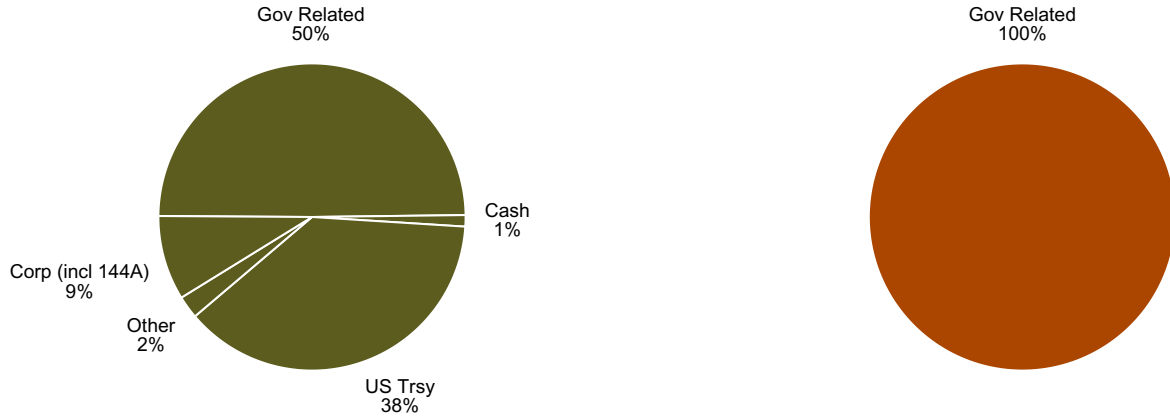
10th Percentile	AAA
25th Percentile	AAA
Median	AAA
75th Percentile	AA
90th Percentile	AA
New Century Global TIPS ●	AA
ML Global Govt Infl-Lnknd ▲	AA+

New Century Global TIPS Portfolio Characteristics Summary As of June 30, 2019

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.

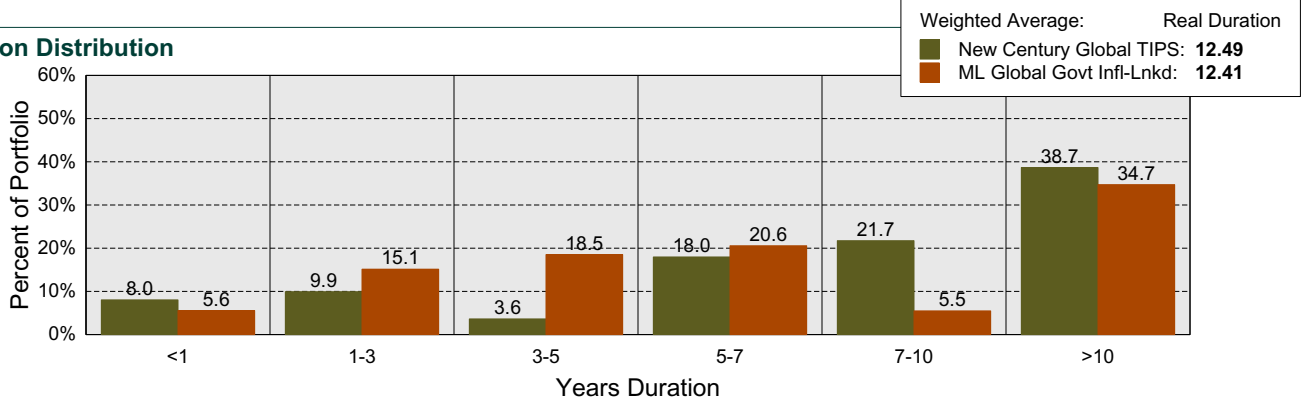
Sector Allocation



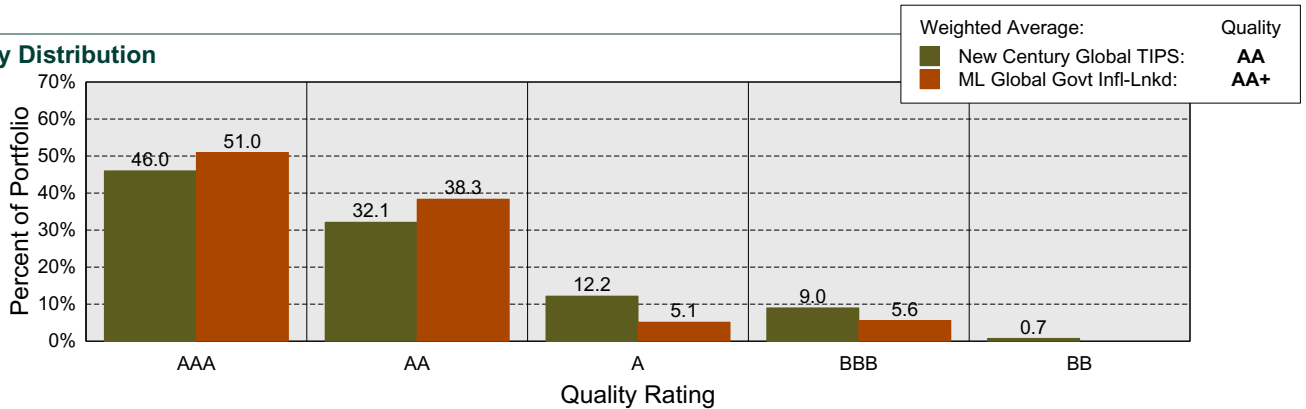
New Century Global TIPS

ML Global Govt Infi-Lnkd

Duration Distribution



Quality Distribution



NISA Inv Adv TIPS Period Ended June 30, 2019

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.

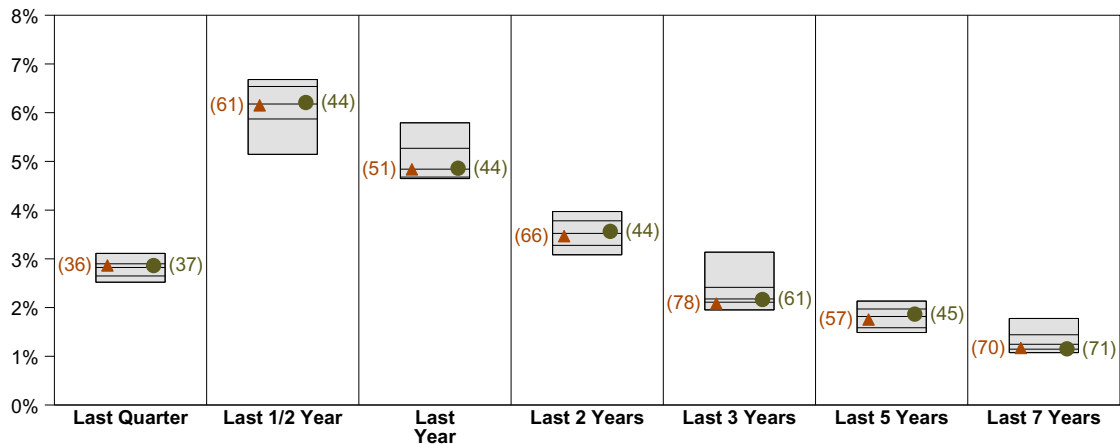
Quarterly Summary and Highlights

- NISA Inv Adv TIPS's portfolio posted a 2.86% return for the quarter placing it in the 37 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 44 percentile for the last year.
- NISA Inv Adv TIPS's portfolio underperformed the Blmbg US TIPS by 0.00% for the quarter and outperformed the Blmbg US TIPS for the year by 0.02%.

Quarterly Asset Growth

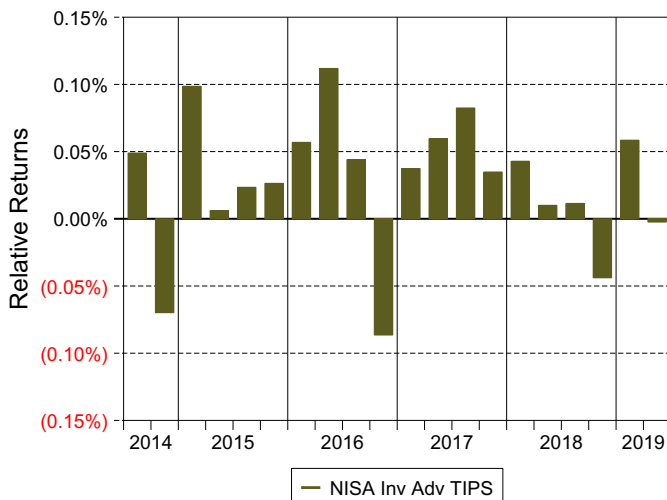
Beginning Market Value	\$496,646,353
Net New Investment	\$-242,381
Investment Gains/(Losses)	\$14,162,660
Ending Market Value	\$510,566,633

Performance vs Callan Inflation Linked Bonds (Gross)

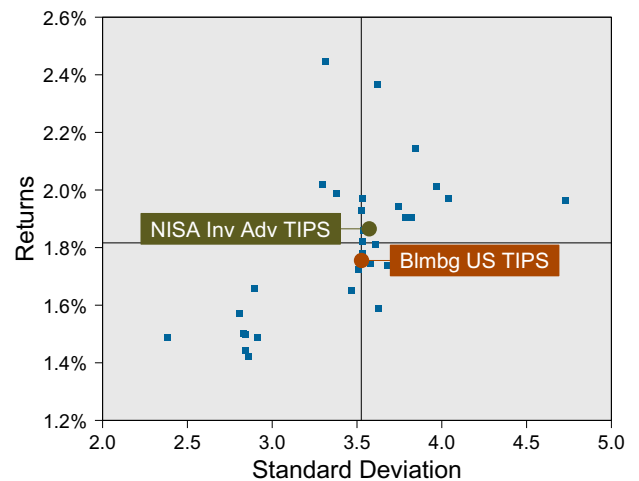


10th Percentile	3.11	6.68	5.79	3.97	3.14	2.13	1.78
25th Percentile	2.90	6.54	5.27	3.78	2.41	1.97	1.44
Median	2.82	6.18	4.84	3.52	2.18	1.82	1.25
75th Percentile	2.65	5.87	4.68	3.28	2.11	1.59	1.15
90th Percentile	2.52	5.14	4.65	3.08	1.95	1.49	1.08
NISA Inv Adv TIPS ●	2.86	6.21	4.86	3.56	2.17	1.87	1.15
Blmbg US TIPS ▲	2.86	6.15	4.84	3.47	2.08	1.76	1.17

Relative Return vs Blmbg US TIPS



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

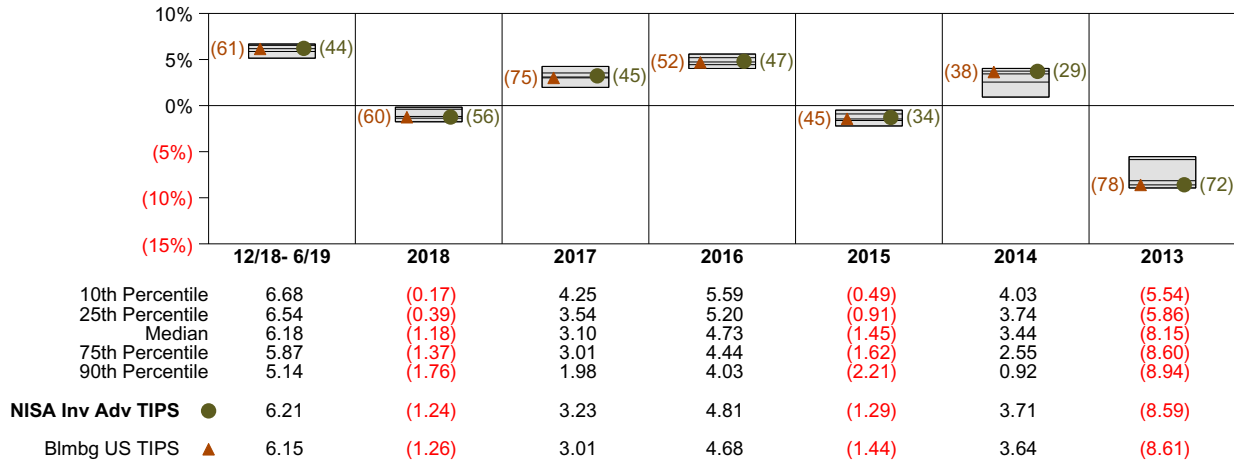


NISA Inv Adv TIPS Return Analysis Summary

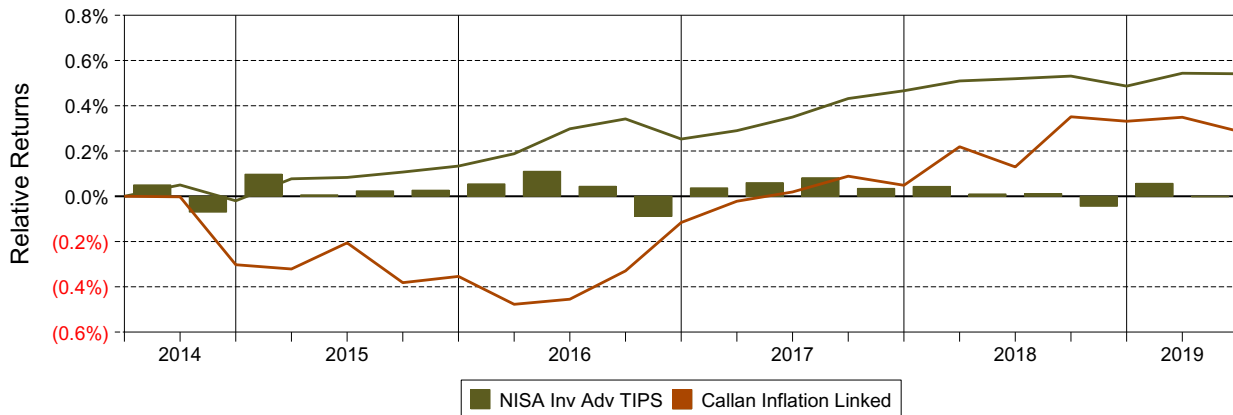
Return Analysis

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.

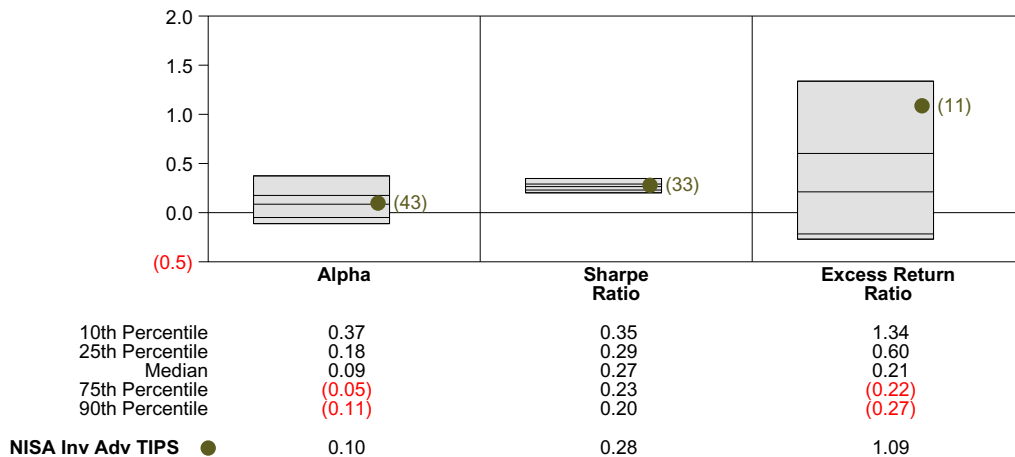
Performance vs Callan Inflation Linked Bonds (Gross)



Cumulative and Quarterly Relative Return vs Bimbg US TIPS



Risk Adjusted Return Measures vs Bimbg US TIPS Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended June 30, 2019

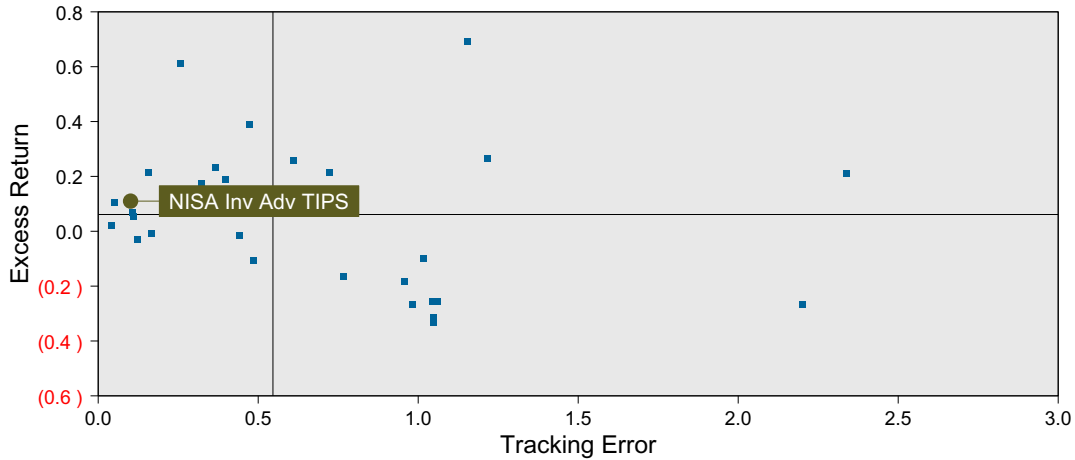


NISA Inv Adv TIPS Risk Analysis Summary

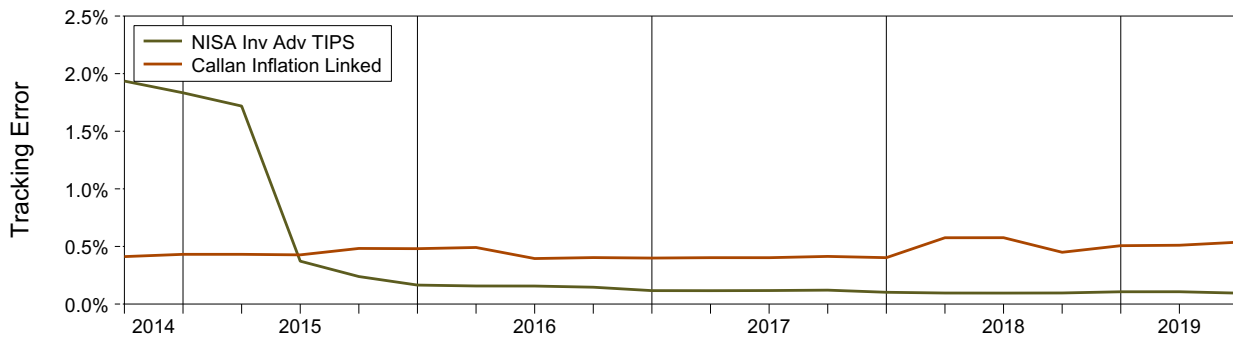
Risk Analysis

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.

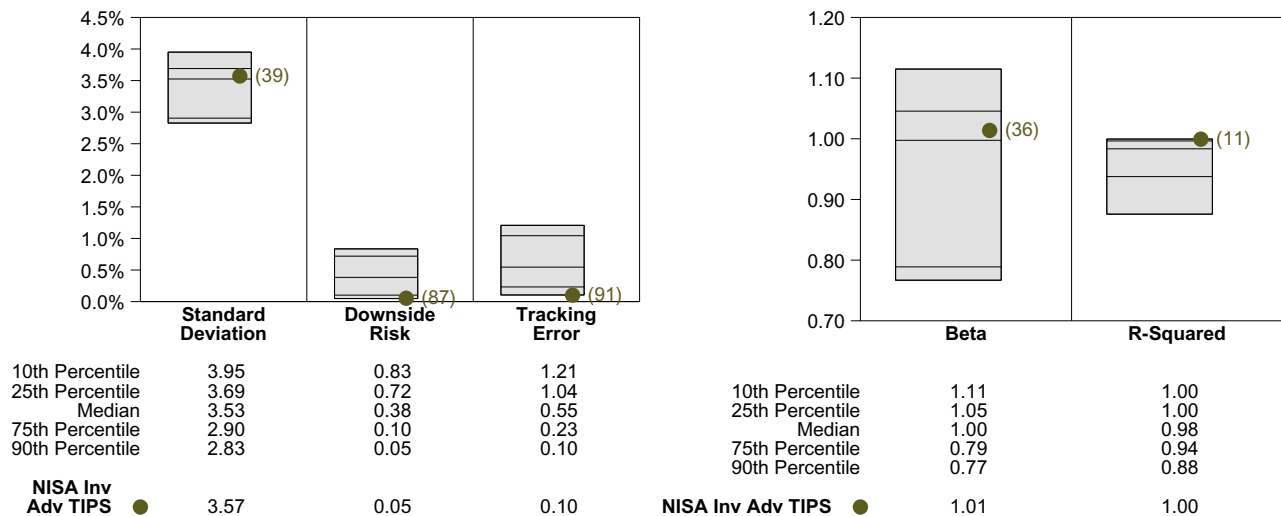
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs Bloomberg Barclays US TIPS



Risk Statistics Rankings vs Bloomberg Barclays US TIPS Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended June 30, 2019

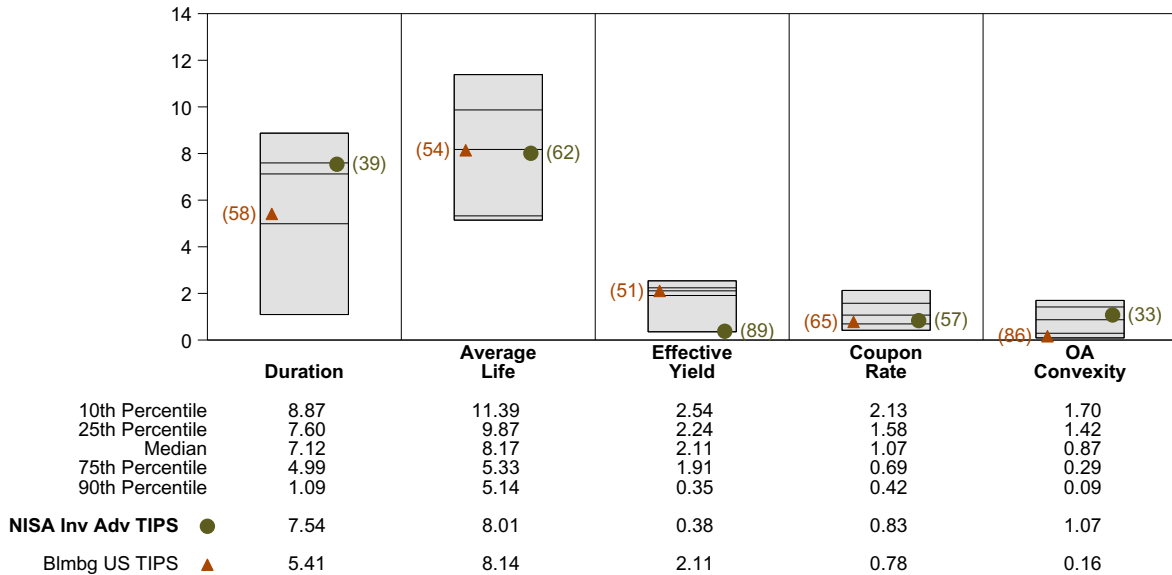


NISA Inv Adv TIPS Bond Characteristics Analysis Summary

Portfolio Characteristics

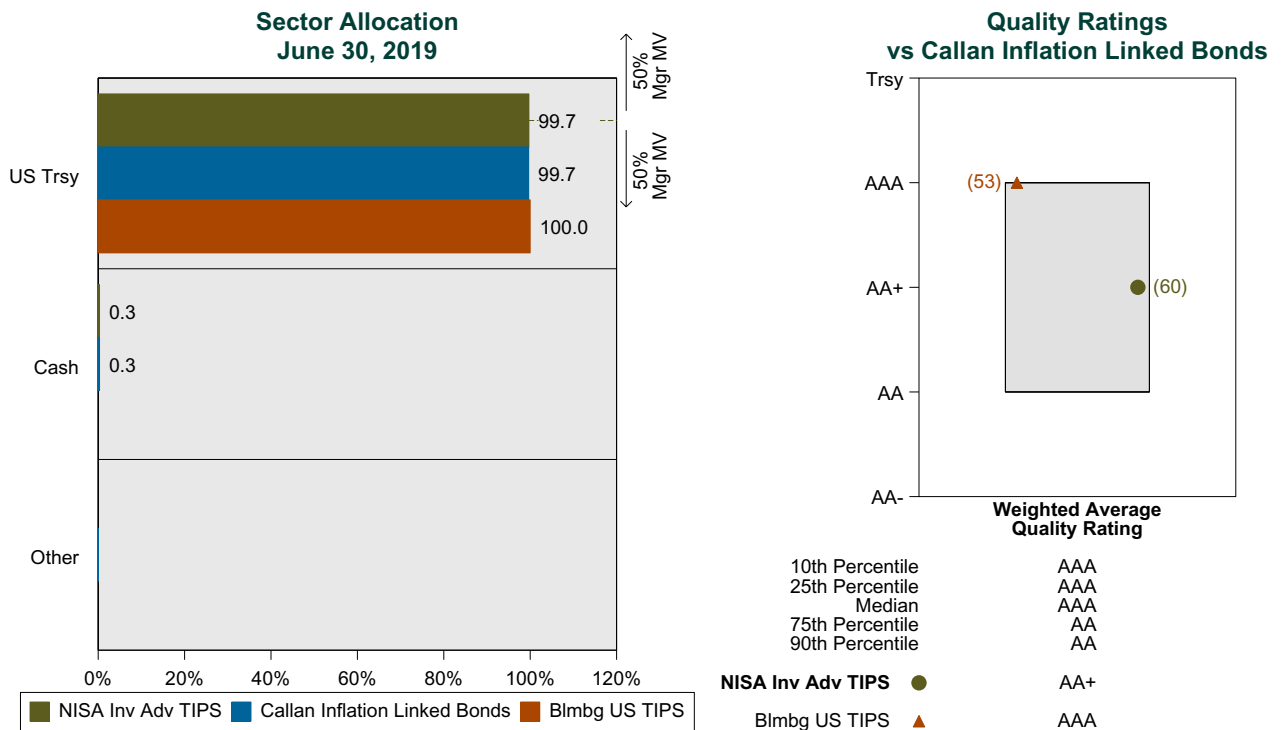
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds as of June 30, 2019



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 June 30, 2019**

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.

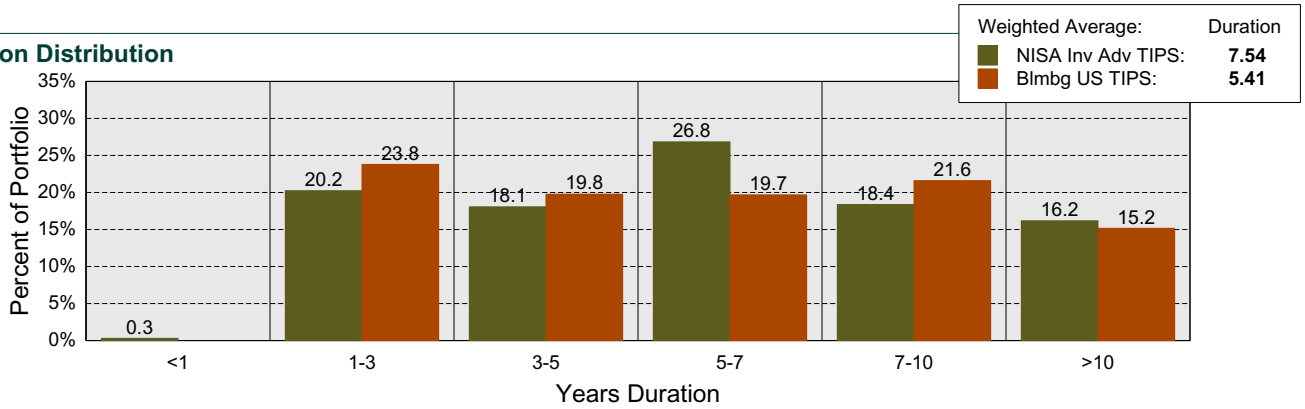
Sector Allocation



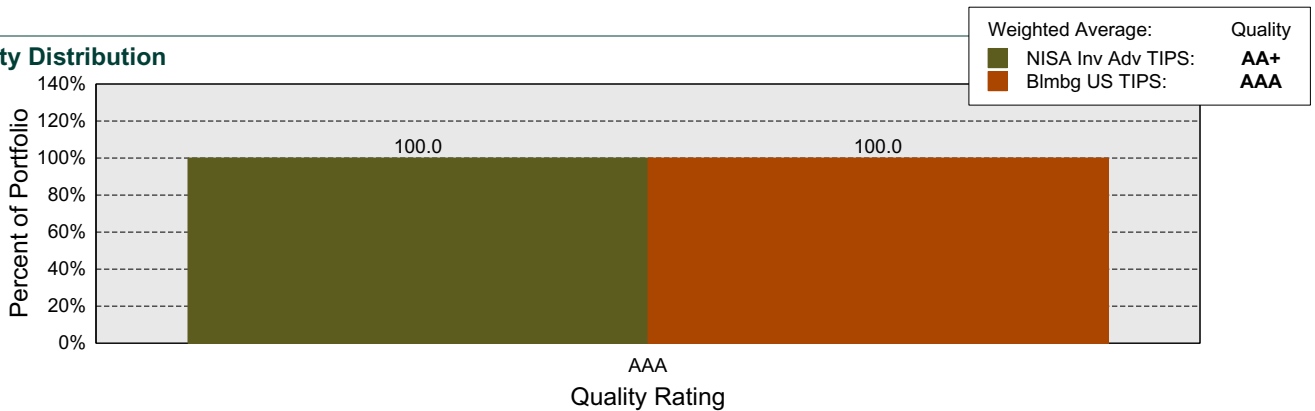
NISA Inv Adv TIPS

Blmbg US TIPS

Duration Distribution



Quality Distribution



PIMCO US Treasuries

Period Ended June 30, 2019

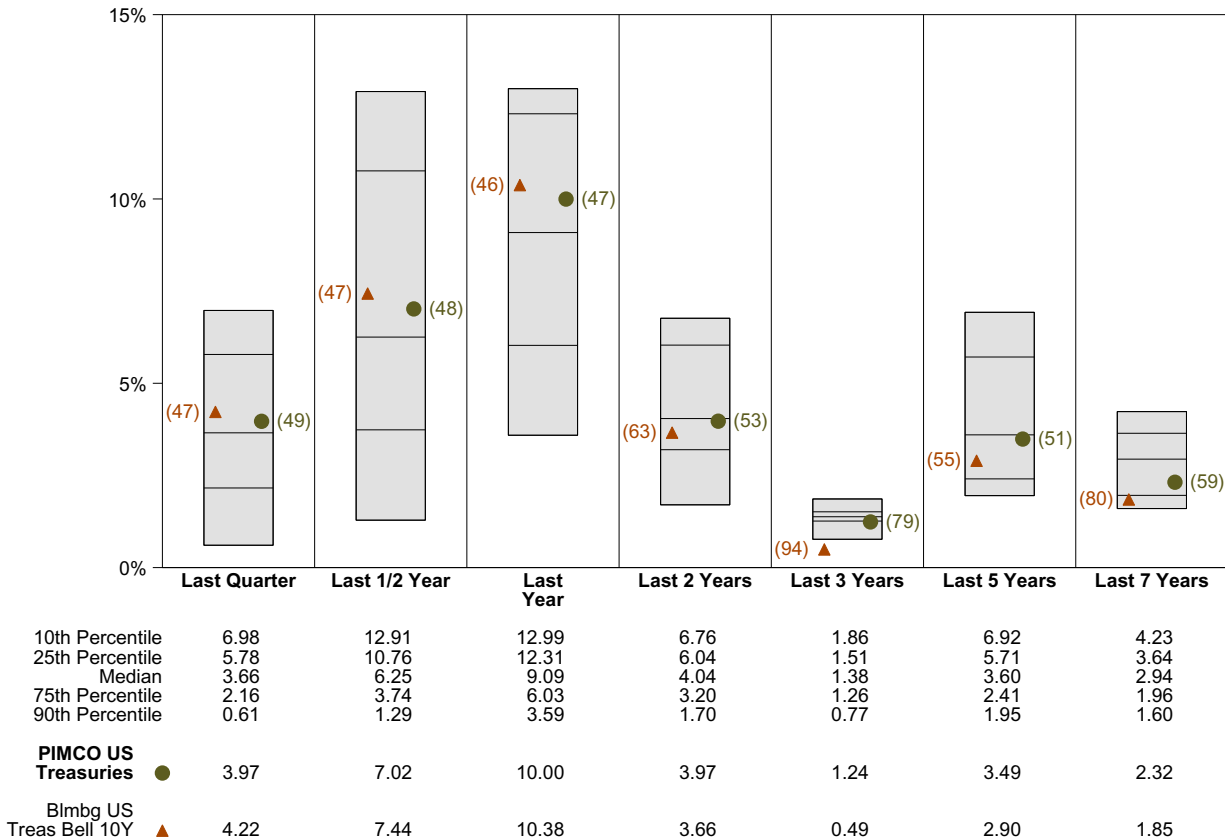
Quarterly Summary and Highlights

- PIMCO US Treasuries's portfolio posted a 3.97% return for the quarter placing it in the 49 percentile of the Callan US Treas Bond Funds group for the quarter and in the 47 percentile for the last year.
- PIMCO US Treasuries's portfolio underperformed the Blmbg US Treas Bell 10Y by 0.26% for the quarter and underperformed the Blmbg US Treas Bell 10Y for the year by 0.38%.

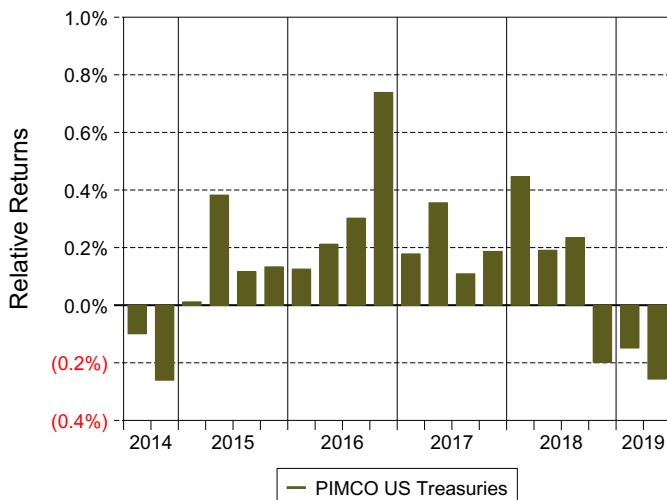
Quarterly Asset Growth

Beginning Market Value	\$564,847,853
Net New Investment	\$-255,641
Investment Gains/(Losses)	\$22,424,031
Ending Market Value	\$587,016,244

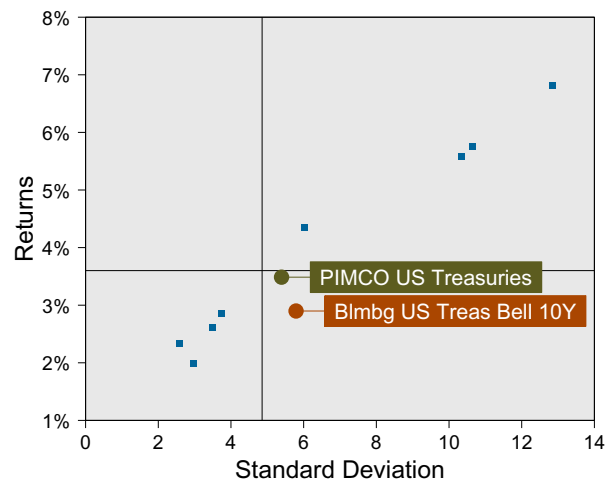
Performance vs Callan US Treas Bond Funds (Gross)



Relative Return vs Blmbg US Treas Bell 10Y



Callan US Treas Bond Funds (Gross) Annualized Five Year Risk vs Return

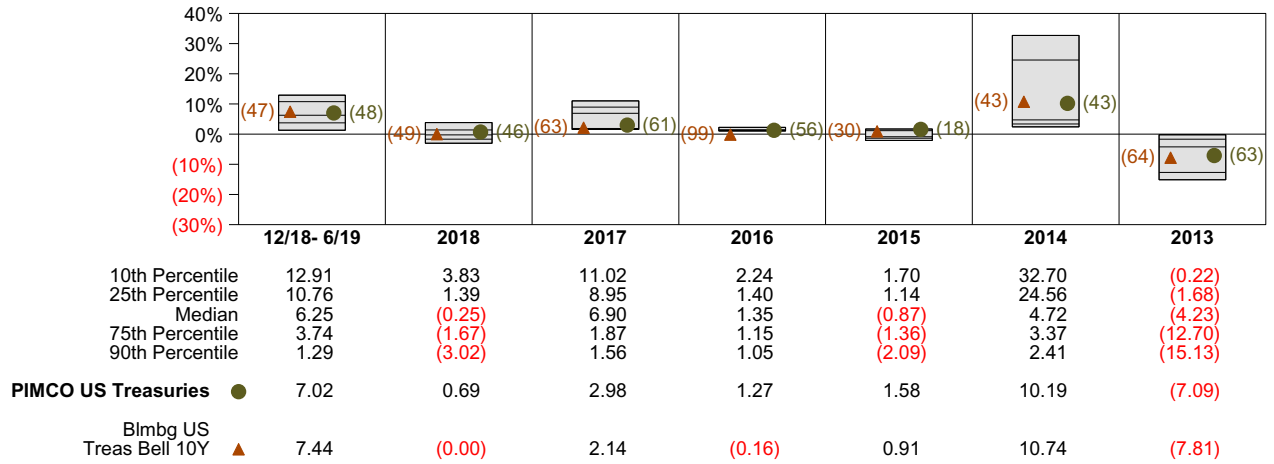


PIMCO US Treasuries Return Analysis Summary

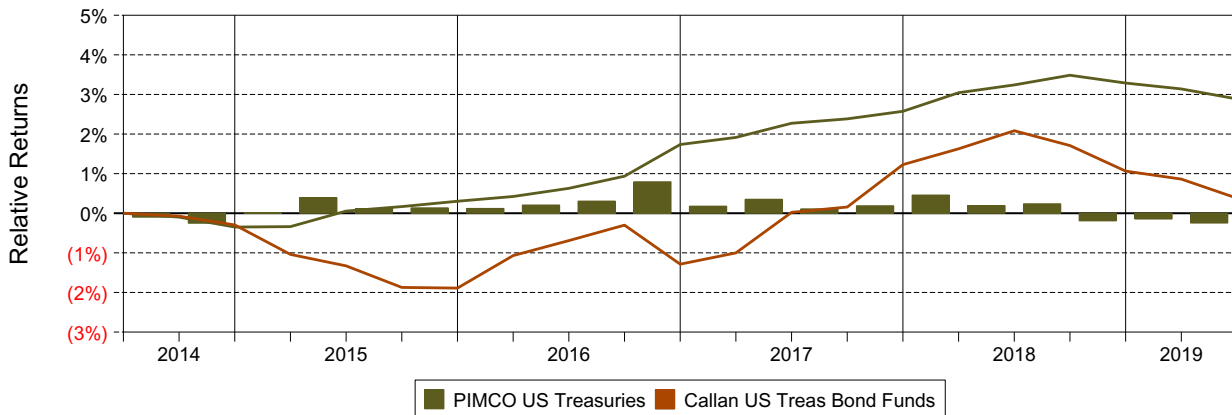
Return Analysis

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.

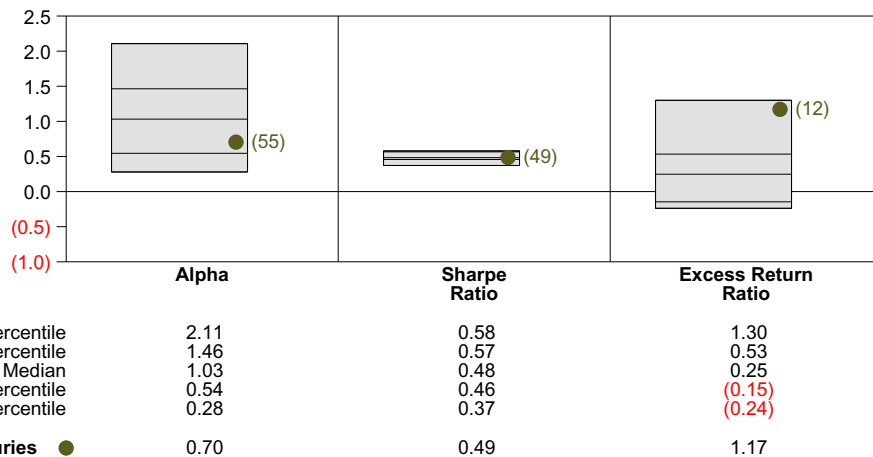
Performance vs Callan US Treas Bond Funds (Gross)



Cumulative and Quarterly Relative Return vs Bimbg US Treas Bell 10Y



Risk Adjusted Return Measures vs Bimbg US Treas Bell 10Y Rankings Against Callan US Treas Bond Funds (Gross) Five Years Ended June 30, 2019

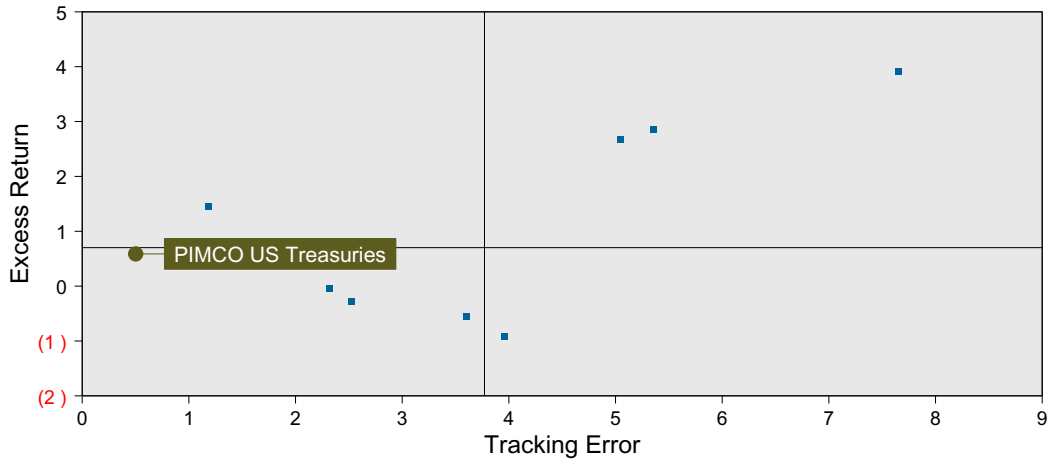


PIMCO US Treasuries Risk Analysis Summary

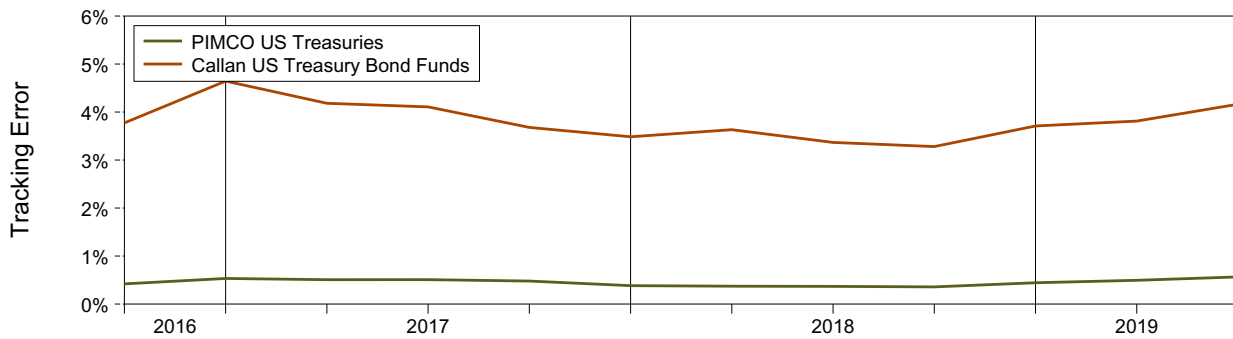
Risk Analysis

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.

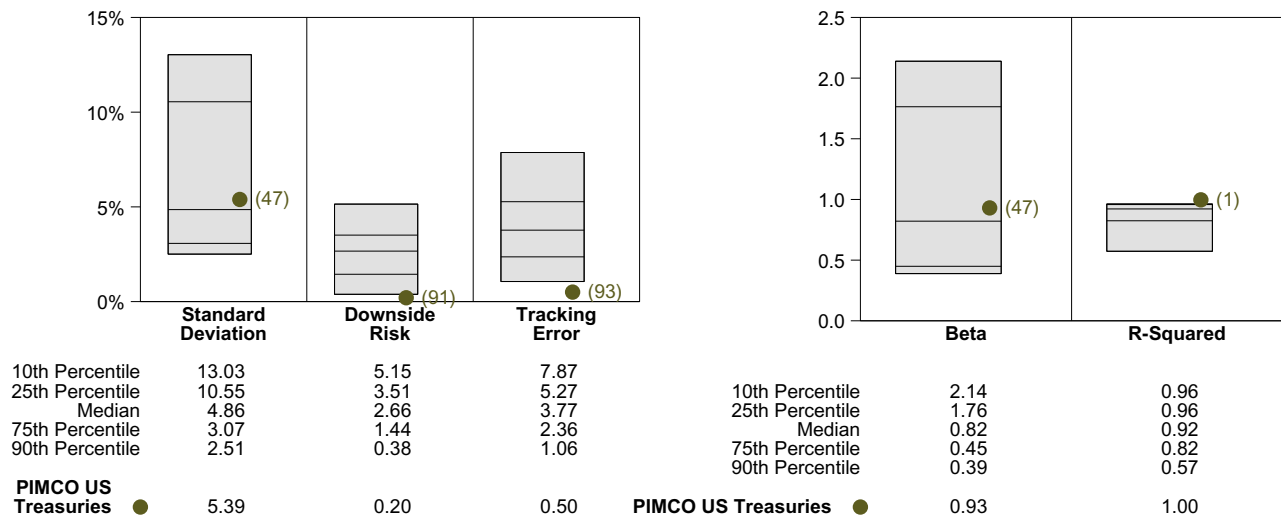
Risk Analysis vs Callan US Treasury Bond Funds (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs Bloomberg Barclays US Treas Bellwthr 10Y



Risk Statistics Rankings vs Bloomberg Barclays US Treas Bellwthr 10Y Rankings Against Callan US Treasury Bond Funds (Gross) Five Years Ended June 30, 2019

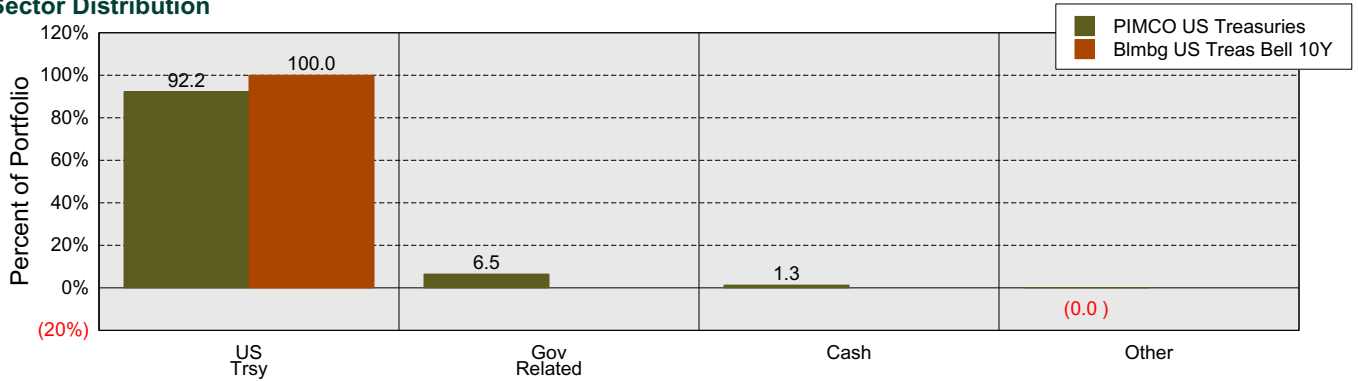


PIMCO US Treasuries Portfolio Characteristics Summary As of June 30, 2019

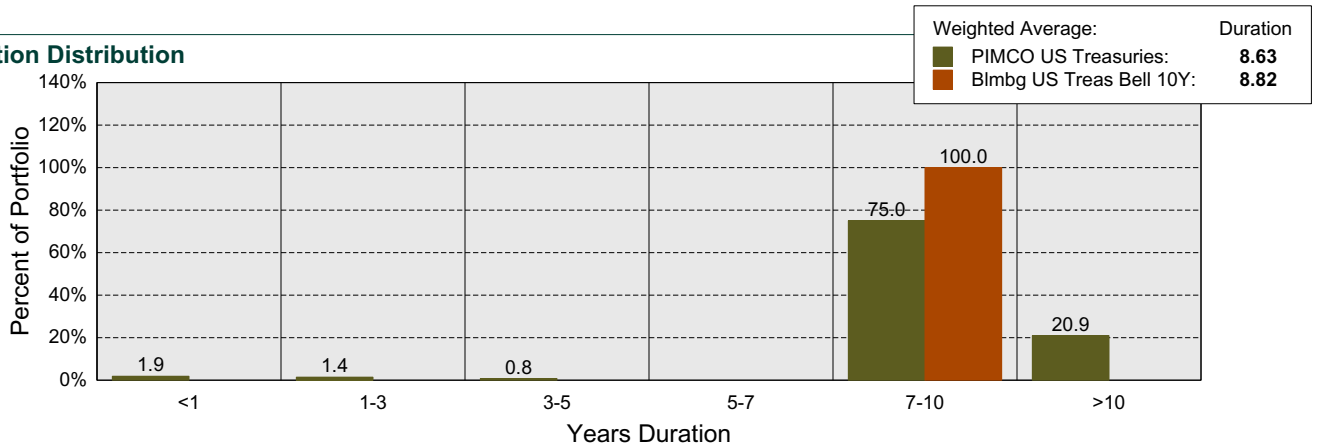
Portfolio Structure Comparison

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.

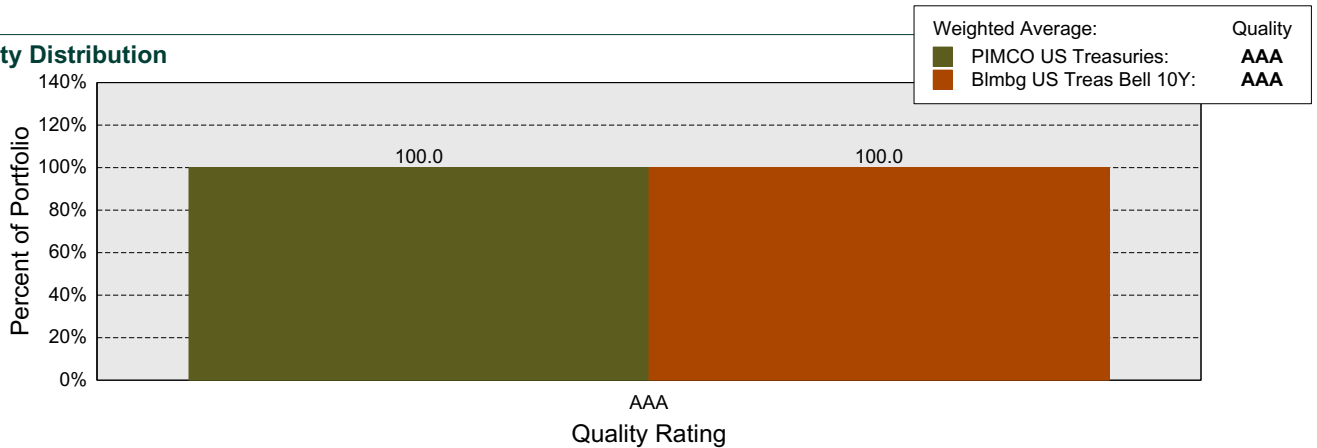
Sector Distribution



Duration Distribution



Quality Distribution



Multi-Strategy Period Ended June 30, 2019

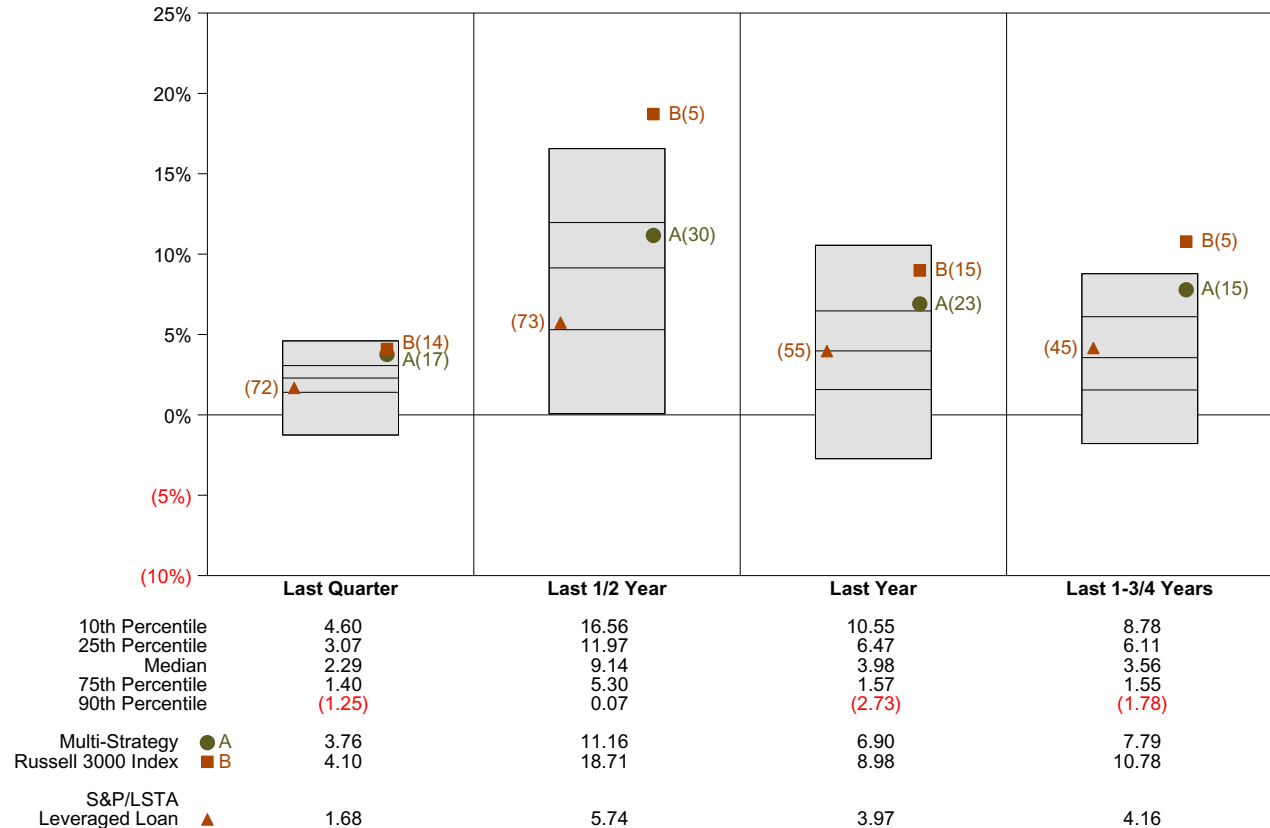
Quarterly Summary and Highlights

- Multi-Strategy's portfolio posted a 3.76% return for the quarter placing it in the 17 percentile of the Callan Multi-Asset Database group for the quarter and in the 23 percentile for the last year.
- Multi-Strategy's portfolio outperformed the S&P/LSTA Leveraged Loan by 2.08% for the quarter and outperformed the S&P/LSTA Leveraged Loan for the year by 2.94%.

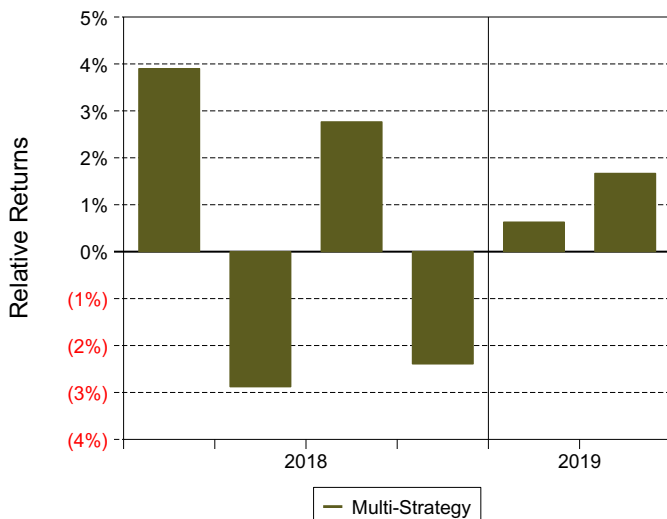
Quarterly Asset Growth

Beginning Market Value	\$2,561,057,188
Net New Investment	\$-974,186,007
Investment Gains/(Losses)	\$74,291,745
Ending Market Value	\$1,661,162,926

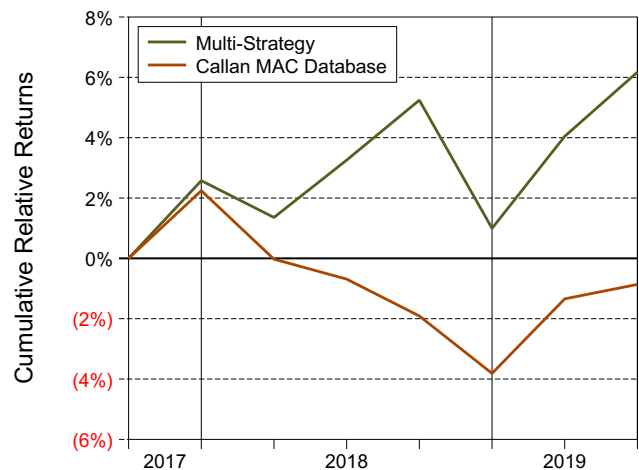
Performance vs Callan Multi-Asset Database (Gross)



Relative Return vs S&P/LSTA Leveraged Loan



Cumulative Returns vs S&P/LSTA Leveraged Loan



Blackstone Keystone Period Ended June 30, 2019

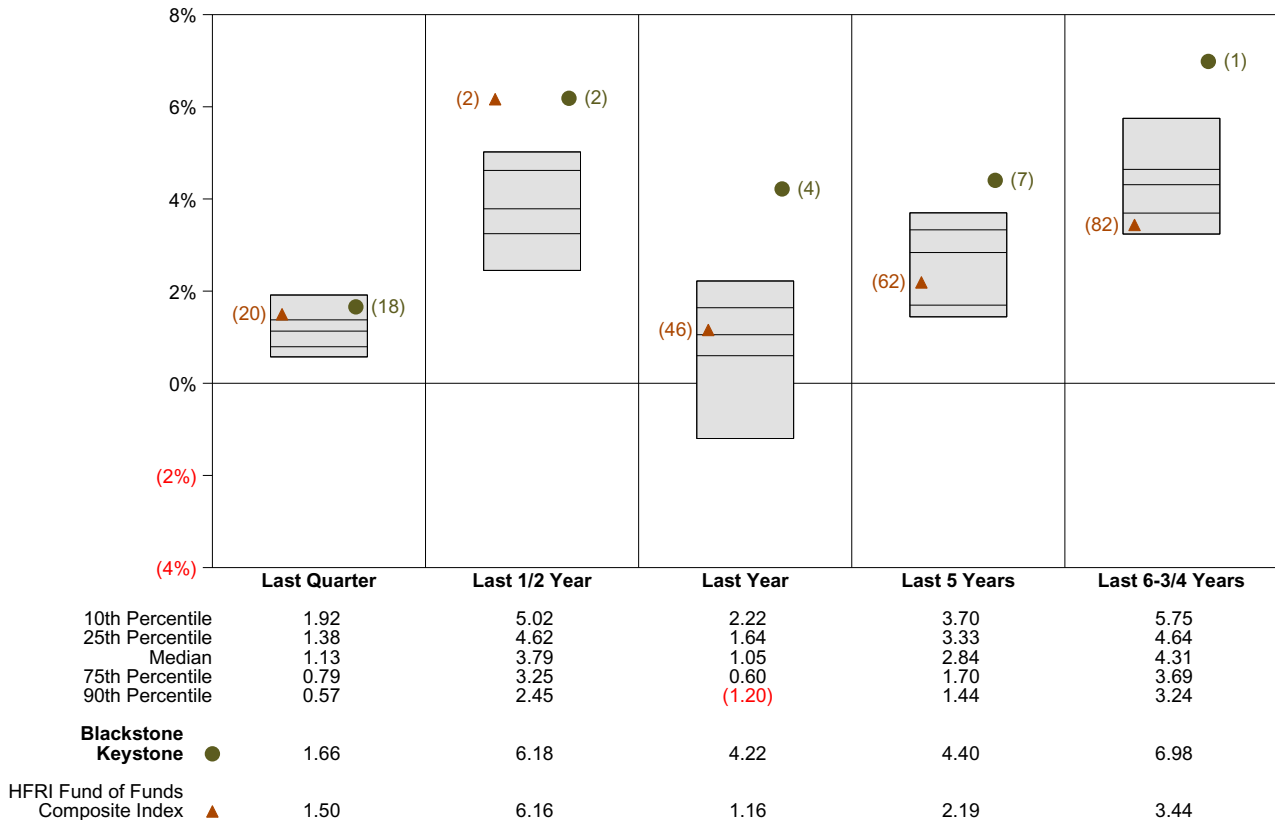
Quarterly Summary and Highlights

- Blackstone Keystone's portfolio posted a 1.66% return for the quarter placing it in the 18 percentile of the Callan Absolute Rtn Hedge Fund of Funds group for the quarter and in the 4 percentile for the last year.
- Blackstone Keystone's portfolio outperformed the HFRI Fund of Funds Composite Index by 0.16% for the quarter and outperformed the HFRI Fund of Funds Composite Index for the year by 3.06%.

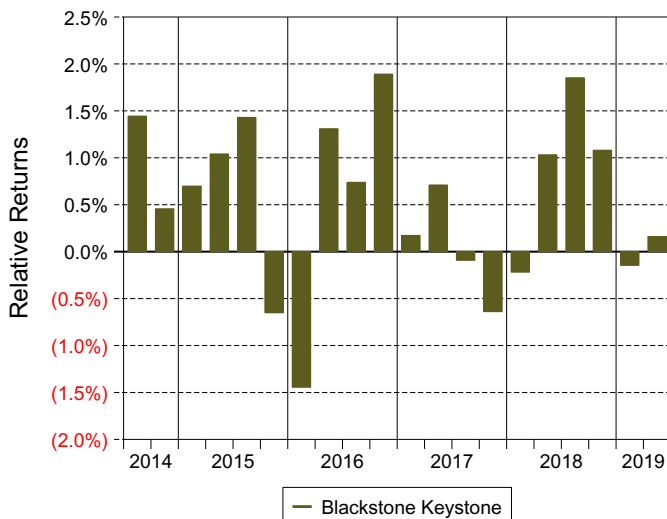
Quarterly Asset Growth

Beginning Market Value	\$911,447,736
Net New Investment	\$-356,373
Investment Gains/(Losses)	\$15,098,296
Ending Market Value	\$926,189,658

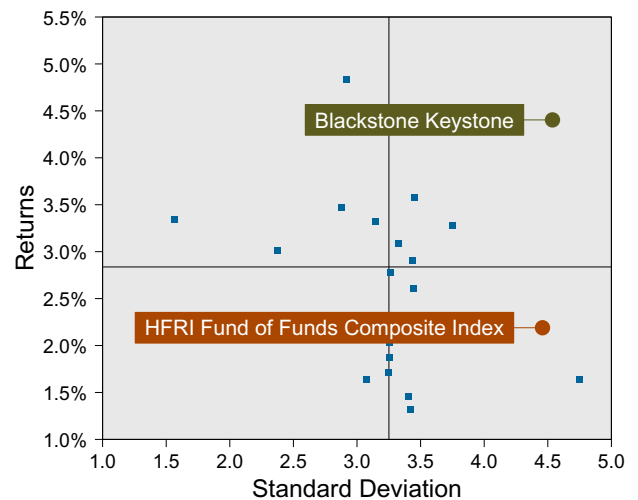
Performance vs Callan Absolute Rtn Hedge Fund of Funds (Net)



Relative Returns vs HFRI Fund of Funds Composite Index



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

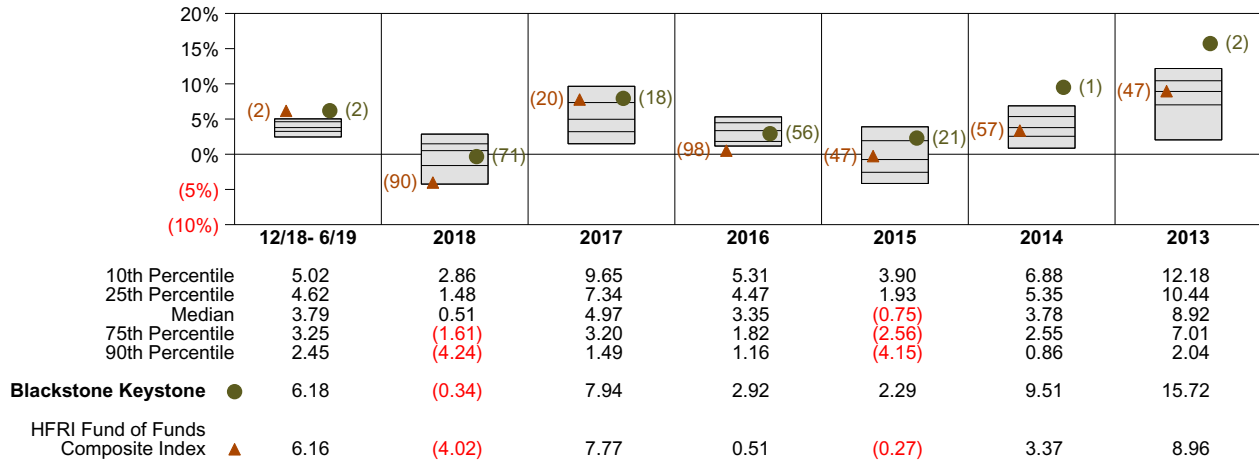


Blackstone Keystone Return Analysis Summary

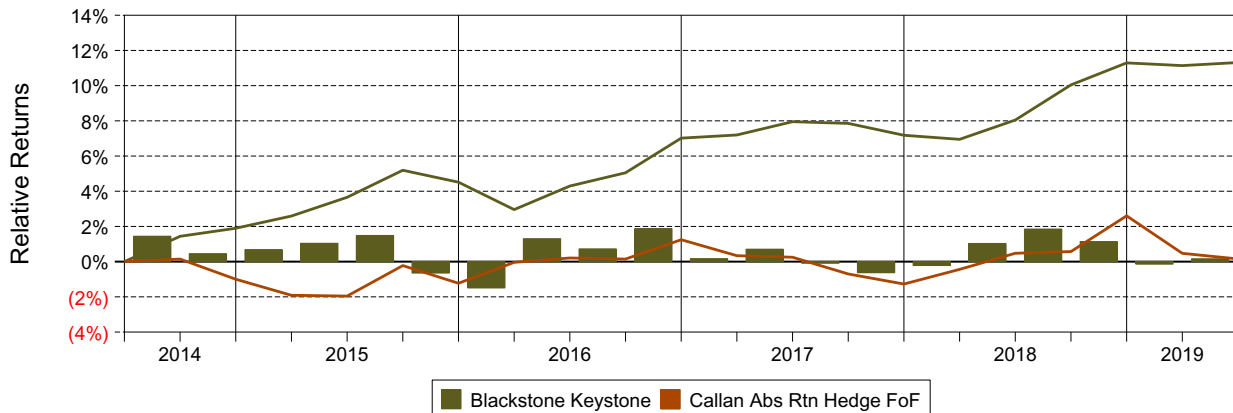
Return Analysis

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.

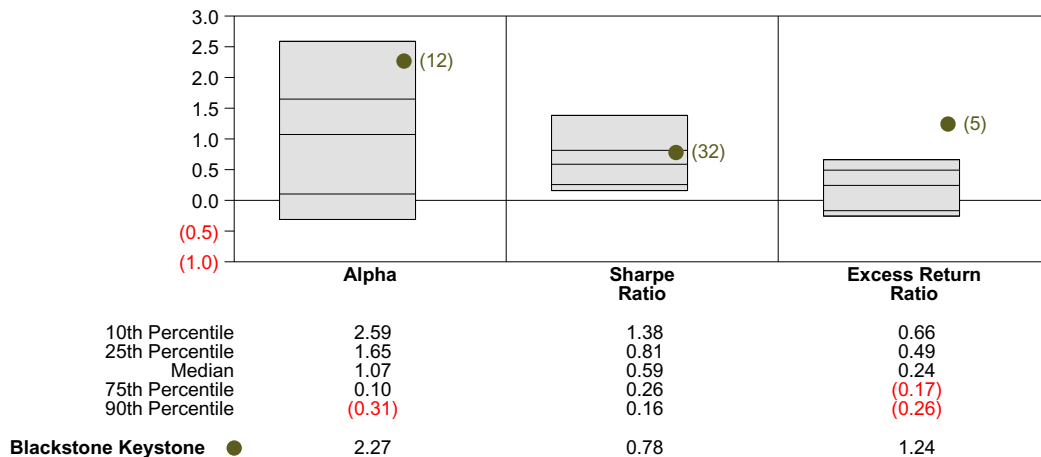
Performance vs Callan Absolute Rtn Hedge Fund of Funds (Net)



Cumulative and Quarterly Relative Return 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 June 30, 2019

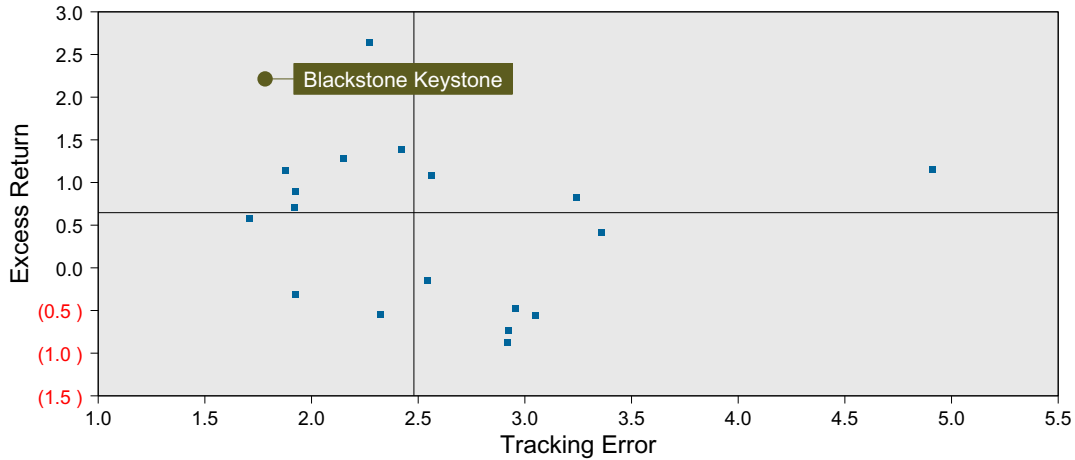


Blackstone Keystone Risk Analysis Summary

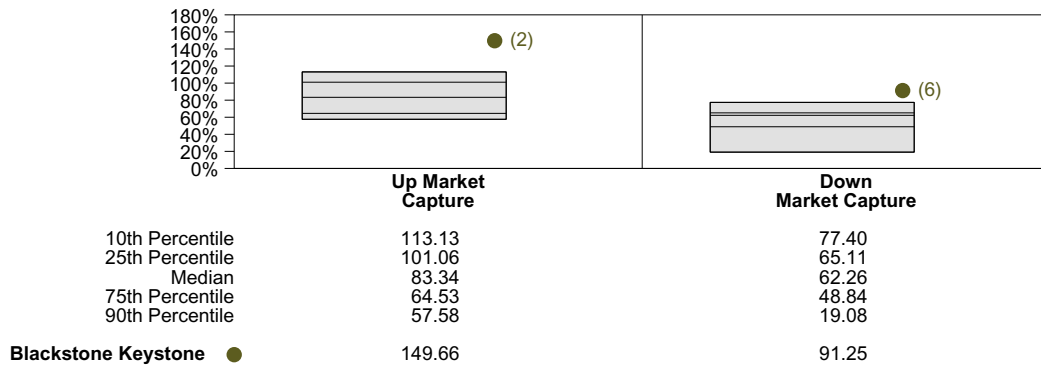
Risk Analysis

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.

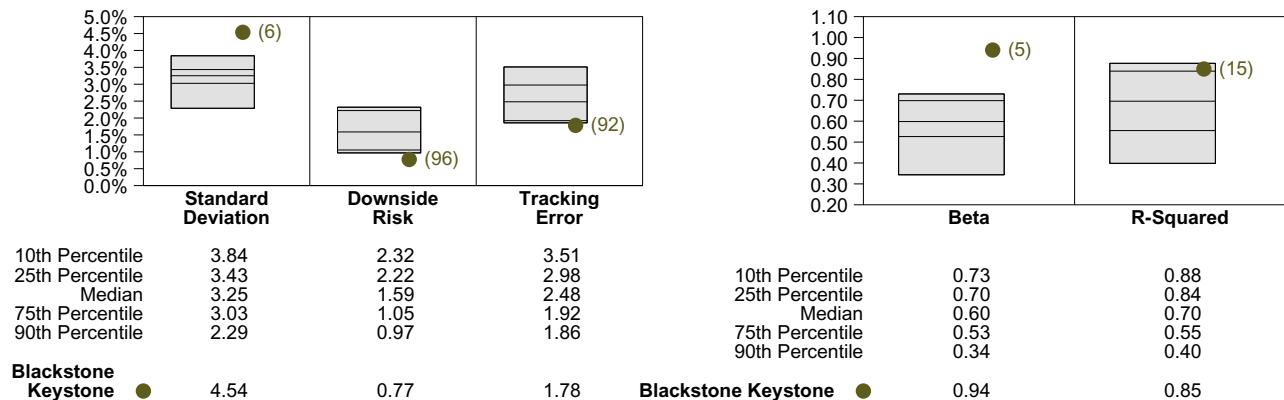
Risk Analysis vs Callan Absolute Rtn Hedge Fund of Funds (Net) Five Years Ended June 30, 2019



Market Capture vs HFRI Fund of Funds Composite Index Rankings Against Callan Absolute Rtn Hedge Fund of Funds (Net) Five Years Ended June 30, 2019



Risk Statistics Rankings vs HFRI Fund of Funds Composite Index Rankings Against Callan Absolute Rtn Hedge Fund of Funds (Net) Five Years Ended June 30, 2019



Eaton Vance GMARA Period Ended June 30, 2019

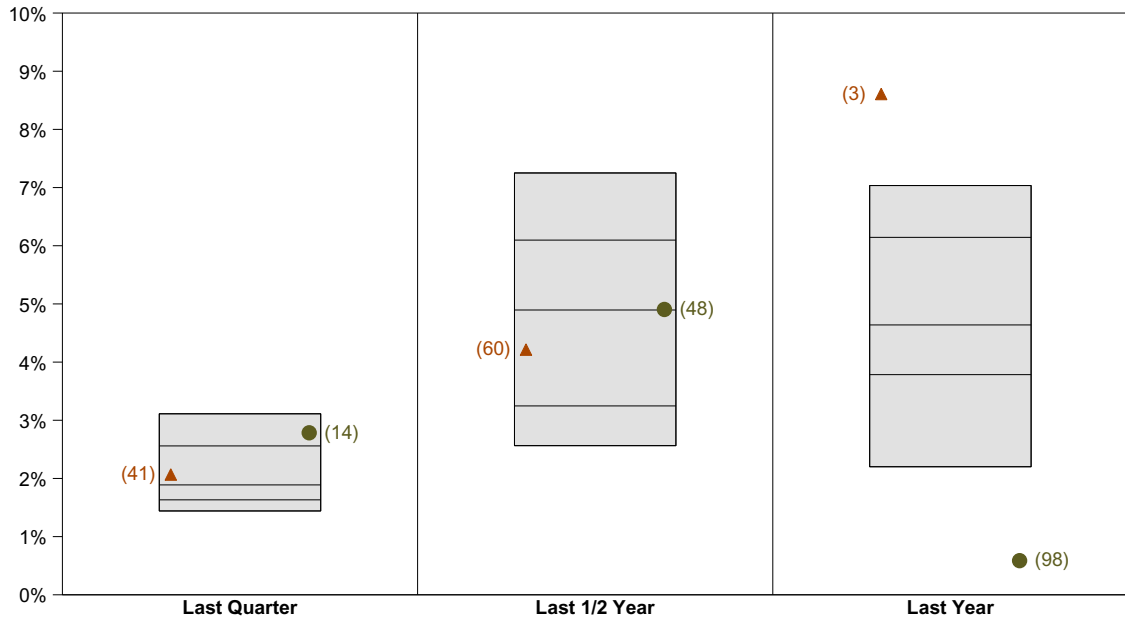
Quarterly Summary and Highlights

- Eaton Vance GMARA's portfolio posted a 2.78% return for the quarter placing it in the 14 percentile of the Callan Unconstrained Fixed Income group for the quarter and in the 98 percentile for the last year.
- Eaton Vance GMARA's portfolio outperformed the 3 month LIBOR + 6% by 0.72% for the quarter and underperformed the 3 month LIBOR + 6% for the year by 8.02%.

Quarterly Asset Growth

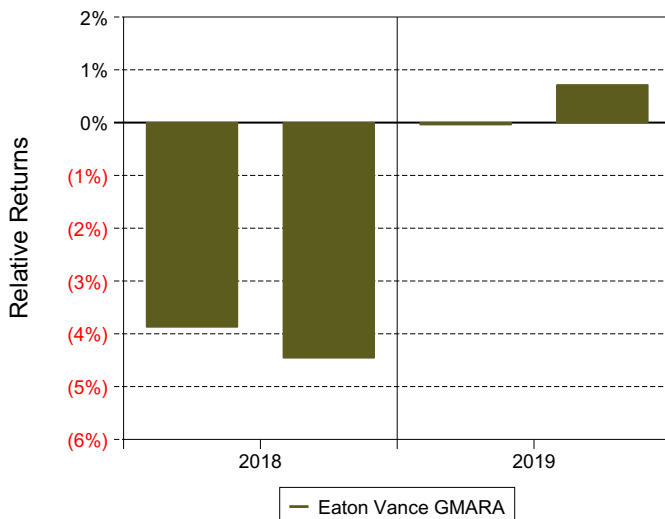
Beginning Market Value	\$193,231,400
Net New Investment	\$0
Investment Gains/(Losses)	\$5,373,000
Ending Market Value	\$198,604,400

Performance vs Callan Unconstrained Fixed Income (Gross)

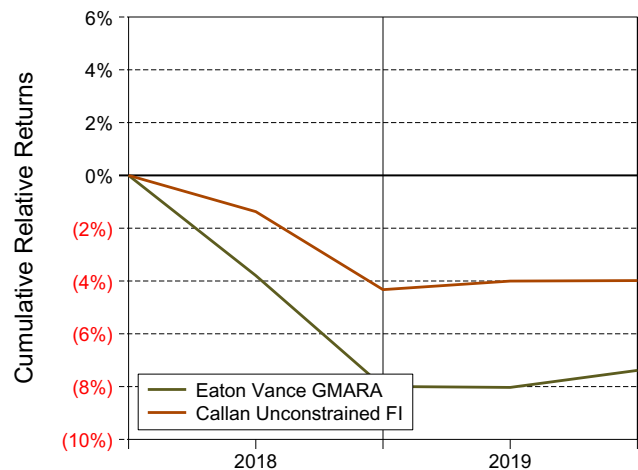


10th Percentile	3.11	7.25	7.03
25th Percentile	2.56	6.10	6.14
Median	1.89	4.90	4.64
75th Percentile	1.63	3.25	3.78
90th Percentile	1.44	2.56	2.20
Eaton Vance GMARA	2.78	4.90	0.59
3 month LIBOR + 6%	2.07	4.21	8.61

Relative Return vs 3 month LIBOR + 6%



Cumulative Returns vs 3 month LIBOR + 6%



MCM Russell 3000 Index Period Ended June 30, 2019

Investment Philosophy

The Broad Market Stock Index Fund Stock Index Fund attempts to replicate the performance and portfolio characteristics of the Russell 3000 Index.

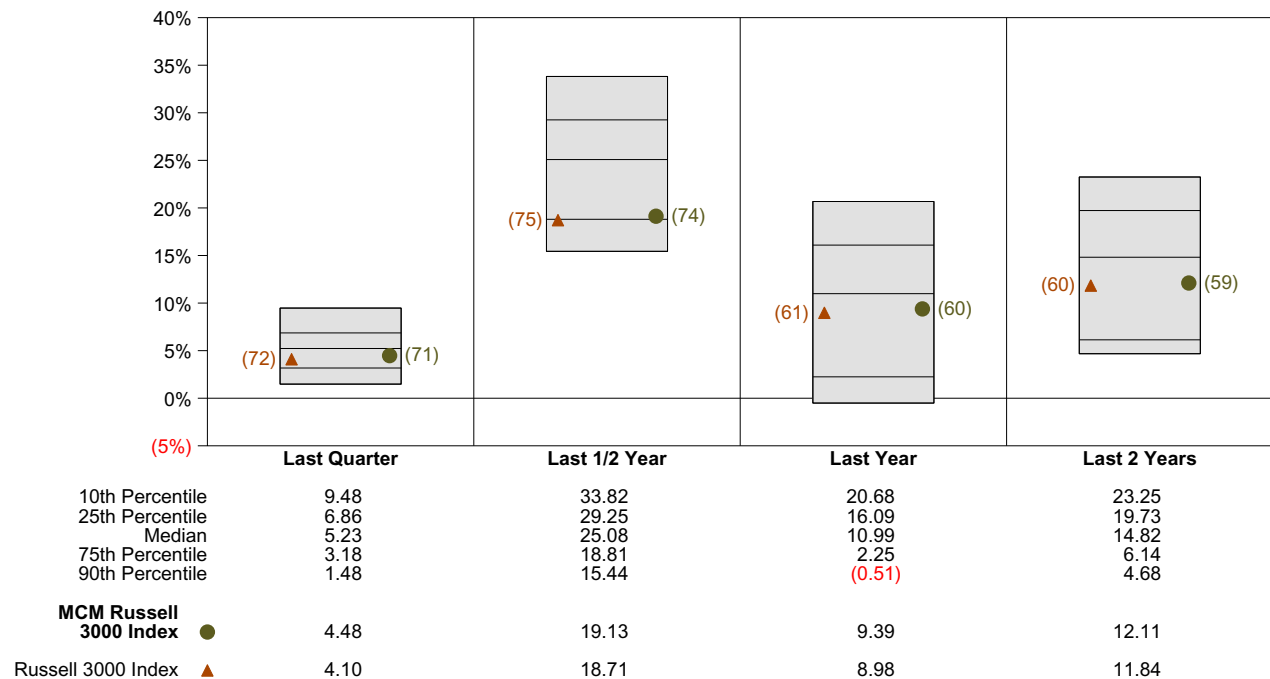
Quarterly Summary and Highlights

- MCM Russell 3000 Index's portfolio posted a 4.48% return for the quarter placing it in the 71 percentile of the Callan Multi-Cap Broad Equity group for the quarter and in the 60 percentile for the last year.
- MCM Russell 3000 Index's portfolio outperformed the Russell 3000 Index by 0.38% for the quarter and outperformed the Russell 3000 Index for the year by 0.40%.

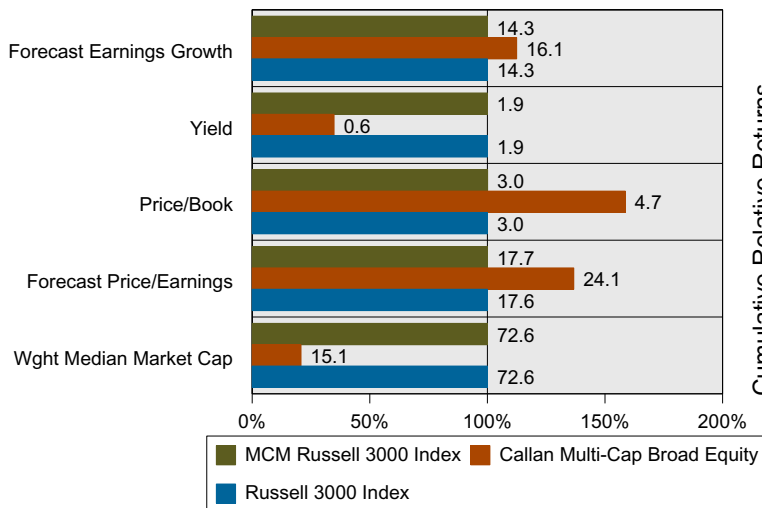
Quarterly Asset Growth

Beginning Market Value	\$999,762,800
Net New Investment	\$-1,034,342,230
Investment Gains/(Losses)	\$34,704,100
Ending Market Value	\$124,670

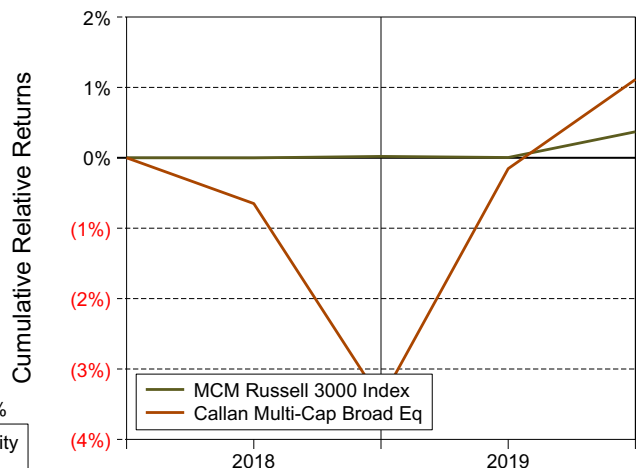
Performance vs Callan Multi-Cap Broad Equity (Gross)



Portfolio Characteristics as a Percentage of the Russell 3000 Index



Cumulative Returns vs Russell 3000 Index



Private Credit Period Ended June 30, 2019

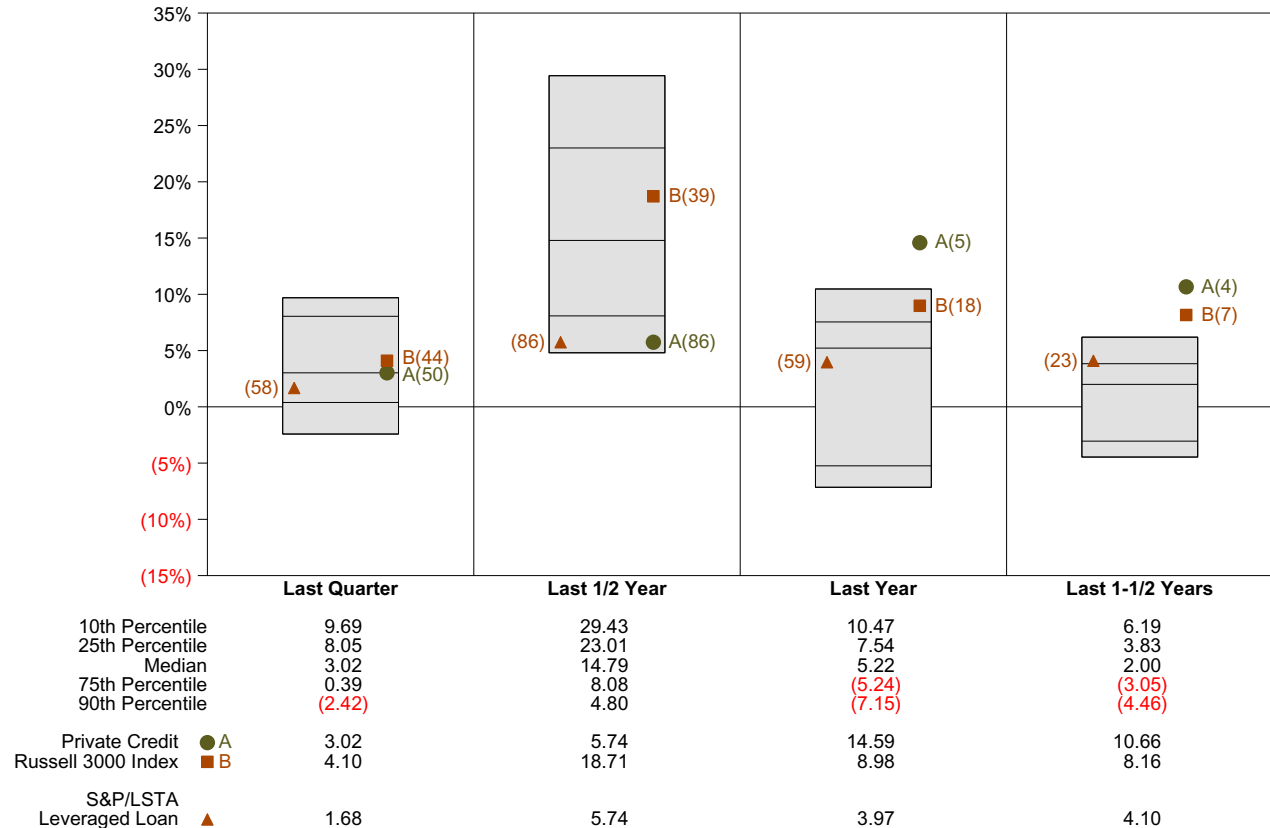
Quarterly Summary and Highlights

- Private Credit's portfolio posted a 3.02% return for the quarter placing it in the 50 percentile of the Callan Alternative Investments DB group for the quarter and in the 5 percentile for the last year.
- Private Credit's portfolio outperformed the S&P/LSTA Leveraged Loan by 1.34% for the quarter and outperformed the S&P/LSTA Leveraged Loan for the year by 10.62%.

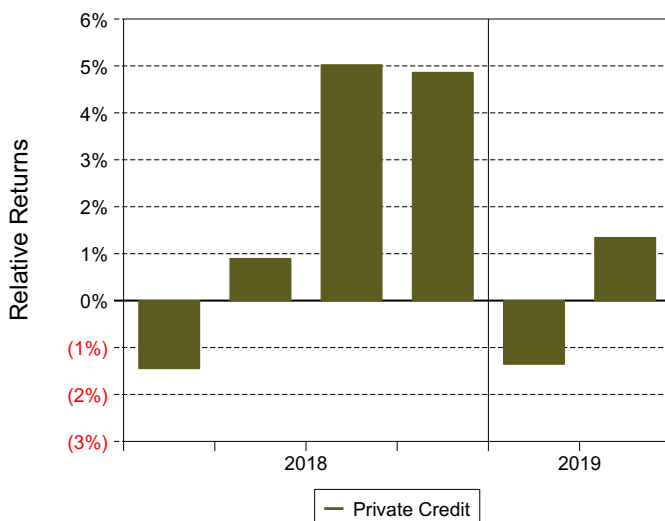
Quarterly Asset Growth

Beginning Market Value	\$124,333,842
Net New Investment	\$60,512,596
Investment Gains/(Losses)	\$4,733,428
Ending Market Value	\$189,579,865

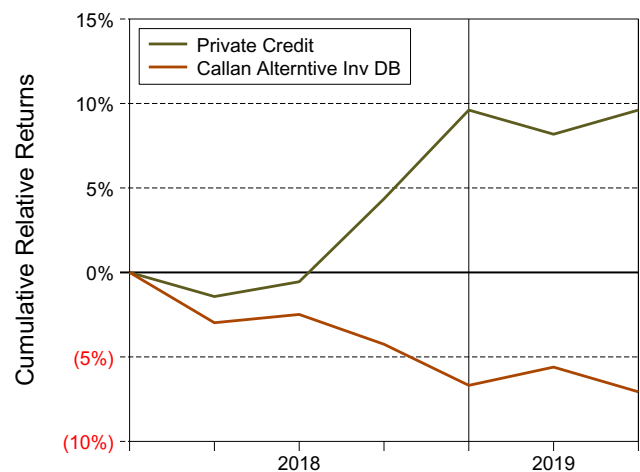
Performance vs Callan Alternative Investments DB (Net)



Relative Return vs S&P/LSTA Leveraged Loan



Cumulative Returns vs S&P/LSTA Leveraged Loan



SEI Structured Credit: HY Bank Loans Period Ended June 30, 2019

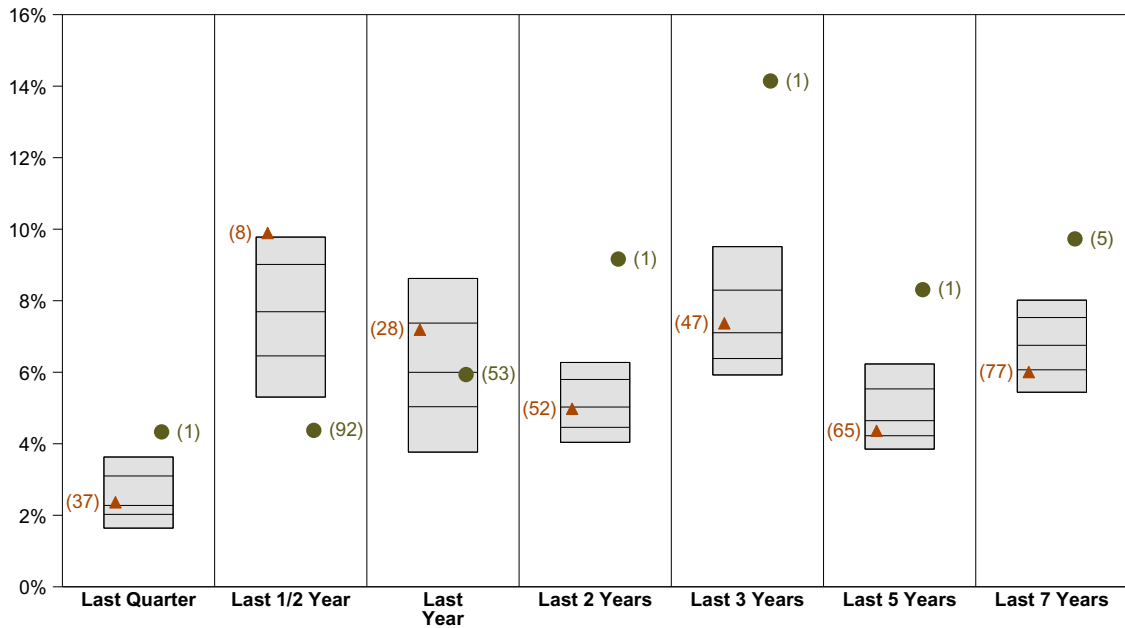
Quarterly Summary and Highlights

- SEI Structured Credit: HY Bank Loans's portfolio posted a 4.33% return for the quarter placing it in the 1 percentile of the Callan Multi-Sector Credit group for the quarter and in the 53 percentile for the last year.
- SEI Structured Credit: HY Bank Loans's portfolio outperformed the FTSE US High Yield by 1.97% for the quarter and underperformed the FTSE US High Yield for the year by 1.26%.

Quarterly Asset Growth

Beginning Market Value	\$332,281,410
Net New Investment	\$0
Investment Gains/(Losses)	\$14,382,922
Ending Market Value	\$346,664,332

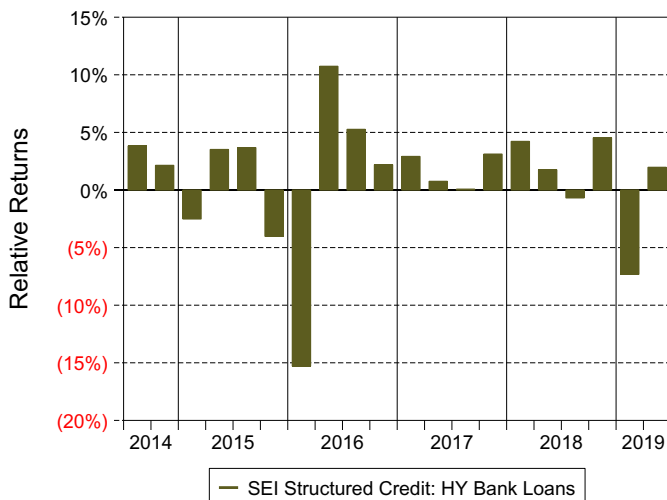
Performance vs Callan Multi-Sector Credit (Gross)



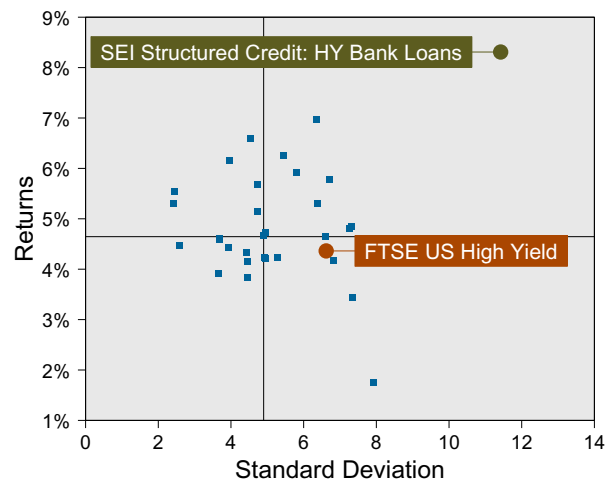
10th Percentile	3.63	9.78	8.62	6.27	9.51	6.23	8.02
25th Percentile	3.10	9.01	7.37	5.80	8.30	5.53	7.53
Median	2.28	7.69	6.00	5.03	7.10	4.65	6.75
75th Percentile	2.03	6.46	5.04	4.46	6.38	4.22	6.07
90th Percentile	1.64	5.30	3.77	4.04	5.92	3.85	5.44

SEI Structured Credit: HY Bank Loans ●	4.33	4.37	5.94	9.16	14.14	8.31	9.73
FTSE US High Yield ▲	2.36	9.89	7.19	4.98	7.37	4.36	6.00

Relative Return vs FTSE US High Yield



Callan Multi-Sector Credit (Gross) Annualized Five Year Risk vs Return

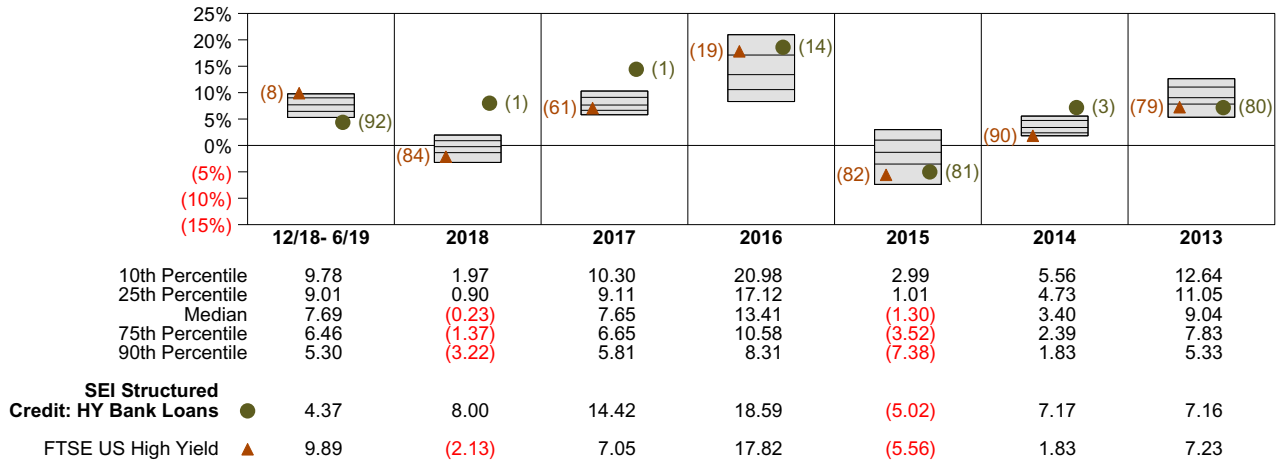


SEI Structured Credit: HY Bank Loans Return Analysis Summary

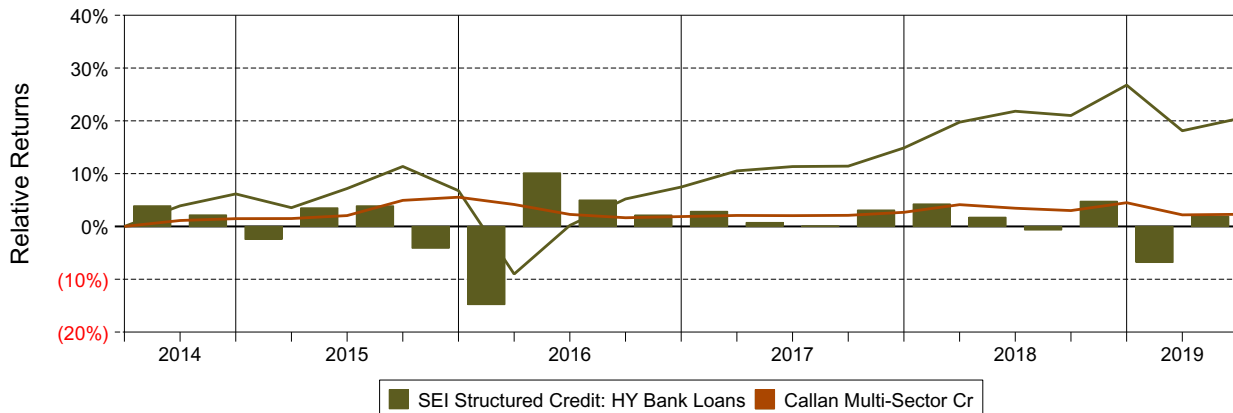
Return Analysis

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.

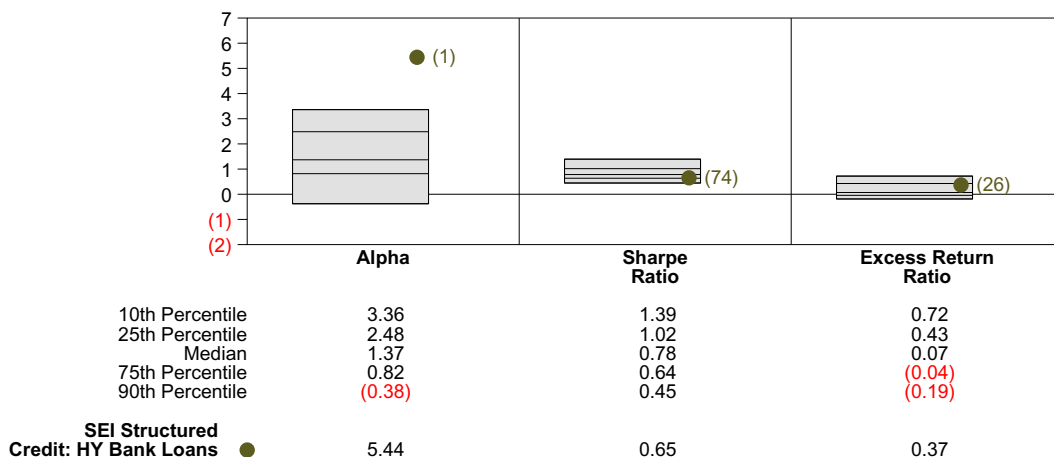
Performance vs Callan Multi-Sector Credit (Gross)



Cumulative and Quarterly Relative Return vs FTSE US High Yield



Risk Adjusted Return Measures vs FTSE US High Yield Rankings Against Callan Multi-Sector Credit (Gross) Five Years Ended June 30, 2019

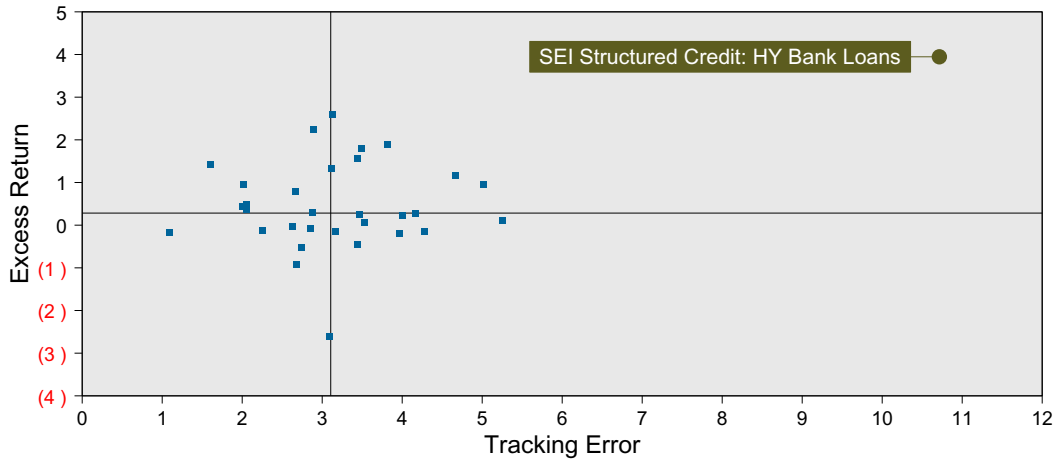


SEI Structured Credit: HY Bank Loans Risk Analysis Summary

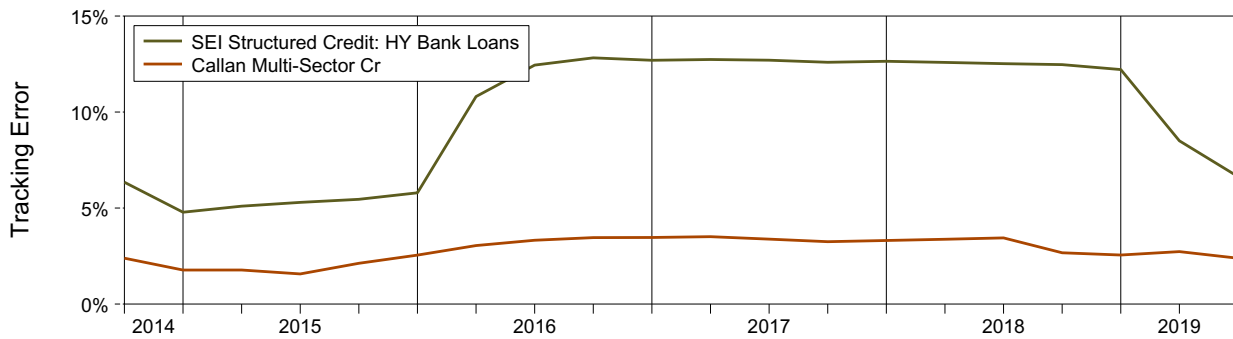
Risk Analysis

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.

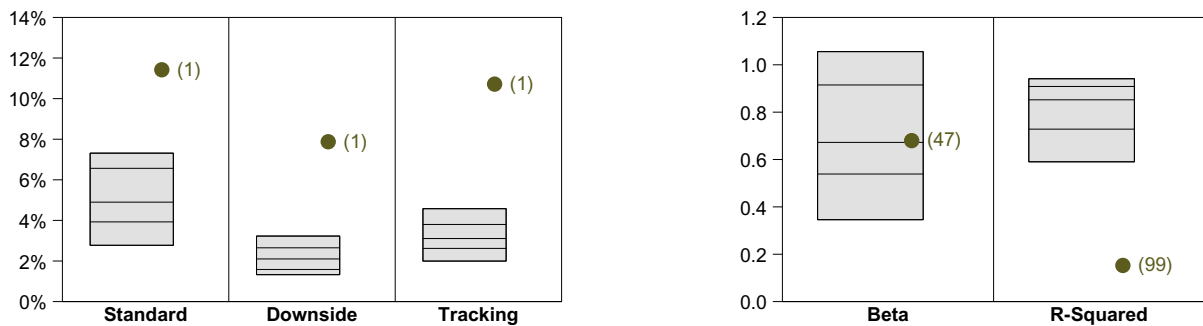
Risk Analysis vs Callan Multi-Sector Credit (Gross) Five Years Ended June 30, 2019



Rolling 12 Quarter Tracking Error vs FTSE US High Yield Market



Risk Statistics Rankings vs FTSE US High Yield Market Rankings Against Callan Multi-Sector Credit (Gross) Five Years Ended June 30, 2019



10th Percentile 7.31
25th Percentile 6.57
Median 4.90
75th Percentile 3.93
90th Percentile 2.77

10th Percentile 3.23
25th Percentile 2.65
Median 2.10
75th Percentile 1.58
90th Percentile 1.33

10th Percentile 4.58
25th Percentile 3.80
Median 3.11
75th Percentile 2.62
90th Percentile 2.00

10th Percentile 1.06
25th Percentile 0.91
Median 0.67
75th Percentile 0.54
90th Percentile 0.35

10th Percentile 0.94
25th Percentile 0.91
Median 0.85
75th Percentile 0.73
90th Percentile 0.59

SEI Structured Credit: HY Bank Loans ● 11.42

7.88

10.71

SEI Structured Credit: HY Bank Loans ● 0.68

0.68

0.15

Research and Educational Programs

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

New Research from Callan’s Experts

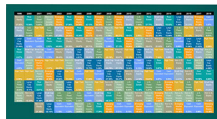
The OCIO Model: How Do We Measure Success? | This paper outlines the key issues for evaluating the success of outsourced chief investment officer (OCIO) services.

Perspectives on Investing: The Evolution of Strategic Allocations | In this video, Callan experts discuss the key challenges of evaluating non-U.S. equity investments.

Opportunities & Challenges: Investing in Private Equity Partnerships | In this video, Callan experts discuss investing directly in private equity partnerships.

Building a Pool of Transition Managers: Both an Art and a Science | Transition management is the restructuring of institutional portfolios from single or multiple investment managers/asset classes to a new allocation over a short-term horizon. This paper offers guidance on building a pool of transition managers.

Callan’s Periodic Table Explained | The popular Callan Periodic Table of Investment Returns turned 20 this year. This animated feature discusses the benefits and some of the history of the table.



The Cobbler’s Shoes: How Asset Managers Run Their Own 401(k) Plans | Can investment manager-sponsored DC plans provide insights on plan design and implementation? To help answer this question, Callan examined the 401(k) plans of investment



managers. The industry scored high on retirement savings metrics. But in contrast to the industry consensus, asset managers generally embraced complexity over simplicity in their investment designs.

How to Distinguish Between Growth Equity and Late-Stage VC



Both growth equity and late-stage venture capital are growth-oriented but differ significantly in the types of companies they invest in, the structure of their investments, the way in which they create value, and the trade-offs between risk and return.

Nurturing Strong Cultures at Professional Firms | In this paper, Callan Executive Chairman Ron Peyton offers advice for building effective and transparent corporate cultures.

Opening Doors of Opportunity | This paper reviews the types of co-investment opportunities offered by hedge funds and funds-of-funds (FOFs).

Quarterly Periodicals

Private Equity Trends | A newsletter on private equity activity, covering both the fundraising cycle and performance over time.

Market Pulse Flipbook | A market reference guide covering trends in the U.S. economy, developments for fund sponsors, and the latest data for U.S. and non-U.S. equities and fixed income, alternatives, and defined contribution plans.

Active vs. Passive Charts | This series of charts compares active managers alongside relevant benchmarks over the long term.

Capital Market Review | A newsletter providing analysis and a broad overview of the economy and public and private market activity each quarter across a wide range of asset classes.

Events

Miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: www.callan.com/library/

Please mark your calendar and look forward to upcoming invitations.

October Regional Workshops

October 22, 2019 – Denver

October 24, 2019 – Chicago

2020 National Conference

January 27-29, 2020 – San Francisco

Please also keep your eye out for upcoming Webinars in 2019! We will be sending invitations for these and also will have registration links on our website at www.callan.com/events.

For more information about events, please contact Barb Gerraty: 415-274-3093 / gerraty@callan.com

The Center for Investment Training Educational Sessions

The Center for Investment Training, better known as the “Callan College,” provides a foundation of knowledge for industry professionals who are involved in the investment decision-making process. It was founded in 1994 to provide clients and non-clients alike with basic- to intermediate-level instruction. Our next sessions are:

Introduction to Investments

San Francisco, July 23-24, 2019

Atlanta, October 8-9, 2019

Chicago, October 22-23, 2019

This program familiarizes fund sponsor trustees, staff, and asset management advisers with basic investment theory, terminology, and practices. It lasts one-and-a-half days and is designed for individuals who have less than two years of experience with asset-management oversight and/or support responsibilities. Tuition for the Introductory “Callan College” session is \$2,350 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

“Callan College” on Alternative Investments

Chicago, October 29-30, 2019

The “Callan College” on Alternative Investments will cover: private equity, private credit, hedge funds, real estate, and real assets. Tuition for the “Callan College” on Alternative Investments session is \$2,500 per person. Tuition includes instruction, all materials, and breakfast and lunch on each day.

Learn more at www.callan.com/events/callan-college-intro

Education: By the Numbers

525

Attendees (on average) of the Institute's annual National Conference

50+

Unique pieces of research the Institute generates each year

3,700

Total attendees of the “Callan College” since 1994

1980

Year the Callan Institute was founded



“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

