Callan

September 30, 2021 Pennsylvania SERS Defined Benefit Plan

Investment Measurement Service Quarterly Review

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PIMCO U.S. Treasuries

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Research & Disclosures

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Capital Markets Review

Is 2% GDP Growth Good or Bad?

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Institute

ECONOMY

A drop to 2% growth for GDP in 3Q21 after a 6.7% gain in 2Q is well within expectations for

this lurching path toward normally functioning markets. So what about 4Q21? Do we face more of the 2% solution or a rebound? Signs so far point to a rebound.

Yields Slightly Up; Aggregate Is Flat

FIXED INCOME

8 PAGE Yields ended a volatile quarter only slightly higher after the Fed signaled it may soon begin tapering its bond buying program. For the Aggregate, minor gains in Treasuries and agency MBS were offset by declines in governmentrelated, CMBS, and corporates.

Strong Fundraising Buoys Asset Class

PRIVATE CREDIT

12 PAGE Investors appreciate the yield- and income-generating features of private credit in this low-rate environment. Private credit vintages 2008-18 generated an 8.3% median net IRR with a standard deviation of 6.1%. Fundraising continues to be active given investor interest.

Flat Returns Now, but Strong Longer Term

INSTITUTIONAL INVESTORS

4
P A G EWhile all investor types
saw returns hover
around 0% in 3Q21, their
results over longer periods continue
to be robust. And many saw the best
fiscal year returns (ending June) in
a generation. But there is great
unease about the future of portfolios
amid lower return expectations.

Best Quarter for ODCE Ever; REITs Are Mixed

REAL ESTATE/REAL ASSETS

10 PAGE The NFI-ODCE Index posted its strongest return ever in 3Q21; Industrial was the best performer. Vacancy rates kept compressing in Industrial and Multifamily as demand continued. Global REITs underperformed equities; U.S. REITs rose 1.0%, topping the S&P 500 Index.

Mixed Results as Volatility Returned

HEDGE FUNDS/MACs

13 PAGE Hedge funds as a whole ended the quarter higher, driven by commoditiesoriented relative value, event-driven, and sector-focused strategies, as well as macro managers with short positions in U.S. interest rates. But credit-focused managers had a more challenging time.

Indices Stall Over Mounting Worries

EQUITY

6 P A G E ary pressure, as well as uncertainty around monetary policy, decreased U.S. investors' risk appetite. And in global ex-U.S. markets, Delta variant flare-ups and a slowdown in China weighed on stocks.

Activity Dips in 3Q21 but Strong Gains YTD

PRIVATE EQUITY

Most private equity activity measures dipped in 3Q21 compared to the previous quarter; however, all yearto-date comparisons are strongly up. A rough averaging across fundraising and private investments and exits indicates big jumps in transaction count and dollar volume.

Index Posts Fifth Straight Quarterly Gain

DEFINED CONTRIBUTION

15 PAGE The Callan DC Index gained 5.8% in 2Q21. Investors continued to transfer assets out of relatively safer asset classes. The index's allocation to equity (72.2%) increased by more than a full percentage point from 1Q21, to its highest level since 4Q07 (72.9%).

Broad Market Quarterly Returns





U.S. Fixed Income Bloomberg Agg



Global ex-U.S. Fixed Income Bloomberg Global Agg ex US



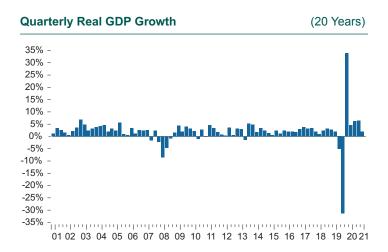
Sources: Bloomberg, FTSE Russell, MSCI

Is 2% Growth Good or Bad?

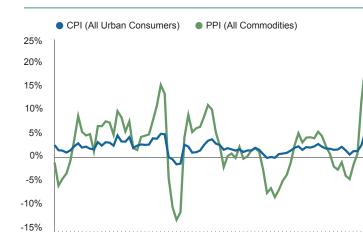
ECONOMY | Jay Kloepfer

Global equity markets hit the pause button in 3Q21. Investors watched nervously as the economic data showed signs of softening: weaker job gains, slower output growth strangled by supply chain issues, a drop in income growth, and signs of waning consumer sentiment. As the quarter unfolded, supply chain issues and fears surrounding the end of fiscal stimulus, the surge in the Delta variant, and the return to a Fed taper slowed economic activity. Spiking inflation stirred even more anxiety, and the equity markets pulled back sharply in September in anticipation of weak reports for the economy. The market's concerns appeared to be well-founded, as U.S. GDP came in at 2% growth for 3Q, down from the torrid 6.7% pace in 2Q and very much in line with reports of growth stalling in the euro zone and in Asia, particularly China.

Does the drop to 2% mean the recovery from the pandemic has been thrown off track? Recall that the global economy suffered disruption and volatility unprecedented in modern times: a stock market decline in the U.S. of 34% in just a handful of trading days, and the complete shutdown of industries such as hospitality, passenger transportation, in-person retail trade, and personal services. Global supply chains ground to a halt, and restarting everything was fully expected to result in a herky-jerky pattern of growth. That the recovery has gone as well as it has is a testament to the impact of the monetary and fiscal policy lavished during the upheaval by countries around the globe. That we are as far along as we are was not really considered likely just a year ago-vaccines were yet to be released; a second, much larger surge in COVID infections was spreading; and the notion of travel, of job recovery, and of a resumption of trade was a pipe dream. All of the supply/ demand issues within almost every market-labor, raw materials, commodities, energy, intermediate and finished goods, services, travel capacity, shipping-were fully expected. Price dislocations were also expected, and we have come to see them in goods as disparate as timber products, gasoline, computer chips, automobiles, and consumer goods. A drop to 2%







Inflation Year-Over-Year

Source: Bureau of Labor Statistics

growth in 3Q following a robust 6.7% gain in 2Q is well within expectations for this lurching stop/start path toward normally functioning markets.

0102 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21

Unemployment in the U.S. dropped to 4.8% in September, but it is still above the pre-COVID rate of 3.5%. The economy added 194,000 jobs in September, down from 336,000 in August and a whopping 1,091,000 in July, and just one-third of the monthly average of 560,000 during 2021. The dislocation between

employers looking for employees and those looking for work has become extreme. The job market is still almost 5 million jobs below the pre-pandemic peak. Yet employers across sectors and regions of the country struggle to fill positions, particularly in services, retail trade, and hospitality, but also in basic labor within manufacturing, wholesale trade, transportation, and distribution. The end of pandemic unemployment support in September means workers will soon be forced back into the labor market, which may help alleviate its kinks. Uncertainty about the future for those about to lose benefits certainly fed into consumer sentiment in 3Q. Personal income declined in September, even though wages and salaries rose a solid 0.8% in just one month. The rise in wage and salary payments was not enough to offset the loss of social benefits.

So what about 4Q21? Do we face more of the 2% solution or a rebound in growth? Signs point to a rebound: inventory investment has yet to take place, which could be a major driver of growth; the toll from the Delta surge has fallen sharply. Highfrequency data in September and into the first month of 4Q suggest robust credit card spending, a renewed surge in air travel, and a rise in gasoline consumption to pre-pandemic seasonal levels. However, hotel revenues and restaurant spending have yet to recover from the flattening that occurred as the Delta variant hit in mid-summer-more fits and starts. The inflation surge that began in early 2021 continued through 3Q with a 5.7% rise; while disconcerting to many, the surge was completely expected. Going back to 4Q19, which takes out the base effect from the low readings in 2020, the price index rose at a 3.1% annual rate. Aggregate demand appears to have regained some strength at the very end of 3Q, as evidenced by a rise in real imports to levels above pre-pandemic levels. Overall, consensus estimates place 4Q GDP back at a 5% annual growth rate.

U.S. ECONOMY (Continued)

The Long-Term View

		Р	eriods	Ended	9/30/21
Index	3Q21	1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	-0.1	31.9	16.9	16.6	9.7
S&P 500	0.6	30.0	16.9	16.6	9.7
Russell 2000	-4.4	47.7	13.5	14.6	9.1
Global ex-U.S. Equity					
MSCI EAFE	-0.4	25.7	8.8	8.1	5.2
MSCI ACWI ex USA	-3.0	23.9	8.9	7.5	
MSCI Emerging Markets	-8.1	18.2	9.2	6.1	
MSCI ACWI ex USA Small Cap	0.0	33.1	10.3	9.4	6.8
Fixed Income					
Bloomberg Agg	0.1	-0.9	2.9	3.0	5.1
90-Day T-Bill	0.0	0.1	1.2	0.6	2.1
Bloomberg Long G/C	0.1	-3.0	5.2	5.8	7.4
Bloomberg GI Agg ex US	-1.6	-1.2	1.1	0.9	3.6
Real Estate					
NCREIF Property	5.2	12.1	6.8	9.0	9.2
FTSE Nareit Equity	1.0	37.4	6.8	11.3	10.0
Alternatives					
CS Hedge Fund	1.2	14.1	5.5	4.9	7.1
Cambridge PE*	11.5	56.9	21.0	15.8	15.6
Bloomberg Commodity	6.6	42.3	4.5	-2.7	1.4
Gold Spot Price	-0.8	-7.3	5.9	0.8	6.3
Inflation – CPI-U	1.0	5.4	2.6	1.9	2.2

*Data for most recent period lags by a quarter. Data as of 6/30/21. Sources: Bloomberg, Bureau of Economic Analysis, Credit Suisse, FTSE Russell, MSCI, NCREIF, Refinitiv/Cambridge, S&P Dow Jones Indices

Recent Quarterly Economic Indicators

	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19
Employment Cost–Total Compensation Growth	3.7%	2.9%	2.6%	2.5%	2.4%	2.7%	2.8%	2.7%
Nonfarm Business–Productivity Growth	-5.0%	2.4%	4.3%	-3.4%	4.6%	11.2%	-0.8%	1.6%
GDP Growth	2.0%	6.7%	6.3%	4.5%	33.8%	-31.2%	-5.1%	1.9%
Manufacturing Capacity Utilization	76.4%	75.4%	74.5%	74.0%	71.9%	64.3%	74.4%	75.4%
Consumer Sentiment Index (1966=100)	74.8	85.6	80.2	79.8	75.6	74.0	96.4	97.2

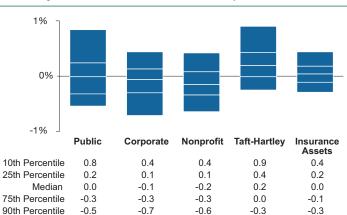
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan

Flat Returns in 3Q21, but Continued Strong Gains Over the Longer Term

INSTITUTIONAL INVESTORS

- Institutional investors saw essentially flat returns in 3Q21, either slightly above or slightly below 0%.
- By plan size, larger investors outperformed smaller ones.
- Year-to-date and trailing one-year returns are much stronger, reflecting the rebound in the equity markets since the March 2020 pandemic depths.
- All investor types and sizes have shown strong returns over long time periods.
- Through June, many investors had enjoyed the best fiscal year returns in a generation, but their elation is tempered by sobering capital markets assumptions.
- There is also growing concern about a market drawdown, given the heady valuations relative to historical averages.
- As a result, clients are reevaluating the purpose and future of all asset classes, but fixed income remains the primary focus.
- For all the talk about inflation spiking, few investors have taken steps to address it in their portfolios.
- Hedge funds and other absolute return strategies have gained a new appreciation when compared to dismal fixed income expectations as a way to diversify growth risk with less of a return penalty.

- Investors have demonstrated remarkable discipline in rebalancing between growth and value managers, and U.S. and global ex-U.S. equity.
- Fixed income structures focus on the role of the asset class—to diversify equity, as a flight to quality, for liquidity, to help with interest rate exposure—balanced against the desire for return in a very low-yield environment.
- Real assets are under review with the growing concern for inflation. Investors question the inclusion of past real assets stalwarts: natural resources, energy, MLPs, and commodities.



Quarterly Returns, Callan Database Groups

Source: Callan

Callan Database Median and Index Returns* for Periods Ended 9/30/21

Database Group	Quarter	Year-to-Date	1 Year	3 Years	5 Years	10 Years
Public Database	0.0	9.0	20.2	10.2	10.0	9.7
Corporate Database	-0.1	5.8	14.9	10.6	9.4	9.4
Nonprofit Database	-0.2	9.0	21.5	10.6	10.4	9.6
Taft-Hartley Database	0.2	9.4	20.0	10.0	10.1	10.0
Insurance Assets Database	0.0	3.7	8.7	7.0	5.7	5.4
All Institutional Investors	0.0	8.5	19.8	10.4	10.0	9.7
Large (>\$1 billion)	0.2	9.3	20.7	10.9	10.3	9.9
Medium (\$100mm - \$1bn)	0.0	8.2	19.4	10.4	10.1	9.6
Small (<\$100 million)	-0.1	8.5	19.7	10.1	9.8	9.5

*Returns less than one year are not annualized.

Source: Callan. Callan's database includes the following groups: public defined benefit (DB) plans, corporate DB plans, nonprofits, insurance assets, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

4 | Callan Institute

 In general, plans to return to offices have been delayed amid the Delta variant surge.

Defined Benefit (DB) Plans

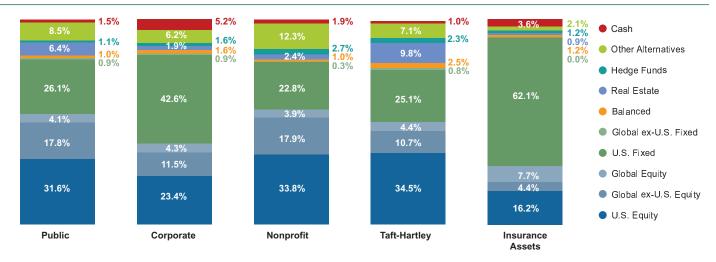
- An increasing number of corporate and public DB plans have conducted or are starting to conduct asset/liability studies.
- Lower return expectations stress return-on-asset assumptions.
- The American Rescue Plan Act (ARPA) provides a shot in the arm to corporate plans: lower liabilities, higher funded status, and lower required contributions.
- Low projected returns mean ROA assumptions for public DB plans face downward pressure. Weaker return assumptions may derail the expressed desire to bring in risk, spurring further demand for alts exposures and discussions of total fund leverage.
- There is growing interest in 20- and 30-year assumptions to justify more balanced portfolios and lessen pressure to risk up.

Defined Contribution (DC) Plans

- Glidepaths continue to be reassessed in light of lower shortterm CMAs.
- Some sponsors are taking a harder look at the diversified real assets option in their plans.
- DC plan litigation remains very active, and plaintiffs continue to identify novel allegations.
- Retirement income, managed accounts, and financial wellness continue to be topical discussion points for plan sponsors.
- With the potential of heightened inflation, a recent topic of discussion with investment structure evaluations involves the possibility of adding an inflation-sensitive fund, either in the form of a diversified real assets (DRA) fund or standalone TIPS fund.

Nonprofits

- They are focused on meeting return targets.
- Subdued expectations for capital markets returns are challenging their risk tolerance.
- They continue to be dissatisfied with private real assets, hedge funds, and fixed income.



Average Asset Allocation, Callan Database Groups

Note: charts may not sum to 100% due to rounding. Other alternatives include but is not limited to: diversified multi-asset, private debt, private equity, and real assets. Source: Callan

Equity

U.S. Equities

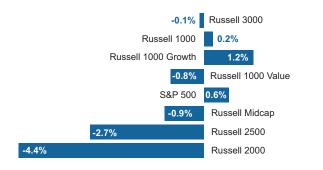
Returns compress over mounting concerns

- The S&P 500 Index rose 0.6% in 3Q21, and smaller cap growth indices posted their first negative quarter since the March 2020 low.
- Slowing economic growth, supply chain disruptions, and inflationary pressure, as well as uncertainty around monetary policy, decreased investors' risk appetite.
- In general, higher quality topped lower quality in large cap.
- Economically sensitive sectors such as Industrials (-4.2%) lagged; Financials (+2.7%) benefited.
- Growth outperformed value in large cap, and value outperformed growth in small cap.
- YTD, small value outperformed small growth by a whopping 2,000 bps (Russell 2000 Value: 22.9% vs. Russell 2000 Growth: 2.8%), a stark reversal from the prior year.

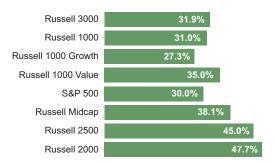
Diversification and rebalancing are best defense

- Few if any pockets of opportunity remain in the equity markets as valuations have hit or exceeded long-term averages given the recent market run.
- Investors are grappling with exposures to risk assets: What to do? Where to go?
- The whipsaw effect over the last two years illustrates the need to remain committed to a long-term plan that emphasizes diversification and disciplined rebalancing.

U.S. Equity: Quarterly Returns



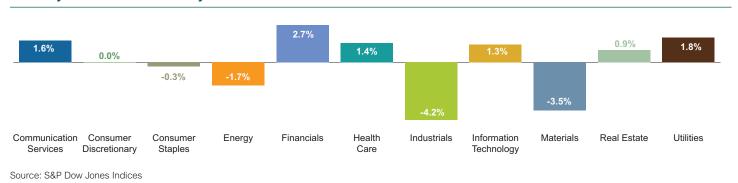
U.S. Equity: One-Year Returns



Sources: FTSE Russell and S&P Dow Jones Indices

Inflation and equity: not so bad, up to a point

- Investors typically fare OK with expected inflation levels but are negatively impacted when inflation is unexpectedly higher.
- Pre-GFC, stocks and interest rate movements (proxy for inflation) were highly correlated until 10-year U.S. Treasury yields reached 4.5%.



Quarterly Performance of Industry Sectors

6 | Callan Institute

EQUITY (Continued)

- Post-GFC, stocks and interest rate movements were highly correlated until 10-year yields reached 3.5%.
- The current 10-Year Treasury yield is 1.5%.

Global Equity

Fears of stagflation stoke market volatility

- Delta variant flare-ups and slowdown in China weighed on global recovery.
- COVID-driven supply chain disruption continues to push inflation higher.
- Small cap outpaced large as global recovery concerns disproportionately punished large cap companies.
- Emerging markets struggled relative to developed markets as growth prospects were under pressure for China and Brazil.

Market pivots to cyclicals

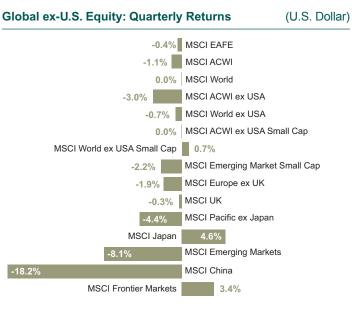
- Energy crunch fueled the sector to the highest return in the quarter as demand outstripped supply.
- Financials outperformed; Real Estate and Utilities generally underperformed with higher interest rate expectations.
- Sentiment and momentum signals added value in developed markets but not in emerging markets.

U.S. dollar vs. other currencies

 The U.S. dollar rose against other major currencies as the Fed signaled tapering is imminent, which notably detracted from global ex-U.S. results.

Growth vs. value

 Value outpaced growth in emerging markets due to the Energy rally, while both were relatively flat in developed markets.



Global ex-U.S. Equity: One-Y	(U.S.	Dollar)		
MSCI EAFE	25.7	7%		
MSCI ACWI	27.	4%		
MSCI World	28	8.8%		
MSCI ACWI ex USA	23.9%			
MSCI World ex USA	26.5	5%		
MSCI ACWI ex USA Small Cap		33.1%		
MSCI World ex USA Small Cap		30.1%		
MSCI Emerging Market Small Cap			43.2%	
MSCI Europe ex UK	26.1	%		
MSCI UK		31.2%		
MSCI Pacific ex Japan	25.8	8%		
MSCI Japan	22.1%			
MSCI Emerging Markets	18.2%			
-7.3%	MSCI China			
MSCI Frontier Markets		32.2%		
			-	

Source: MSCI

Fixed Income

U.S. Fixed Income

Treasury yields largely unchanged from 2Q21

- Yields ended a volatile quarter only slightly higher after the Fed signaled it may soon begin tapering its bond buying program.
- 2-year and 10-year Treasury yields rose 3 and 7 bps, respectively.
- TIPS outperformed nominal Treasuries, and 10-year breakeven spreads widened 5 bps to 2.37%.

Bloomberg Aggregate flat as spreads widened

- Minor gains in Treasuries and agency MBS were offset by declines in government-related, CMBS, and corporates.
- IG corporate trailed Treasuries by 15 bps (duration-adjusted) as spreads widened within long bonds.

High yield and leveraged loans continue rally

- Leveraged loans (+1.1%) outperformed high yield, driven by favorable supply/demand dynamics.
- High yield issuers' default rate declined to 0.9% in September, the lowest since March 2014.

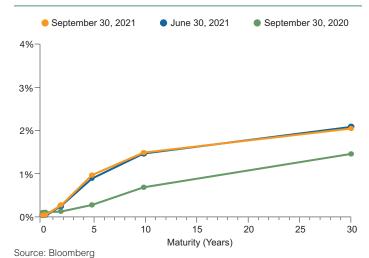
Munis underperform Treasuries

- Supply was modest and demand was fueled by expectations for higher tax rates and strong credit fundamentals.
- Lower-quality bonds continued their trend of outperformance as investors sought yield.

Fed reiterates that current price pressures are transitory

- Inflation is being temporarily influenced by pandemic-related supply bottlenecks (e.g., used cars and housing).
- Used autos spiked (+32% YOY), but rents (with a greater weight in the index) have started to apply price pressure.
- Fed's flexible average inflation targeting (FAIT) allows inflation to overshoot the 2% neutral rate; PCE (Fed's preferred inflation measure) rose 4.3% in August.

U.S. Treasury Yield Curves

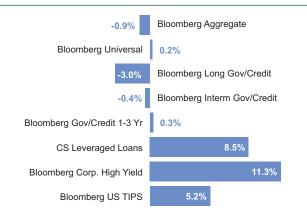


U.S. Fixed Income: Quarterly Returns

Bloomberg Aggregate	0.1%
Bloomberg Universal	0.1%
Bloomberg Long Gov/Credit	0.1%
Bloomberg Interm Gov/Credit	0.0%
Bloomberg Gov/Credit 1-3 Yr	0.1%
CS Leveraged Loans	1.1%
Bloomberg Corp. High Yield	0.9%
Bloomberg US TIPS	1.8%

Sources: Bloomberg and Credit Suisse

U.S. Fixed Income: One-Year Returns



Sources: Bloomberg and Credit Suisse

FIXED INCOME (Continued)

Policy adjustments may be on the horizon

- Fed signaled it would move up its taper announcement.
- Sep '21 Fed Funds rate forecast illustrated a potential rate hike in 2022, with a 25 bps increase; the previous dot plot had no hikes until 2023.

Global Fixed Income

Flat on a hedged basis

- Returns were muted and U.S. dollar strength eroded returns for unhedged U.S. investors.
- The dollar gained roughly 2% vs. a basket of developed market currencies.

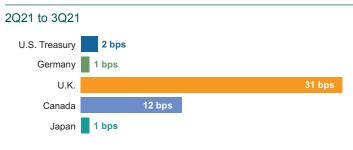
Emerging market debt falls

- The U.S. dollar-denominated index (EMBI Global Diversified) declined as the Delta variant in some countries raised concerns, and the local Index (JPM GBI-EM Global Diversified) lost further ground due to currency depreciation.
- Most emerging currencies depreciated versus the dollar. Notables included the Brazil real (-7.9%) and South Africa rand (-5.1%).
- EM corporates fared better amid improving corporate fundamentals and the global economic recovery.

Inflation overseas

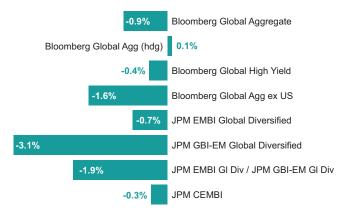
- Yields have increased as non-U.S. developed market countries also deal with supply bottlenecks and pressure from energy prices.
- Euro zone inflation has been elevated, but not at same level as the U.S.
- Central bank policy is mixed.
- The U.K.'s Bank of England has signaled a potential tightening of its monetary policy by the end of 2021.
- The European Central Bank remains on hold.

Change in 10-Year Global Government Bond Yields



Source: Bloomberg

Global Fixed Income: Quarterly Returns



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns



Sources: Bloomberg and JPMorgan Chase

Best Quarter for ODCE Ever; REITs Are Mixed

REAL ESTATE/REAL ASSETS | Munir Iman

Strongest gains for ODCE in history

- The NFI-ODCE Index posted its best return ever in 3Q21; Industrial was the top performer.
- Income returns were positive except for the Hotel and Retail sectors.
- Appraisers are pricing in a recovery due to strong fundamentals in Industrial and Multifamily.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.

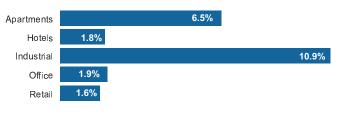
Compression in vacancy rates

- Vacancy rates kept compressing in Industrial and Multifamily as demand continued.
- Net operating income remained negative for Retail but its recovery continued; pent-up demand is evident through foot traffic in retail centers.
- 3Q21 rent collections have stabilized across all sectors.
- Demand outpaced supply as new construction of preleased Industrial and Multifamily occurred.

Gains in transaction volume

 Transaction volume increased quarter over quarter led by Multifamily and Industrial assets with strong credit tenants, which are trading at higher values than pre-COVID-19 levels.

Sector Quarterly Returns by Property Type



Source: NCREIF

Global REITs trailed equities; U.S. REITs outperformed

- Global REITs underperformed in 3Q21, falling 0.9% compared to 0.0% for global equities (MSCI World).
- U.S. REITs rose 1.0% in 3Q21, beating the S&P 500 Index, which gained 0.6%.
- Global REITs were trading below NAV, except for those in Singapore, Japan, the United States, and Canada.
- Property sectors were mixed between trading at a discount or premium.
- Ongoing volatility in REIT share prices offers opportunities to purchase mispriced securities, individual assets from REIT owners, and discounted debt, as well as to lend to companies and/or execute take-privates of public companies.

Callan Database Median and Index Returns* for Periods Ended 9/30/21

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
Real Estate ODCE Style	3.2	10.5	11.5	6.3	6.9	9.1	5.6
NFI-ODCE (value wt net)	6.4	12.4	13.6	6.1	6.6	8.9	5.5
NCREIF Property	5.2	10.9	12.1	6.7	6.8	9.0	7.1
NCREIF Farmland	1.5	3.9	5.5	4.9	5.5	10.2	11.1
NCREIF Timberland	1.9	4.4	5.0	2.4	2.9	4.9	5.2
Public Real Estate							
Global Real Estate Style	-0.2	16.0	29.1	9.5	7.6	10.6	5.6
FTSE EPRA Nareit Developed	-0.9	14.5	29.6	6.2	4.5	8.3	3.8
Global ex-U.S. Real Estate Style	-2.2	7.4	22.3	8.4	6.9	10.3	4.9
FTSE EPRA Nareit Dev ex US	-2.7	6.1	20.8	4.2	4.3	7.1	2.9
U.S. REIT Style	1.3	22.8	34.8	12.5	8.4	12.3	7.4
EPRA Nareit Equity REITs	1.0	23.1	37.4	10.0	6.8	11.3	6.5

*Returns less than one year are not annualized.

Sources: Callan, FTSE Russell, NCREIF

Pandemic's Impact Muted

PRIVATE EQUITY | Gary Robertson

Private equity activity measures in 3Q21 backed down slightly from 2Q, although totals were still strong. The IPO market for both venture capital and buyouts showed the largest declines as public equity flattened in 3Q. So far this year, private equity activity has been vigorous, fueled by rapidly rising public equity valuations and very liquid capital markets.

Private equity partnerships holding final closes in 3Q totaled \$165 billion, with 398 new partnerships formed (unless otherwise noted, all data are from PitchBook). The dollar volume fell 32% from 2Q21, and the number of funds holding final closes declined 28%. So far, capital raised is running 24% ahead of YTD 2020. Venture capital and growth equity have been garnering a larger share of overall commitments, while overall private equity commitments continued to rise.

The number of new buyout transactions and dollar volume fell minutely. Funds closed 2,615 company investments with \$160 billion of disclosed deal value, a 7% decrease in count and a 2% drop in dollar value from 2Q21. New financing rounds in venture capital companies totaled 10,208, with \$180 billion of announced value. The number of investments was down 5% from the prior quarter, but announced value rose 8%. The median pre-money valuations of Seed through Series D rounds continued to increase in YTD 2021 over 2020.

Funds Closed 1/1/21 to 9/30/21

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	871	166,920	26%
Growth Equity	129	65,232	10%
Buyouts	329	321,149	50%
Mezzanine Debt	16	12,690	2%
Distressed	21	27,852	4%
Energy	4	1,967	0%
Secondary and Other	66	43,340	7%
Fund-of-Funds	22	5,432	1%
Totals	1,458	644,582	100%

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

There were 348 private M&A exits of private equity-backed companies (excluding venture capital), with disclosed values totaling \$174 billion. Exits were down 44% from the prior quarter but announced dollar volume leaped 29%. The year-to-date exit count is up 10%. There were 104 private equity-backed IPOs in 3Q raising \$32 billion, down from 112 totaling \$39 billion in 2Q.

Venture-backed M&A exits totaled 735 transactions with disclosed value of \$57 billion. The number of sales increased 5% and announced dollar volume rose 10%. The year-to-date exit count rose 43%. There were 119 VC-backed IPOs with a combined float of \$43 billion. For comparison, 2Q had 171 IPOs and total issuance of \$73 billion.

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	11.1	82.2	35.0	26.3	19.4	15.2	10.4	23.1
Growth Equity	12.1	64.0	28.6	24.3	16.9	15.7	14.0	16.4
All Buyouts	12.6	51.7	21.2	19.9	14.1	12.5	13.6	13.7
Mezzanine	6.3	24.9	11.6	12.4	11.6	11.0	9.8	10.3
Credit Opportunities	5.8	23.3	6.5	8.9	8.2	9.0	9.9	9.9
Control Distressed	10.2	43.3	14.0	13.8	11.6	10.6	11.5	11.8
All Private Equity	11.6	57.7	24.0	21.0	15.0	13.1	12.5	14.7
S&P 500	8.6	40.8	18.7	17.7	14.8	10.7	8.6	9.8
Russell 3000	-0.1	31.9	16.0	16.9	16.6	10.4	9.8	9.7
	•	0.1.0					0.0	

Private Equity Performance (%) (Pooled Horizon IRRs through 6/30/21*)

Note: Private equity returns are net of fees. Sources: Refinitiv/Cambridge and S&P Dow Jones Indices *Most recent data available at time of publication

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

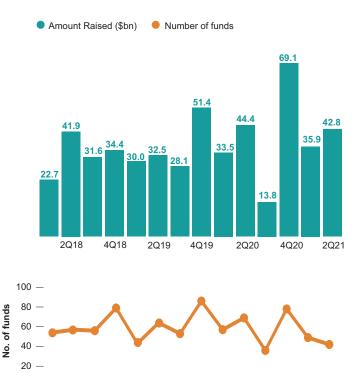
Asset Class Remains Attractive and Fundraising Stays Strong

PRIVATE CREDIT | Catherine Beard

- The yield- and income-generating characteristics of private credit remain attractive to institutional investors in a low-rate environment.
 - Private credit vintages 2008-18 generated an 8.3% median net IRR with a standard deviation of 6.1%.
 - Private credit is seen as fairly valued with a view that we are in a rising market.
- Direct lending portfolios proved resilient during the COVID dislocation due to the liquidity injected into the economy.
 - While pricing widened in the early stages of the dislocation, pricing and structures are back to pre-pandemic levels.
 - Direct lending portfolio valuations are back to 2019 levels.
 - New sponsor-backed lending deal flow has been at record levels through 3Q21.
 - Key industries of focus include technology, health care, and business services.
 - The balance has shifted back to borrowers with a return to covenant-lite structures, high leverage, and compressed pricing.
 - Downside has been limited by strong portfolio management during the dislocation coupled with capital available to shore up liquidity for troubled companies.
- Liquidity flowing into the U.S. economy has limited U.S. corporate stress and has muted the corporate distressed opportunity set.
- Areas of opportunity include those that offer diversification through differentiated collateral and/or areas of low correlation to public markets, including specialty finance, assetbacked lending, and niche areas (life sciences lending and artificial intelligence).

- 35% of investors polled by Preqin say they are allocating to private credit. The average target allocation is 6.2%.
- A majority of investors polled say private credit returns have met expectations. 40% intend to commit more capital to private credit over the next 12 months.
- Senior debt and mezzanine capital continue to see strong 2021 fundraising activity.
- There is also a ramp up of fundraising in specialty finance, asset-backed lending, and niche areas such as venture debt.

Private Credit Fundraising (\$bn)



Source: Pregin

Mixed Results as Volatility Returned to Markets

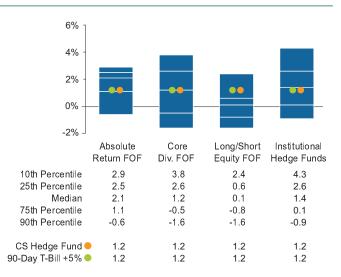
HEDGE FUNDS/MACs | Joe McGuane

A variety of macro concerns, including China, inflation, interest rates, and the Delta variant, led to a volatile 3Q21 for financial markets, as investors took chips off the table toward the end of September.

While global markets all suffered a late-quarter drawdown, the S&P 500 (+0.6%) managed to produce a gain, as corporate earnings came in ahead of expectations. The Bloomberg High Yield Index rose 0.8%, as U.S. credit markets remained resilient despite the potential default of China's Evergrande. The MSCI Emerging Markets Index lost 8.1%.

Hedge funds as a whole ended the quarter higher, driven by commodities-oriented relative value, event-driven, and sector-focused strategies, as well as macro managers with short positions in U.S. interest rates. Representing hedge funds reporting performance without implementation costs,

Hedge Fund Style Group Returns



Sources: Callan, Credit Suisse, Federal Reserve

Callan Peer Group Median and Index Returns* for Periods Ended 9/30/21

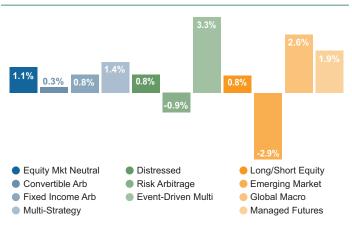
Hedge Fund Universe	Quarter	Year-to-Date	1 Year	3 Years	5 Years	10 Years
Callan Institutional Hedge Fund Peer Group	1.4	7.4	11.8	6.0	5.8	6.5
Callan Fund-of-Funds Peer Group	0.9	5.6	15.0	6.6	6.1	5.6
Callan Absolute Return FOF Style	2.1	7.1	14.6	5.1	4.9	4.9
Callan Core Diversified FOF Style	1.2	5.3	13.3	6.8	6.1	5.6
Callan Long/Short Equity FOF Style	0.1	5.1	17.0	10.1	8.7	7.5
BB GS Cross Asset Risk Premia 6% Vol Idx	1.3	2.3	3.5	1.6	2.0	4.2
Credit Suisse Hedge Fund	1.2	7.2	14.1	6.1	5.5	4.9
CS Convertible Arbitrage	0.3	4.5	8.9	6.5	5.1	4.6
CS Distressed	0.8	11.3	21.5	4.3	5.1	5.3
CS Emerging Markets	-2.9	4.7	10.5	8.8	6.9	5.9
CS Equity Market Neutral	1.1	4.2	4.9	0.8	1.5	1.8
CS Event-Driven Multi	3.3	14.3	26.6	7.9	6.8	5.3
CS Fixed Income Arb	0.8	4.7	8.1	4.3	4.8	4.7
CS Global Macro	2.6	8.9	15.4	8.0	6.5	4.4
CS Long/Short Equity	0.8	6.1	14.2	6.2	6.7	6.7
CS Managed Futures	1.9	8.2	14.6	5.0	1.8	1.4
CS Multi-Strategy	1.4	5.9	11.2	4.9	5.1	6.2
CS Risk Arbitrage	-0.9	4.3	16.0	7.9	6.3	4.4
HFRI Asset Wtd Composite	0.0	6.2	13.5	4.5	4.8	4.5
90-Day T-Bill + 5%	1.2	3.8	5.1	6.2	6.2	5.6

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

the Credit Suisse Hedge Fund Index (CS HFI) gained 1.2% in 3Q. As an actual hedge fund portfolio net of all fees, the median manager in the Callan Hedge Fund-of-Funds (FOF) Database Group added 0.9%.

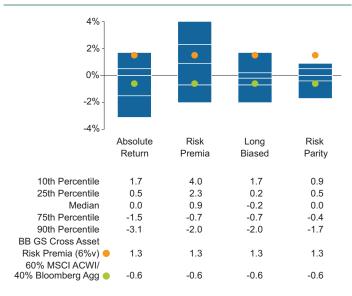
Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median Callan Institutional Hedge Fund Peer Group added 1.4%. Within this style group, the average Hedged Equity manager gained the most at 3.7%, driven by managers focused on tech/media/ technology (TMT) and event-related deals. Hedged Rates edged ahead only 0.02% as it navigated a bear flattening

Credit Suisse Hedge Fund Strategy Returns



Source: Credit Suisse

MAC Style Group Returns



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

across the yield curves in the U.S., U.K., and Continental Europe. The average Hedged Credit manager added 1.2%.

Within CS HFI, the best-performing strategy was Event Driven (+3.3%), aided by its exposure to corporate activity. Volatility across interest rates and equities helped Macro funds advance 2.6%. Multi-Strategy funds ended up 1.4%, with gains coming within credit and equity strategies. The laggard was Emerging Market (-2.9%).

Across the Callan Hedge FOF Database, the median Absolute Return FOF gained 2.1%. With exposures to non-directional and directional styles, the Core Diversified FOF rose 1.2%. Long/Short Equity FOF was slightly positive at 0.06%, after a tough September as mega cap tech exposure negatively impacted some managers.

Since the Global Financial Crisis, liquid alternatives to hedge funds have become popular for their attractive risk-adjusted returns uncorrelated with stock and bond investments but offered at a lower cost. Much of that interest is focused on rules-based, long-short strategies that isolate risk premia such as value, momentum, and carry. These alternative risk premia are often embedded in hedge funds as well as other actively managed investment products.

In 3Q, the Bloomberg GSAM Risk Premia Index increased 1.3% based upon a 6% volatility target. Within the underlying styles of the index, Commodity Carry (+2.9%) and Equity Quality (+2.1%) profited off strength in the energy and equity markets. The weakest risk premia was Equity Value L/S (-2.1%), as interest rate volatility and value equities detracted.

The median managers of the Callan Multi-Asset Class (MAC) Style Groups generated mixed returns gross of fees. The Callan Risk Premia MAC rose 0.9% based on its exposures to uncorrelated style premia targeting 5% to 15% portfolio volatility. The Callan Risk Parity MAC, which typically targets an equal riskweighted allocation to the major asset classes with leverage, was flat. As the most conservative MAC style focused on nondirectional strategies of long and short asset class exposures, the Callan Absolute Return MAC was also flat.

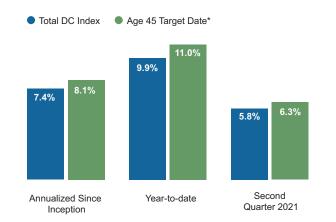
Index Posts Fifth Straight Quarterly Gain

DEFINED CONTRIBUTION | Patrick Wisdom

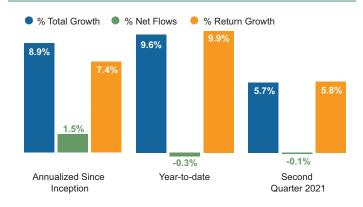
- The Callan DC Index[™] rose 5.8% in 2Q21, marking a fifth straight quarter of gains. The Age 45 Target Date Fund posted a larger quarterly gain (6.3%), attributable to its higher allocation to equity, which outperformed fixed income during the quarter.
- Balances within the DC Index rose by 5.7%, the fifth straight quarterly gain.
- For the second straight quarter, target date funds (TDFs) placed atop the leaderboard, receiving 78.0% of net inflows.
- In a continuation from 1Q21, investors transferred assets out of relatively safer asset classes, as stable value (-28.1%) and U.S. fixed income (-17.7%) had sizable net outflows.
- U.S. large cap (-27.5%) also saw net outflows. In contrast, global ex-U.S. equity (8.6%) had the second-largest net inflows for the second straight quarter.
- Turnover (i.e., net transfer activity levels within DC plans) in the DC Index fell to 0.37% from the previous quarter's 0.42%.
- The Index's overall allocation to equity (72.2%) increased by more than a full percentage point from the previous quarter, bringing it to its highest level since 4Q07 (72.9%).
- In a continuation from the previous quarter, U.S. large cap (27.5%) had the largest percentage increase in allocation.
- Stable value (8.1%) saw the largest decrease in allocation, driven by material net outflows and relative underperformance.
- The prevalence of a high yield fixed income offering (7.9%) increased to its highest mark since 3Q16 (14.1%).

The Callan DC Index is an equally weighted index tracking the cash flows and performance of over 100 plans, representing nearly \$300 billion in assets. The Index is updated quarterly and is available on Callan's website.

Investment Performance



Growth Sources



Net Cash Flow Analysis (2Q21)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	78.09%
Global ex-U.S. Equity	8.06%
U.S. Large Cap	-27.54%
Stable Value	-28.12%
Total Turnover**	0.37%

Data provided here is the most recent available at time of publication. Source: Callan DC Index

Note: DC Index inception date is January 2006.

- * The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.
- ** Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

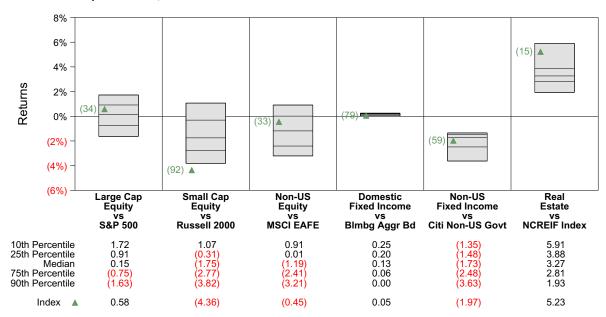
Active Management Overview

Market Overview Active Management vs Index Returns

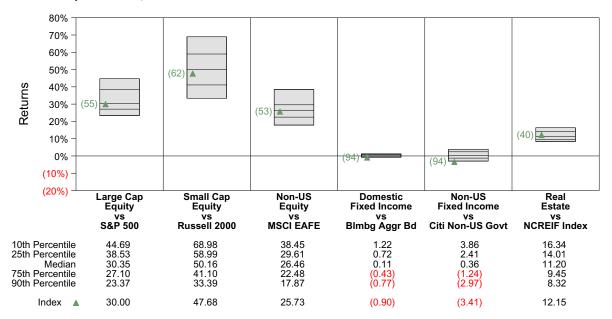
Market Overview

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

Range of Separate Account Manager Returns by Asset Class One Quarter Ended September 30, 2021



Range of Separate Account Manager Returns by Asset Class One Year Ended September 30, 2021





Asset Allocation and Performance

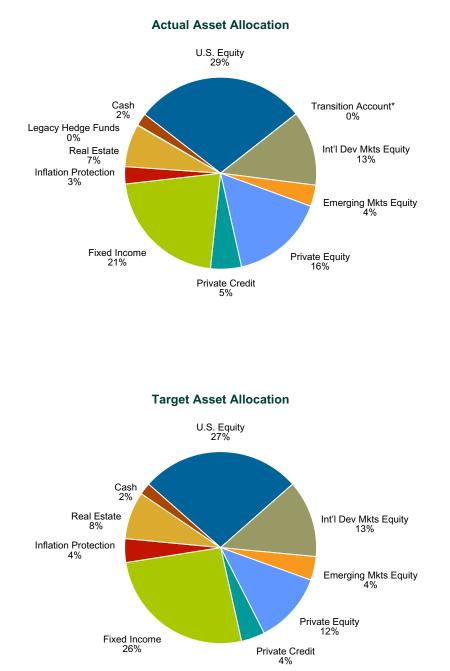
ASSET ALLOCATION AND PERFORMANCE

Asset Allocation and Performance

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

Actual vs Target Asset Allocation As of September 30, 2021

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



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
U.S. Equity	11,104,564	28.9%	27.0%	1.9%	725,672
Transition Account*	1,155	0.0%	0.0%	0.0%	1,155
Int'l Dev Mkts Equity	4,840,045	12.6%	13.0%	(0.4%)	(157,199)
Emerging Mkts Equity	1,394,663	3.6%	4.0%	(0.4%)	(142,950)
Private Equity	6,116,230	15.9%	12.0%	3.9%	1,503,389
Private Credit	1,992,357	5.2%	4.0%	1.2%	454,743
Fixed Income	8,255,351	21.5%	26.0%	(4.5%)	(1,739,137)
Inflation Protection	1,131,453	2.9%	4.0%	(1.1%)	(406,161)
Real Estate	2,783,590	7.2%	8.0%	(0.8%)	(291,637)
Legacy Hedge Funds	25,816	0.1%	0.0%	0.1%	25,816
Cash	795,116	2.1%	2.0%	0.1%	26,309
Total	38,440,339	100.0%	100.0%		

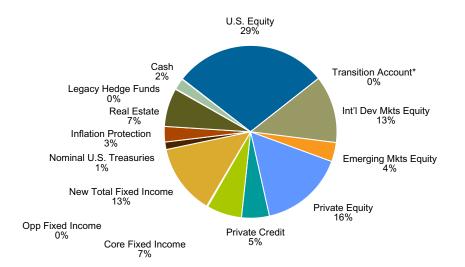
*Market values are shown net of accrued fees.



Actual Asset Allocation As of September 30, 2021

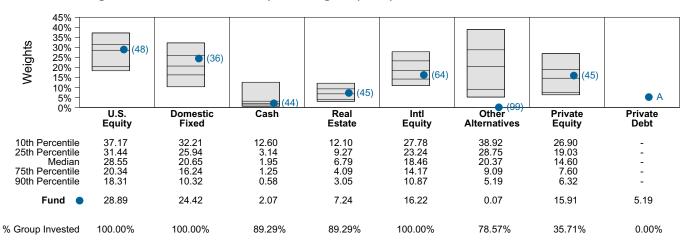
The first chart below shows the Fund's asset allocation as of September 30, 2021. The second chart ranks the fund's asset allocation versus the Callan Public Fund Spons- V Lg DB (>10B).

Actual Asset Allocation



Asset Class	\$000s Actual	Weight Actual
U.S. Equity	11,104,564	28.9%
Transition Account*	1,155	0.0%
Int'l Dev Mkts Equity	4,840,045	12.6%
Emerging Mkts Equity	1,394,663	3.6%
Private Equity	6,116,230	15.9%
Private Credit	1,992,357	5.2%
Core Fixed Income	2,531,953	6.6%
Opp Fixed Income	78,582	0.2%
New Total Fixed Income	5,088,955	13.2%
Nominal U.S. Treasuries	555,862	1.4%
Inflation Protection	1,131,453	2.9%
Real Estate	2,783,590	7.2%
Legacy Hedge Funds	25,816	0.1%
Cash	795,116	2.1%
Total	38,440,339	100.0%

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



*Market values are shown net of accrued fees.

Callan

Actual Asset Allocation As of September 30, 2021

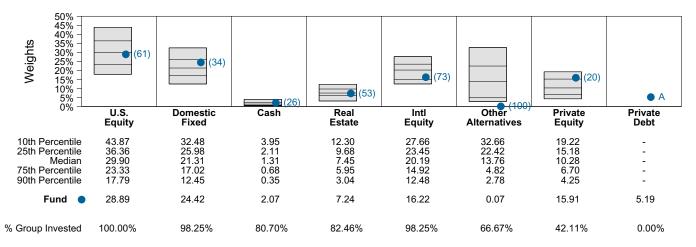
The first chart below shows the Fund's asset allocation as of September 30, 2021. The second chart ranks the fund's asset allocation versus the Callan Public Fund Spons - Large (>1B).

Actual Asset Allocation

U.S. Equity 29% Cash 2% Transition Account* 0% Legacy Hedge Funds 0% Int'l Dev Mkts Equity Real Estate 7% 13% Inflation Protection 3% Emerging Mkts Equity 4% Nominal U.S. Treasuries 1% New Total Fixed Income 13% Private Equity 16% Opp Fixed Income Private Credit 5% 0% Core Fixed Income 7%

Asset Class	\$000s Actual	Weight Actual
U.S. Equity	11,104,564	28.9%
Transition Account*	1,155	0.0%
Int'l Dev Mkts Equity	4,840,045	12.6%
Emerging Mkts Equity	1,394,663	3.6%
Private Equity	6,116,230	15.9%
Private Credit	1,992,357	5.2%
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Nominal U.S. Treasuries	555,862	1.4%
Inflation Protection	1,131,453	2.9%
Real Estate	2,783,590	7.2%
Legacy Hedge Funds	25,816	0.1%
Cash	795,116	2.1%
Total	38,440,339	100.0%

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

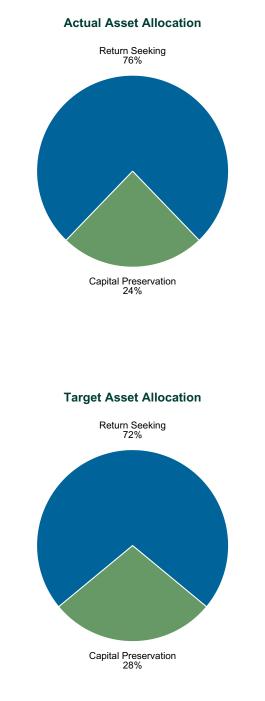


*Market values are shown net of accrued fees.



Actual vs Target Asset Allocation As of September 30, 2021

The first chart below shows the Fund's asset allocation as of September 30, 2021. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



\$Millions Percent \$Millions Weight Asset Class Difference Actual Actual Target Difference 72.0% 28.0% **Return Seeking** 29,050 75.6% 3.6% 1,373 Capital Preservation 9,390 24.4% .6% 373 1 38,440 100.0% Total 100.0%

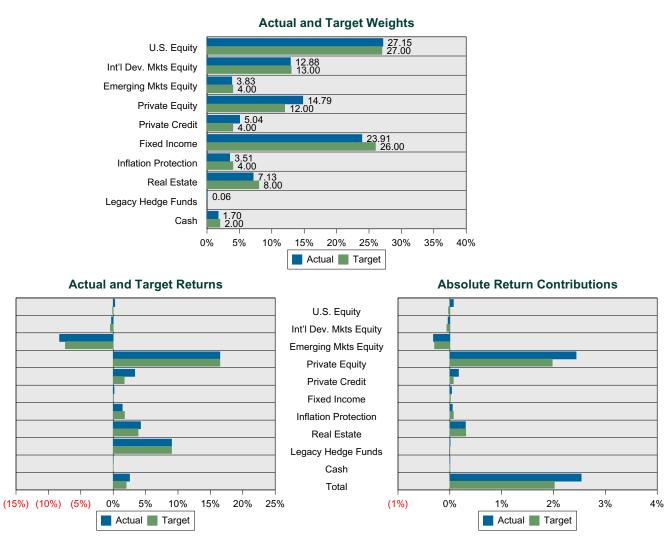
*Return Seeking Assets: U.S. Equity, Int'l Developed Markets Equity, Emerging Markets Equity, Transition Account, Opportunistic Fixed Income, High Yield, Private Equity, Private Credit, Real Estate and Legacy Hedge Funds.

*Capital Preservation Assets: Core FI, Nominal Treas, Inflation Protection (TIPS), Interm Treas, Long Duration, Securitized, Interm Credit and Cash. *Market values are shown net of accrued fees.



Quarterly Total Fund Absolute Attribution - September 30, 2021

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



Absolute Attribution Effects for Quarter ended September 30, 2021

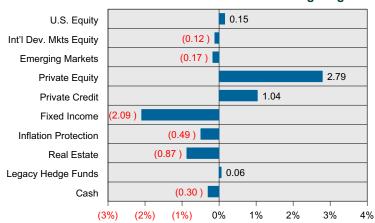
	Total Fu	nd Return	2.53%		Target Return	2.02%	0.52%
Cash	2%	0.01%	0.00%	2%	0.01%	0.00%	(0.00%)
Legacy Hedge Funds	0%	9.02%	0.01%	0%	9.02%	0.00%	0.01%
Real Estate	7%	4.23%	0.30%	8%	3.85%	0.31%	(0.01%)
Inflation Protection	4%	1.41%	0.05%	4%	1.75%	0.07%	(0.02%)
Fixed Income	24%	0.14%	0.03%	26%	0.05%	0.01%	0.02%
Private Credit	5%	3.34%	0.17%	4%	1.71%	0.07%	0.10%
Private Equity	15%	16.47%	2.44%	12%	16.47%	1.98%	0.46%
Emerging Mkts Equity	4%	(8.28%)	(0.32%)	4%	(7.39%)	(0.30%)	(0.02%)
Int'l Dev. Mkts Equity	13%	(0.27%)	(0.04%)	13%	(0.45%)	(0.06%)	0.02%
U.S. Equity	27%	0.26%	0.07%	27%	(0.10%)	(0.03%)	0.10%
	Actual Weight	Actual Return	Return Contribution	Target Weight	Target Return	Return Contribution	Contribution Difference
	Effective		Absolute	Effective		Target	Return

* Current Quarter Target = 26.0% Blmbg U.S. Agg Bond Index, 27.0% Russell 3000 Index, 12.0% Private Equity, 13.0% MSCI ex US IMI, 7.2% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 4.0% S&P Levered Loan Index +1% (Qtr lag), 4.0% MSCI EM IMI, 4.0% U.S. TIPS Index, 2.0% 3-month Treasury Bill, 0.8% FTSE EP/NA US Index, 0.0% S&P:LSTA Lev Loan and 0.0% HFRI FOF. Returns are shown gross of fees.



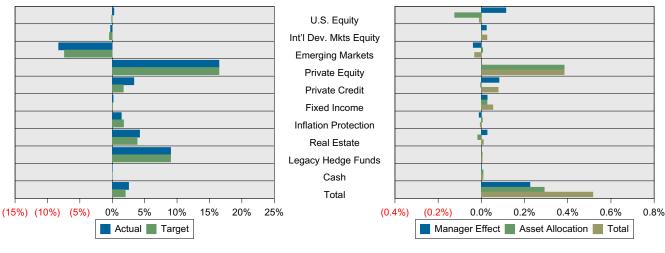
Quarterly Total Fund Relative Attribution - September 30, 2021

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



Asset Class Under or Overweighting

Actual vs Target Returns



Relative Attribution by Asset Class

Relative Attribution Effects for Quarter ended September 30, 2021

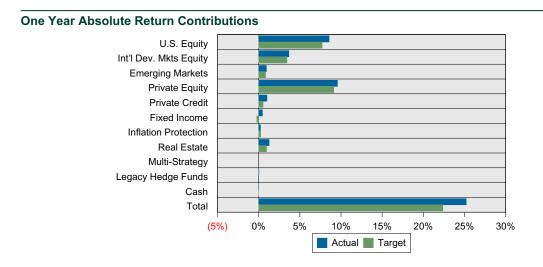
A seat Olass	Effective Actual	Effective Target	Actual	Target	Manager	Asset	Total Relative
Asset Class	Weight	Weight	Return	Return	Effect	Allocation	Return
U.S. Equity	27%	27%	0.26%	(0.10%)	0.11%	(0.12%)	(0.01%)
Int'l Dev. Mkts Equity	13%	13%	(0.27%)	(0.45%)	0.02%	0.00%	0.03%
Emerging Markets	4%	4%	(8.28%)	(7.39%)	(0.04%)	0.01%	(0.03%)
Private Equity	15%	12%	16.47%	16.47%	0.00%	0.38%	0.38%
Private Credit	5%	4%	3.34%	1.71%	0.08%	(0.00%)	0.08%
Fixed Income	24%	26%	0.14%	0.05%	0.03%	0.03%	0.05%
Inflation Protection	4%	4%	1.41%	1.75%	(0.01%)	0.00%	(0.01%)
Real Estate	7%	8%	4.23%	3.85%	0.03%	(0.02%)	0.01%
Legacy Hedge Funds	0%	0%	9.02%	9.02%	0.00%	0.00%	0.00%
Cash	2%	2%	0.01%	0.01%	(0.00%)	0.01%	0.01%
Total			2.53% =	2.02% +	0.23% +	0.29%	0.52%

* Current Quarter Target = 26.0% Blmbg U.S. Agg Bond Index, 27.0% Russell 3000 Index, 12.0% Private Equity, 13.0% MSCI ex US IMI, 7.2% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 4.0% S&P Levered Loan Index +1% (Qtr lag), 4.0% MSCI EM IMI, 4.0% U.S. TIPS Index, 2.0% 3-month Treasury Bill, 0.8% FTSE EP/NA US Index, 0.0% S&P:LSTA Lev Loan and 0.0% HFRI FOF. Returns are shown gross of fees.

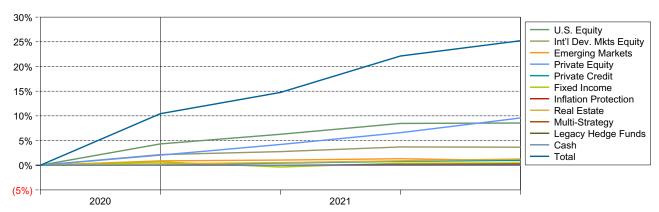
Callan

Cumulative Total Fund Absolute Attribution - September 30, 2021

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



Cumulative Absolute Return Contributions



One Year Absolute Attribution Effects

	Effective Actual Weight	Actual Return	Absolute Return Contribution	Effective Target Weight	Target Return	Target Return Contribution	Return Contribution Difference
U.S. Equity	26%	34.77%	8.55%	25%	31.88%	7.70%	0.85%
Int'l Dev. Mkts Equity	13%	28.44%	3.66%	13%	27.04%	3.43%	0.23%
Emerging Markets	4%	20.73%	0.93%	4%	20.80%	0.83%	0.10%
Private Equity	14%	76.92%	9.57%	13%	76.92%	9.11%	0.45%
Private Credit	4%	25.70%	0.99%	4%	12.65%	0.52%	0.47%
Fixed Income	26%	1.31%	0.45%	26%	(0.90%)	(0.23%)	0.68%
Inflation Protection	4%	4.77%	0.21%	4%	5.19%	0.23%	(0.02%)
Real Estate	7%	16.52%	1.26%	8%	10.87%	0.94%	0.32%
Multi-Strategy	0%	-	0.00%	0%	-	0.00%	0.00%
Legacy Hedge Funds	0%	27.09%	0.02%	0%	23.73%	0.00%	0.02%
Cash	2%	0.10%	0.00%	2%	0.07%	0.00%	0.00%
	Total Fu	nd Return	25.21%		Target Return	22.37%	2.84%

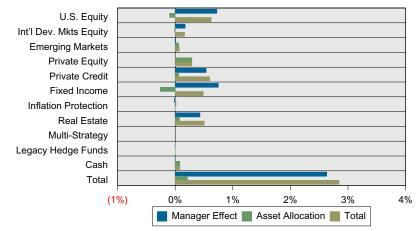
* Current Quarter Target = 26.0% Blmbg U.S. Agg Bond Index, 27.0% Russell 3000 Index, 12.0% Private Equity, 13.0% MSCI ex US IMI, 7.2% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 4.0% S&P Levered Loan Index +1% (Qtr lag), 4.0% MSCI EM IMI, 4.0% U.S. TIPS Index, 2.0% 3-month Treasury Bill, 0.8% FTSE EP/NA US Index, 0.0% S&P:LSTA Lev Loan and 0.0% HFRI FOF. Returns are shown gross of fees.



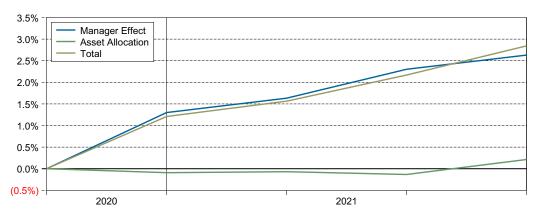
Cumulative Total Fund Relative Attribution - September 30, 2021

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

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
U.S. Equity	26%	25%	34.77%	31.88%	0.72%	(0.10%)	0.63%
Int'l Dev. Mkts Equity	13%	13%	28.44%	27.04%	0.17%	(0.01%)	0.16%
Emerging Markets	4%	4%	20.73%	20.80%	0.01%	0.06%	0.07%
Private Equity	14%	13%	76.92%	76.92%	0.00%	0.29%	0.29%
Private Credit	4%	4%	25.70%	12.65%	0.54%	0.06%	0.60%
Fixed Income	26%	26%	1.31%	(0.90%)	0.75%	(0.26%)	0.49%
Inflation Protection	4%	4%	4.77%	5.19%	(0.01%)	0.01%	0.00%
Real Estate	7%	8%	16.52%	10.87%	0.43%	0.07%	0.51%
Multi-Strategy	0%	0%	-	-	0.00%	0.00%	0.00%
Legacy Hedge Funds	0%	0%	27.09%	23.73%	0.00%	0.00%	0.00%
Cash	2%	2%	0.10%	0.07%	0.00%	0.08%	0.08%
Total			25.21% =	22.37% +	2.63% +	0.21%	2.84%

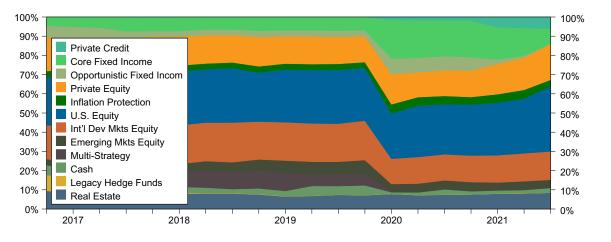
* Current Quarter Target = 26.0% Blmbg U.S. Agg Bond Index, 27.0% Russell 3000 Index, 12.0% Private Equity, 13.0% MSCI ex US IMI, 7.2% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 4.0% S&P Levered Loan Index +1% (Qtr lag), 4.0% MSCI EM IMI, 4.0% U.S. TIPS Index, 2.0% 3-month Treasury Bill, 0.8% FTSE EP/NA US Index, 0.0% S&P:LSTA Lev Loan and 0.0% HFRI FOF. Returns are shown gross of fees.



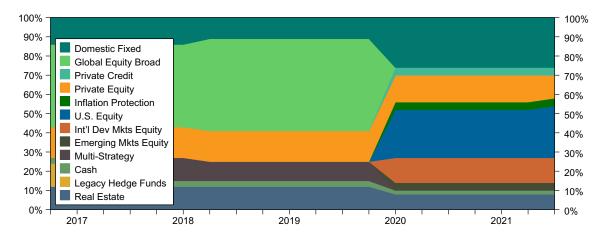
Actual vs Target Historical Asset Allocation

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

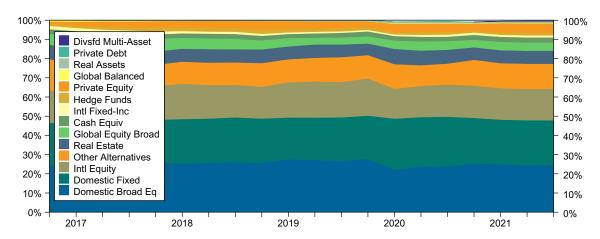
Actual Historical Asset Allocation



Target Historical Asset Allocation



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



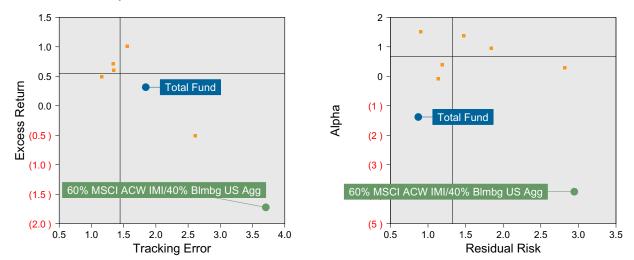


Total Fund Total Fund vs Target Risk Analysis

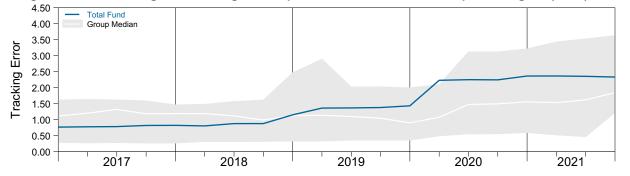
Risk Analysis

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

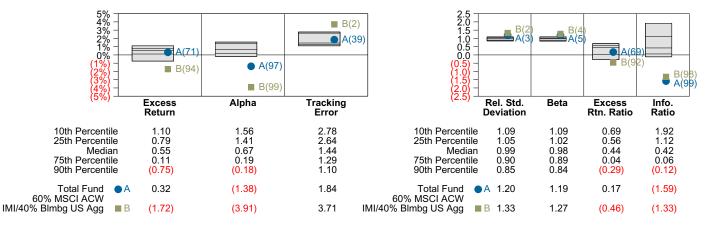
Risk Analysis vs Callan Public Fund Spons- V Lg DB (>10B) Five Years Ended September 30, 2021







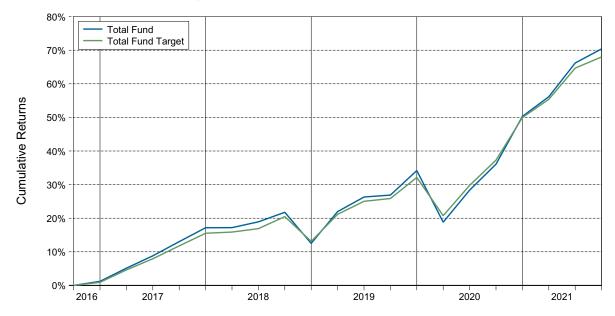
Risk Statistics Rankings vs Targets Rankings Against Callan Public Fund Spons- V Lg DB (>10B) Five Years Ended September 30, 2021



Callan

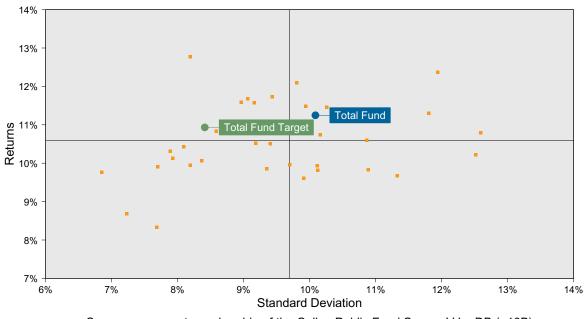
Cumulative Performance Relative to Target

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

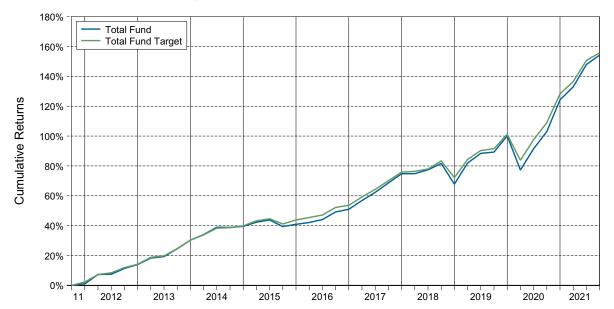


Squares represent membership of the Callan Public Fund Spons- V Lg DB (>10B)



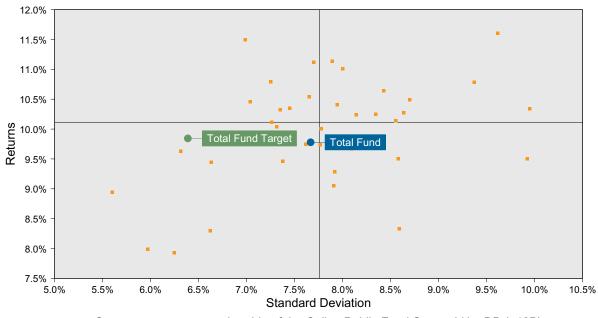
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Cumulative Returns Actual vs Target





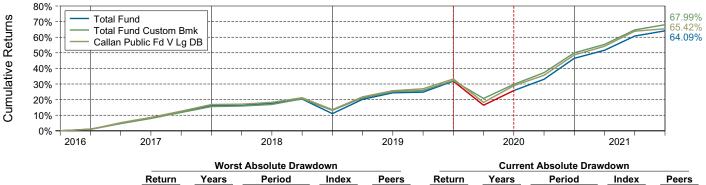
Squares represent membership of the Callan Public Fund Spons- V Lg DB (>10B)



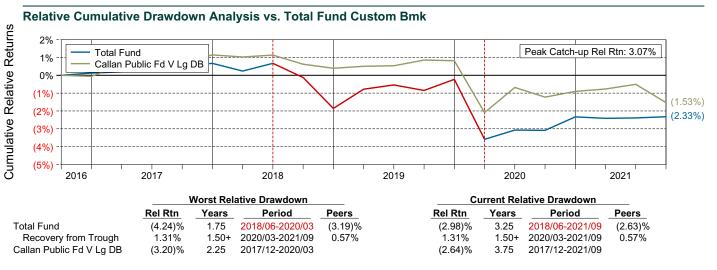
Total Fund Drawdown Analysis for Five Years Ended September 30, 2021

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

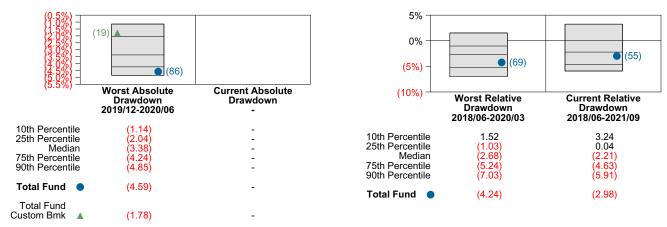
Absolute Cumulative Drawdown Analysis



	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Total Fund	(4.59)%	0.50	2019/12-2020/06	(1.78)%	(3.24)%	-	-	-	-	-
Recovery from Trough	5.78%	0.25	2020/06-2020/09	5.79%	5.22%	-	-	-	-	-
Total Fund Custom Bmk	(6.11)%	0.25	2018/09-2018/12			-	-	-		
Callan Public Fd V Lg DB	(6.32)%	0.25	2018/09-2018/12			-	-	-		



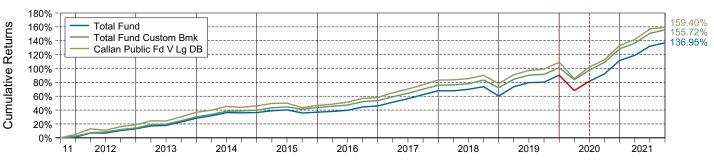
Drawdown Rankings vs. Total Fund Custom Bmk Rankings against Callan Public Fund Spons- V Lg DB (>10B) Five Years Ended September 30, 2021



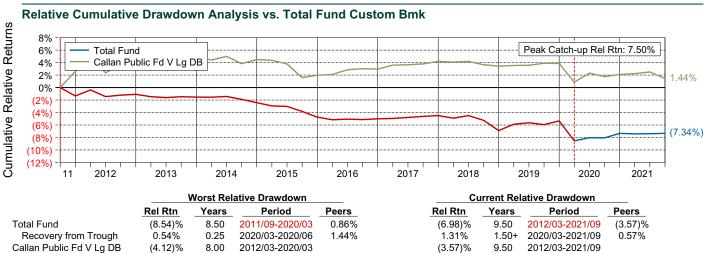
Total Fund Drawdown Analysis for Ten Years Ended September 30, 2021

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.

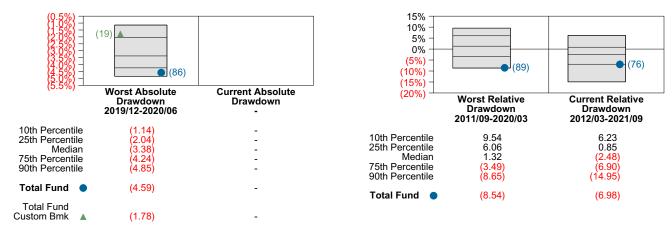
Absolute Cumulative Drawdown Analysis



	Worst Absolute Drawdown					Current Absolute Drawdown				
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Total Fund	(4.59)%	0.50	2019/12-2020/06	(1.78)%	(3.24)%	-	-	-	-	-
Recovery from Trough	5.78%	0.25	2020/06-2020/09	5.79%	5.22%	-	-	-	-	-
Total Fund Custom Bmk	(6.11)%	0.25	2018/09-2018/12			-	-	-		
Callan Public Fd V Lg DB	(6.32)%	0.25	2018/09-2018/12			-	-	-		

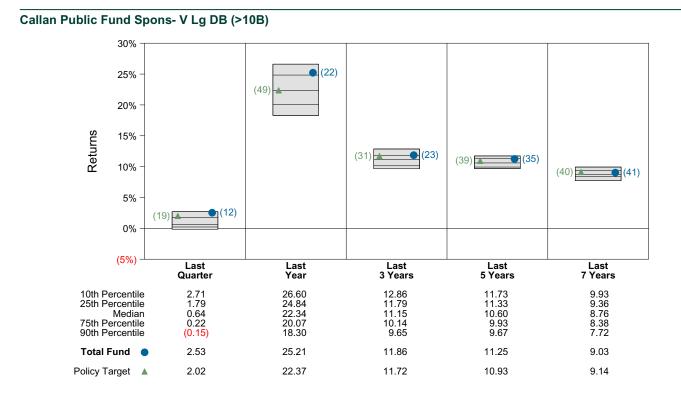


Drawdown Rankings vs. Total Fund Custom Bmk Rankings against Callan Public Fund Spons- V Lg DB (>10B) Ten Years Ended September 30, 2021

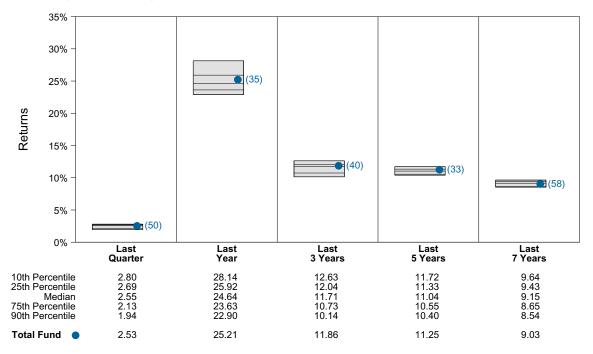


Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Spons- V Lg DB (>10B) for periods ended September 30, 2021. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.



Asset Allocation Adjusted Ranking



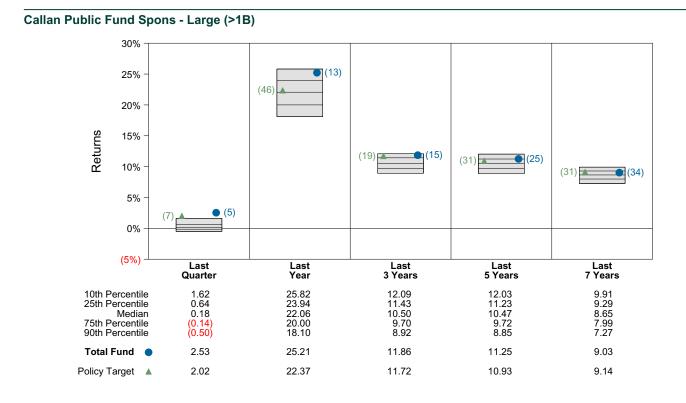
* Current Quarter Target = 27.0% Russell 3000 Index, 26.0% Blmbg Aggregate, 13.0% MSCI World ex US IMI, 12.0% Private Equity (1), 7.2% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 4.0% S&P:LSTA Lev Loan lagged 3 months+1.0%, 4.0% MSCI EM IMI, 4.0% Blmbg TIPS, 2.0% 3-month Treasury Bill and 0.8% FTSE EP/NA US Index.

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

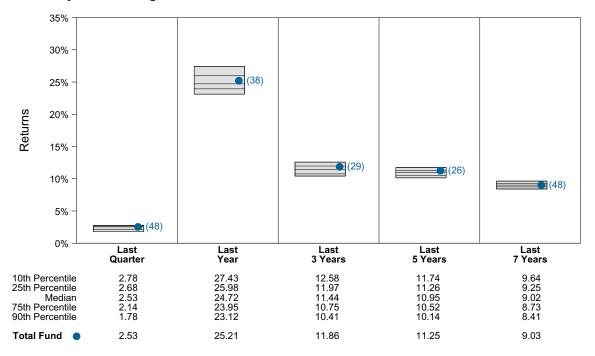


Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Spons - Large (>1B) for periods ended September 30, 2021. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.



Asset Allocation Adjusted Ranking



* Current Quarter Target = 27.0% Russell 3000 Index, 26.0% Blmbg Aggregate, 13.0% MSCI World ex US IMI, 12.0% Private Equity (1), 7.2% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 4.0% S&P:LSTA Lev Loan lagged 3 months+1.0%, 4.0% MSCI EM IMI, 4.0% Blmbg TIPS, 2.0% 3-month Treasury Bill and 0.8% FTSE EP/NA US Index.

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



Total Fund Period Ended September 30, 2021

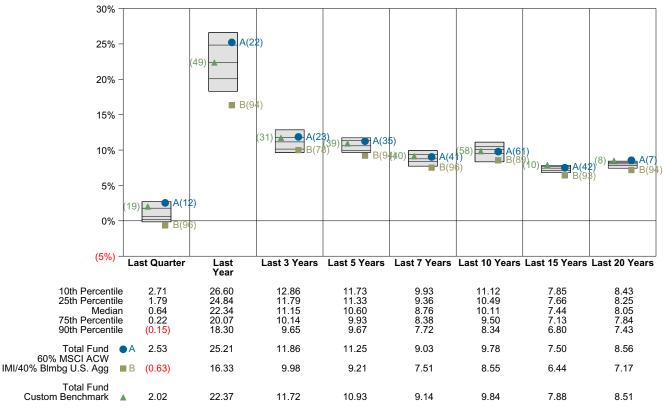
Gross Performance History

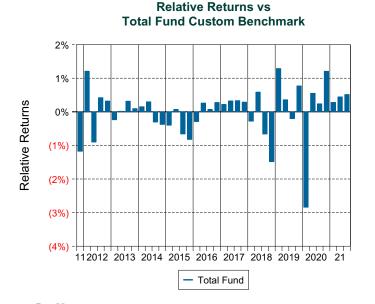
The gross history shown is estimated by BNY Mellon using a gross-up methodology through 12/31/19. Gross performance is calculated for the Total Fund starting 01/01/2020.

Quarterly Summary and Highlights

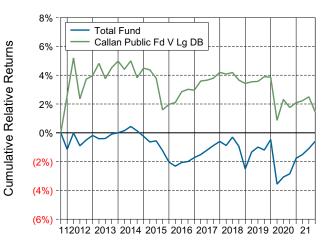
- Total Fund's portfolio posted a 2.53% return for the quarter placing it in the 12 percentile of the Callan Public Fund Spons- V Lg DB (>10B) group for the quarter and in the 22 percentile for the last year.
- Total Fund's portfolio outperformed the Total Fund Custom Benchmark by 0.52% for the quarter and outperformed the Total Fund Custom Benchmark for the year by 2.84%.

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





Cumulative Returns vs Total Fund Custom Benchmark



Total Fund Period Ended September 30, 2021

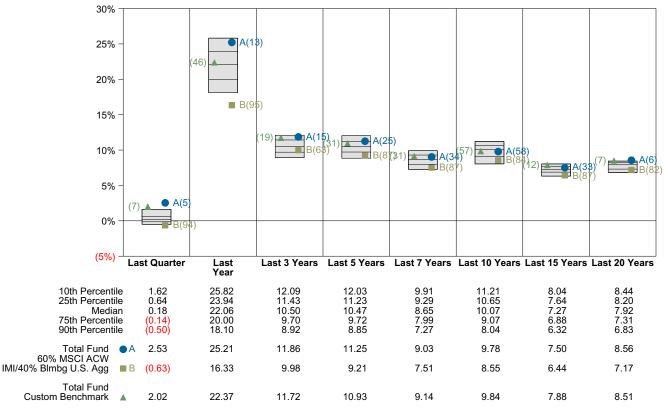
Gross Performance History

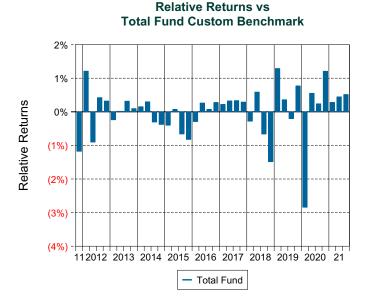
The gross history shown is estimated by BNY Mellon using a gross-up methodology through 12/31/19. Gross performance is calculated for the Total Fund starting 01/01/2020.

Quarterly Summary and Highlights

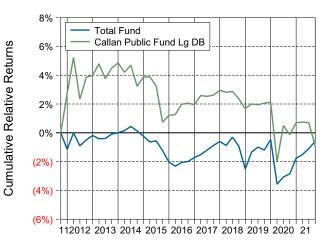
- Total Fund's portfolio posted a 2.53% return for the quarter placing it in the 5 percentile of the Callan Public Fund Spons Large (>1B) group for the quarter and in the 13 percentile for the last year.
- Total Fund's portfolio outperformed the Total Fund Custom Benchmark by 0.52% for the quarter and outperformed the Total Fund Custom Benchmark for the year by 2.84%.

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





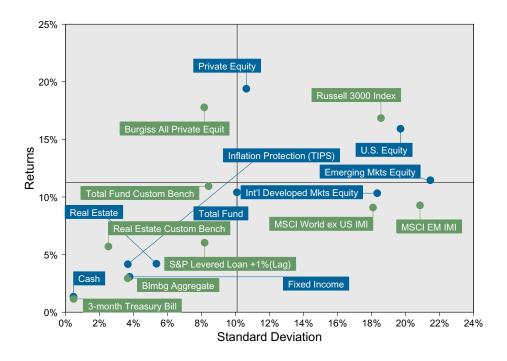
Cumulative Returns vs Total Fund Custom Benchmark



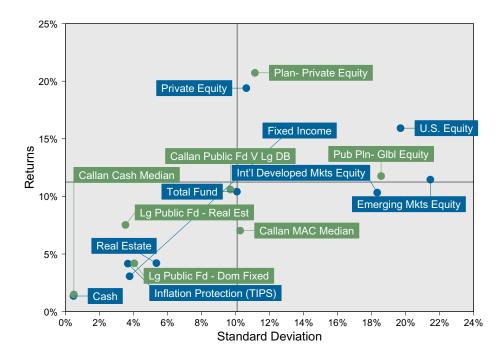
Asset Class Risk and Return

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

Five Year Annualized Risk vs Return Asset Classes vs Benchmark Indices



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



Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of September 30, 2021, with the distribution as of June 30, 2021.

		Sep	tember 30,	2021			June 30, 2021	
	Market Value	% of Total	(min)	Target	(max)	Market Value	% of Total	Target
	\$(000)	Weight	Weight	\$(000)	Weight	Weight		
NET OF FEES*	+()			+(+++)				
U.S. Equity	\$11,104,564	28.89%	20.00%	27.00%	30.00%	\$9,514,075	25.03%	27.00%
Int'l Developed Markets Equity	\$4,840,045	12.59%	8.00%	13.00%	18.00%	\$4,858,394	12.78%	13.00%
Emerging Mkts Equity	\$1,394,663	3.63%	0.00%	4.00%	8.00%	\$1,523,848	4.01%	4.00%
Private Equity (1)	\$6,116,230	15.91%	N/A	12.00%	N/A	\$5,595,870	14.72%	12.00%
Buyouts	3,411,164	8.87%				3,098,864	8.15%	
Special Situations	587,002	1.53%				520,529	1.37%	
Growth Equity	1,475,814	3.84%				1,387,052	3.65%	
Keystone Legacy (2)	642,251	1.67%				589,424	1.55%	
Registone Legacy (2)	042,231	1.07 /0				505,424	1.5576	
Private Credit (1)	\$1,992,357	5.18%	N/A	4.00%	N/A	\$1,909,097	5.02%	4.00%
Direct Lending	276,942	0.72%				250,779	0.66%	
Distressed Debt	247,590	0.64%				217,513	0.57%	
Diversified Credit	1,467,825	3.82%				1,440,805	3.79%	
Fixed Income	\$8,255,351	21.48%	21.00%	26.00%	31.00%	\$9,793,968	25.77%	26.00%
Core Fixed Income	2,531,953	6.59%	21.00 /0	20.00 /0	51.00 /0	4,804,174	12.64%	20.00 /0
		0.20%					0.92%	
Opportunistic Fixed Income	78,582					348,126		
Nominal U.S. Treasuries	555,862	1.45%				663,748	1.75%	
New Fixed Income Structure (3)	\$5,088,955	13.24%	-	-	-	\$3,977,920	10.47%	
Intermediate Treasury	287,674	0.75%				193,930	0.51%	
Long Duration	1,343,437	3.49%				1,223,061	3.22%	
Securitized	705,224	1.83%				589,086	1.55%	
Intermediate Credit	2,039,252	5.30%				1,380,861	3.63%	
High Yield	713,368	1.86%				590,982	1.56%	
	713,300	1.00%				590,962	1.30%	
Inflation Protection (TIPS)	\$1,131,453	2.94%	1.00%	4.00%	7.00%	\$1,508,842	3.97%	4.00%
Real Estate (1)	\$2,783,590	7.24%	N/A	8.00%	N/A	\$2,694,657	7.09%	8.00%
Core/Core Plus Real Estate Funds		2.87%		/0		1,086,074	2.86%	
Value Add/Opportunistic SMA	731,591	1.90%				712,985	1.88%	
Value Add/Opportunistic Funds	613,296	1.60%				562,049	1.48%	
REITS	330,873	0.86%				328,755	0.87%	
Legacy Real Assets	5,105	0.01%				4,794	0.01%	
Legacy Hedge Funds	\$25,816	0.07%	-	-	-	\$23,713	0.06%	-
Cash	\$795,116	2.07%	0.00%	2.00%	7.00%	\$580,601	1.53%	2.00%
Total Fund	\$38,440,339	100.0%		100.0%		\$38,004,241	100.0%	100.0%
	400, 44 0,009	100.0 /0		100.0 /0		φ 30,00 4,241	100.0 /0	100.0%

Asset Distribution Across Investment Managers

*Market values shown are net of accrued fees.

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

(2) As of 12/31/2020 Keystone Legacy SPV consists of 119 non-core funds, prior performance in previous sub-asset classes
 (3) The New Fixed Income Structure is a sub-composite of Fixed Income and was incepted 03/01/2021.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of September 30, 2021, with the distribution as of June 30, 2021.

		Sep	tember 30,	2021			June 30, 2021	
	Market Value	% of Total	(min)	Target	(max)	Market Value	% of Total	Target
	\$(000)	Weight	Weight	\$(000)	Weight	Weight		
GROSS OF FEES*								
U.S. Equity	\$11,106,521	28.89%	20.00%	27.00%	30.00%	\$9,515,087	25.03%	27.00%
Int'l Developed Markets Equity	\$4,841,589	12.59%	8.00%	13.00%	18.00%	\$4,859,605	12.79%	13.00%
Emerging Mkts Equity	\$1,395,140	3.63%	0.00%	4.00%	8.00%	\$1,524,086	4.01%	4.00%
Private Equity (1)	\$6,116,230	15.91%	N/A	12.00%	N/A	\$5,595,870	14.72%	12.00%
Buyouts	3,411,164	8.87%	11/4	12.0070	11/5	3,098,864	8.15%	12.0070
Special Situations	587,002	1.53%				520.529	1.37%	
	,	3.84%				,	3.65%	
Growth Equity	1,475,814					1,387,052		
Keystone Legacy (2)	642,251	1.67%				589,424	1.55%	
Private Credit (1)	\$1,992,357	5.18%	N/A	4.00%	N/A	\$1,909,097	5.02%	4.00%
Direct Lending	276,942	0.72%				250.779	0.66%	
Distressed Debt	247,590	0.64%				217,513	0.57%	
Diversified Credit	1,467,825	3.82%				1,440,805	3.79%	
Fixed Income	\$8,258,926	21.48%	21.00%	26.00%	31.00%	\$9,796,012	25.77%	26.00%
		6.59%	21.00 /0	20.00 /6	51.00 /6		12.64%	20.00 /8
Core Fixed Income	2,533,014					4,804,834		
Opportunistic Fixed Income	79,517	0.21%				348,750	0.92%	
Nominal U.S. Treasuries	556,161	1.45%				663,900	1.75%	
New Fixed Income Structure (3)	\$5,090,234	13.24%	-	-	-	\$3,978,527	10.47%	-
Intermediate Treasury	287,686	0.75%				193,936	0.51%	
Long Duration	1,343,517	3.49%				1,223,106	3.22%	
Securitized	705,258	1.83%				589,103	1.55%	
Intermediate Credit	2,039,331	5.30%				1,380,898	3.63%	
High Yield	714,443	1.86%				591,484	1.56%	
Inflation Protection (TIPS)	\$1,132,166	2.94%	1.00%	4.00%	7.00%	\$1,509,325	3.97%	4.00%
Real Estate (1)	\$2,784,186	7.24%	N/A	8.00%	N/A	\$2,694,948	7.09%	8.00%
Core/Core Plus Real Estate Funds		2.87%				1,086,074	2.86%	
Value Add/Opportunistic SMA	731,591	1.90%				712,985	1.88%	
Value Add/Opportunistic Funds	613,296	1.60%				562,049	1.48%	
REITS	331,469	0.86%				329,046	0.87%	
Legacy Real Assets	5,105	0.00%				4,794	0.01%	
Legacy Hedge Funds	\$25,816	0.07%	-	-	-	\$23,713	0.06%	-
Cash	\$795,116	2.07%	0.00%	2.00%	7.00%	\$580,601	1.53%	2.00%
Total Fund	\$20 440 000	100.0%		100 09/		¢20 000 540	100 09/	100 09/
Total Fund	\$38,449,200	100.0%		100.0%		\$38,009,519	100.0%	100.0%

Asset Distribution Across Investment Managers

*Market values shown are gross of accrued fees.

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

(2) As of 12/31/2020 Keystone Legacy SPV consists of 119 non-core funds, prior performance in previous sub-asset classes
 (3) The New Fixed Income Structure is a sub-composite of Fixed Income and was incepted 03/01/2021.

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	Return	ns for Period)21				
-	Market			Year		Last	Last
	Value	Ending	Last	to	Last	3	5
	\$(mm)	Weight	Quarter	Date	Year	Years	Years
et Performance							
otal Fund	\$38,440	100.00%	2.09%	12.03%	23.33%	10.90%	10.41%
Total Fund Custom Benchmark(1)	-	-	2.02%	12.03%	22.37%	11.72%	10.93%
Public Market Equiv Benchmark(2)	-	-	1.02%	9.75%	18.93%	11.01%	10.91%
60/40 Index(3)	-	-	(0.63%)	6.12%	16.33%	9.98%	9.21%
S. Equity	\$11,105	28.89%	0.25%	15.28%	34.71%	15.42%	15.92%
Russell 3000 Index	-	-	(0.10%)	14.99%	31.88%	16.00%	16.85%
t'l Developed Mkts Equity	\$4,840	12.59%	(0.31%)	10.32%	28.29%	9.14%	10.33%
MSCI World ex US IMI	-	-	(0.45%)	9.43%	27.04%	8.10%	9.09%
merging Mkts Equity	\$1,395	3.63%	(8.41%)	(0.11%)	20.06%	11.52%	11.46%
MSCI EM IMI	-	-	(7.39%)	0.71%	20.80%	9.10%	9.28%
rivate Equity	\$6,116	15.91%	13.73%	43.22%	62.50%	23.72%	19.40%
Burgiss Private Equity Index (Qtr lag)	-	-	9.03%	33.50%	44.29%	18.69%	17.78%
Global Equity + 3% (Qtr lag)(4)	-	-	8.22%	33.14%	44.87%	20.91%	20.43%
rivate Credit	\$1.992	5.18%	2.56%	14.37%	20.75%	11.63%	
S&P Levered Loan Index + 1% (Qtr lag		-	1.71%	7.95%	12.65%	5.47%	6.03%
xed Income	\$8,255	21.48%	0.13%	(1.03%)	1.19%	4.82%	3.07%
Blmbg U.S. Agg Bond Index	-	-	0.05%	(1.55%)	(0.90%)	5.36%	2.94%
flation Protection (TIPS)	\$1,131	2.94%	1.38%	2.85%	4.66%	7.18%	4.17%
Blmbg U.S. TIPS Index	-		1.75%	3.51%	5.19%	7.45%	4.34%
eal Estate	\$2,784	7.24%	3.76%	10.99%	14.86%	8.41%	4.21%
Real Estate Custom Bench (Qtr lag)(5)		-	3.85%	9.08%	10.87%	5.22%	5.70%
CPI + 3% (Qtr lag)	-	-	3.26%	6.60%	8.39%	5.54%	5.43%
ash	\$795	2.07%	0.01%	0.06%	0.10%	1.20%	1.35%
3-month Treasury Bill	• • •		0.01%	0.04%	0.07%	1.18%	1.16%

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

BofAML 3 Mo US T-Bill Index.

BofAML 3 Mo US T-Bill Index.
(2) Public Market Equivalent Benchmark returns provided by RVK prior to 12/31/2018. As of 01/01/2020, benchmark consists of: 26% Bloomberg U.S. Agg Bond Index, 25% Russell 3000, 13% MSCI World ex US Index, 10.5% Russell 3000+ 3% (Qtr lag), 8% CPI+3% (Qtr Lag), 4% S&P/LSTA Levered Loan Index +1% (Qtr lag), 4% Bloomberg US TIPS Index, 4% MSCI Emerging Markets Index, 3.5% MSCI World ex US +3% (Qtr lag), 2% ICE BofAML 3 Mo US T-Bill Index. Starting 07/01/2021, benchmark consists of 26% Bloomberg U.S. Agg Bond Index, 27% Russell 3000, 13% MSCI World IMI ex US, 9% Russell 3000+ 3% (Qtr lag), 8% CPI+3% (Qtr lag), 4% S&P/LSTA Lev. + 1% (Qtr Lag), 4% US TIPS Index, 4% MSCI EM IMI Index, 3% MSCI World ex US +3% (Qtr lag), 2% ICE BofAML 3 Mo US T-Bill Index.
(3) Benchmark consists of 60% MSCI ACW IMI Index and 40% Bloomberg U.S. Agg Bond Index.
(4) As of 01/01/2020 benchmark consists of 25% MSCI World ex US +3% (Qtr lag) and 75% Russell 3000 + 3% (Qtr lag). Benchmark performance represents the historical benchmark (Russell 3000 + 3% Qtr lag) linked to the current benchmark.
(5) As of 03/31/2019 benchmark consists of 90% NCREIF ODCE Index (Qtr lag) and 10% FTSE NAREIT Index (unlagged).



The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. 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.

Net Performance Total Fund 9.01% 6.67% 7.72% Total Fund Custom Benchmark(1) 9.84% 7.88% 8.51% Public Market Equiv Benchmark(2) 9.93% 7.94% 8.55% 60/40 Index(3) 8.55% 6.44% 7.17% U.S. Equity 16.23% 9.24% 9.38% Russell 3000 Index 16.60% 10.44% 9.85% Int'I Developed Mkts Equity 9.32% 4.42% - MSCI World ex US IMI 8.17% 4.44% 7.11% Emerging Mkts Equity 6.83% 4.12% - MSCI EM IMI 6.22% 5.89% 11.07% Private Equity 13.83% 12.64% 11.02% Burgiss Private Equity Index (Qtr lag) 14.02% 12.80% 11.88%	Last		
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Private Credit -	14.58%	17.30%	(1/
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S/(/ S/(/	7.77%	8.34%	(3/
CPI + 3% (Qtr lag) 4.87% 4.97% 5.14%	8.10%	-	
	5.23%	5.66%	(3/
ash 0.90% 1.31% 1.64%	2.45%	3.46%	
asn 0.90% 1.31% 1.64% 3-month Treasury Bill 0.63% 1.00% 1.32%	2.45% 2.11%	3.46% 3.19%	(1/ (1/

(1) Total Fund Custom Benchmark returns provided by RVK prior to 12/31/2018. Starting 01/01/2020,

benchmark consists of: 26% Bloomberg U.S. Agg Bond Index, 14% SERS Private Equity Composite, 25% Russell 3000 Index,

13% MSCI World ex US IMI Index, 8% Real Estate Custom Benchmark, 4% S&P/LSTA Leveraged Loan Index + 1% (Qtr lag),

4% MSCI Emerging Markets IMI Index, 4% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index.

Starting 07/01/2021, benchmark consists of: 26% Bloomberg U.S. Agg Bond Index, 12% SERS Private Equity Composite,

27% Russell 3000 Index, 13% MSCI World ex US IMI Index, 8% Real Estate Custom Benchmark, 4% S&P/LSTA

Leveraged Loan Index + 1% (Qtr lag), 4% MSCI Emerging Markets IMI Index, 4% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index.

(2) Public Market Equivalent Benchmark returns provided by RVK prior to 12/31/2018. As of 01/01/2020,

benchmark consists of: 26% Bloomberg U.S. Agg Bond Index, 25% Russell 3000,13% MSCI World ex US Index,

10.5% Russell 3000+ 3% (Qtr lag), 8% CPI+3% (Qtr Lag), 4% S&P/LSTA Levered Loan Index +1% (Qtr lag),

4% Bloomberg US TIPS Index, 4% MSCI Emerging Markets Index, 3.5% MSCI World ex US +3% (Qtr lag),

2% ICE BofAML 3 Mo US T-Bill Index. Starting 07/01/2021, benchmark consists of 26% Bloomberg U.S. Agg Bond Index, 27%

Russell 3000, 13% MSCI World IMI ex US, 9% Russell 3000+ 3% (Qtr lag), 8% CPI+3% (Qtr lag), 4% S&P/LSTA Lev. + 1% (Qtr Lag), 4% US TIPS Index,4% MSCI EM IMI Index, 3% MSCI World ex US +3% (Qtr lag), 2% ICE BofAML 3 Mo US T-Bill Index.

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

(4) As of 01/01/2020 benchmark consists of 25% MSCI World ex US +3% (Qtr lag) and 75% Russell 3000 + 3% (Qtr lag).

Benchmark performance represents the historical benchmark (Russell 3000 +3% Qtr lag) linked to the current benchmark.

(5) As of 03/31/2019 benchmark consists of 90% NCREIF ODCE Index (Qtr lag) and 10% FTSE NAREIT Index (unlagged)

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021									
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years		
Net Performance- Domestic Equity									
U.S. Equity	\$11,105	100.00%	0.25%	15.28%	34.71%	15.42%	15.92%		
Russell 3000 Index (1)	-	-	(0.10%)	14.99%	31.88%	16.00%	16.85%		
MCM Russell 1000 Index	8,693	78.28%	0.34%	15.35%	31.17%	16.45%	17.14%		
Russell 1000 Index		-	0.21%	15.19%	30.96%	16.43%	17.11%		
MCM Russell 2000 Core Index	1,026	9.24%	(1.71%)	15.07%	50.21%	11.13%	-		
Russell 2000 Index	-	-	(4.36%)	12.41%	47.68%	10.54%	13.45%		
MCM Russell 2000 Val Index	747	6.72%	(2.99%)	22.97%	63.97%	8.62%	-		
Russell 2000 Value Index		-	(2.98%)	22.92%	63.92%	8.58%	11.03%		
Emerald Asset Management	639	5.75%	(1.62%)	2.88%	29.40%	12.41%	-		
Russell 2000 Growth Index		-	(5.65%)	2.82%	33.27%	11.70%	15.34%		

*Market values may not sum as a result of accounts funded within the quarter or accounts in the process of liquidation. The market values and performance of such accounts are included within their relevant composites. (1) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.



The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. 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 Period	Is Ended Septer	nber 30, 2021		
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance- Domestic Equity					
U.S. Equity	16.23%	9.24%	9.38%	9.28%	11.16% (1/81)
Russell 3000 Index (1)	16.60%	10.44%	9.85%	9.67%	11.44% (1/81)
MCM Russell 1000 Index	-	-	-	-	15.87% (1/12)
Russell 1000 Index	16.76%	10.55%	9.81%	9.82%	15.89% (1/12)
MCM Russell 2000 Core Index	-	-	-	-	12.96% (12/16)
Russell 2000 Index	14.63%	9.16%	10.29%	9.12%	12.61% (12/16)
MCM Russell 2000 Val Index	-	-	-	-	9.33% (12/16)
Russell 2000 Value Index	13.22%	7.50%	9.79%	9.82%	9.35% (12/16)
Emerald Asset Management	-	-	-	-	16.31% (12/16)
Russell 2000 Growth Index	15.74%	10.59%	10.48%	7.92%	15.39% (12/16)

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The market values and performance of such accounts are included within their relevant composites.

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

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	Returns for Periods Ended September 30, 2021									
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years			
Net Performance- International Equity										
Int'l Developed Mkts Equity	\$4,840	100.00%	(0.31%)	10.32%	28.29%	9.14%	10.33%			
MSCI World ex US IMI	-	-	(0.45%)	9.43%	27.04%	8.10%	9.09%			
Walter Scott & Partners(1)	757	15.64%	1.04%	10.67%	26.96%	15.65%	16.91%			
MSCI World	-	-	(0.01%)	13.04%	28.82%	13.14%	13.74%			
BlackRock MSCI World Ex US Index	3,667	75.76%	(0.57%)	9.60%	27.11%	8.29%	-			
MSCI World ex US		-	(0.66%)	9.19%	26.50%	7.87%	8.88%			
Xponance Non-U.S. Small Cap	263	5.44%	0.22%	12.35%	30.72%	9.51%	-			
MSCI ACWI ex US Small Cap		-	(0.00%)	12.23%	33.06%	10.33%	10.28%			
Harris Assoc Int'I SCV	147	3.03%	<mark>(1.40%)</mark>	18.39%	47.43%	11.72%	10.78%			
MSCI World ex US Sm Cap	-	-	0.72%	10.71%	30.14%	9.50%	10.33%			
MSCI World ex US Sm Value	-	-	0.12%	12.46%	35.29%	6.48%	8.12%			

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

R	Returns for Periods Ended September 30, 2021									
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception					
Net Performance- International Equity										
Int'l Developed Mkts Equity	9.32%	4.42%	-	-	6.84% (1/02)					
MSCI World ex US IMI	8.17%	4.44%	7.11%	5.53%	6.89% (1/02)					
Walter Scott & Partners(1)	14.47%	10.51%	-	-	10.51% (10/06)					
MSCI World	12.68%	7.47%	8.10%	7.39%	7.47% (10/06)					
BlackRock MSCI World Ex US Index	-	-	-	-	7.86% (6/17)					
MSCI World ex US	7.88%	4.16%	6.68%	5.34%	7.39% (6/17)					
Xponance Non-U.S. Small Cap	-	-	-	-	9.51% (10/18)					
MSCI ACWI ex US Small Cap	9.44%	6.45%	10.42%	6.77%	10.33% (10/18)					
Harris Assoc Int'I SCV	10.35%	6.95%	-	-	11.35% (7/03)					
MSCI World ex US Sm Cap	10.03%	6.15%	10.06%	-	9.94% (7/03)					
MSCI World ex US Sm Value	8.80%	5.39%	10.01%	7.39%	9.54% (7/03)					

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021								
Not De formance Encode a Mida En	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	
Net Performance- Emerging Mkts Eq	luity							
Emerging Mkts Equity	\$1,395	100.00%	(8.41%)	<mark>(0.11%)</mark>	20.06%	11.52%	11.46%	
MSCI EM IMI	-	-	(7.39%)	0.71%	20.80%	9.10%	9.28%	
Macquarie Emg Mkts Equity	409	29.36%	(8.70%)	(1.76%)	14.80%	9.86%	10.85%	
MSCI EM		-	(8.09%)	(1.25%)	18.20%	8.59%	9.23%	
Martin Currie Emg Mkts Equity	462	33.13%	(9.14%)	(2.45%)	19.95%	13.18%	13.32%	
MSCI EM		-	(8.09%)	(1.25%)	18.20%	8.59%	9.23%	
BlackRock Emg Mkts Index	113	8.12%	(8.22%)	(1.48%)	17.77%	8.26%	-	
MSCI EM	-	-	(8.09%)	(1.25%)	18.20%	8.59%	9.23%	
Leading Edge Emg Mkts Fund	274	19.66%	(8.24%)	(1.97%)	17.92%	-	-	
MSCI EM		-	(8.09%)	(1.25%)	18.20%	8.59%	9.23%	
GlobeFlex Emerging Small Cap	136	9.73%	(5.51%)	22.00%	48.12%	13.07%	12.20%	
MSCI EM Small Cap		-	(2.16%)	17.20%	43.24%	13.11%	9.76%	

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Returns for Periods Ended September 30, 2021									
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception				
Net Performance- Emerging Mkts Equity									
Emerging Mkts Equity	6.83%	4.12%	-	-	8.03% (1/02)				
MSCI EM IMI	6.22%	5.89%	11.07%	5.35%	9.87% (1/02)				
Macquarie Emg Mkts Equity	-	-	-	-	6.19% (5/13)				
MSCI EM	6.09%	5.68%	10.97%		4.73% (5/13)				
Martin Currie Emg Mkts Equity	-	-	-	:	7.73% (1/14)				
MSCI EM	6.09%	5.68%	10.97%		5.39% (1/14)				
BlackRock Emg Mkts Index	-	-	-	-	7.40% (7/17)				
MSCI EM	6.09%	5.68%	10.97%		7.69% (7/17)				
Leading Edge Emg Mkts Fund	-	-	-	-	12.07% (11/18)				
MSCI EM	6.09%	5.68%	10.97%		12.30% (11/18)				
GlobeFlex Emerging Small Cap	-	-	-	-	7.94% (8/13)				
MSCI EM Small Cap	7.21%	7.20%	12.11%	5.64%	6.74% (8/13)				

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Returns for Periods Ended September 30, 2021									
	Market Value	Ending	Last	Year Last to Last			Last 5		
	\$(mm)	Weight	Quarter	Date	Year	Years	Years		
Net Performance - Private Equity									
Private Equity Burgiss Private Equity Index (Qtr lag) Global Equity + 3% (Qtr lag)(1)	\$6,116 _ _	100.00% - -	13.73% 9.03% 8.22%	43.22% 33.50% 33.14%	62.50% 44.29% 44.87%	23.72% 18.69% 20.91%	19.40% 17.78% 20.43%		
Buyouts Burgiss Buyout Index (Qtr lag)	3,411 -	55.77% -	11.81% 9.90%	34.46% 30.27%	51.22% 41.30%	22.01% 16.02%	19.10% 16.77%		
Special Situations Burgiss Special Situations Idx (Qtr lag	587 J) -	9.60% -	11.01% 3.48%	37.66% 12.32%	49.25% 16.32%	22.20% 6.18%	17.65% 7.89%		
Growth Equity Burgiss Venture Capital Index (Qtr lag	1,476 g) -	24.13% -	16.76% 9.94%	66.08% 55.20%	102.08% 71.09%	44.96% 33.10%	30.14% 25.88%		
Keystone Legacy (2)	642	10.50%	19.77%	46.82%	58.29%	9.18%	-		

*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) As of 01/01/2020 benchmark consists of 25% MSCI World ex US and 75% Russell 3000 + 3% with a 1 quarter lag. (2) As of 12/31/2020,Keystone Legacy SPV consists of 119 non-core funds, prior performance in previous sub-asset classes

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021									
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception				
Net Performance - Private Equity									
Private Equity	13.83%	12.64%	11.02%	13.57%	11.99% (1/86)				
Burgiss Private Equity Index (Qtr lag)	14.02%	12.80%	11.88%	14.58%	17.30% (1/86)				
Global Equity + 3% (Qtr lag)(1)	17.62%	14.04%	12.22%	13.25%	15.13% (1/86)				
Buyouts	15.09%	13.88%	13.34%	15.59%	13.98% (4/86)				
Burgiss Buyout Index (Qtr lag)	13.36%	12.61%	13.42%	13.95%	19.67% (4/86)				
Special Situations	12.82%	12.93%	13.42%	13.34%	13.26% (1/95)				
Burgiss Special Situations Idx (Qtr lag)	7.99%	7.65%	9.26%	10.12%	10.37% (6/95)				
Growth Equity	16.93%	12.73%	5.87%	9.63%	9.23% (1/86)				
Burgiss Venture Capital Index (Qtr lag)	19.32%	15.36%	8.49%	15.55%	15.05% (1/86)				
Keystone Legacy (2)	-	-	-	-	8.44% (7/18)				

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The market values and performance of such accounts are included within their relevant composites.
(1) As of 01/01/2020 benchmark consists of 25% MSCI World ex US and 75% Russell 3000 + 3% with a 1 quarter lag.
(2) As of 12/31/2020,Keystone Legacy SPV consists of 119 non-core funds, prior performance in previous sub-asset classes



The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	Returns for Periods Ended September 30, 2021									
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years			
Net Performance - Private Cred	lit									
Private Credit S&P Levered Loan Index +1	\$1,992 % (Qtr lag) -	100.00% -	2.56% 1.71%	14.37% 7.95%	20.75% 12.65%	11.63% 5.47%	- 6.03%			
Direct Lending	277	13.90%	3.58%	16.73%	21.29%	-	-			
Distressed Debt	248	12.43%	9.22%	35.83%	44.26%	-	-			
Diversified Credit	1,468	73.67%	1.37%	11.43%	18.68%	-	-			

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Re					
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance - Private Credit					
Private Credit S&P Levered Loan Index +1% (Qtr lag)	- 5.42%	- 5.68%	- 5.81%	:	10.91% (12/17) 5.47% (12/17)
Direct Lending	-	-	-	-	9.38% (1/20)
Distressed Debt	-	-	-	-	26.89% (1/20)
Diversified Credit	-	-	-	-	15.58% (1/20)

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	Returns for Periods Ended September 30, 2021						
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance - Fixed Income	, ,, ,,		· · ·				
Fixed Income (1) BImbg U.S. Agg Bond Index	\$8,255	38.36% -	0.13% 0.05%	(1.03%) (1.55%)	1.19% (0.90%)	4.82% 5.36%	3.07% 2.94%
Core Fixed Income Blmbg U.S. Agg Bond Index	\$2,532 -	11.76% -	0.06% 0.05%	(1.44%) (1.55%)	(0.63%) (0.90%)	5.27% 5.36%	3.09% 2.94%
PIMCO Core Bond Fund Blmbg Agg ex Treasury	592	2.75%	0.27% 0.03%	(0.61%) (0.99%)	0.46% 0.55%	5.77% 5.53%	3.52% 3.30%
Mellon Bond Index BImbg U.S. Agg Bond Index (2)	1,940 -	9.02% -	<mark>(0.06%)</mark> 0.05%	(1.73%) (1.55%)	(1.07%) (0.90%)	5.24% 5.36%	2.86% 2.94%
Nominal U.S. Treasuries Blmbg US Treas Bell 10Y	\$556 -	2.58%	0.06% (0.07%)	(5.93%) (4.24%)	(7.53%) (6.07%)	5.62% 6.21%	1.85% 1.89%
PIMCO US Treasuries BImbg US Treas Bell 10Y	556 -	2.58%	0.06% (0.07%)	(4.07%) (4.24%)	(5.85%) (6.07%)	6.26% 6.21%	2.39% 1.89%
New Total Fixed Income Structure (1)	\$5,089	23.65%	0.26%	-	-	-	-
Intermediate Treasury Mellon Intermediate Treasury Inc BImbg Intmdt Treasury	\$288 lex 288 -	1.34% 1.34% -	(0.02%) (0.02%) (0.01%)	(1.15%)	(1.38%)	- 4.00%	- 1.98%
Long Duration Mellon Long Duration Index Blmbg Long Treasury	\$1,343 674 -	6.24% 3.13% -	0.05% 0.38% 0.47%	(7.64%) (7.49%)	(10.27%)	- 9.22%	- 3.31%
Mellon Long Term Credit Bond Ir BImbg Long Credit	ndex 669 -	3.11% -	(0.27%) (0.18%)	(2.66%)	- 2.13%	- 10.20%	- 6.14%
Securitized Mellon Securitized Index BImbg Securitized	\$705 705 -	3.28% 3.28% -	(0.05%) (0.05%) 0.09%	(0.65%)	(0.35%)	- 3.98%	- 2.25%
Intermediate Credit Mellon Intermediate Credit BImbg Intmdt Credit	\$2,039 2,039 -	9.48% 9.48% -	0.05% 0.05% 0.07%	(0.48%)	- 1.06%	- 5.55%	- 3.49%
High Yield Fidelity HY CMBS (3) BImbg US CMBS Ex AAA Inde	\$713 339 x (4) -	3.31% 1.58% -	1.15% 1.43% 0.03%	- 7.68% 3.53%	- 11.80% 8.11%	3.41% 6.17%	- 3.54% 4.58%
BlackRock US High Yield Index ICE BofA US HY Constrained I	123 ndex -	0.57%	0.87% 0.94%	- 4.68%	- 11.46%	- 6.59%	- 6.16%
Mellon High Yield Beta Fund Blmbg HY Corp	_251 _	1.17% -	0.80% 0.89%	4.53%	_ 11.28%	- 6.91%	- 6.52%

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The market values and performance of such accounts indiced within the quarter of accounts in the process of indicator. (1) Fixed Income also includes the new fixed income sub-composite which was funded in 03/01/2021. (2) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK. (3) On 03/01/2021, the Fidelity HY CMBS account switched from the Opportunistic Fixed composite to the High Yield

(4) Fidelity's blended benchmark consists of FTSE High Yield Market Index prior to 12/31/2009 and Blmbg US CMBS Ex AAA Index, thereafter.



The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. 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.

Ret	urns for Period					
	Last 10	Last 15	Last 20	Last 25	Since	
	Years	Years	Years	Years	Inception	
Net Performance - Fixed Income						
Fixed Income (1)	3.69%	4.68%	5.40%	5.69%	8.15% ((1/81)
Bimbg U.S. Agg Bond Index	3.01%	4.17%	4.33%	5.06%	7.44% (
Core Fixed Income	3.47%	4.53%	-	-	4.70% ((1/02)
BImbg U.S. Agg Bond Index	3.01%	4.17%	4.33%	5.06%		(1/02)
PIMCO Core Bond Fund	-	-	-	-	3.09% ((1/13)
Blmbg Agg ex Treasury	3.44%	4.45%	-	-		(1/13)
Mellon Bond-Index	2.89%	4.04%	4.24%	5.09%	6.94% ((4/84)
Blmbg U.S. Agg Bond Index (2)	3.01%	4.17%	4.37%	5.20%	-	
Nominal U.S. Treasuries	2.37%	-	-	-	2.59% ((9/11)
Blmbg US Treas Bell 10Y	2.48%	4.40%	4.33%	5.00%		(9/11)
PIMCO US Treasuries	2.73%	-	-	-	2.94% ((9/11)
Blmbg US Treas Bell 10Y	2.48%	4.40%	4.33%	5.00%	2.74% (
New Total Fixed Income Structure (1)	-		-		1.72% ((3/21)
Intermediate Treasury	-	-	-	-	(0.09%) ((3/21)
Mellon Intermediate Treasury Index	-	-	-	-	(0.09%) ((3/21)
BImbg Intmdt Treasury	1.81%	3.20%	3.27%	4.10%	(0.07%) ((3/21)
Long Duration	-	-	-	-	3.43% ((3/21)
Mellon Long Duration Index	-	-	-	-	(7.64%) (
BImbg Long Treasury	4.39%	6.45%	6.44%	7.11%	(7.49%) ((1/21)
Mellon Long Term Credit Index	-	-	-	-	3.73% ((3/21)
BImbg Long Credit	6.59%	7.13%	7.33%	7.42%	3.35% ((3/21)
Securitized	-	-	-	-	(0.66%) (
Mellon Securitized Index	-	-	-	-	(0.66%) (
BImbg Securitized	2.50%	3.81%	4.00%	-	(0.02%) ((3/21)
Intermediate Credit	-	-	-	-		(3/21)
Mellon Intermediate Credit	-	-	-	-		(3/21)
BImbg Intmdt Credit	3.71%	4.55%	4.70%	5.29%	0.68% ((3/21)
High Yield	-	-	-	-	4.79% (
Fidelity HY CMBS (3)	7.25%	5.66%	7.14%	-	8.01% (
BImbg US CMBS Ex AAA Index (4)	5.53%	0.92%	2.76%	-	4.11% (4	(4/97)
BlackRock US High Yield Bond Index	-	-	-	-	3.65% ((3/21)
ICE BofA US HY Constrained Index	-	-	-	-		(3/21)
Mellon High Yield Beta Fund	-	-	-	-	2.22% ((5/21)
Blmbg HY Corp	7.42%	7.31%	8.10%	6.99%		(5/21)

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The market values and performance of such accounts are included within their relevant composites.

(1) Fixed Income also includes the new fixed income sub-composite which was funded in 03/01/2021.

- (2) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.
- (3) On 03/01/2021, the Fidelity HY CMBS account switched from the Opportunistic Fixed composite to the High Yield

composite under the new fixed income structure.

(4) Fidelity's blended benchmark consists of FTSE High Yield Market Index prior to 12/31/2009 and Blmbg US CMBS Ex AAA Index, thereafter.



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Returns for Periods Ended September 30, 2021									
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years		
Net Performance - Fixed Income		-							
Fixed Income (1) Blmbg U.S. Agg Bond Index	\$8,255 -	100.00% -	0.13% 0.05%	(1.03%) (1.55%)	1.19% (0.90%)	4.82% 5.36%	3.07% 2.94%		
Opportunistic Fixed Income	\$79	0.95%	2.17%	6.41%	14.40%	6.02%	4.85%		
SEI Str. Credit: HY Bank Loans (2)(3) FTSE HY Corp (1 month lag)) 78 -	0.95% -	3.93% 2.22%	23.46% 6.61%	44.97% 10.11%	8.81% 6.72%	10.30% 6.38%		

*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⁾ Fixed Income also includes the new fixed income sub-composite which was funded in 03/01/2021.
(2) SEI HY Bank Loans since inception returns were included in the Fixed Income composite through 9/30/2017 and in the Multi-Strategy composite through 12/31/2019.
(3) SEI HY Bank Loans has a 1 month lag in valuation.

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021									
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception				
Net Performance - Fixed Income									
Fixed Income (1) Blmbg Aggregate	3.69% 3.01%	4.68% 4.17%	5.40% 4.33%	5.69% 5.06%	8.15% (1/81) 7.44% (1/81)				
Opportunistic Fixed Income	-	-	-	-	4.71% (10/12)				
SEI Str. Credit: HY Bank Loans (2)(3) FTSE HY Corp (1 month lag)	9.40% 6.74%	- 7.05%	- 7.47%	- 6.97%	12.26% (5/08) 7.55% (5/08)				

*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) Fixed Income also includes the new fixed income sub-composite which was funded in 03/01/2021.

(2) SEI HY Bank Loans since incertion returns were included in the Fixed Income composite through 9/30/2017 and

in the Multi-Strategy composite through 12/31/2019. (3) SEI HY Bank Loans has a 1 month lag in valuation.



The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021									
Net Performance - Inflation Protection	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years		
Inflation Protection (TIPS)	\$1,131	100.00%	1.38%	2.85%	4.66%	7.18%	4.17%		
Blmbg U.S. TIPS Index	-	-	1.75%	3.51%	5.19%	7.45%	4.34%		
NISA Inv Adv TIPS	486	42.96%	1.77%	3.55%	5.14%	7.39%	4.30%		
BImbg U.S. TIPS Index (1)		-	1.75%	3.51%	5.19%	7.45%	4.34%		
Brown Brothers TIPS	510	45.08%	1.63%	3.55%	4.90%	7.35%	4.25%		
BImbg U.S. TIPS Index	-	-	1.75%	3.51%	5.19%	7.45%	4.34%		
New Century Global TIPS	135	11.97%	0.20%	<mark>(1.05%)</mark>	3.65%	6.70%	3.85%		
Blmbg Wrld Inflation Linked Unhdg	I -	-	0.78%	0.35%	4.89%	6.62%	3.79%		

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021									
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception				
Net Performance - Inflation Protection									
Inflation Protection (TIPS) Blmbg U.S. TIPS Index	2.82% 3.12%	3.89% 4.43%	- 5.13%	-	3.69% (2/03) 4.66% (2/03)				
NISA Inv Adv TIPS	2.67%	-	-	-	3.75% (4/07)				
Blmbg U.S. TIPS Index (1)	2.67%	3.71%	4.58%	-	3.76% (4/07)				
Brown Brothers TIPS Bimbg U.S. TIPS Index	- 3.12%	- 4.43%	- 5.13%	-	2.82% (2/12) 2.71% (2/12)				
New Century Global TIPS Blmbg Wrld Inflation Linked Unhdg	- 3.20%	- 4.11%	- 5.72%	-	3.09% (2/12) 2.77% (2/12)				

*Market values may not sum as a result of accounts funded within the quarter or accounts in the process of liquidation.

The market values and performance of such accounts are included within their relevant composites. (1) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021									
Net Performance - Real Estate	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years		
Real Estate	\$2,784	100.00%	3.76%	10.99%	14.86%	8.41%	4.21%		
Real Estate Custom Bench (Qtr lag)	(1) -	-	3.85%	9.08%	10.87%	5.22%	5.70%		
CPI +3% (Qtr lag)	-	-	3.26%	6.60%	8.39%	5.54%	5.43%		
Core/Core Plus Real Estate Funds	1,103	39.62%	2.65%	7.74%	10.28%	5.62%	6.08%		
NCREIF ODCE Index (Qtr lag)	-	-	4.17%	7.57%	7.97%	5.19%	6.09%		
Value Add/Opportunistic SMA	732	26.28%	6.13%	6.09%	10.16%	10.77%	2.21%		
NCREIF ODCE Index (Qtr lag)		-	4.17%	7.57%	7.97%	5.19%	6.09%		
Value Add/Opportunistic Funds	613	22.03%	4.25%	17.79%	18.81%	7.46%	7.84%		
NCREIF ODCE Index (Qtr lag)		-	4.17%	7.57%	7.97%	5.19%	6.09%		
Legacy Real Assets	5	0.18%	6.50%	3.07%	<mark>(0.01%)</mark>	1.08%	<mark>(1.96%)</mark>		
CPI +3% (Qtr lag)		-	3.26%	6.60%	8.39%	5.54%	5.43%		
REITS	331	11.89%	1.29%	23.51%	38.28%	11.98%	6.74%		
FTSE NAREIT US Index		-	0.70%	22.83%	38.82%	9.08%	5.59%		

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. 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.

Re	Returns for Periods Ended September 30, 2021										
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception						
Net Performance - Real Estate											
Real Estate	6.93%	4.04%	6.50%	7.77%	8.34% (3/84)						
Real Estate Custom Bench (Qtr lag) (1)	8.62%	5.52%	7.08%	8.10%	-						
CPI +3% (Qtr lag)	4.87%	4.97%	5.14%	5.23%	5.66% (3/84)						
Core/Core Plus Real Estate Funds	9.13%	6.32%	7.30%	8.41%	7.02% (9/86)						
NCREIF ODCE Index (Qtr lag)	8.86%	5.35%	6.55%	7.58%	5.94% (9/86)						
Value Add/Opportunistic SMA	5.59%	2.62%	4.78%	6.26%	5.33% (6/88)						
NCREIF ODCE Index (Qtr lag)	8.86%	5.35%	6.55%	7.58%	5.98% (6/88)						
Value Add/Opportunistic Funds	9.64%	4.39%	7.41%	9.05%	7.89% (3/84)						
NCREIF ODCE Index (Qtr lag)	8.86%	5.35%	6.55%	7.58%	6.20% (3/84)						
Legacy Real Assets	<mark>(0.21%)</mark>	0.96%	2.29%	3.28%	3.92% (3/93)						
CPI +3% (Qtr lag)	4.87%	4.97%	5.14%	5.23%	5.30% (3/93)						
REITS	7.96%	6.77%	9.66%	10.04%	10.00% (4/96)						
FTSE NAREIT US Index	8.90%	6.53%	9.46%	10.19%	10.36% (4/96)						

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	Returns for Periods Ended September 30, 2021						
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance							
Total Fund (1) Total Fund Estimated Gross Histo Total Fund Custom Benchmark Public Market Equiv Benchmark 60/40 Index	\$38,449 ry (1) 38,449 - - -	100.00% 100.00% - - -	2.53% 2.53% 2.02% 1.02% (0.63%)	13.38% 13.38% 12.03% 9.75% 6.12%	25.21% 25.21% 22.37% 18.93% 16.33%	11.86% 11.72% 11.01% 9.98%	11.25% 10.93% 10.91% 9.21%
U.S. Equity	\$11,107	28.89%	0.26%	15.32%	34.77%	15.50%	16.03%
Russell 3000 Index	_	-	(0.10%)	14.99%	31.88%	16.00%	16.85%
Int'l Developed Mkts Equity	\$4,842	12.59%	(0.27%)	10.43%	28.44%	9.29%	10.51%
MSCI World ex US IMI	-	-	(0.45%)	9.43%	27.04%	8.10%	9.09%
Emerging Mkts Equity	\$1,395	3.63%	(8.28%)	0.32%	20.73%	12.04%	12.05%
MSCI EM IMI	-	-	(7.39%)	0.71%	20.80%	9.10%	9.28%
Private Equity (1) Burgiss Private Equity Index (Qtr I Global Equity +3% (Qtr lag)	\$6,116 ag) - -	15.91% - -	16.47% 9.03% 8.22%	53.14% 33.50% 33.14%	76.92% 44.29% 44.87%	18.69% 20.91%	- 17.78% 20.43%
Private Credit (1)	\$1,992	5.18%	3.34%	17.25%	25.70%	-	:
S&P Levered Loan Index +1% (Qt	r Lag) -	-	1.71%	7.95%	12.65%	5.47%	
Fixed Income	\$8,259	21.48%	0.14%	(0.97%)	1.31%	5.02%	3.28%
Blmbg U.S. Agg Bond Index	-	-	0.05%	(1.55%)	(0.90%)	5.36%	2.94%
Inflation Protection (TIPS)	\$1,132	2.94%	1.41%	2.93%	4.77%	7.31%	4.30%
Blmbg U.S. TIPS Index	-		1.75%	3.51%	5.19%	7.45%	4.34%
Real Estate (1) Real Estate Custom Benchmark (CPI +3% (Qtr lag)	\$2,784 Qtr lag) <i>-</i> -	7.24% - -	4.23% 3.85% 3.26%	12.11% 9.08% 6.60%	16.52% 10.87% 8.39%	- 5.22% 5.54%	5.70% 5.43%
Cash	\$795	2.07%	0.01%	0.06%	0.10%	1.20%	1.35%
3-month Treasury Bill	-	-	0.01%	0.04%	0.07%	1.18%	1.16%

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	Last 10	Last 15	Last 20	Last 25	Since	
	Years	Years	Years	Years	Inception	n
Gross Performance						
Total Fund (2)	-	-	-	-	14.63%	(1/20)
Total Fund Estimated Gross History (2)	9.78%	7.50%	8.56%	8.76%	8.91%	(1/96)
Total Fund Custom Benchmark	9.84%	7.88%	8.51%	8.45%	8.55%	(1/96)
Public Market Equiv Benchmark	9.93%	7.94%	8.55%	8.49%	8.58%	(1/96)
60/40 Index	8.55%	6.44%	7.17%	6.77%	6.77%	(1/96)
U.S. Equity	16.36%	9.39%	9.53%	9.39%	11.23%	(1/81)
Russell 3000 (1)	16.60%	10.44%	9.85%	9.67%	11.44%	(1/81)
Int'l Developed Mkts Equity	9.56%	4.69%	-	-	7.15%	(1/02)
MSCI World ex US IMI	8.17%	4.44%	7.11%	5.53%	6.89%	· · ·
Emerging Mkts Equity	7.30%	4.57%			8.41%	(1/02)
MSCI EM IMI	6.22%	5.89%	11.07%	5.35%	9.87%	(1/02)
Private Equity (2)	-	-	-	-	44.02%	(1/20)
Burgiss Private Equity Index (Qtr lag)	14.02%	12.80%	11.88%	14.58%	26.57%	(1/20)
Global Equity +3% (Qtr lag)	17.62%	14.04%	12.22%	13.25%	27.90%	(1/20)
Private Credit (2)	-			-	17.61%	(1/20)
S&P Levered Loan Index +1% (Qtr Lag)	5.42%	5.68%	5.81%	-	5.82%	(1/20)
Fixed Income	3.94%	4.92%	5.64%	5.92%	7.45%	(1/85)
BImbg U.S. Agg Bond Index	3.01%	4.17%	4.33%	5.06%	6.63%	(1/85)
Inflation Protection (TIPS)	2.95%	4.02%		-	3.81%	(2/03)
BImbg U.S. TIPS Index	3.12%	4.43%	5.13%	-	4.66%	(2/03)
Real Estate (2)	-			-	8.59%	(1/20)
Real Estate Custom Benchmark (Qtr lag)	8.62%	5.52%	7.08%	8.10%	5.24%	(1/20)
CPI +3% (Qtr lag)	4.87%	4.97%	5.14%	5.23%	6.29%	(1/20)
Cash	0.90%	1.32%	1.66%	2.45%	3.85%	(1/87)
3-month Treasury Bill	0.63%	1.00%	1.32%	2.11%	3.19%	(1/87)

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The market values and performance of such accounts are included within their relevant composites.

 Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.
 The Total Fund Estimated Gross History is calculated by BNY Mellon using a gross-up methodology through 12/31/19. Starting 01/01/2020 gross performance is calculated for all asset classes and the Total Fund, including Private Equity, Private Credit, and Real Estate, for which gross history was not previously calculated.



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Returns for Periods Ended September 30, 2021							
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance- Domestic Equit	У						
U.S. Equity Russell 3000 Index(1)	\$11,107 -	100.00% -	0.26% (0.10%)	15.32% 14.99%	34.77% 31.88%	15.50% 16.00%	16.03% 16.85%
MCM Russell 1000 Index Russell 1000 Index	8,693	78.27% -	0.35% 0.21%	15.35% 15.19%	31.18% 30.96%	16.46% 16.43%	17.15% 17.11%
MCM Russell 2000 Core Index Russell 2000 Index	1,026	9.24%	(1.71%) (4.36%)	15.08% 12.41%	50.24% 47.68%	11.16% 10.54%	- 13.45%
MCM Russell 2000 Val Index Russell 2000 Value Index	747	6.72%	(2.99%) (2.98%)	22.98% 22.92%	64.00% 63.92%	8.64% 8.58%	- 11.03%
Emerald Asset Management Russell 2000 Growth Index	_640	5.77%	(1.50%) (5.65%)	3.29% 2.82%	30.02% 33.27%	12.97% 11.70%	- 15.34%

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

F					
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Gross Performance- Domestic Equity					
U.S. Equity	16.36%	9.39%	9.53%	9.39%	11.23% (1/81)
Russell 3000 Index(1)	16.60%	10.44%	9.85%	9.67%	11.44% (1/81)
MCM Russell 1000 Index	-	-	-	-	15.88% (1/12)
Russell 1000 Index	16.76%	10.55%	9.81%	9.82%	15.89% (1/12)
MCM Russell 2000 Core Index	-	-	-	-	12.98% (12/16)
Russell 2000 Index	14.63%	9.16%	10.29%	9.12%	12.61% (12/16)
MCM Russell 2000 Val Index	-	-	-	-	9.35% (12/16)
Russell 2000 Value Index	13.22%	7.50%	9.79%	9.82%	9.35% (12/16)
Emerald Asset Management	-	-	-	-	16.85% (12/16)
Russell 2000 Growth Index	15.74%	10.59%	10.48%	7.92%	15.39% (12/16)

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The market values and performance of such accounts are included within their relevant composites.

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

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021							
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance - International Equ	ity						
Int'l Developed Mkts Equity	\$4,842	100.00%	(0.27%)	10.43%	28.44%	9.29%	10.51%
MSCI World ex US IMI		_	(0.45%)	9.43%	27.04%	8.10%	9.09%
Walter Scott & Partners (1)	758	15.65%	1.14%	11.00%	27.44%	16.23%	17.42%
MSCI World		-	(0.01%)	13.04%	28.82%	13.14%	13.74%
BlackRock MSCI World Ex US Index	3,667	75.74%	(0.57%)	9.61%	27.12%	8.30%	-
MSCI World ex US		-	(0.66%)	9.19%	26.50%	7.87%	8.88%
Xponance Non-U.S. Small Cap	263	5.44%	0.39%	12.92%	31.61%	10.07%	-
MSCI ACWI ex US Small Cap		-	(0.00%)	12.23%	33.06%	10.33%	10.28%
Harris Assoc Int'l SCV	147	3.04%	<mark>(1.20%)</mark>	19.12%	48.85%	12.73%	11.72%
MSCI World ex US Sm Cap	-	-	0.72%	10.71%	30.14%	9.50%	10.33%
MSCI World ex US Sm Value	-	-	0.12%	12.46%	35.29%	6.48%	8.12%

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

R	eturns for Period	Is Ended Septer	nber 30, 2021		
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Gross Performance - International Equity					
Int'l Developed Mkts Equity	9.56%	4.69%	-	-	7.15% (1/02)
MSCI World ex US IMI	8.17%	4.44%	7.11%	5.53%	6.89% (1/02)
Walter Scott & Partners (1)	14.95%	10.98%	-	-	10.98% (10/06)
MSCI World	12.68%	7.47%	8.10%	7.39%	7.47% (10/06)
BlackRock MSCI World Ex US Index	-	-	-	-	7.87% (6/17)
MSCI World ex US	7.88%	4.16%	6.68%	5.34%	7.39% (6/17)
Xponance Non-U.S. Small Cap	9.44%	-	-	-	10.07% (10/18)
MSCI ACWI ex US Small Cap		6.45%	10.42%	6.77%	10.33% (10/18)
Harris Assoc Int'l SCV	11.17%	7.75%	-	-	12.16% (7/03)
MSCI World ex US Sm Cap	10.03%	6.15%	10.06%	-	9.94% (7/03)
MSCI World ex US Sm Value	8.80%	5.39%	10.01%	7.39%	9.54% (7/03)

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Returns for Periods Ended September 30, 2021									
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years		
Gross Performance - Emerging Mkts	Equity								
Emerging Mkts Equity	\$1,395	100.00%	(8.28%)	0.32%	20.73%	12.04%	12.05%		
MSCI EM IMI	-	-	(7.39%)	0.71%	20.80%	9.10%	9.28%		
Macquarie Emg Mkts Equity	409	29.35%	(8.57%)	(1.35%)	15.44%	10.49%	11.54%		
MSCI EM		-	(8.09%)	(1.25%)	18.20%	8.59%	9.23%		
Martin Currie Emg Mkts Equity	462	33.12%	(9.02%)	(2.07%)	20.56%	13.76%	14.02%		
MSCI EM		-	(8.09%)	(1.25%)	18.20%	8.59%	9.23%		
BlackRock Emg Mkts Index	113	8.12%	(8.20%)	(1.46%)	17.77%	8.37%	9.23%		
MSCI EM	-	-	(8.09%)	(1.25%)	18.20%	8.59%			
Leading Edge Emg Mkts Fund	274	19.65%	(8.05%)	(1.38%)	18.86%	-	-		
MSCI EM		-	(8.09%)	(1.25%)	18.20%	8.59%	9.23%		
GlobeFlex Emerging Small Cap	136	9.76%	(5.35%)	22.57%	49.00%	13.85%	12.98%		
MSCI EM Small Cap		-	(2.16%)	17.20%	43.24%	13.11%	9.76%		

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	Returns for Period	ls Ended Septer	mber 30, 2021		
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Gross Performance - Emerging Mkts Equity	/				
Emerging Mkts Equity	7.30%	4.57%	-	-	8.41% (1/02)
MSCI EM IMI	6.22%	5.89%	11.07%	5.35%	9.87% (1/02)
Macquarie Emg Mkts Equity	-	-	-	-	6.87% (5/13)
MSCI EM	6.09%	5.68%	10.97%		4.73% (5/13)
Martin Currie Emg Mkts Equity	-	-	-	2	8.31% (1/14)
MSCI EM	6.09%	5.68%	10.97%		5.39% (1/14)
BlackRock Emg Mkts Index	-	-	-	-	7.48% (7/17)
MSCI EM	6.09%	5.68%	10.97%		7.69% (7/17)
Leading Edge Emg Mkts Fund	-	-	-	-	12.74% (11/18)
MSCI EM	6.09%	5.68%	10.97%		12.30% (11/18)
GlobeFlex Emerging Small Cap	-	-	-	-	8.60% (8/13)
MSCI EM Small Cap	7.21%	7.20%	12.11%	5.64%	6.74% (8/13)

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	Returns for Periods Ended September 30, 2021									
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Since Inception			
Gross Performance - Private Equity										
Private Equity (1) Burgiss All Private Equity (Qtr Lag) Global Equity +3% (Qtr lag) (2)	\$6,116 - -	100.00% - -	16.47% 9.03% 8.22%	53.14% 33.50% 33.14%	76.92% 44.29% 44.87%	18.69% 20.91%	44.02% (1/20) 26.57% (1/20) 27.90% (1/20)			
Buyouts Burgiss Buyout Index (Qtr Lag)	3,411 -	55.77% -	15.03% 9.90%	44.12% 30.27%	66.03% 41.30%	- 16.02%	41.46% (1/20) 23.10% (1/20)			
Special Situations Burgiss Special Sits Index (Qtr Lag)	587 -	9.60% -	13.02% 3.48%	47.58% 12.32%	62.41% 16.32%	- 6.18%	32.56% (1/20) 8.28% (1/20)			
Growth Equity Burgiss Venture Capital Idx (Qtr Lag	1,476 g) -	24.13% -	19.51% 9.94%	79.15% 55.20%	120.68% 71.09%	- 33.10%	72.11% (1/20) 46.27% (1/20)			
Keystone Legacy (3)	642	10.50%	20.55%	51.81%	64.72%	-	23.85% (1/20)			

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(1) Starting 01/01/2020 gross performance is calculated for all asset classes and the Total Fund, including Private Equity, Private Credit, and Real Estate, for which gross history was not previously calculated.
 (2) As of 01/01/2020 benchmark is 25% MSCI World ex US Index and 75% Russell 3000 + 3% with a 1 Qtr lag.
 (3) As of 12/31/2020,Keystone Legacy SPV consists of 119 non-core funds, prior performance in previous sub-asset classes



The market values and performance of such accounts are included within their relevant composites.

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	Returns for Periods Ended September 30, 2021										
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Since Inception				
Gross Performance - Private C	Credit		· · ·								
Private Credit (1) S&P Levered Loan Index +	\$1,992 - 1% (Qtr Lag) <i>-</i>	100.00% -	3.34% 1.71%	17.25% 7.95%	25.70% 12.65%	- 5.47%	17.61% (1/20) 5.82% (1/20)				
Direct Lending	277	13.90%	4.83%	19.29%	26.35%	-	12.79% (1/20)				
Distressed Debt	248	12.43%	12.13%	50.48%	61.05%	-	36.80% (1/20)				
Diversified Credit	1,468	73.67%	1.78%	13.19%	22.55%	-	19.92% (1/20)				

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	Returns for Periods Ended September 30, 2021						
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Bross Performance - Fixed Income							
i xed Income (1) Blmbg U.S. Agg Bond Index	\$8,259 -	38.36% -	0.14% 0.05%	(0.97%) (1.55%)	1.31% (0.90%)	5.02% 5.36%	3.28% 2.94%
Core Fixed Income Blmbg U.S. Agg Bond Index	\$2,533 -	11.77% -	0.07% 0.05%	(1.41%) (1.55%)	(0.57%) (0.90%)	5.35% 5.36%	3.18% 2.94%
PIMCO Core Bond Fund BImbg Agg ex Treasury	592	2.75% -	0.32% 0.03%	(0.43%) (0.99%)	0.87% 0.55%	6.05% 5.53%	3.75% 3.30%
Mellon Bond Index Blmbg U.S. Agg Bond Index (2)	1,941 -	9.01% -	<mark>(0.05%)</mark> 0.05%	(1.72%) (1.55%)	(1.05%) (0.90%)	5.26% 5.36%	2.88% 2.94%
lominal U.S. Treasuries Blmbg US Treas Bell 10Y	\$556 -	2.58% -	0.09% (0.07%)	(5.86%) (4.24%)	(7.46%) (6.07%)	5.73% 6.21%	1.95% 1.89%
PIMCO US Treasuries Blmbg US Treas Bell 10Y	_556 _	2.58%	0.09% (0.07%)	(3.99%) (4.24%)	(5.78%) (6.07%)	6.37% 6.21%	2.48% 1.89%
lew Total Fixed Income Structure (1)	\$5,090	23.64%	0.27%	-	-	-	-
Intermediate Treasury Mellon Intermediate Treasury Ind Blmbg Intmdt Treasury	\$288 lex 288 -	1.34% 1.34% -	(0.02%) (0.02%) (0.01%)	(1.15%)	(1.38%)	- 4.00%	- 1.98%
Long Duration Mellon Long Duration Index Blmbg Long Treasury	\$1,344 674 -	6.24% 3.13% -	0.06% 0.38% 0.47%	(7.64%) (7.49%)	(10.27%)	- 9.22%	- 3.31%
Mellon Long Term Credit Index BImbg Long Credit	669	3.11% -	(0.27%) (0.18%)	(2.66%)	- 2.13%	- 10.20%	- 6.14%
Securitized Mellon Securitized Index Blmbg Securitized	\$705 705 -	3.28% 3.28%	(0.05%) (0.05%) 0.09%	(0.65%)	(0.35%)	- 3.98%	- 2.25%
Intermediate Credit Mellon Intermediate Credit Blmbg Intmdt Credit	\$2,039 2,039 -	9.47% 9.47%	0.05% 0.05% 0.07%	(0.48%)	- - 1.06%	- 5.55%	- 3.49%
High Yield Fidelity HY CMBS (3) Blmbg US CMBS Ex AAA Inde:	\$714 340 x (4) -	3.32% 1.58% -	1.24% 1.57% 0.03%	- 8.11% 3.53%	- 12.41% 8.11%	- 4.09% 6.17%	- 4.20% 4.58%
BlackRock US High Yield Bond I ICE BofA US HY Constrained I		0.57%	0.90% 0.94%	4.68%	_ 11.46%	- 6.59%	- 6.16%
Mellon High Yield Beta Fund Blmbg HY Corp	251	1.17% -	0.83% 0.89%	4.53%	- 11.28%	- 6.91%	- 6.52%

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The market values and performance of such accounts indiced within the quarter of accounts in the process of indicator. (1) Fixed Income also includes the new fixed income sub-composite which was funded in 03/01/2021. (2) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK. (3) On 03/01/2021, the Fidelity HY CMBS account switched from the Opportunistic Fixed composite to the High Yield

(4) Fidelity's blended benchmark consists of FTSE High Yield Market Index prior to 12/31/2009 and Blmbg US CMBS Ex AAA Index, thereafter.



The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. 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.

Re	Returns for Periods Ended September 30, 2021							
	Last 10	Last 15	Last 20	Last 25	Since			
	Years	Years	Years	Years	Inception			
Gross Performance - Fixed Income								
Fixed Income (1)	3.94%	4.92%	5.64%	5.92%	7.45% (1/85)			
Blmbg U.S. Agg Bond Index	3.01%	4.17%	4.33%	5.06%	6.63% (1/85)			
Core Fixed Income	3.59%	4.69%	-	-	4.85% (1/02)			
Blmbg U.S. Agg Bond Index	3.01%	4.17%	4.33%	5.06%	4.38% (1/02)			
PIMCO Core Bond Fund	-	-	-	-	3.30% (1/13)			
Blmbg Agg ex Treasury	3.44%	4.45%	-	-	3.17% (1/13)			
Mellon Bond Index	2.92%	4.08%	4.29%	5.14%	5.12% (10/93)			
Blmbg U.S. Agg Bond Index (2)	3.01%	4.17%	4.37%	5.20%	5.18% (10/93)			
Nominal U.S. Treasuries	2.47%				2.68% (9/11)			
Bimbg US Treas Bell 10Y	2.48%	4.40%	4.33%	5.00%	2.74% (9/11)			
PIMCO US Treasuries	2.82%	-	-	-	3.04% (9/11)			
Blmbg US Treas Bell 10Y	2.48%	4.40%	4.33%	5.00%	2.74% (9/11)			
New Total Fixed Income Structure (1)	-	-	-	-	1.77% (3/21)			
Intermediate Treasury	-	-	-	-	(0.08%) (3/21)			
Mellon Intermediate Treasury Index BImbg Intmdt Treasury	- 1.81%	- 3.20%	- 3.27%	- 4.10%	(0.08%) (3/21) (0.07%) (3/21)			
Dimby minut reasury	1.0176	5.20 %	5.27 /6	4.10%	(0.07 /6) (3/21)			
Long Duration	-	-	-	-	3.43% (3/21)			
Mellon Long Duration Index BImbg Long Treasury	- 4.39%	- 6.45%	- 6.44%	- 7.11%	(7.64%) (1/21) (7.49%) (1/21)			
	1100 / 0	0.10,0	0111/0					
Mellon Long Term Credit Bond Index Blmbg Long Credit	- 6.59%	- 7.13%	- 7.33%	- 7.42%	3.74% (3/21) 3.35% (3/21)			
Bimby Long Credit	0.55%	1.13%	1.55%	1.42 /0	3.3376 (3/21)			
Securitized	-	-	-	-	(0.66%) (3/21)			
Mellon Securitized Index BImbg Securitized	- 2.50%	- 3.81%	- 4.00%	-	(0.66%) (3/21) (0.02%) (3/21)			
-	2.00%	0.0170	4.0070					
Intermediate Credit	-	-	-	-	0.30% (3/21)			
Mellon Intermediate Credit	- 3.71%	- 4.55%	- 4.70%	- 5.29%	0.30% (3/21) 0.68% (3/21)			
BImbg Intmdt Credit	3.71%	4.55%	4.70%	5.29%	0.68% (3/21)			
	-	-	-	-	5.03% (3/21)			
Fidelity HY CMBS (3) BImbg US CMBS Ex AAA Index (4)	7.95% 5.53%	6.36% 0.92%	7.84% 2.76%	-	8.69% (4/97) 4.11% (4/97)			
BlackRock US High Yield Bond Index	-	-	-	-	3.71% (3/21)			
ICE BofA US HY Constrained Index	-	-	-	-	3.92% (3/21)			
Mellon High Yield Beta Fund	-	-	-	-	2.26% (5/21)			
Blmbg HY Corp	7.42%	7.31%	8.10%	6.99%	2.54% (5/21)			

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(1) Fixed Income also includes the new fixed income sub-composite which was funded in 03/01/2021.

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

(3) On 03/01/2021, the Fidelity HY CMBS account switched from the Opportunistic Fixed composite to the High Yield

composite under the new fixed income structure.

(4) Fidelity's blended benchmark consists of FTSE High Yield Market Index prior to 12/31/2009 and Blmbg US CMBS Ex AAA Index, thereafter.



The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021									
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years		
Gross Performance - Fixed Income									
Fixed Income (1) Blmbg U.S. Agg Bond Index	\$8,259 -	100.00% -	0.14% 0.05%	(0.97%) (1.55%)	1.31% (0.90%)	5.02% 5.36%	3.28% 2.94%		
Opportunistic Fixed Income	\$80	0.96%	2.37%	6.89%	15.07%	6.61%	5.45%		
SEI St. Credit: HY Bank Loans(2)(3) FTSE HY Corp (1 month lag)	79 -	0.95% -	4.24% 2.22%	24.60% 6.61%	46.74% 10.11%	9.98% 6.72%	11.39% 6.38%		

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The market values and performance of such accounts are included within their relevant composites.

(1) Fixed Income also includes the new fixed income sub-composite which was funded in 03/01/2021.
(2) SEI HY Bank Loans since inception returns are included in the Fixed Income composite through 9/30/2017 and in the Multi-Strategy composite through 12/31/2019.
(3) SEI HY Bank Loans has a 1 month lag in valuation.



The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021											
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception						
Gross Performance - Fixed Income											
Fixed Income (1) Blmbg Aggregate	3.94% 3.01%	4.92% 4.17%	5.64% 4.33%	5.92% 5.06%	7.45% (1/85) 6.63% (1/85)						
Opportunistic Fixed Income	-	-	-	-	5.37% (10/12)						
SEI St. Credit: HY Bank Loans(2)(3) FTSE HY Corp (1 month lag)	10.43% 6.74%	- 7.05%	- 7.47%	- 6.97%	13.34% (5/08) 7.55% (5/08)						

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

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The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021										
Gross Performance - Inflation Protecti	Market Value <u>\$(mm)</u>	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years			
Inflation Protection (TIPS)	\$1,132	100.00%	1.41%	2.93%	4.77%	7.31%	4.30%			
Blmbg U.S. TIPS Index		_	1.75%	3.51%	5.19%	7.45%	4.34%			
NISA Inv Adv TIPS	486	42.96%	1.81%	3.64%	5.26%	7.50%	4.41%			
Bimbg U.S. TIPS Index (1)		-	1.75%	3.51%	5.19%	7.45%	4.34%			
Brown Brothers TIPS	510	45.07%	1.65%	3.61%	4.98%	7.46%	4.38%			
Blmbg U.S. TIPS Index	-	-	1.75%	3.51%	5.19%	7.45%	4.34%			
New Century Global TIPS	136	11.97%	0.25%	<mark>(0.88%)</mark>	3.88%	6.97%	4.12%			
Blmbg Wrld Inflation Linked Unhdg	-	-	0.78%	0.35%	4.89%	6.62%	3.79%			

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Returns for Periods Ended September 30, 2021											
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception						
Gross Performance - Inflation Protection											
Inflation Protection (TIPS)	2.95%	4.02%	-	-	3.81% (2/03)						
BImbg U.S. TIPS Index	3.12%	4.43%	5.13%	-	4.66% (2/03)						
NISA Inv Adv TIPS	2.78%	-	-	-	3.85% (4/07)						
BImbg U.S. TIPS Index (1)	2.67%	3.71%	4.58%	-	3.76% (4/07)						
Brown Brothers TIPS	-	-	-	-	2.94% (2/12)						
BImbg U.S. TIPS Index	3.12%	4.43%	5.13%	-	2.71% (2/12)						
New Century Global TIPS	-	-	-	-	3.34% (2/12)						
Blmbg Wrld Inflation Linked Unhdg	3.20%	4.11%	5.72%	-	2.77% (2/12)						

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	Returns for Periods Ended September 30, 2021										
Gross Performance - Real Estate	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Since Inception				
Real Estate (1)	\$2,784	100.00%	4.23%	12.11%	16.52%	-	8.59% (1/20)				
Real Estate Custom Bench (Qtr lag	g) (2) -	-	3.85%	9.08%	10.87%	5.22%	5.24% (1/20)				
CPI + 3% (Qtr lag)	-	-	3.26%	6.60%	8.39%	5.54%	6.29% (1/20)				
Core/Core Plus Real Estate Funds	1,103	39.61%	3.14%	8.72%	11.47%	-	6.26% (1/20)				
NCREIF ODCE Index (Qtr lag)	-	-	4.17%	7.57%	7.97%	5.19%	4.79% (1/20)				
Value Add/Opportunistic SMA	732	26.28%	6.62%	6.65%	11.41%	-	9.39% (1/20)				
NCREIF ODCE Index (Qtr lag)		-	4.17%	7.57%	7.97%	5.19%	4.79% (1/20)				
Value Add/Opportunistic Funds	613	22.03%	4.89%	20.58%	22.60%	-	11.50% (1/20)				
NCREIF ODCE Index (Qtr lag)	-	-	4.17%	7.57%	7.97%	5.19%	4.79% (1/20)				
Legacy Real Assets	5	0.18%	6.83%	4.02%	0.91%	-	(3.17%) (1/20)				
CPI + 3% (Qtr lag)		-	3.26%	6.60%	8.39%	5.54%	6.29% (1/20)				
REITS	331	11.91%	1.39%	23.83%	38.74%	-	10.54% (1/20)				
FTSE NAREIT US Index		-	0.70%	22.83%	38.82%	9.08%	6.17% (1/20)				

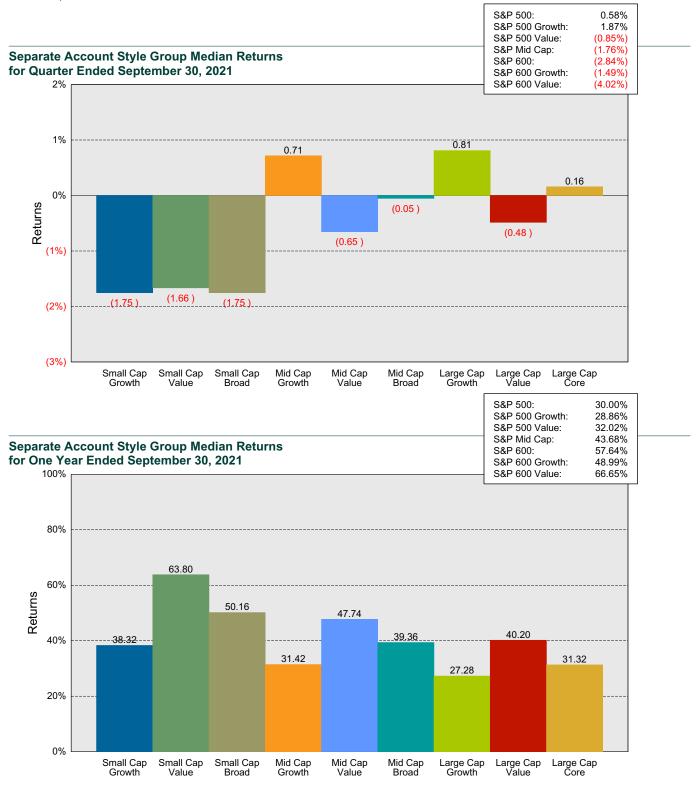
*Market values may not sum as a result of accounts funded within the quarter or accounts in the process of liquidation. The market values and performance of such accounts are included within their relevant composites. (1) Starting 01/01/2020 gross performance is calculated for all asset classes and the Total Fund, including Private Equity, Private Credit, and Real Estate, for which gross history was not previously calculated. (2) As of 03/31/2019 benchmark consists of 90% NCREIF ODCE Index (Qtr lag) and 10% FTSE NAREIT Index (unlagged). Prior to 03/31/2019, benchmark history was provided by RVK.



U.S. Equity

Domestic Equity Active Management Overview

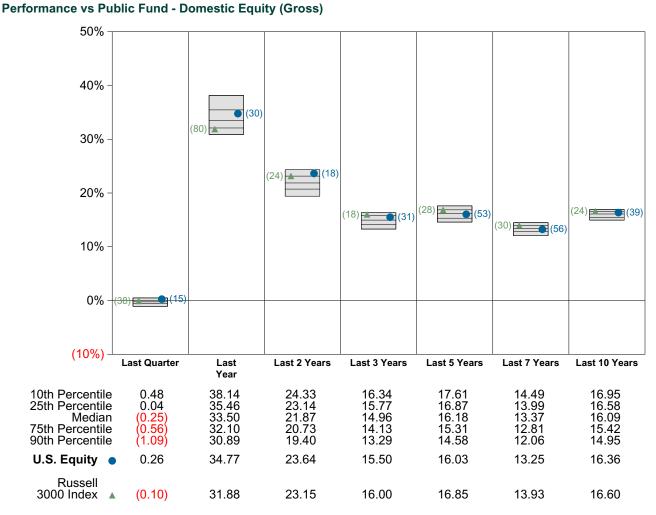
The S&P 500 Index was up a modest 0.6% in 3Q21, with results mixed across sectors. Industrials (-4.2%) and Materials (-3.5%) were at the bottom of the pack while Financials (+2.7%) was the best-performing sector. Energy (+43%) is up the most YTD. In the large cap space, growth stocks outperformed value (R1000 Growth: +1.2%; R1000 Value: -0.8%) but lag YTD (+14.3% vs. +16.1%). In small caps, the reverse occurred (R2000 Growth: -5.7%; R2000 Value: -3.0%), and value is ahead YTD by more than 20 percentage points (R2000 Growth: +2.8%; R2000 Value: +22.9%) as select "meme" stocks posted sharp gains. Small cap underperformed large cap in 3Q (R2000: -4.4% vs. R1000: +0.2%) and now lags YTD (12.4% vs 15.2%).



U.S. Equity Period Ended September 30, 2021

Quarterly Summary and Highlights

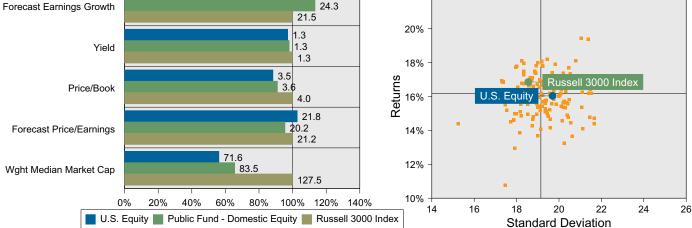
- U.S. Equity's portfolio posted a 0.26% return for the quarter placing it in the 15 percentile of the Public Fund Domestic Equity group for the quarter and in the 30 percentile for the last year.
- U.S. Equity's portfolio outperformed the Russell 3000 Index by 0.36% for the quarter and outperformed the Russell 3000 Index for the year by 2.89%.



Portfolio Characteristics as a Percentage of the Russell 3000 Index



Public Fund - Domestic Equity (Gross)

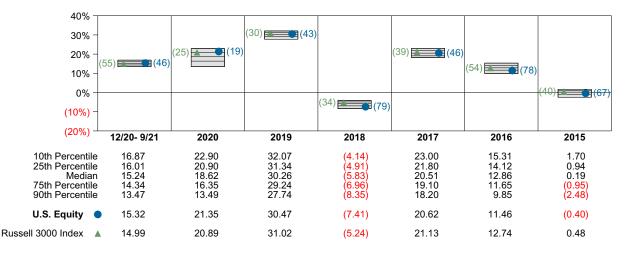


U.S. Equity Return Analysis Summary

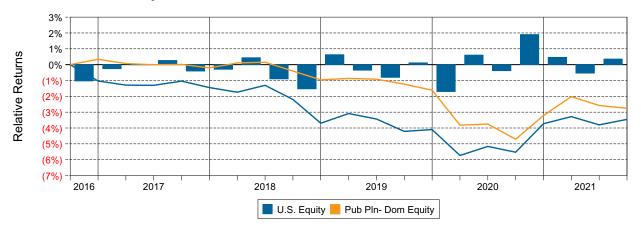
Return Analysis

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.

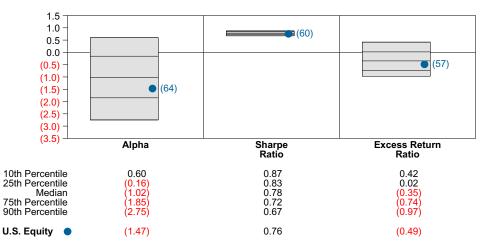




Cumulative and Quarterly Relative Return vs Russell 3000 Index



Risk Adjusted Return Measures vs Russell 3000 Index Rankings Against Public Fund - Domestic Equity (Gross) Five Years Ended September 30, 2021



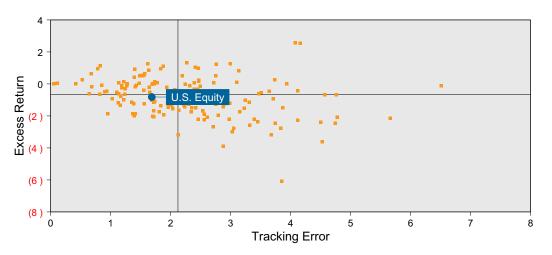


U.S. Equity Risk Analysis Summary

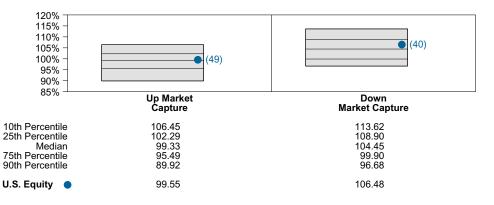
Risk Analysis

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

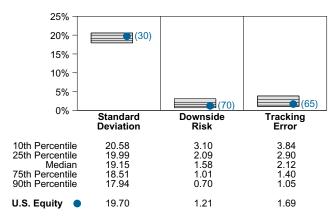
Risk Analysis vs Public Fund - Domestic Equity (Gross) Five Years Ended September 30, 2021

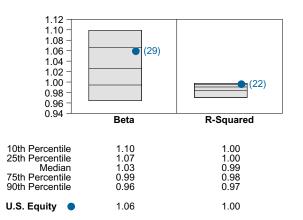


Market Capture vs Russell 3000 Index Rankings Against Public Fund - Domestic Equity (Gross) Five Years Ended September 30, 2021



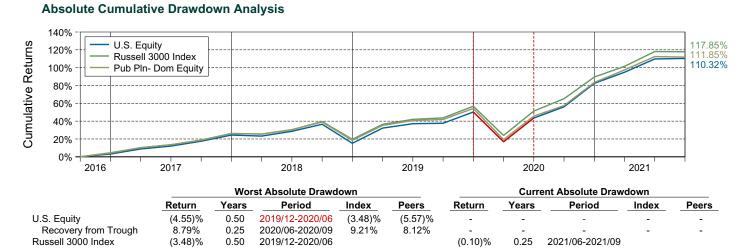
Risk Statistics Rankings vs Russell 3000 Index Rankings Against Public Fund - Domestic Equity (Gross) Five Years Ended September 30, 2021

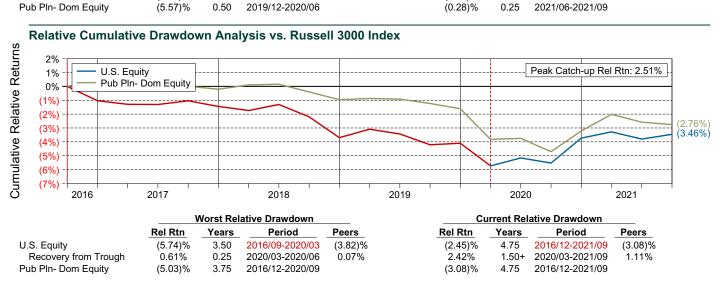




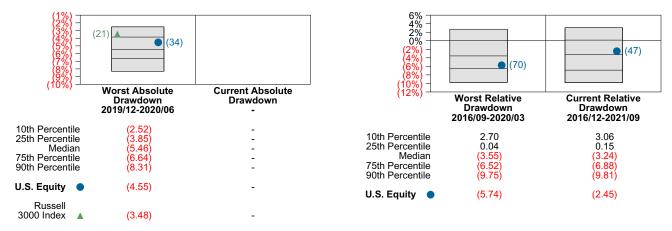
U.S. Equity Drawdown Analysis for Five Years Ended September 30, 2021

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.





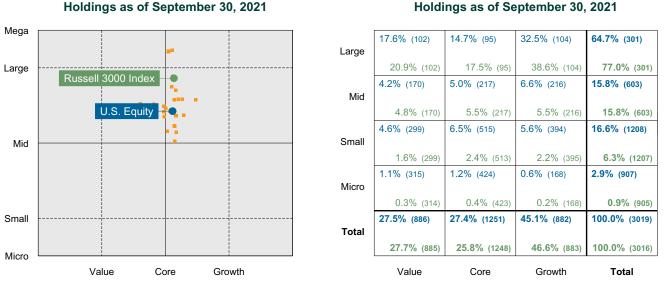
Drawdown Rankings vs. Russell 3000 Index Rankings against Public Fund - Domestic Equity Five Years Ended September 30, 2021



Current Holdings Based Style Analysis U.S. Equity As of September 30, 2021

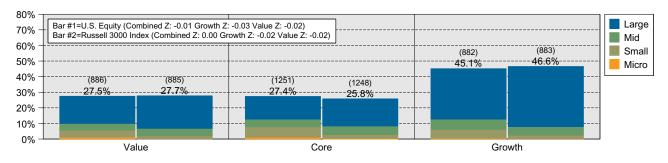
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization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

Style Exposure Matrix

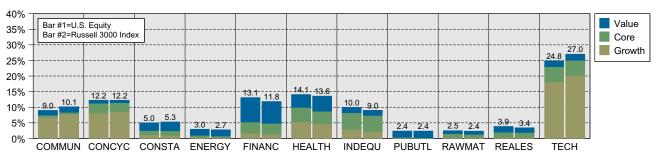


Style Map vs Pub Pln- Dom Equity Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

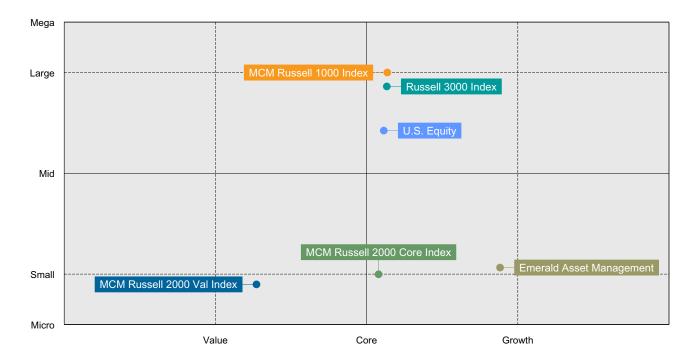


Holdings Based Style Analysis For One Quarter Ended September 30, 2021

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

Style Map

Holdings for One Quarter Ended September 30, 2021



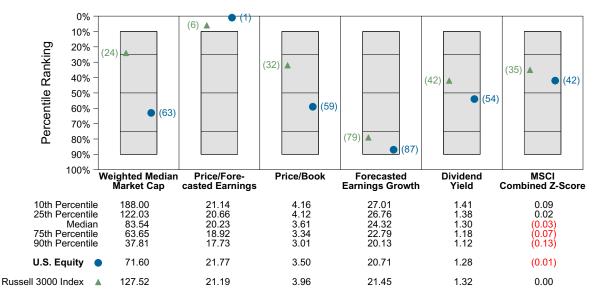
	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities I	Security Diversification
MCM Russell 2000 Val Index	6.72%	2.35	(0.66)	(0.25)	0.41	1426	230.99
MCM Russell 2000 Core Index	x 9.24%	2.81	(0.04)	(0.11)	(0.07)	2028	365.75
Emerald Asset Management	5.77%	3.77	0.56	0.11	(0.45)	118	33.84
MCM Russell 1000 Index	78.27%	145.17	0.01	(0.01)	(0.02)	1026	56.19
U.S. Equity	100.00%	71.60	(0.01)	(0.03)	(0.02)	3059	114.38
Russell 3000 Index	-	127.52	0.00	(0.02)	(0.02)	3052	67.67

U.S. Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

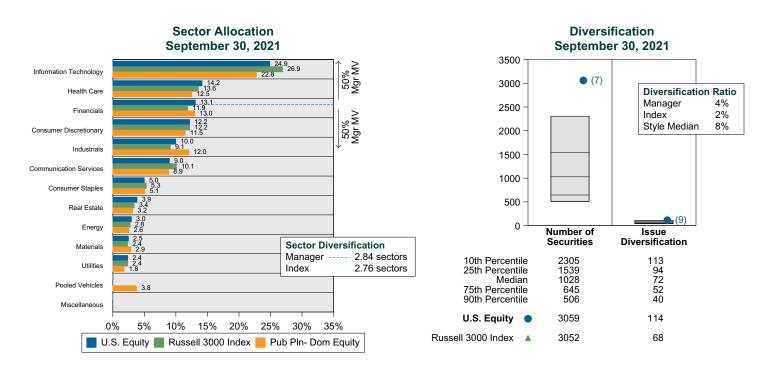
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Public Fund - Domestic Equity as of September 30, 2021



Sector Weights

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

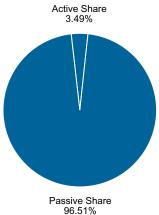


U.S. Equity Active Share Analysis as of September 30, 2021 vs. Russell 3000 Index

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



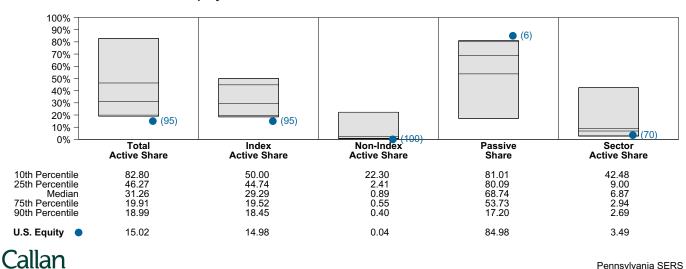
Sector Exposure Active Share



Total Active Share: 15.02%

	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	5.40%	0.00%	5.40%	10.10%	8.97%	1.03%
Consumer Discretionary	14.91%	0.00%	14.91%	12.21%	12.19%	1.82%
Consumer Staples	11.06%	0.00%	11.06%	5.32%	5.00%	0.68%
Energy	19.73%	0.00%	19.73%	2.76%	2.96%	0.50%
Financials	21.92%	0.10%	22.02%	11.88%	13.09%	2.36%
Health Care	17.52%	0.03%	17.55%	13.57%	14.16%	2.26%
Industrials	21.66%	0.00%	21.66%	9.13%	9.98%	1.78%
Information Technology	8.25%	0.05%	8.29%	26.91%	24.89%	3.10%
Materials	18.29%	0.00%	18.29%	2.35%	2.49%	0.40%
Miscellaneous	0.00%	100.00%	100.00%	-	0.00%	0.00%
Pooled Vehicles	50.00%	50.00%	100.00%	-	0.03%	0.01%
Real Estate	22.89%	0.00%	22.89%	3.40%	3.85%	0.71%
Utilities	15.52%	0.00%	15.52%	2.36%	2.38%	0.36%
Total	14.98%	0.04%	15.02%	100.00%	100.00%	15.02%

Active Share vs. Pub Pln- Dom Equity



U.S. Equity Managers

MCM Russell 1000 Index Period Ended September 30, 2021

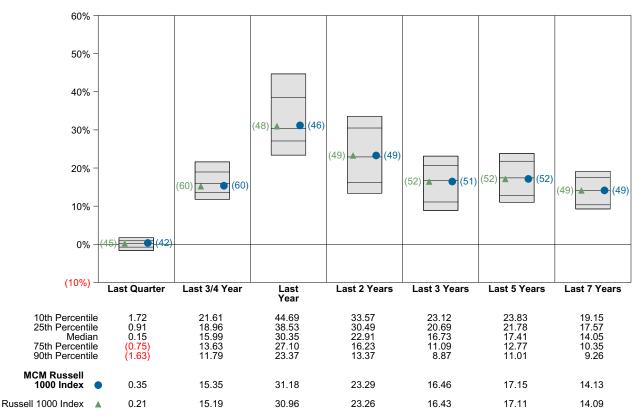
Investment Philosophy

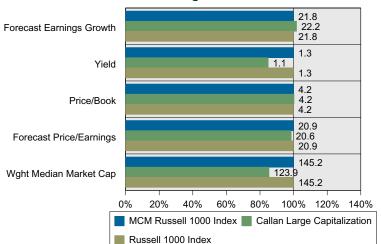
The Russell 1000 Stock Index Fund attempts to replicate the performance and portfolio characteristics of the Russell 1000 Index.

Quarterly Summary and Highlights

- MCM Russell 1000 Index's portfolio posted a 0.35% return for the quarter placing it in the 42 percentile of the Callan Large Capitalization group for the quarter and in the 46 percentile for the last year.
- MCM Russell 1000 Index's portfolio outperformed the Russell 1000 Index by 0.14% for the quarter and outperformed the Russell 1000 Index for the year by 0.22%.

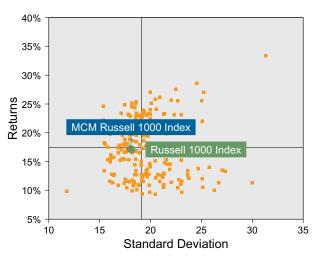
Performance vs Callan Large Capitalization (Gross)





Portfolio Characteristics as a Percentage of the Russell 1000 Index

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



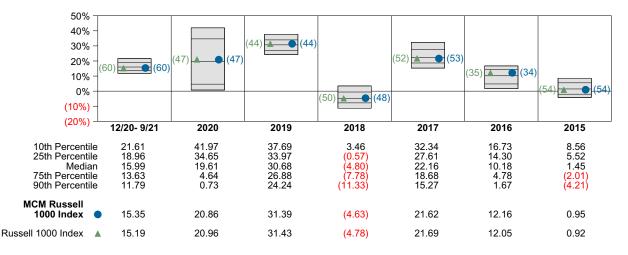


MCM Russell 1000 Index Return Analysis Summary

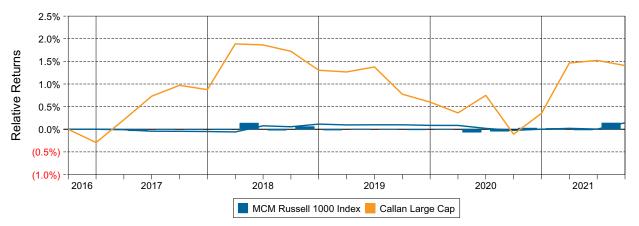
Return Analysis

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.

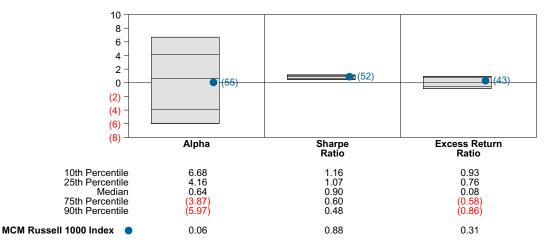




Cumulative and Quarterly Relative Return vs Russell 1000 Index



Risk Adjusted Return Measures vs Russell 1000 Index Rankings Against Callan Large Capitalization (Gross) Five Years Ended September 30, 2021



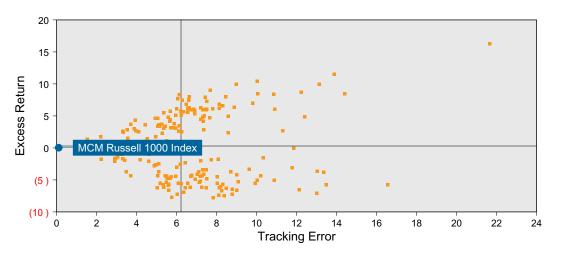


MCM Russell 1000 Index Risk Analysis Summary

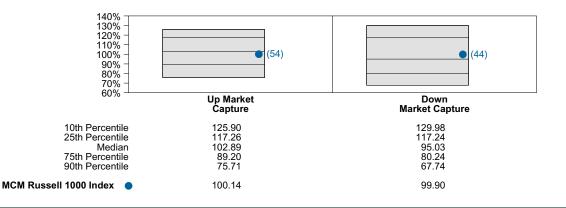
Risk Analysis

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

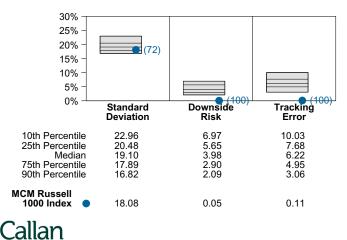
Risk Analysis vs Callan Large Capitalization (Gross) Five Years Ended September 30, 2021

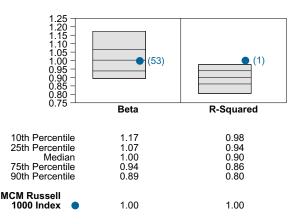


Market Capture vs Russell 1000 Index Rankings Against Callan Large Capitalization (Gross) Five Years Ended September 30, 2021



Risk Statistics Rankings vs Russell 1000 Index Rankings Against Callan Large Capitalization (Gross) Five Years Ended September 30, 2021





Current Holdings Based Style Analysis MCM Russell 1000 Index As of September 30, 2021

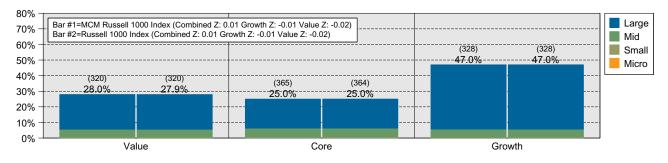
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Style Exposure Matrix

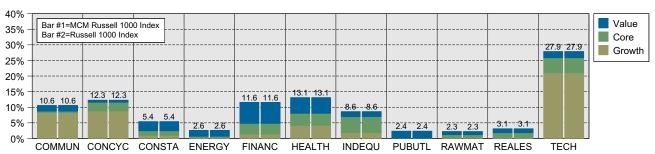


Style Map vs Callan Large Cap Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

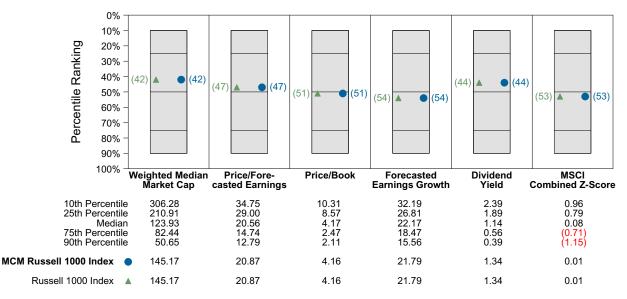


MCM Russell 1000 Index Equity Characteristics Analysis Summary

Portfolio Characteristics

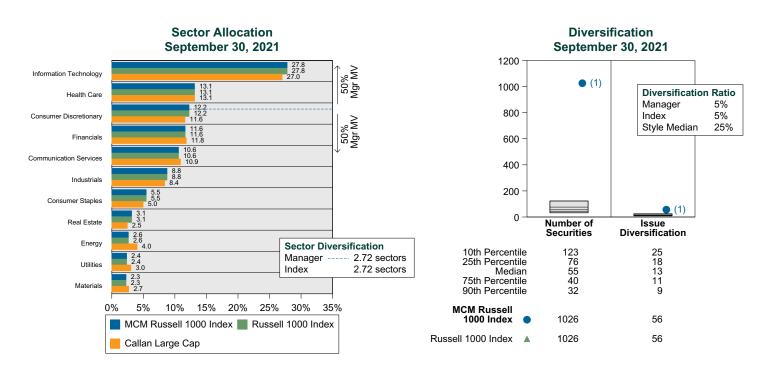
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Capitalization as of September 30, 2021



Sector Weights

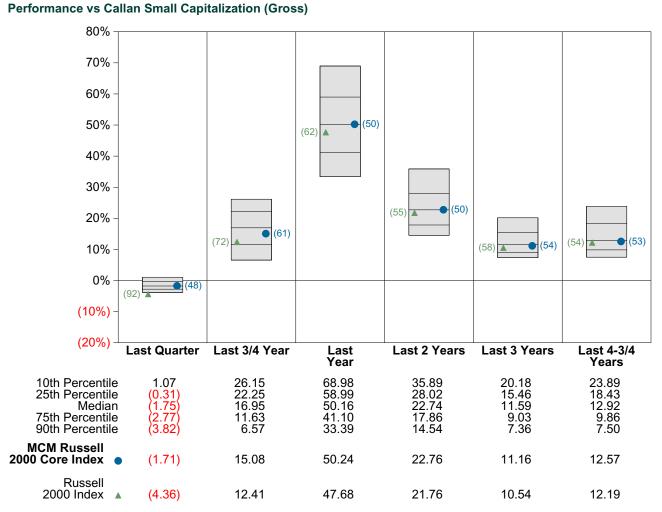
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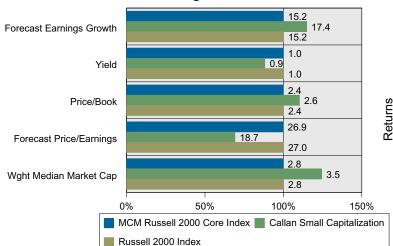


MCM Russell 2000 Core Index Period Ended September 30, 2021

Quarterly Summary and Highlights

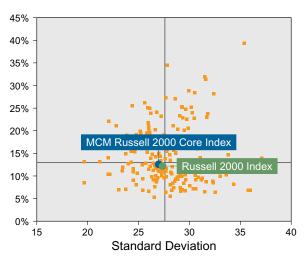
- MCM Russell 2000 Core Index's portfolio posted a (1.71)% return for the quarter placing it in the 48 percentile of the Callan Small Capitalization group for the quarter and in the 50 percentile for the last year.
- MCM Russell 2000 Core Index's portfolio outperformed the Russell 2000 Index by 2.65% for the quarter and outperformed the Russell 2000 Index for the year by 2.56%.





Portfolio Characteristics as a Percentage of the Russell 2000 Index

Callan Small Capitalization (Gross) Annualized Four and Three-Quarter Year Risk vs Return

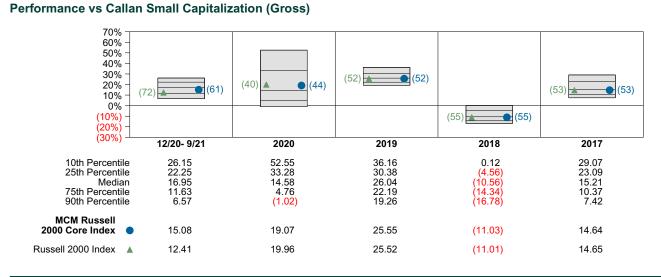




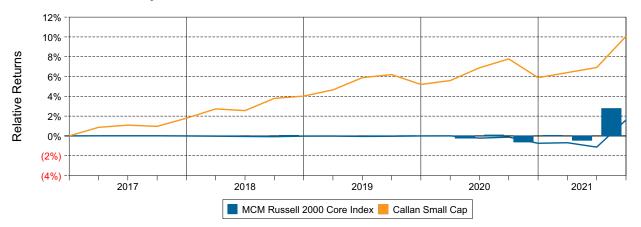
MCM Russell 2000 Core Index Return Analysis Summary

Return Analysis

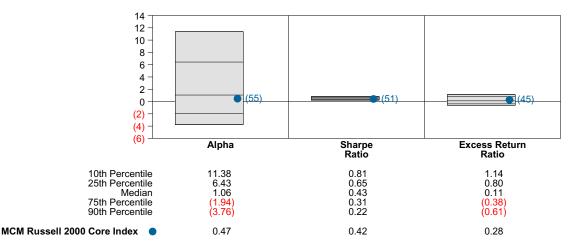
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Return vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index Rankings Against Callan Small Capitalization (Gross) Four and Three-Quarter Years Ended September 30, 2021



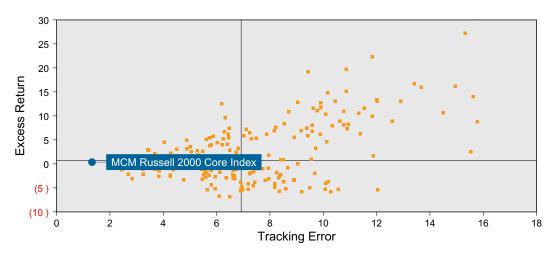


MCM Russell 2000 Core Index Risk Analysis Summary

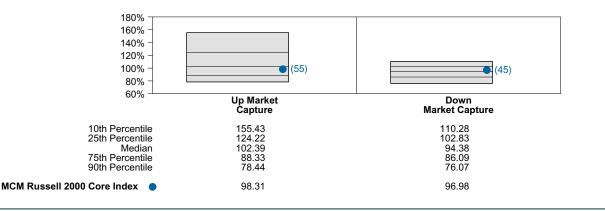
Risk Analysis

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

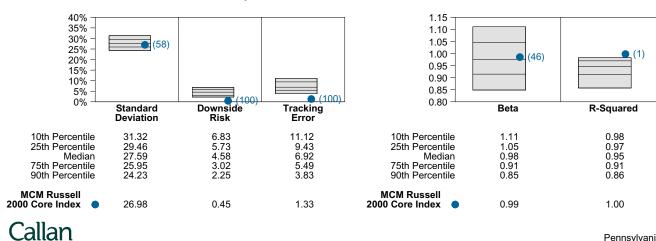
Risk Analysis vs Callan Small Capitalization (Gross) Four and Three-Quarter Years Ended September 30, 2021



Market Capture vs Russell 2000 Index Rankings Against Callan Small Capitalization (Gross) Four and Three-Quarter Years Ended September 30, 2021



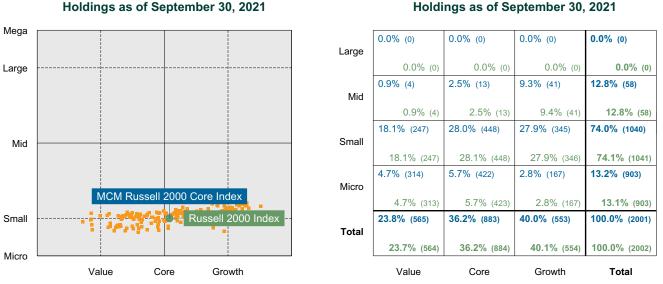
Risk Statistics Rankings vs Russell 2000 Index Rankings Against Callan Small Capitalization (Gross) Four and Three-Quarter Years Ended September 30, 2021



Current Holdings Based Style Analysis MCM Russell 2000 Core Index As of September 30, 2021

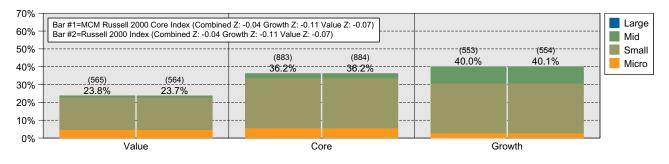
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Style Exposure Matrix

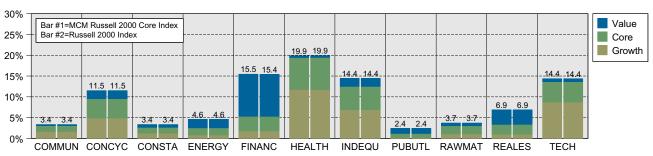


Style Map vs Callan Small Cap Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

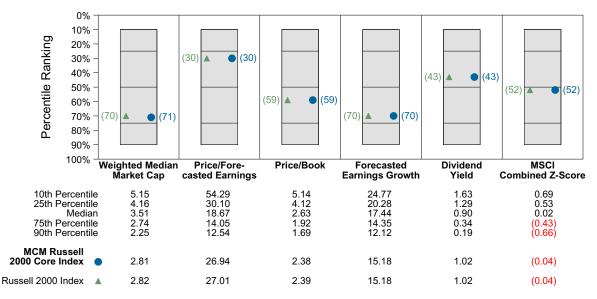


MCM Russell 2000 Core Index Equity Characteristics Analysis Summary

Portfolio Characteristics

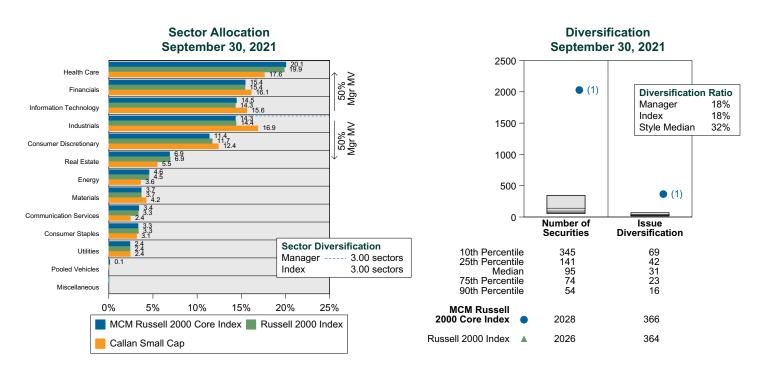
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Capitalization as of September 30, 2021



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.

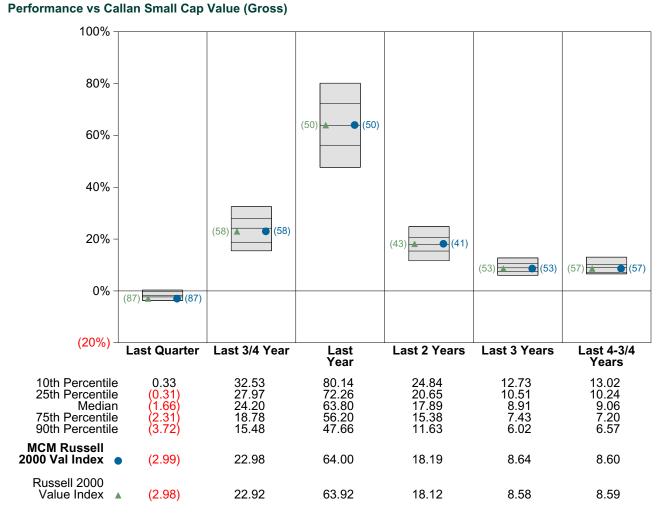


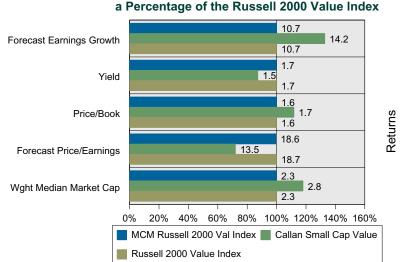


MCM Russell 2000 Val Index Period Ended September 30, 2021

Quarterly Summary and Highlights

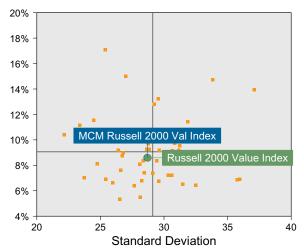
- MCM Russell 2000 Val Index's portfolio posted a (2.99)% return for the quarter placing it in the 87 percentile of the Callan Small Cap Value group for the quarter and in the 50 percentile for the last year.
- MCM Russell 2000 Val Index's portfolio underperformed the Russell 2000 Value Index by 0.01% for the quarter and outperformed the Russell 2000 Value Index for the year by 0.08%.





Portfolio Characteristics as





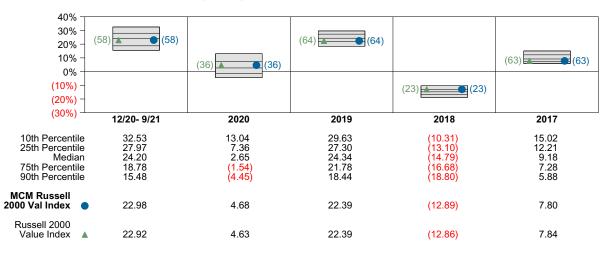


MCM Russell 2000 Val Index Return Analysis Summary

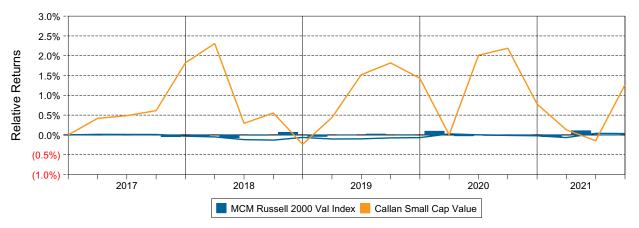
Return Analysis

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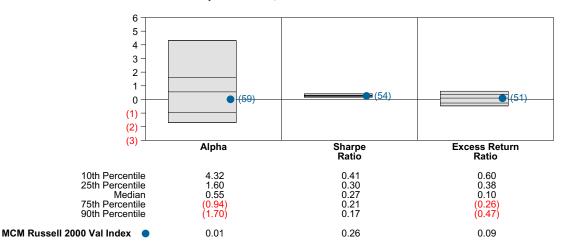
Performance vs Callan Small Cap Value (Gross)



Cumulative and Quarterly Relative Return vs Russell 2000 Value Index



Risk Adjusted Return Measures vs Russell 2000 Value Index Rankings Against Callan Small Cap Value (Gross) Four and Three-Quarter Years Ended September 30, 2021



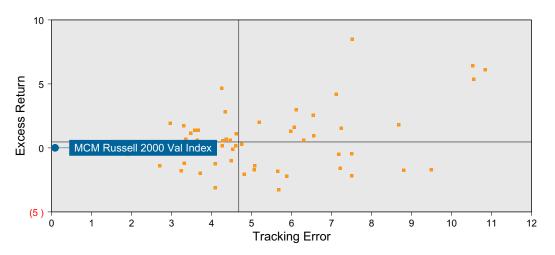


MCM Russell 2000 Val Index **Risk Analysis Summary**

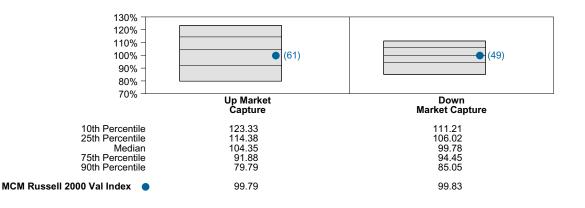
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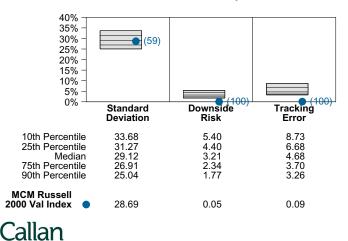
Risk Analysis vs Callan Small Cap Value (Gross) Four and Three-Quarter Years Ended September 30, 2021

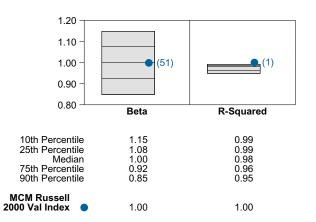


Market Capture vs Russell 2000 Value Index Rankings Against Callan Small Cap Value (Gross) Four and Three-Quarter Years Ended September 30, 2021



Risk Statistics Rankings vs Russell 2000 Value Index Rankings Against Callan Small Cap Value (Gross) Four and Three-Quarter Years Ended September 30, 2021





Current Holdings Based Style Analysis MCM Russell 2000 Val Index As of September 30, 2021

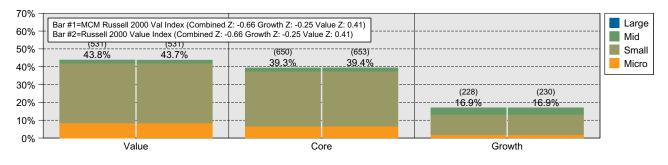
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization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

Style Exposure Matrix

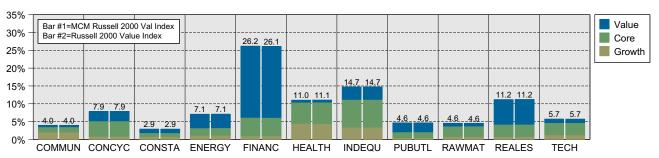


Style Map vs Callan Small Cap Value Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

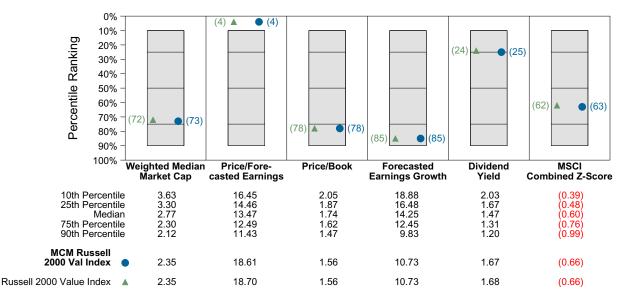


MCM Russell 2000 Val Index Equity Characteristics Analysis Summary

Portfolio Characteristics

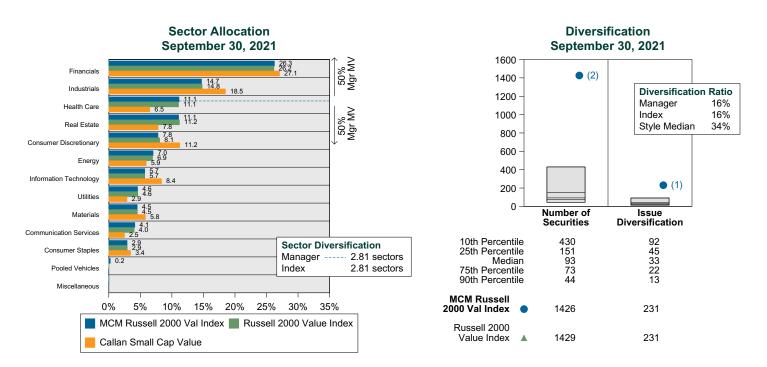
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Value as of September 30, 2021



Sector Weights

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





Emerald Asset Management Period Ended September 30, 2021

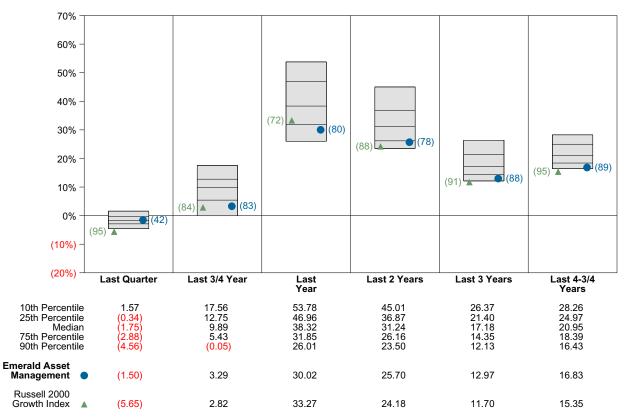
Investment Philosophy

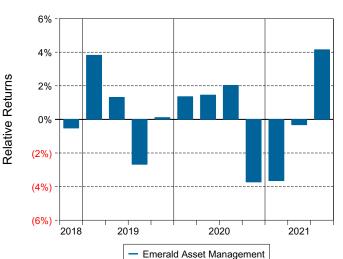
Emerald is dedicated to fundamental, bottom-up research designed to identify unrecognized, under-researched and undervalued growth companies.

Quarterly Summary and Highlights

- Emerald Asset Management's portfolio posted a (1.50)% return for the quarter placing it in the 42 percentile of the Callan Small Cap Growth group for the quarter and in the 80 percentile for the last year.
- Emerald Asset Management's portfolio outperformed the Russell 2000 Growth Index by 4.15% for the quarter and underperformed the Russell 2000 Growth Index for the year by 3.25%.

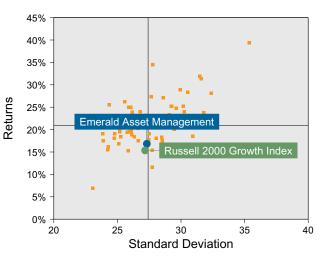






Relative Return vs Russell 2000 Growth Index

Callan Small Cap Growth (Gross) Annualized Four and Three-Quarter Year Risk vs Return

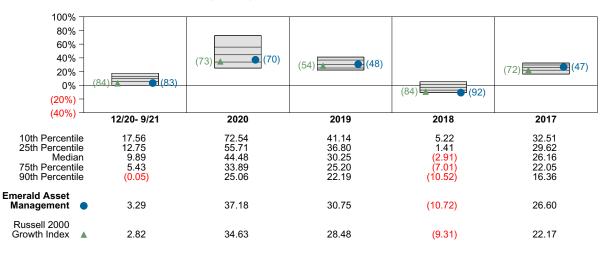


Emerald Asset Management Return Analysis Summary

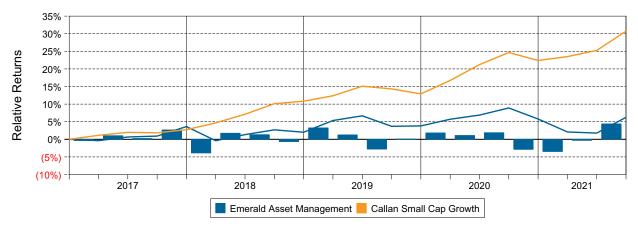
Return Analysis

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

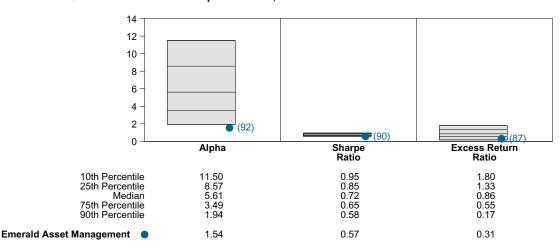
Performance vs Callan Small Cap Growth (Gross)



Cumulative and Quarterly Relative Return vs Russell 2000 Growth Index



Risk Adjusted Return Measures vs Russell 2000 Growth Index Rankings Against Callan Small Cap Growth (Gross) Four and Three-Quarter Years Ended September 30, 2021



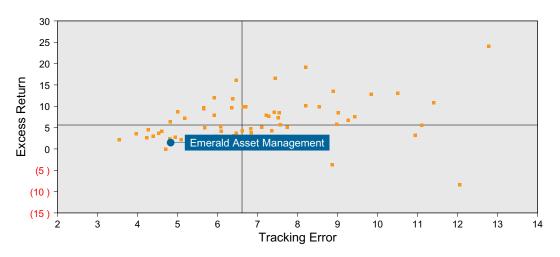


Emerald Asset Management Risk Analysis Summary

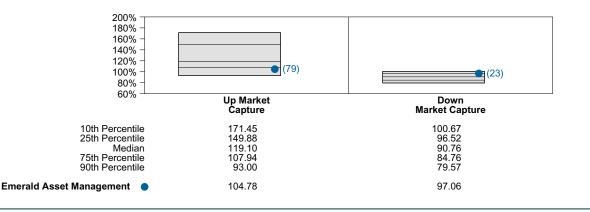
Risk Analysis

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

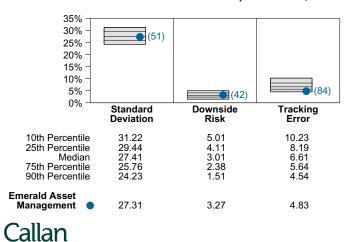
Risk Analysis vs Callan Small Cap Growth (Gross) Four and Three-Quarter Years Ended September 30, 2021

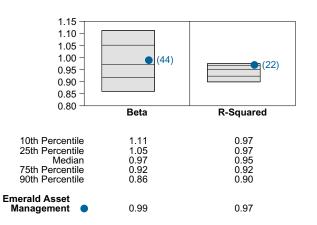


Market Capture vs Russell 2000 Growth Index Rankings Against Callan Small Cap Growth (Gross) Four and Three-Quarter Years Ended September 30, 2021



Risk Statistics Rankings vs Russell 2000 Growth Index Rankings Against Callan Small Cap Growth (Gross) Four and Three-Quarter Years Ended September 30, 2021





Pennsylvania SERS 106

Current Holdings Based Style Analysis Emerald Asset Management As of September 30, 2021

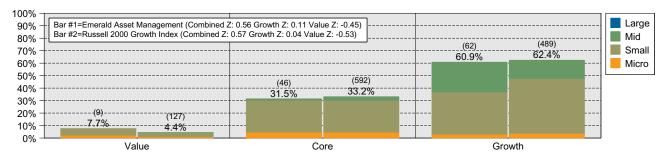
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization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

Style Exposure Matrix

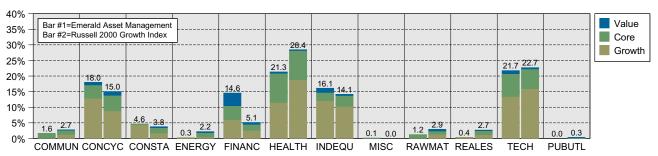


Style Map vs Callan Small Cap Growth Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

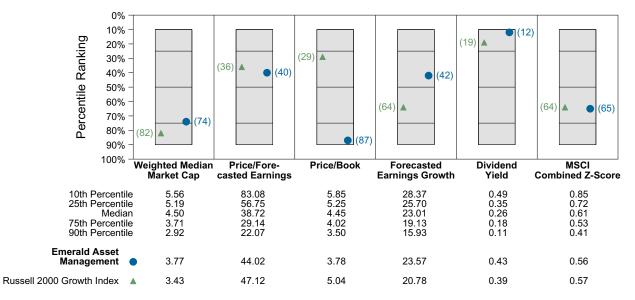


Emerald Asset Management Equity Characteristics Analysis Summary

Portfolio Characteristics

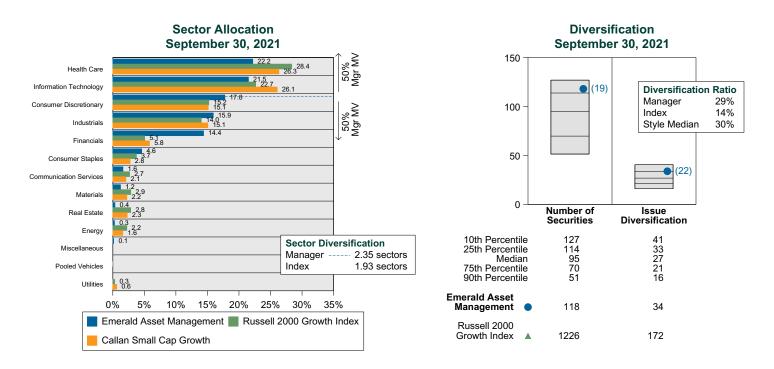
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Growth as of September 30, 2021



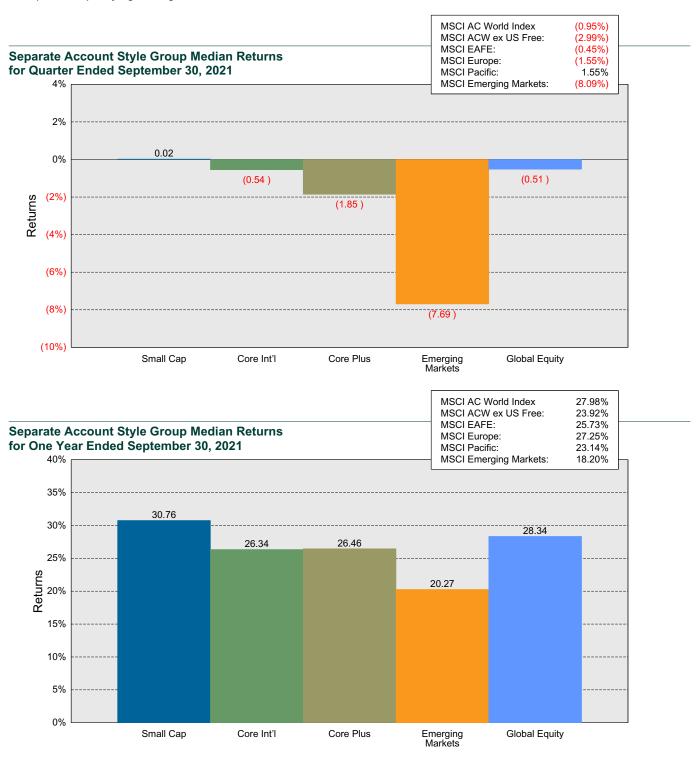
Sector Weights

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



International Equity Active Management Overview

Developed ex-U.S. stocks had a strong quarter with virtually all developed market countries posting positive returns. The MSCI ACWI ex-USA Index rose 5.5% for the quarter and is up 9.2% YTD. As in the U.S., Utilities (-0.4%) was the lone sector to produce a negative return. Health Care (+9.9%) and Energy (+8.2%) were the top-performing sectors. Canada (+10.0%) was a strong performer and Japan (-0.3%) was notable as one of the few countries to deliver a negative return. The U.S. dollar was mixed against developed market currencies and thus shifts were not a major contributor to relative results. The MSCI EM Index performed in line with developed markets (MSCI EM USD: +5.0% and +7.4% YTD), but country returns were mixed. Brazil (+23%) and Russia (+14%) were top performers while Chile (-14%) was at the bottom of the pack. China was up 2% and China A-shares (+9.2%) did especially well as softer economic data in May appeared to ease investors concerns over potential policy tightening.

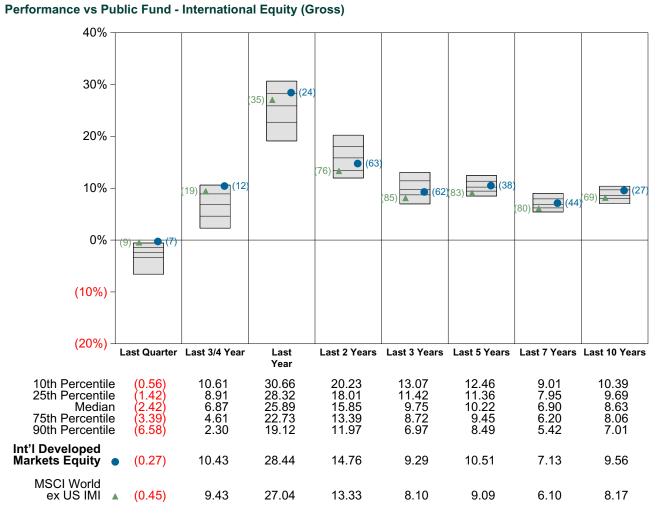


International Developed Markets Equity

Int'l Developed Markets Equity Period Ended September 30, 2021

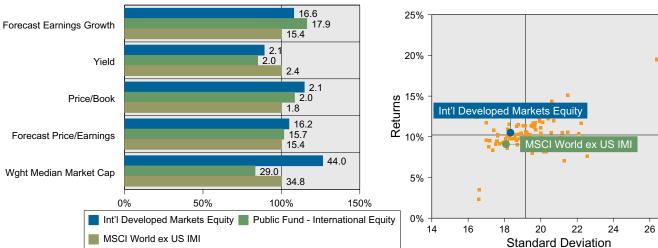
Quarterly Summary and Highlights

- Int'l Developed Markets Equity's portfolio posted a (0.27)% return for the quarter placing it in the 7 percentile of the Public Fund - International Equity group for the guarter and in the 24 percentile for the last year.
- Int'l Developed Markets Equity's portfolio outperformed the MSCI World ex US IMI by 0.17% for the quarter and outperformed the MSCI World ex US IMI for the year by 1.40%.



Portfolio Characteristics as





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

Callan

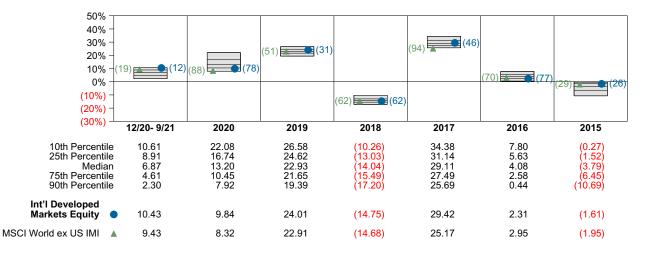
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Int'l Developed Markets Equity Return Analysis Summary

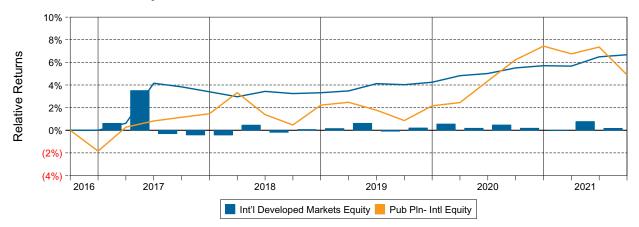
Return Analysis

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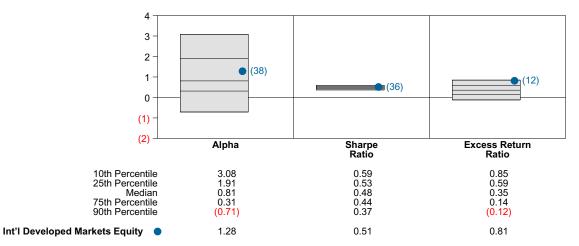




Cumulative and Quarterly Relative Return vs MSCI World ex US IMI



Risk Adjusted Return Measures vs MSCI World ex US IMI Rankings Against Public Fund - International Equity (Gross) Five Years Ended September 30, 2021

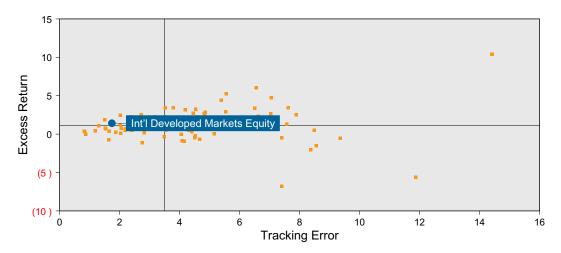


Int'l Developed Markets Equity Risk Analysis Summary

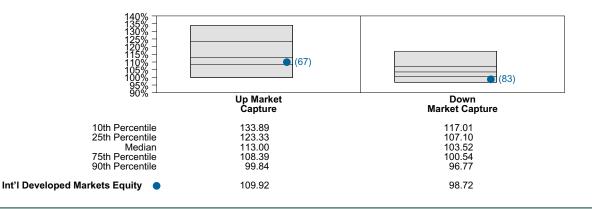
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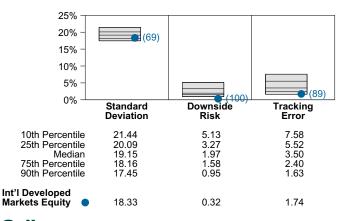
Risk Analysis vs Public Fund - International Equity (Gross) Five Years Ended September 30, 2021

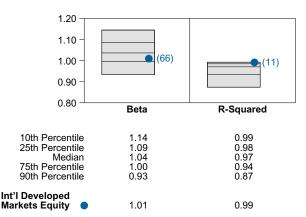


Market Capture vs MSCI World ex US IMI Index (USD Net Div) Rankings Against Public Fund - International Equity (Gross) Five Years Ended September 30, 2021



Risk Statistics Rankings vs MSCI World ex US IMI Index (USD Net Div) Rankings Against Public Fund - International Equity (Gross) Five Years Ended September 30, 2021

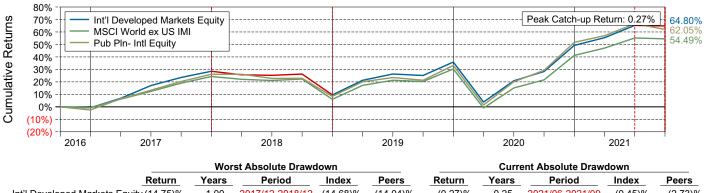




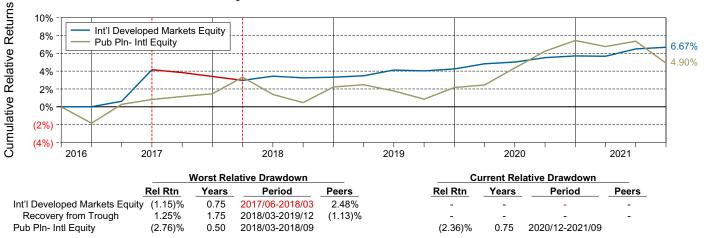
Int'l Developed Markets Equity Drawdown Analysis for Five Years Ended September 30, 2021

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

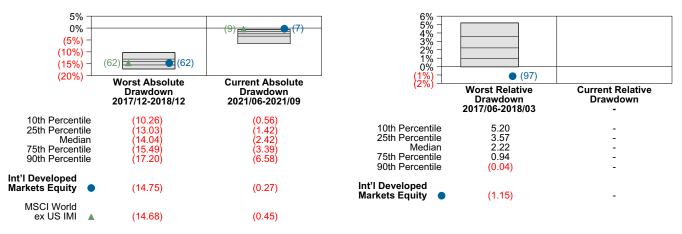
Absolute Cumulative Drawdown Analysis







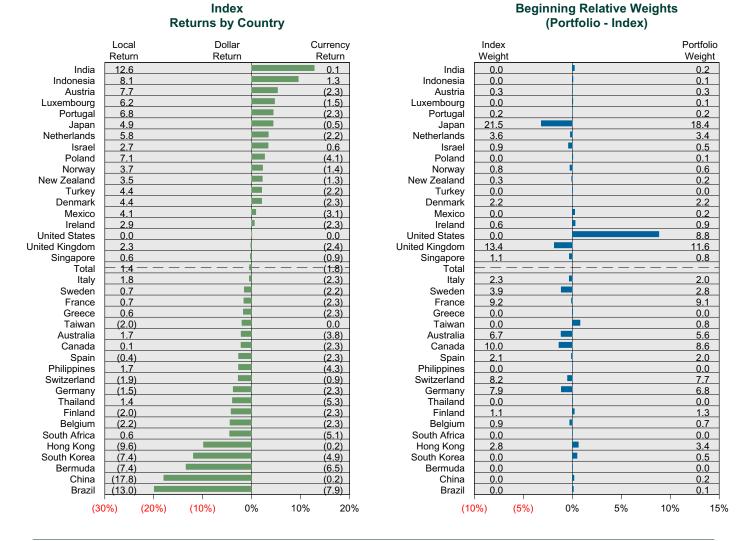
Drawdown Rankings vs. MSCI World ex US IMI Rankings against Public Fund - International Equity Five Years Ended September 30, 2021



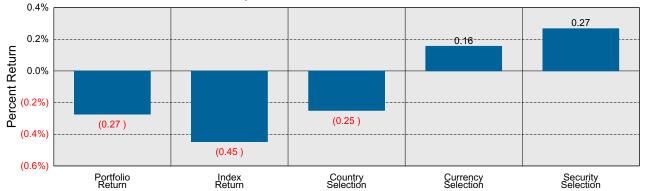
Int'l Developed Markets Equity vs MSCI World ex US IMI Attribution for Quarter Ended September 30, 2021

International Attribution

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







Current Holdings Based Style Analysis Int'l Developed Markets Equity As of September 30, 2021

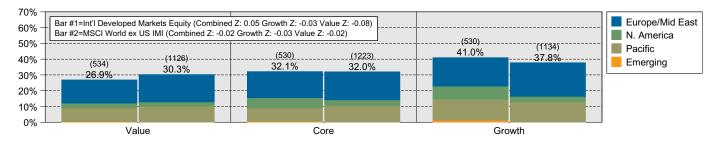
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are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

Style Exposure Matrix

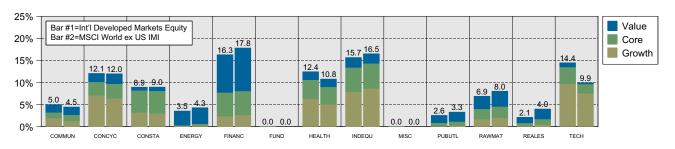


Style Map vs Pub Pln- Intl Equity Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

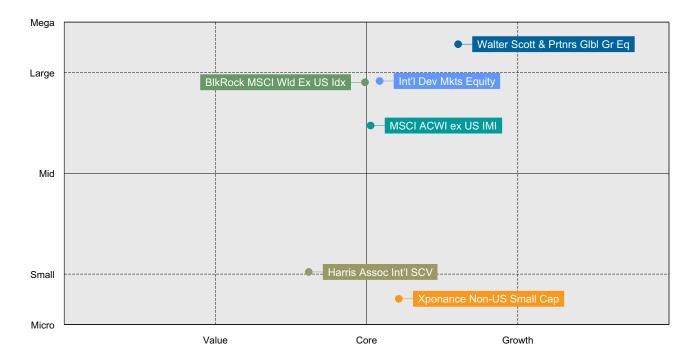


International Holdings Based Style Analysis For One Quarter Ended September 30, 2021

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

Style Map

Holdings for One Quarter Ended September 30, 2021



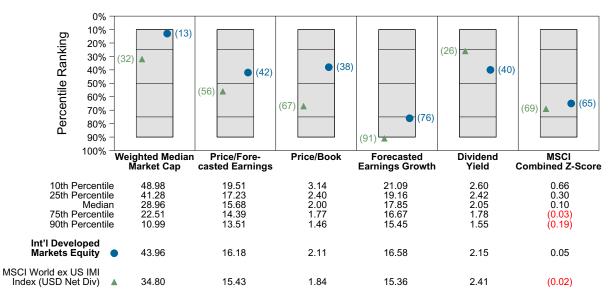
	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities I	Security Diversification
Walter Scott & Prtnrs Glbl Gr	E q 5.65%	127.94	0.49	(0.02)	(0.51)	50	16.40
BlkRock MSCI Wld Ex US Idx	75.74%	43.60	(0.04)	(0.04)	(0.01)	938	119.65
Harris Assoc Int'l SCV	3.04%	3.20	(0.37)	(0.12)	0.25	58	17.47
Xponance Non-US Small Cap	5.44%	2.19	0.16	0.14	(0.01)	714	118.15
Int'l Dev Mkts Equity	100.00%	43.96	0.05	(0.03)	(0.08)	1691	130.13
MSCI ACWI ex US IMI	-	31.13	(0.00)	(0.03)	(0.02)	6719	260.47

Int'l Developed Markets Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

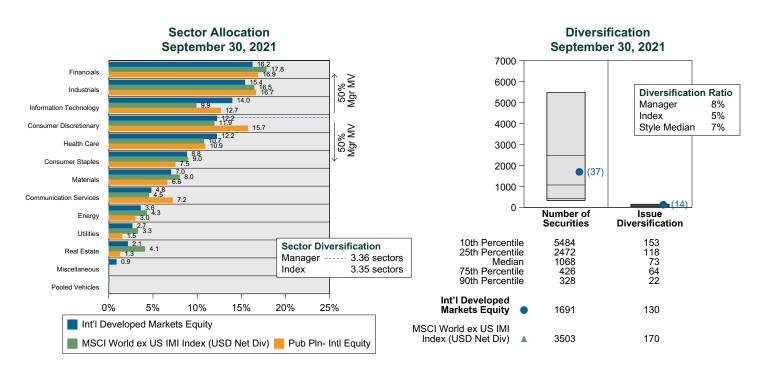
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Public Fund - International Equity as of September 30, 2021



Sector Weights

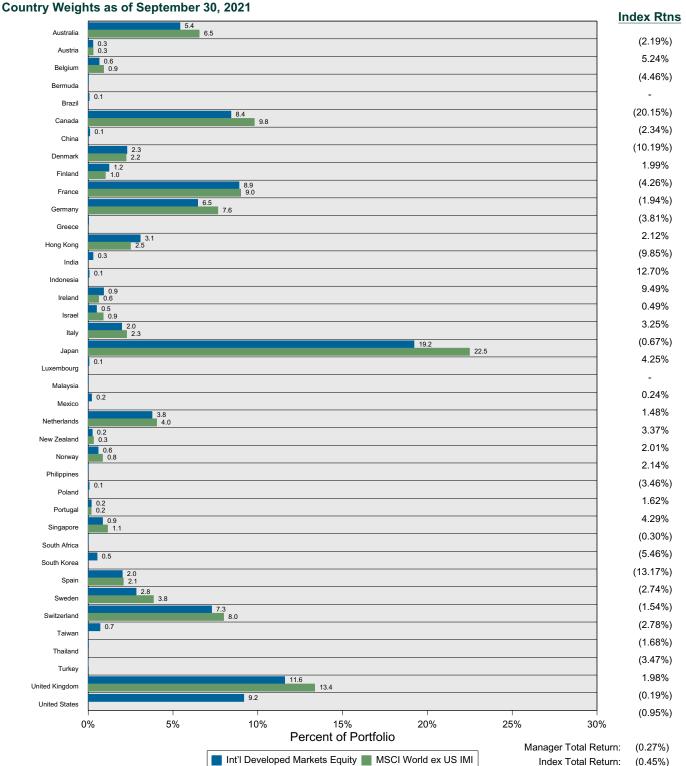
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration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



Country Allocation Int'l Developed Markets Equity VS MSCI World 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 September 30, 2021. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent guarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

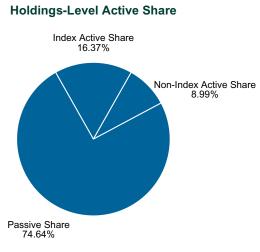


Callan

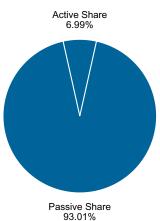
Pennsylvania SERS 120

Int'l Developed Markets Equity Active Share Analysis as of September 30, 2021 vs. MSCI World 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.



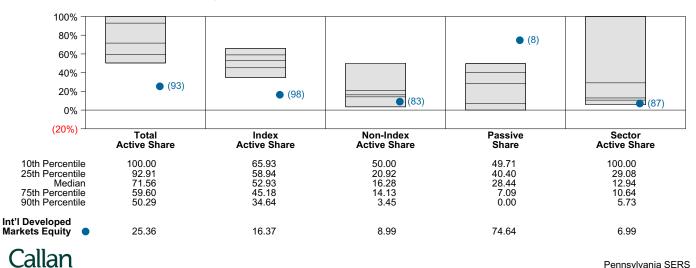
Sector Exposure Active Share



Total Active Share: 25.36%

	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	16.02%	11.10%	27.12%	4.53%	4.80%	1.14%
Consumer Discretionary	18.67%	10.74%	29.42%	11.93%	12.23%	3.49%
Consumer Staples	14.26%	4.41%	18.67%	8.96%	8.82%	1.68%
Energy	11.57%	4.04%	15.61%	4.27%	3.59%	0.65%
Financials	9.62%	3.36%	12.98%	17.83%	16.25%	2.79%
Health Care	15.69%	11.10%	26.79%	10.75%	12.22%	2.83%
Industrials	18.64%	4.55%	23.19%	16.45%	15.41%	3.98%
Information Technology	24.36%	19.96%	44.32%	9.91%	13.96%	4.48%
Materials	16.66%	7.20%	23.86%	8.01%	7.04%	1.97%
Miscellaneous	0.00%	100.00%	100.00%	-	0.85%	0.43%
Pooled Vehicles	50.00%	50.00%	100.00%	-	0.04%	0.02%
Real Estate	42.87%	5.56%	48.43%	4.08%	2.14%	1.23%
Utilities	16.94%	5.45%	22.40%	3.28%	2.65%	0.67%
Total	16.37%	8.99%	25.36%	100.00%	100.00%	25.36%

Active Share vs. Pub Pln- Intl Equity



International Developed Equity Managers

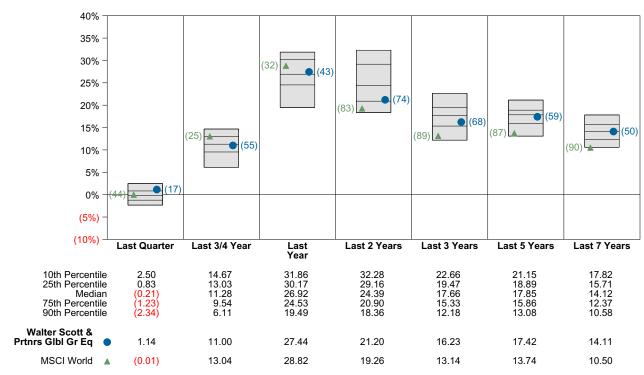
Walter Scott & Prtnrs Glbl Gr Eq Period Ended September 30, 2021

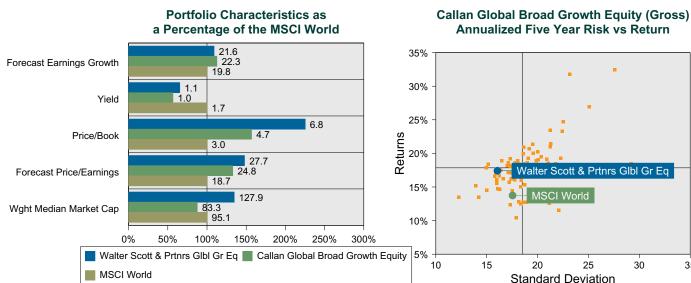
Investment Philosophy

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 Glbl Gr Eq's portfolio posted a 1.14% return for the guarter placing it in the 17 percentile of the Callan Global Broad Growth Equity group for the quarter and in the 43 percentile for the last year.
- Walter Scott & Prtnrs Glbl Gr Eq's portfolio outperformed the MSCI World by 1.15% for the guarter and underperformed ٠ the MSCI World for the year by 1.38%.





Performance vs Callan Global Broad Growth Equity (Gross)

Callan

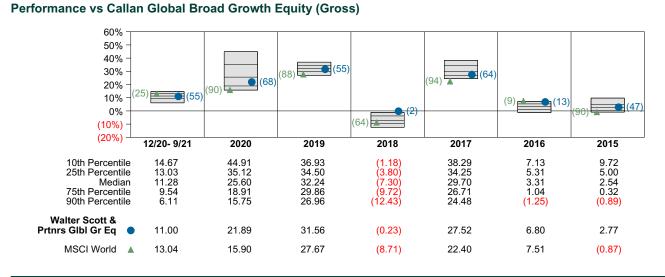
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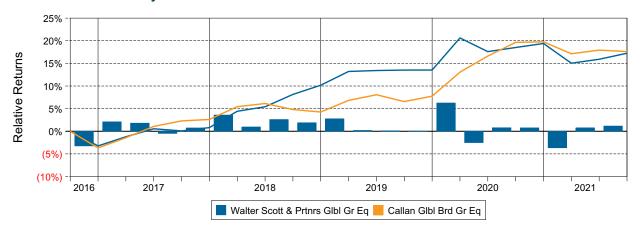
Walter Scott & Prtnrs Glbl Gr Eq Return Analysis Summary

Return Analysis

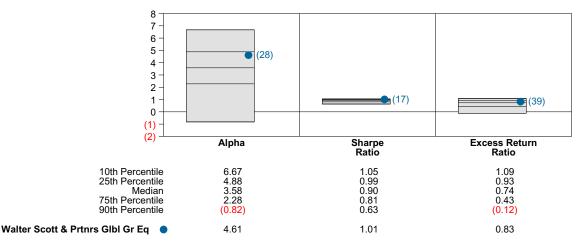
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Cumulative and Quarterly Relative Return vs MSCI World



Risk Adjusted Return Measures vs MSCI World Rankings Against Callan Global Broad Growth Equity (Gross) Five Years Ended September 30, 2021



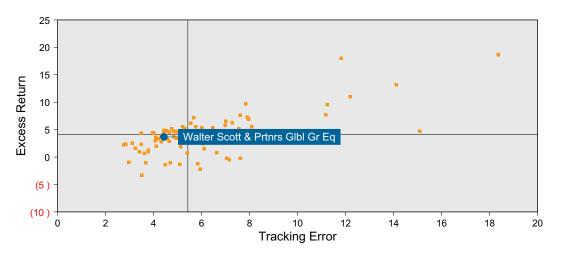


Walter Scott & Prtnrs Glbl Gr Eq Risk Analysis Summary

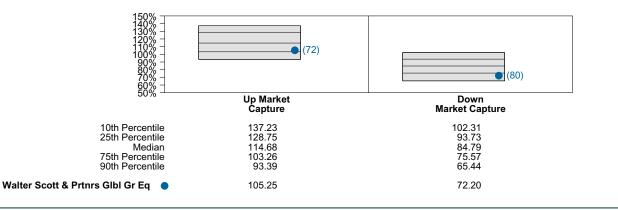
Risk Analysis

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

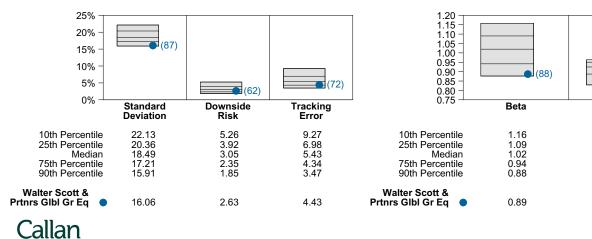
Risk Analysis vs Callan Global Broad Growth Equity (Gross) Five Years Ended September 30, 2021



Market Capture vs MSCI World Index (USD Net Div) Rankings Against Callan Global Broad Growth Equity (Gross) Five Years Ended September 30, 2021



Risk Statistics Rankings vs MSCI World Index (USD Net Div) Rankings Against Callan Global Broad Growth Equity (Gross) Five Years Ended September 30, 2021



Pennsylvania SERS 125

(36)

R-Squared

0.96

0.95

0.92

0.89

0.83

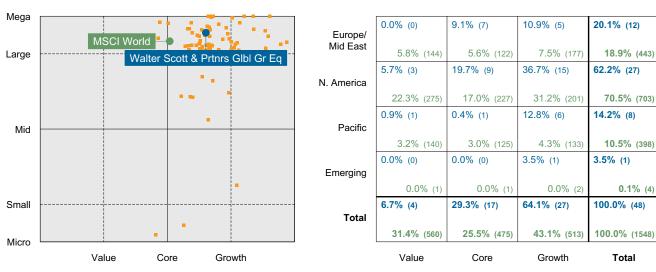
0.94

Current Holdings Based Style Analysis Walter Scott & Prtnrs Glbl Gr Eq As of September 30, 2021

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

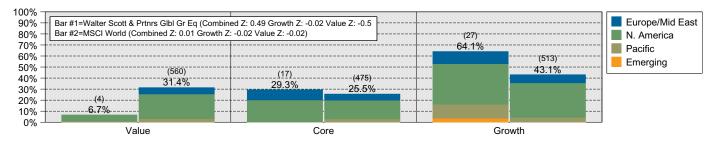
Style Exposure Matrix

Holdings as of September 30, 2021

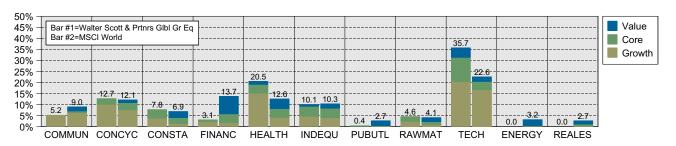


Style Map vs Callan Glbl Brd Gr Eq Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

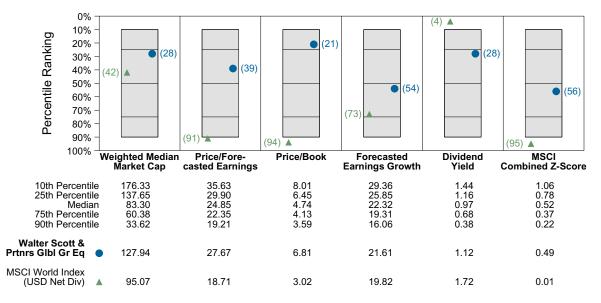


Walter Scott & Prtnrs Glbl Gr Eq Equity Characteristics Analysis Summary

Portfolio Characteristics

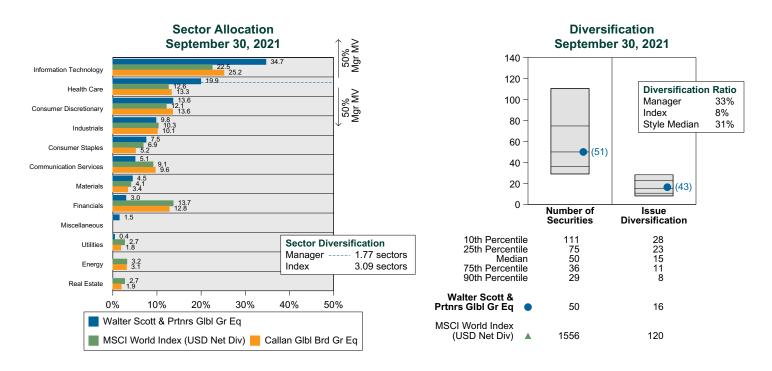
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Global Broad Growth Equity as of September 30, 2021



Sector Weights

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



BlackRock MSCI World Ex US Index Period Ended September 30, 2021

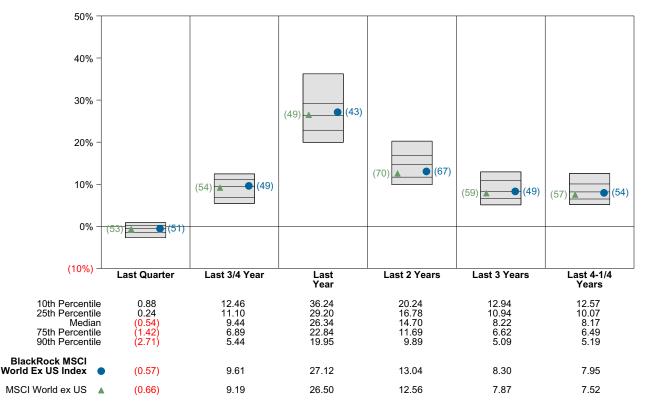
Investment Philosophy

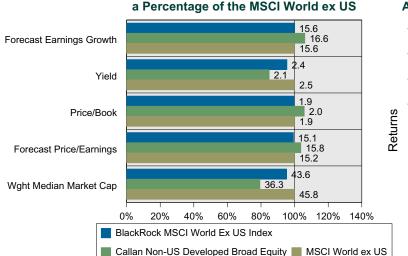
The objective of the World ex-U.S. Index Fund is to track the performance of the MSCI World ex-U.S. Index. The Fund fully replicates the index, holding every stock in the index in its market capitalization weight to ensure close tracking and minimize transaction costs.

Quarterly Summary and Highlights

- BlackRock MSCI World Ex US Index's portfolio posted a (0.57)% return for the quarter placing it in the 51 percentile of the Callan Non-US Developed Broad Equity group for the quarter and in the 43 percentile for the last year.
- BlackRock MSCI World Ex US Index's portfolio outperformed the MSCI World ex US by 0.09% for the quarter and outperformed the MSCI World ex US for the year by 0.62%.

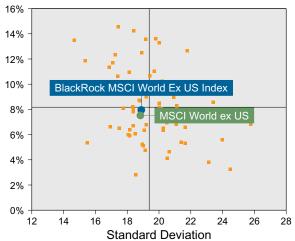
Performance vs Callan Non-US Developed Broad Equity (Gross)





Portfolio Characteristics as

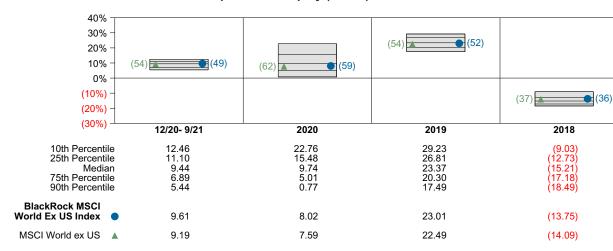
Callan Non-US Developed Broad Equity (Gross) Annualized Four and One-Quarter Year Risk vs Return



BlackRock MSCI World Ex US Index Return Analysis Summary

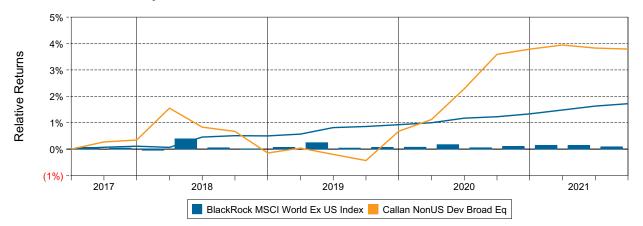
Return Analysis

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

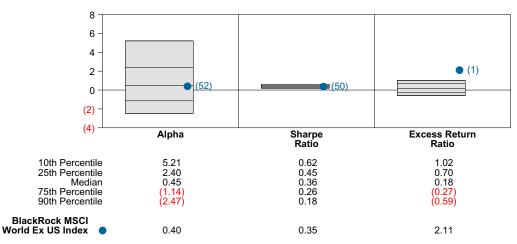


Performance vs Callan Non-US Developed Broad Equity (Gross)

Cumulative and Quarterly Relative Return vs MSCI World ex US



Risk Adjusted Return Measures vs MSCI World ex US Rankings Against Callan Non-US Developed Broad Equity (Gross) Four and One-Quarter Years Ended September 30, 2021

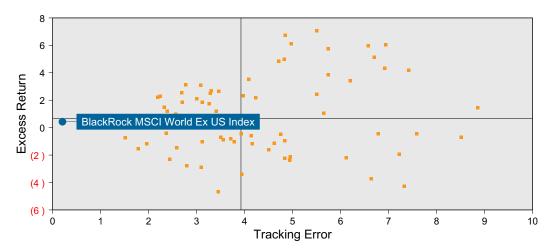


BlackRock MSCI World Ex US Index Risk Analysis Summary

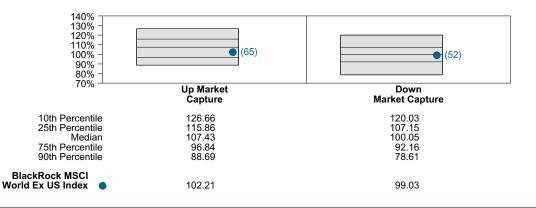
Risk Analysis

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

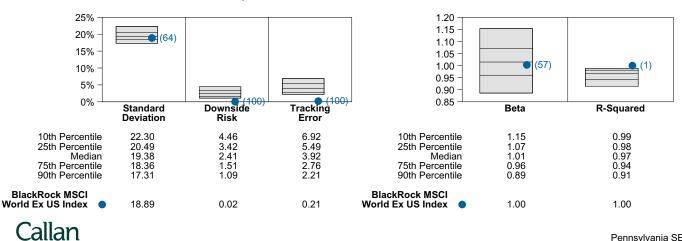
Risk Analysis vs Callan Non-US Developed Broad Equity (Gross) Four and One-Quarter Years Ended September 30, 2021



Market Capture vs MSCI World ex US Index (USD Net Div) Rankings Against Callan Non-US Developed Broad Equity (Gross) Four and One-Quarter Years Ended September 30, 2021



Risk Statistics Rankings vs MSCI World ex US Index (USD Net Div) Rankings Against Callan Non-US Developed Broad Equity (Gross) Four and One-Quarter Years Ended September 30, 2021

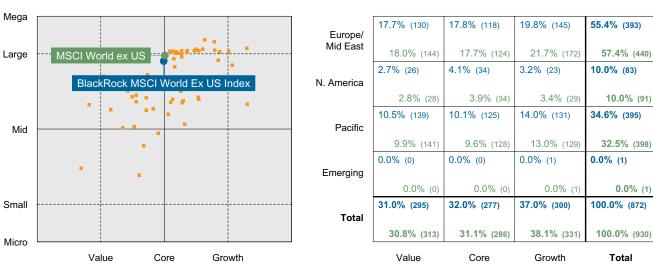


Current Holdings Based Style Analysis BlackRock MSCI World Ex US Index As of September 30, 2021

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

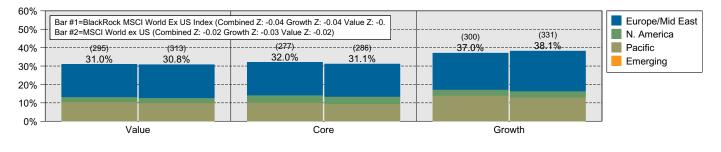
Style Exposure Matrix

Holdings as of September 30, 2021

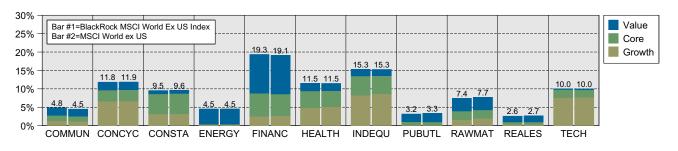


Style Map vs Callan NonUS Dev Broad Eq Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

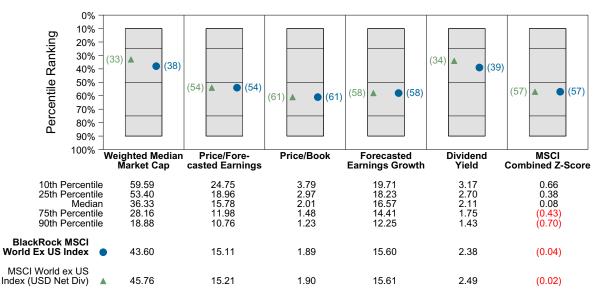


BlackRock MSCI World Ex US Index Equity Characteristics Analysis Summary

Portfolio Characteristics

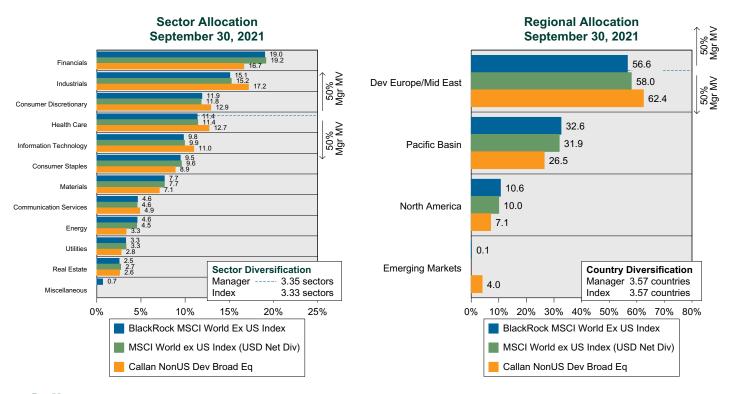
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Developed Broad Equity as of September 30, 2021



Sector Weights

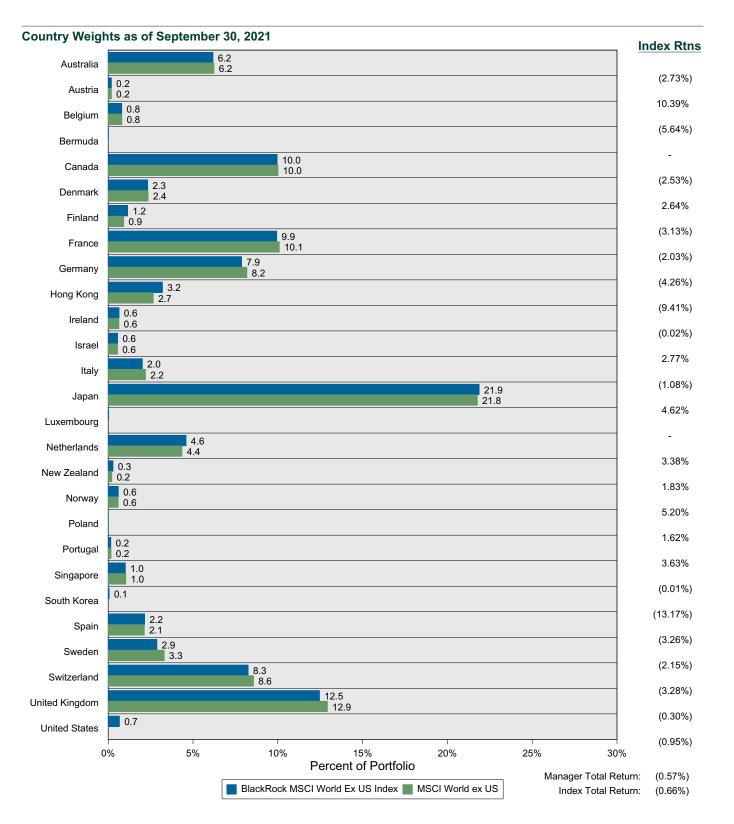
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares 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 September 30, 2021. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.



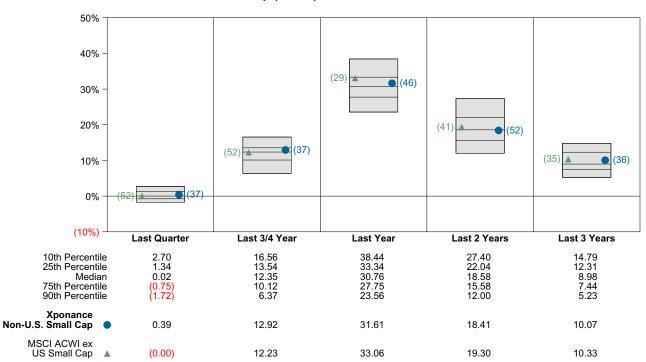
Xponance Non-U.S. Small Cap Period Ended September 30, 2021

Investment Philosophy

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

Quarterly Summary and Highlights

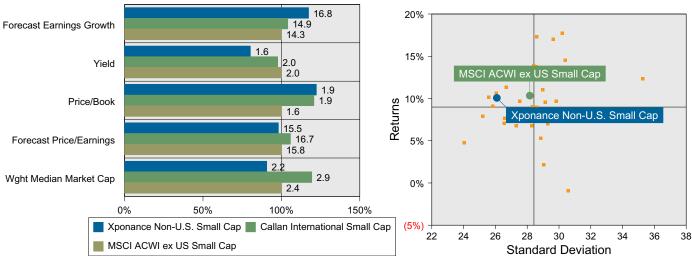
- Xponance Non-U.S. Small Cap's portfolio posted a 0.39% return for the quarter placing it in the 37 percentile of the Callan International Small Cap group for the quarter and in the 46 percentile for the last year.
- Xponance Non-U.S. Small Cap's portfolio outperformed the MSCI ACWI ex US Small Cap by 0.40% for the quarter and underperformed the MSCI ACWI ex US Small Cap for the year by 1.45%.



Performance vs Callan International Small Cap (Gross)





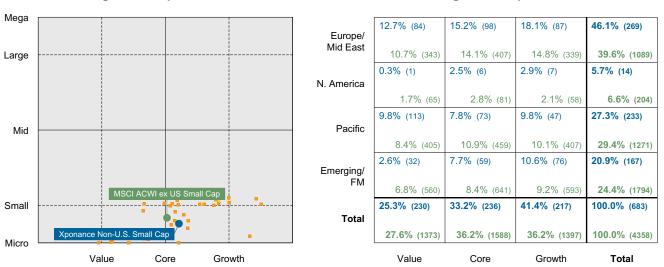


Current Holdings Based Style Analysis Xponance Non-U.S. Small Cap As of September 30, 2021

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

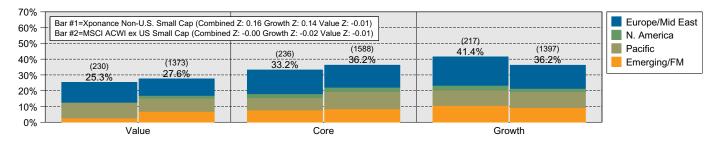
Style Exposure Matrix

Holdings as of September 30, 2021

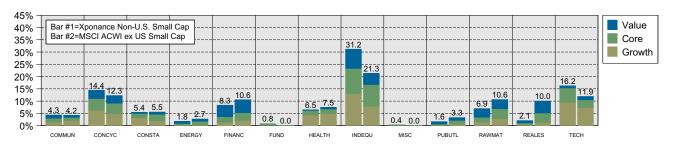


Style Map vs Callan Intl Small Cap Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

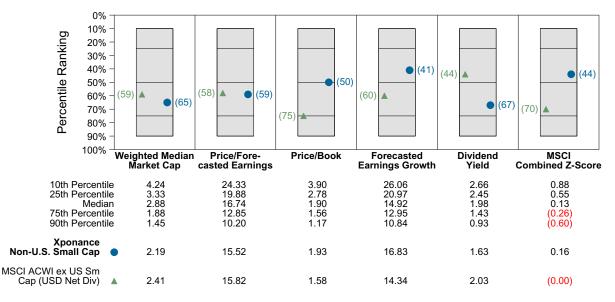


Xponance Non-U.S. Small Cap Equity Characteristics Analysis Summary

Portfolio Characteristics

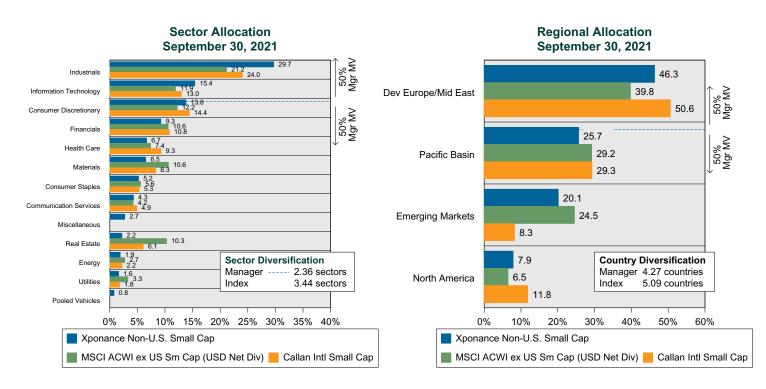
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan International Small Cap as of September 30, 2021



Sector Weights

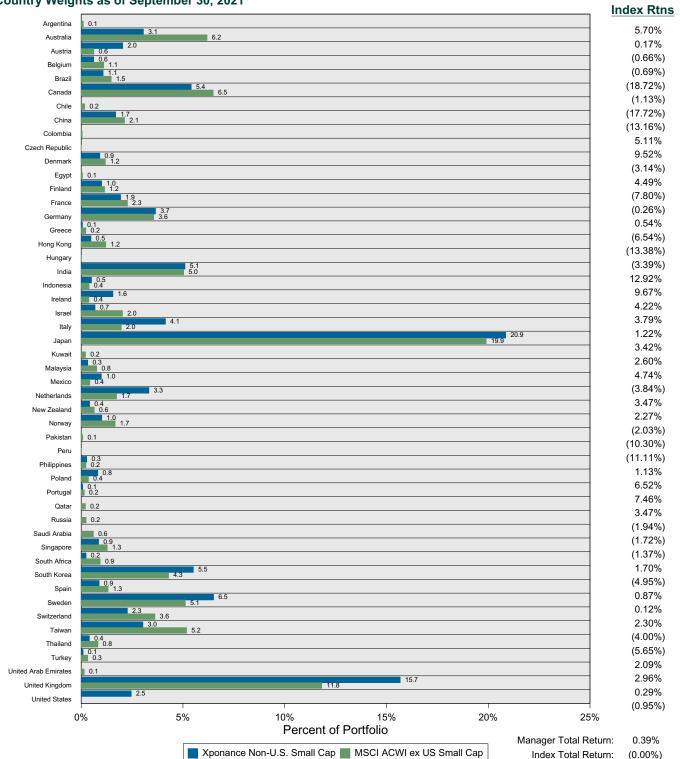
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation Xponance Non-U.S. Small Cap VS MSCI ACWI 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 September 30, 2021. 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 September 30, 2021



Harris Assoc Int'l SCV Period Ended September 30, 2021

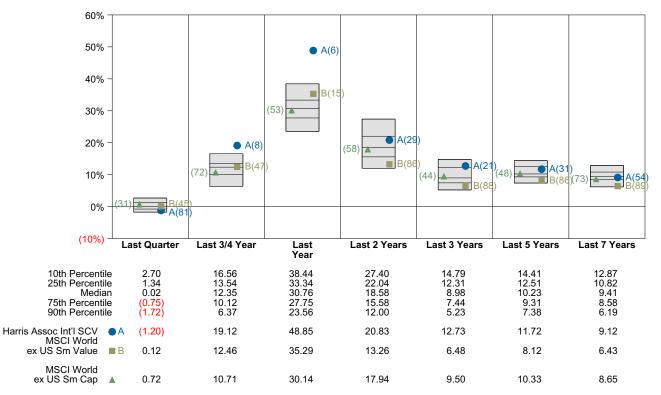
Investment Philosophy

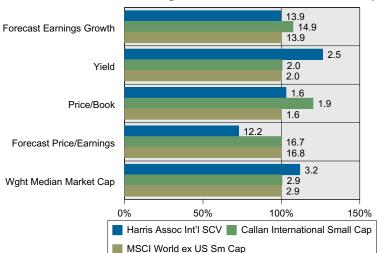
The team seeks to invest in companies that trade at a substantial discount to their underlying business values and are run by managers who think and act as owners. Portfolio managers believe that purchasing a quality business at a discount to its underlying value minimizes risk while providing substantial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

Quarterly Summary and Highlights

- Harris Assoc Int'I SCV's portfolio posted a (1.20)% return for the quarter placing it in the 81 percentile of the Callan International Small Cap group for the quarter and in the 6 percentile for the last year.
- Harris Assoc Int'l SCV's portfolio underperformed the MSCI World ex US Sm Cap by 1.92% for the quarter and outperformed the MSCI World ex US Sm Cap for the year by 18.72%.

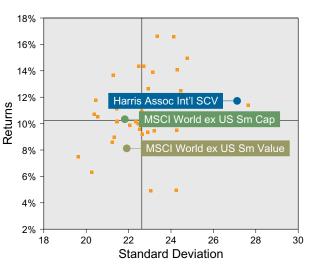
Performance vs Callan International Small Cap (Gross)





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

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



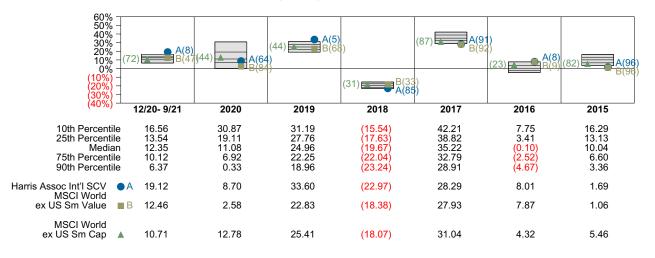


Harris Assoc Int'l SCV Return Analysis Summary

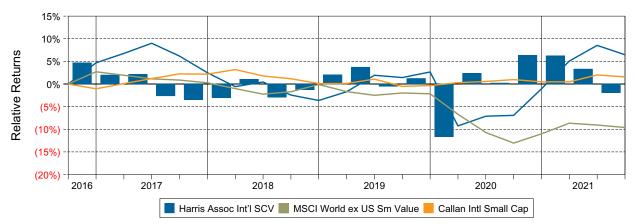
Return Analysis

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.

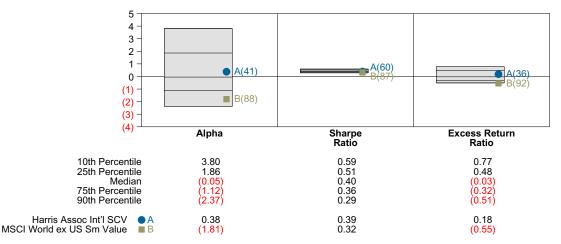
Performance vs Callan International Small Cap (Gross)



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





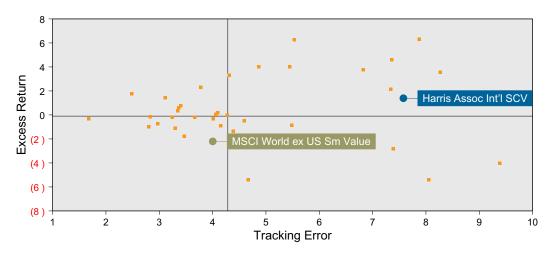


Harris Assoc Int'l SCV Risk Analysis Summary

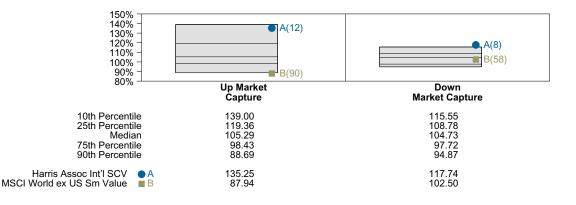
Risk Analysis

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

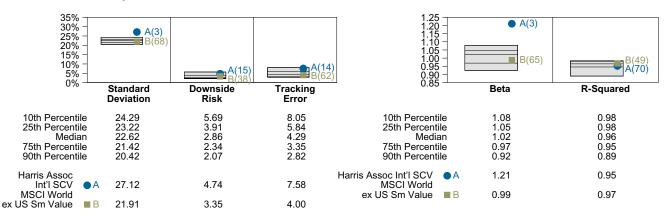
Risk Analysis vs Callan International Small Cap (Gross) Five Years Ended September 30, 2021



Market Capture vs MSCI World ex US Small Cap (USD Net Div) Rankings Against Callan International Small Cap (Gross) Five Years Ended September 30, 2021



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Risk Statistics Rankings vs MSCI World ex US Small Cap (USD Net Div)
Rankings Against Callan International Small Cap (Gross)
Five Years Ended September 30, 2021
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Current Holdings Based Style Analysis Harris Assoc Int'l SCV As of September 30, 2021

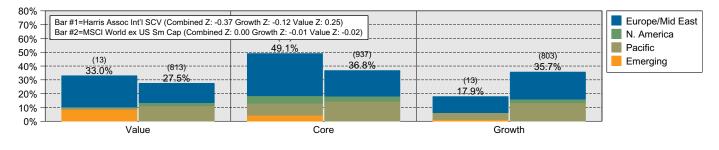
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are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

Style Exposure Matrix

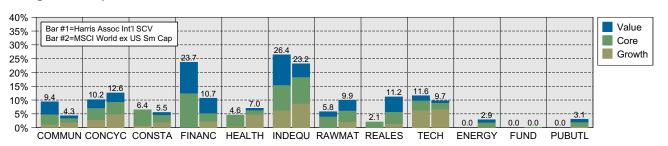


Style Map vs Callan Intl Small Cap Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

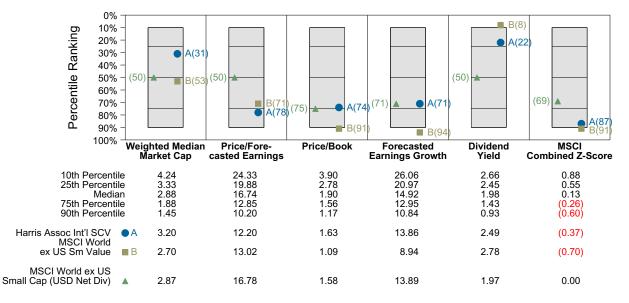


Harris Assoc Int'l SCV Equity Characteristics Analysis Summary

Portfolio Characteristics

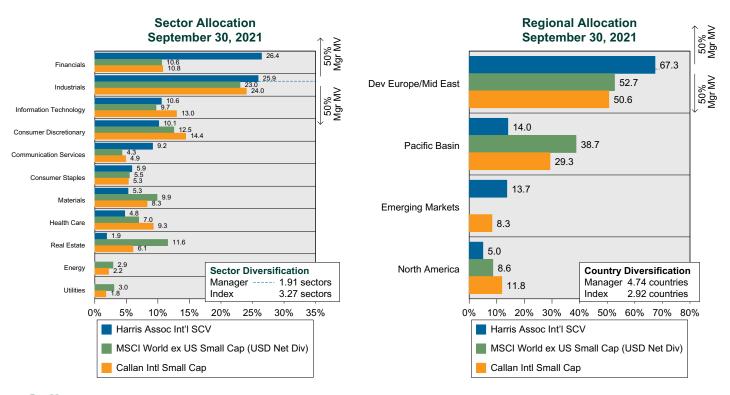
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan International Small Cap as of September 30, 2021



Sector Weights

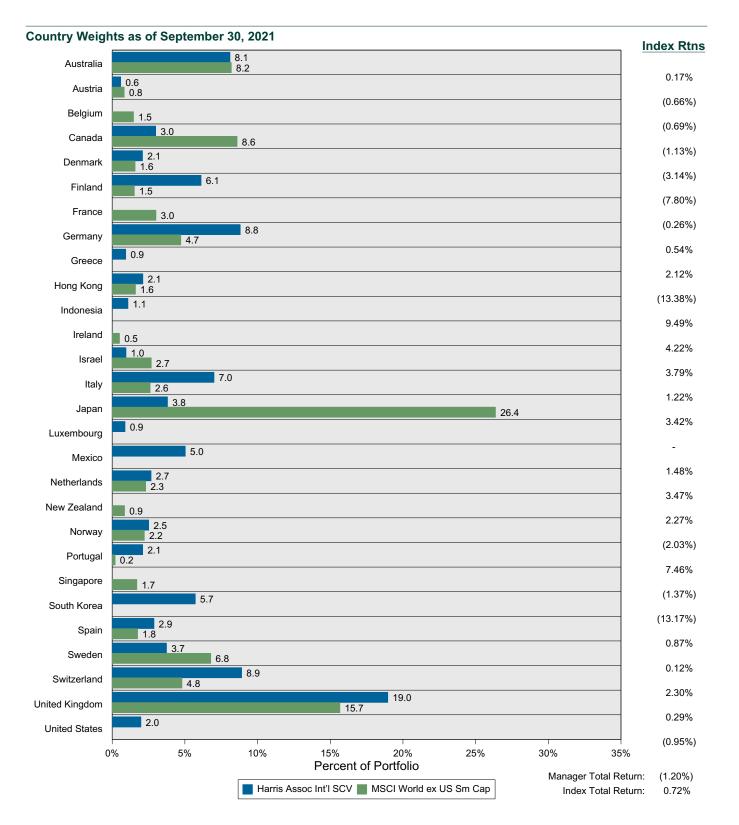
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation Harris Assoc Int'I SCV VS MSCI World 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 September 30, 2021. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.



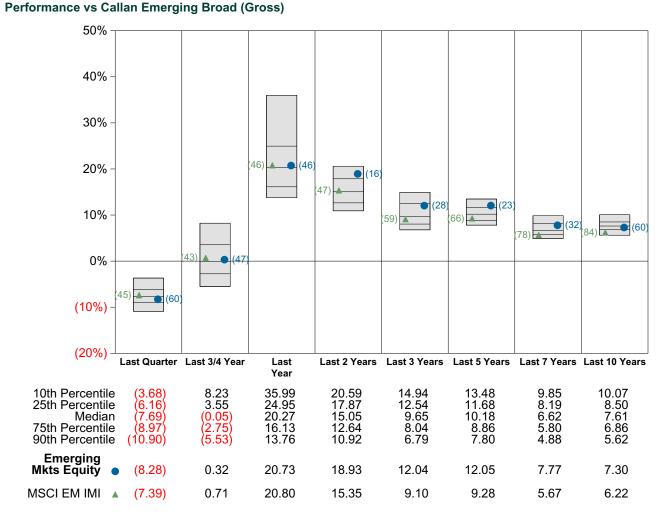


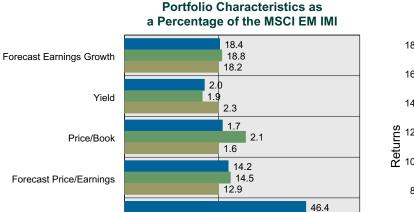
Emerging Markets Equity

Emerging Mkts Equity Period Ended September 30, 2021

Quarterly Summary and Highlights

- Emerging Mkts Equity's portfolio posted a (8.28)% return for the quarter placing it in the 60 percentile of the Callan Emerging Broad group for the quarter and in the 46 percentile for the last year.
- Emerging Mkts Equity's portfolio underperformed the MSCI EM IMI by 0.89% for the quarter and underperformed the MSCI EM IMI for the year by 0.07%.





29.9

150%

200%

250%

24.1

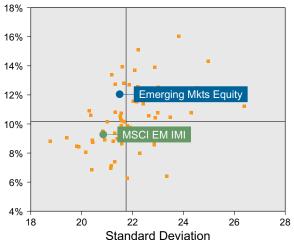
Emerging Mkts Equity 📕 Callan Emerging Broad 📕 MSCI EM IMI

100%

50%

0%

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



Callan

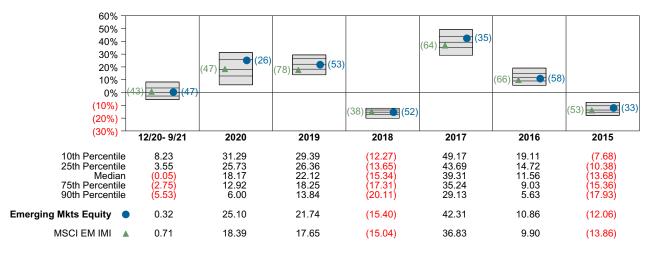
Wght Median Market Cap

Emerging Mkts Equity Return Analysis Summary

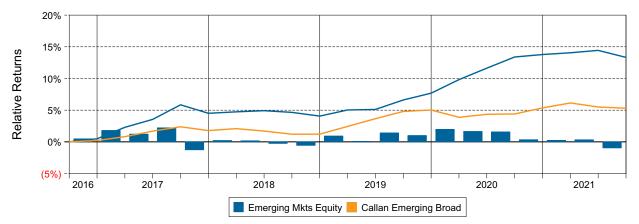
Return Analysis

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.

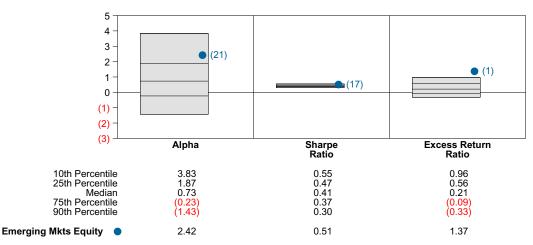
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Return vs MSCI EM IMI



Risk Adjusted Return Measures vs MSCI EM IMI Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2021

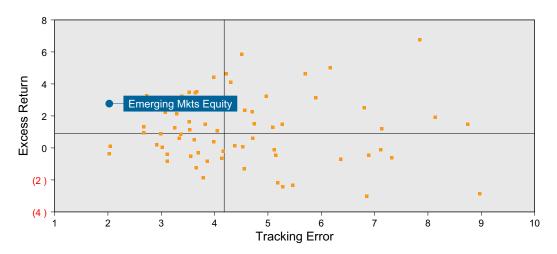


Emerging Mkts Equity Risk Analysis Summary

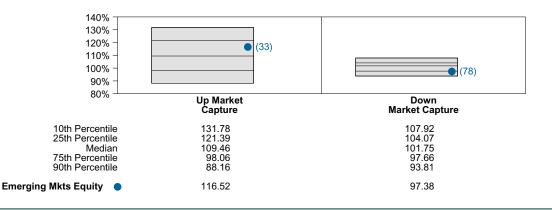
Risk Analysis

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

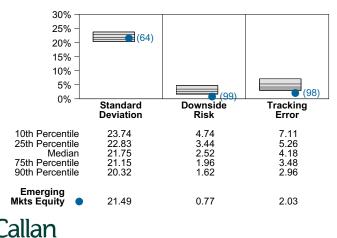
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended September 30, 2021

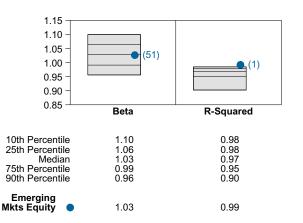


Market Capture vs MSCI EM IMI Index (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2021





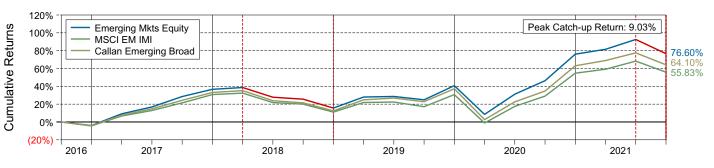




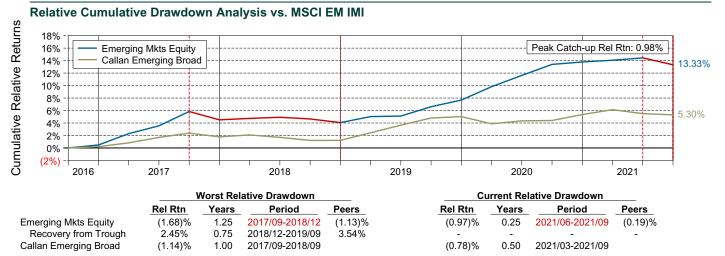
Emerging Mkts Equity Drawdown Analysis for Five Years Ended September 30, 2021

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.

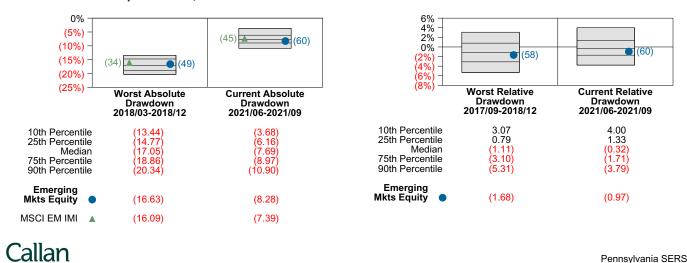
Absolute Cumulative Drawdown Analysis



	Worst Absolute Drawdown				Current Absolute Drawdown					
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Emerging Mkts Equity	(16.63)%	0.75	2018/03-2018/12	(16.09)%	(16.80)%	(8.28)%	0.25	2021/06-2021/09	(7.39)%	(7.56)%
Recovery from Trough	21.74%	1.00	2018/12-2019/12	17.65%	22.08%	-	-	-	-	-
MSCI EM IMI	(25.37)%	2.00	2018/03-2020/03			(7.39)%	0.25	2021/06-2021/09		
Callan Emerging Broad	(16.80)%	0.75	2018/03-2018/12			(7.56)%	0.25	2021/06-2021/09		



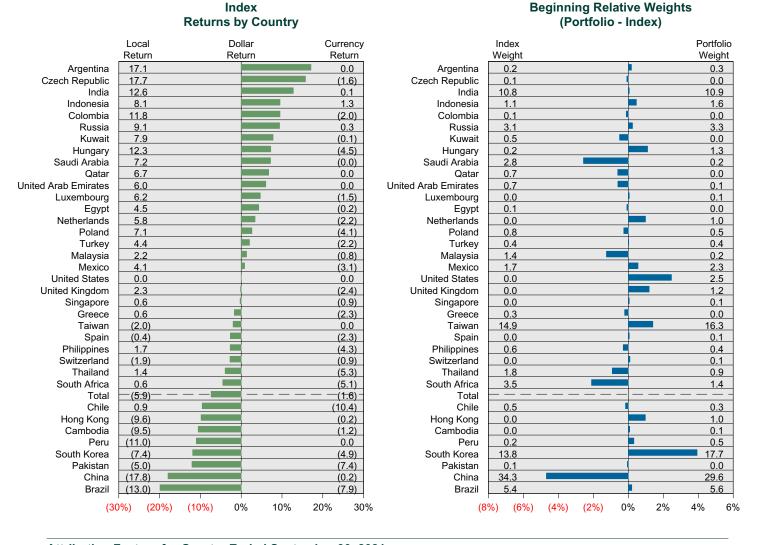
Drawdown Rankings vs. MSCI EM IMI **Rankings against Callan Emerging Broad** Five Years Ended September 30, 2021



Emerging Mkts Equity vs MSCI EM IMI Attribution for Quarter Ended September 30, 2021

International Attribution

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





Current Holdings Based Style Analysis Emerging Mkts Equity As of September 30, 2021

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.

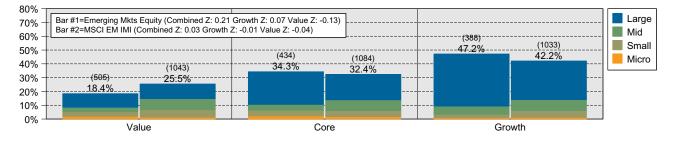


Style Map vs Callan Emerging Broad

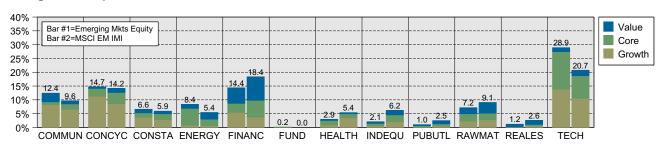
Style Exposure Matrix Holdings as of September 30, 2021

	Value	Core	Growth	Total
TOLAI	25.5% (1043)	32.4% (1084)	42.2% (1033)	100.0% (3160)
Total	18.4% (505)	34.3% (434)	47.2% (388)	100.0% (1327)
initero -	1.3% (346)	1.7% (379)	1.2% (295)	4.2% (1020)
Micro	1.9% (48)	2.3% (32)	1.0% (17)	5.1% (97)
	5.4% (404)	4.5% (399)	4.9% (392)	14.7% (1195)
Small	3.3% (196)	3.9% (132)	2.3% (104)	9.6% (432)
	8.1% (208)	7.7% (221)	7.9% (231)	23.7% (660)
Mid	0.270 (102)	1.0 /0 (100)	0.070 (100)	101070 (020)
	3.2% (182)	4.3% (185)	6.0% (156)	13.5% (523)
Large	10.7% (85)	18.6% (85)	28.2% (115)	57.4% (285)
	10.0% (79)	23.8% (85)	37.9% (111)	71.8% (275)

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

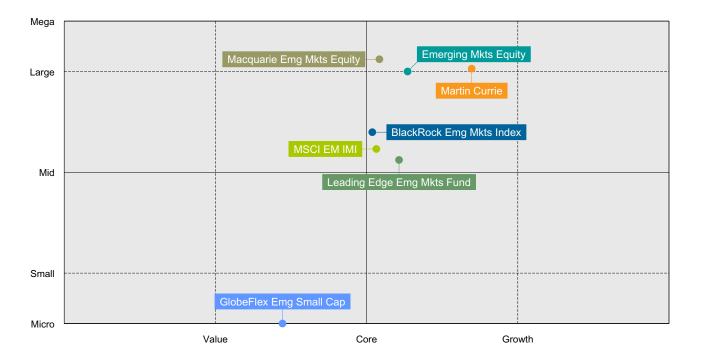


International Holdings Based Style Analysis For One Quarter Ended September 30, 2021

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

Style Map

Holdings for One Quarter Ended September 30, 2021



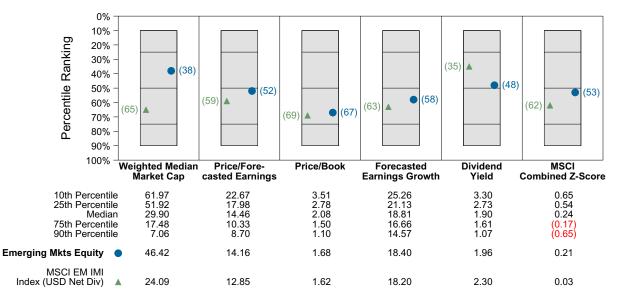
	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities D	Security Diversification
BlackRock Emg Mkts Index	8.12%	28.93	0.01	(0.03)	(0.03)	1419	75.18
Leading Edge Emg Mkts Fund	19.65%	20.93	0.16	0.04	(0.11)	225	38.92
Macquarie Emg Mkts Equity	29.35%	81.70	0.05	0.03	(0.02)	79	7.98
Martin Currie	33.12%	54.78	0.57	0.16	(0.41)	49	12.28
GlobeFlex Emg Small Cap	9.76%	0.41	(0.53)	0.03	0.56	126	14.20
Emerging Mkts Equity	100.00%	46.42	0.21	0.07	(0.13)	1659	28.42
MSCI EM IMI	-	24.09	0.03	(0.01)	(0.04)	3216	114.71

Emerging Mkts Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

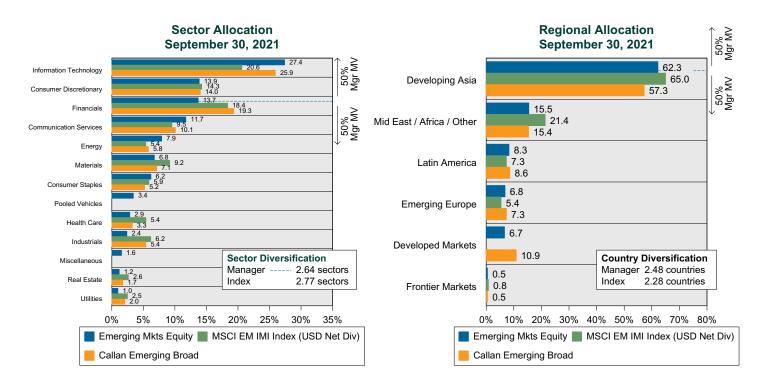
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2021



Sector Weights

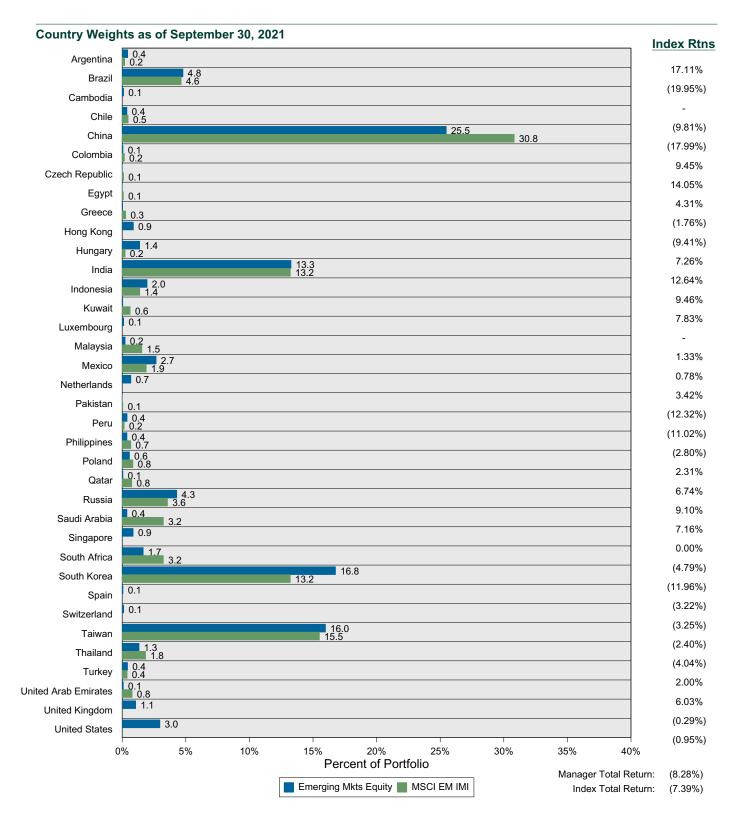
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



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

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2021. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





Emerging Mkts Equity Active Share Analysis as of September 30, 2021 vs. MSCI EM 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.

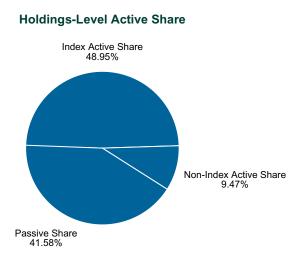
Sector Exposure Active Share

Active Share

16.77%

Passive Share

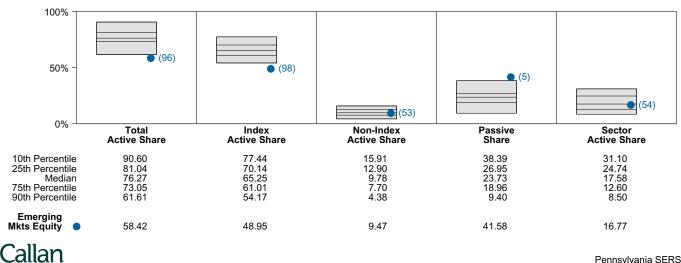
83.23%



Total Active Share: 58.42%

	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	49.32%	5.33%	54.65%	9.54%	11.74%	5.58%
Consumer Discretionary	40.44%	11.26%	51.71%	14.25%	13.87%	7.32%
Consumer Staples	64.75%	2.92%	67.68%	5.90%	6.21%	4.10%
Energy	43.15%	2.06%	45.21%	5.40%	7.92%	2.42%
Financials	54.26%	15.14%	69.40%	18.36%	13.70%	11.36%
Health Care	70.69%	4.58%	75.27%	5.42%	2.86%	3.16%
Industrials	61.42%	15.72%	77.15%	6.18%	2.40%	3.44%
Information Technology	38.37%	3.45%	41.83%	20.64%	27.40%	10.09%
Materials	59.75%	10.30%	70.04%	9.19%	6.76%	5.64%
Miscellaneous	50.00%	50.37%	100.37%	-	1.55%	0.79%
Pooled Vehicles	0.00%	100.00%	100.00%	-	3.43%	1.70%
Real Estate	63.37%	11.99%	75.35%	2.63%	1.19%	1.46%
Utilities	71.61%	3.23%	74.84%	2.49%	0.98%	1.35%
Total	48.95%	9.47%	58.42%	100.00%	100.00%	58.42%

Active Share vs. Callan Emerging Broad



Emerging Markets Managers

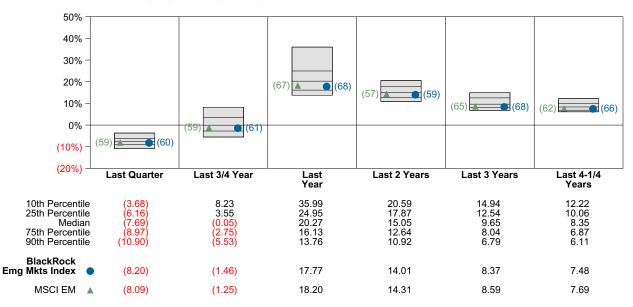
BlackRock Emg Mkts Index Period Ended September 30, 2021

Investment Philosophy

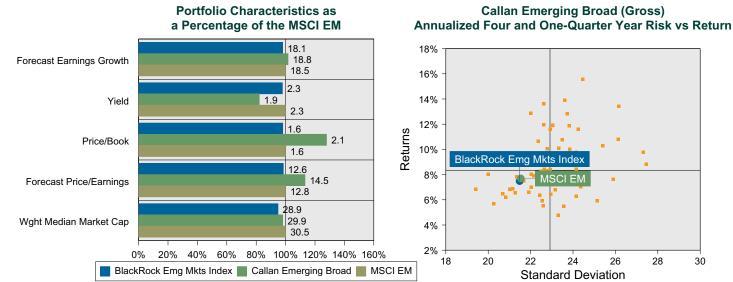
As with all indexing strategies, the objective of the Emerging Markets Index Funds is to match the performance of the benchmark, the MSCI EMF indexes. BlackRock's objective in managing the fund is to deliver a high quality and cost-effective index-based portfolio available to institutional investors.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

Quarterly Summary and Highlights

- BlackRock Emg Mkts Index's portfolio posted a (8.20)% return for the quarter placing it in the 60 percentile of the Callan Emerging Broad group for the quarter and in the 68 percentile for the last year.
- BlackRock Emg Mkts Index's portfolio underperformed the MSCI EM by 0.11% for the quarter and underperformed the MSCI EM for the year by 0.43%.



Performance vs Callan Emerging Broad (Gross)

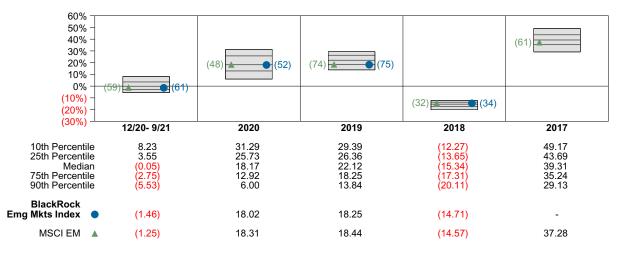


BlackRock Emg Mkts Index Return Analysis Summary

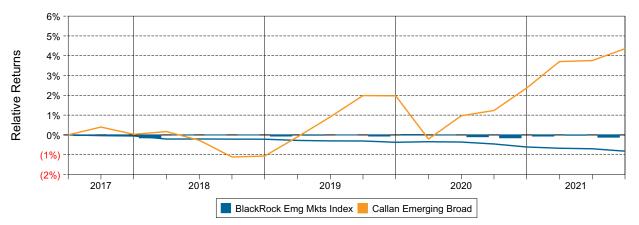
Return Analysis

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

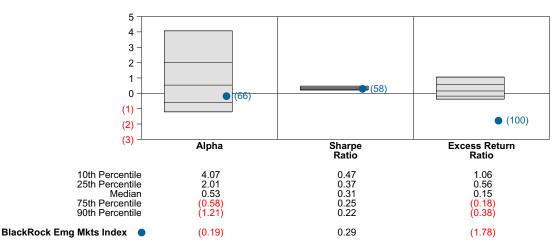




Cumulative and Quarterly Relative Return vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Four and One-Quarter Years Ended September 30, 2021

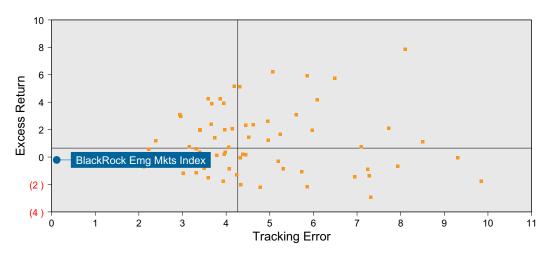


BlackRock Emg Mkts Index Risk Analysis Summary

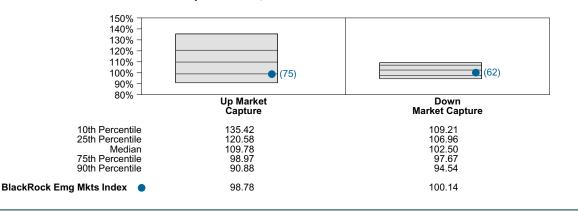
Risk Analysis

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.

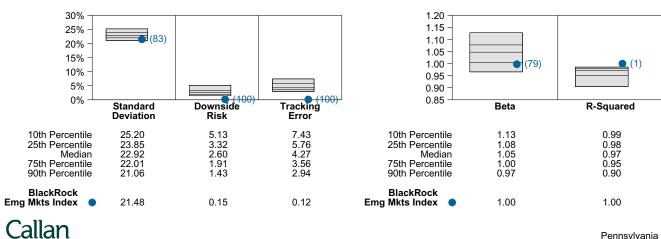
Risk Analysis vs Callan Emerging Broad (Gross) Four and One-Quarter Years Ended September 30, 2021



Market Capture vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Four and One-Quarter Years Ended September 30, 2021



Risk Statistics Rankings vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Four and One-Quarter Years Ended September 30, 2021



Current Holdings Based Style Analysis BlackRock Emg Mkts Index As of September 30, 2021

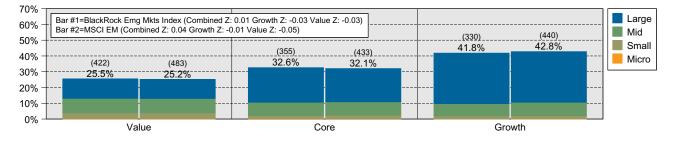
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are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

Style Exposure Matrix

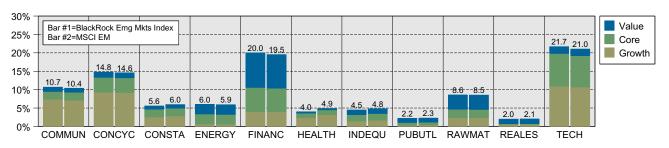


Style Map vs Callan Emerging Broad Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

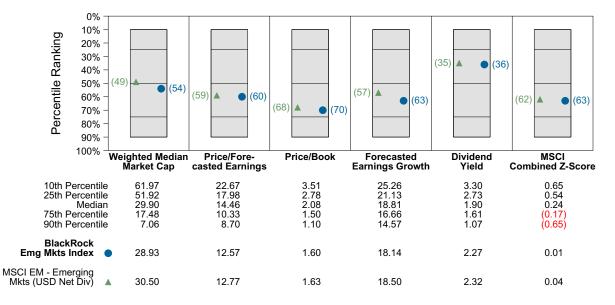


BlackRock Emg Mkts Index Equity Characteristics Analysis Summary

Portfolio Characteristics

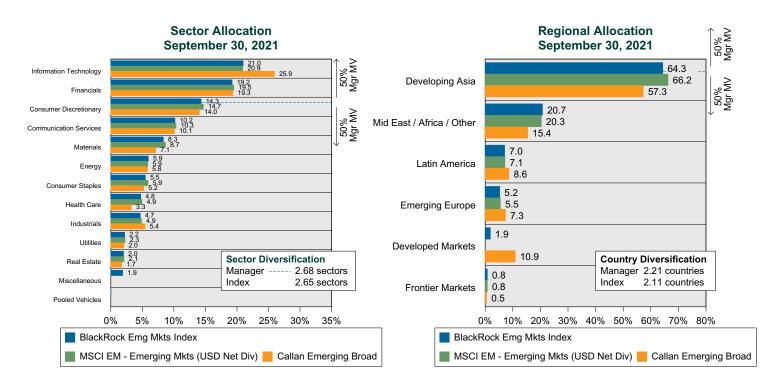
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2021



Sector Weights

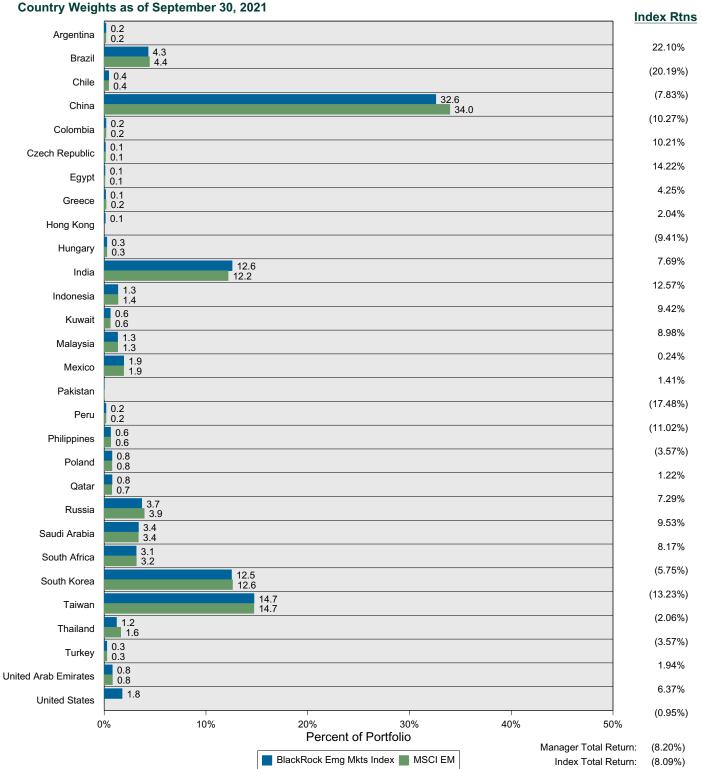
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares 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 September 30, 2021. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent guarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





Leading Edge Emg Mkts Fund Period Ended September 30, 2021

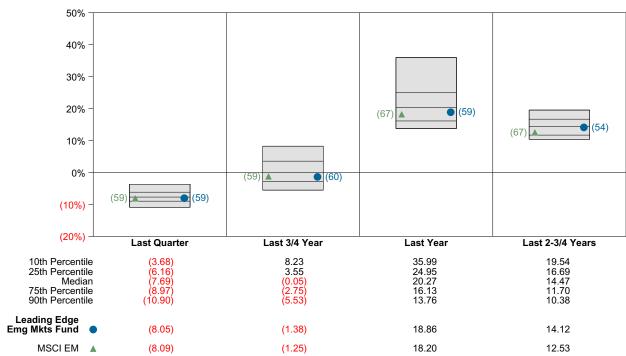
Investment Philosophy

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

Quarterly Summary and Highlights

Performance vs Callan Emerging Broad (Gross)

- Leading Edge Emg Mkts Fund's portfolio posted a (8.05)% return for the quarter placing it in the 59 percentile of the Callan Emerging Broad group for the quarter and in the 59 percentile for the last year.
- Leading Edge Emg Mkts Fund's portfolio outperformed the MSCI EM by 0.04% for the quarter and outperformed the MSCI EM for the year by 0.66%.

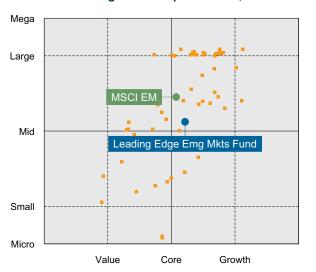


Portfolio Characteristics as a Percentage of the MSCI EM **Cumulative Returns vs MSCI EM** 17.9 7% 18.8 Forecast Earnings Growth Leading Edge Emg Mkts Fund 18.5 Callan Emerging Broad 6% Cumulative Relative Returns 22 Yield 1.9 5% 2.3 4% 1.4 Price/Book 2.1 3% 1.6 <u>13</u>.0 2% Forecast Price/Earnings 14.5 12.8 1% 20.9 29.9 Wght Median Market Cap 0% 30.5 (1%) 60% 80% 100% 120% 140% 160% 0% 20% 40% 2019 2020 2021

Leading Edge Emg Mkts Fund 📕 Callan Emerging Broad 📕 MSCI EM

Current Holdings Based Style Analysis Leading Edge Emg Mkts Fund As of September 30, 2021

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

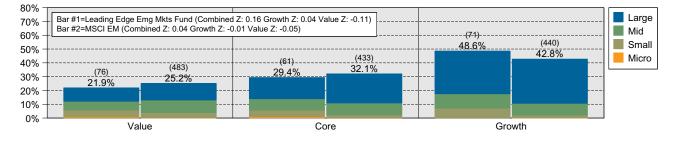


Style Map vs Callan Emerging Broad Holdings as of September 30, 2021

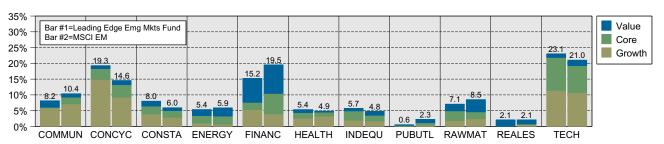
Style Exposure Matrix Holdings as of September 30, 2021

	25.2% (483)	32.1% (433)	42.8% (440)	100.0% (1356)
Total				
	21.9% (76)	29.4% (61)	48.6% (71)	100.0% (208)
	0.1% (7)	0.2% (3)	0.0% (2)	0.4% (12)
Micro	0.7 % (4)	0.0% (2)	0.0 % (0)	1.5% (6)
	0.7% (4)	0.8% (2)	0.0% (0)	1.5% (6)
Smail	3.7% (186)	2.0% (130)	2.1% (109)	7.9% (425)
Small	5.0% (29)	4.8% (17)	7.1% (16)	16.9% (62)
	9.2% (205)	8.6% (215)	8.5% (214)	26.2% (634)
Mid				
	6.4% (27)	8.3% (22)	10.4% (23)	25.0% (72)
20.90	12.2% (85)	21.2% (85)	32.2% (115)	65.6% (285)
Large	9.9% (16)	15.5% (20)	31.1% (32)	56.5% (68)

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021



Leading Edge Emg Mkts Fund Equity Characteristics Analysis Summary

Portfolio Characteristics

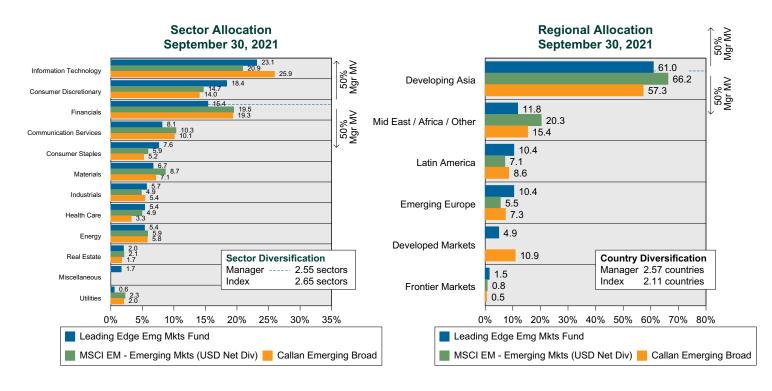
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2021



Sector Weights

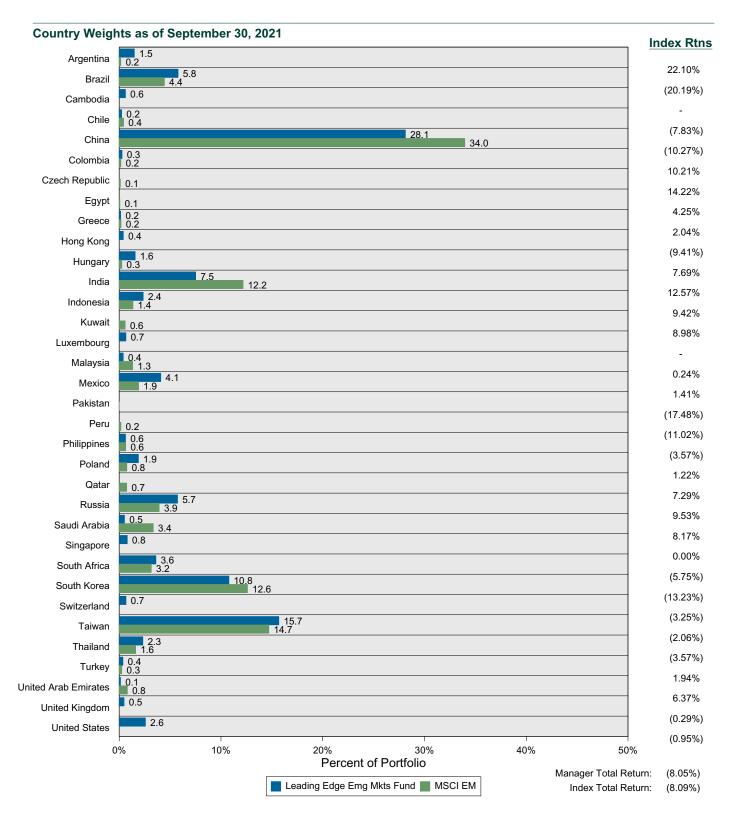
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Country Allocation Leading Edge Emg Mkts Fund VS MSCI EM - Emerging Mkts (USD Net Div)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2021. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.



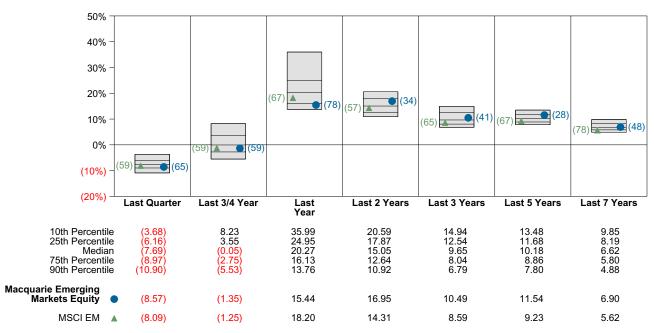
Macquarie Emerging Markets Equity Period Ended September 30, 2021

Investment Philosophy

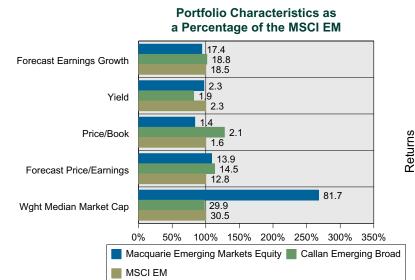
Macquarie believes that market price and intrinsic business value are correlated in the long-run and short-term divergences offer disciplined, bottom-up, fundamental investors, attractive risk-adjusted opportunities. The team defines intrinsic value as the appropriately discounted value of a business' 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

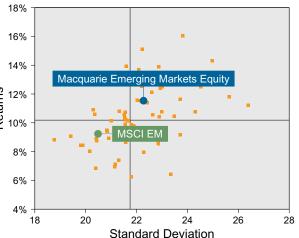
- Macquarie Emerging Markets Equity's portfolio posted a (8.57)% return for the quarter placing it in the 65 percentile of the Callan Emerging Broad group for the quarter and in the 78 percentile for the last year.
- Macquarie Emerging Markets Equity's portfolio underperformed the MSCI EM by 0.48% for the quarter and underperformed the MSCI EM for the year by 2.76%.







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



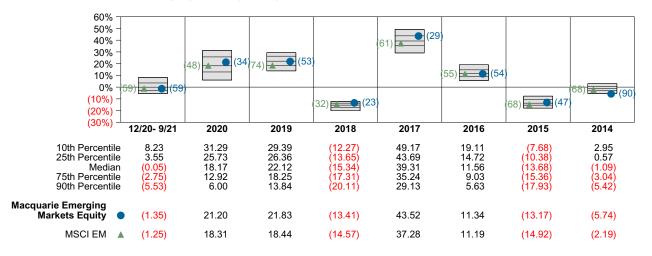


Macquarie Emerging Markets Equity Return Analysis Summary

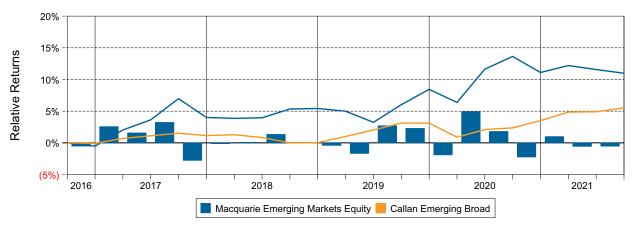
Return Analysis

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.

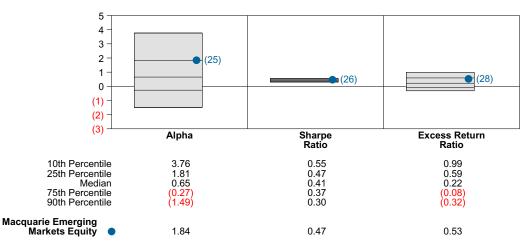
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Return vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2021

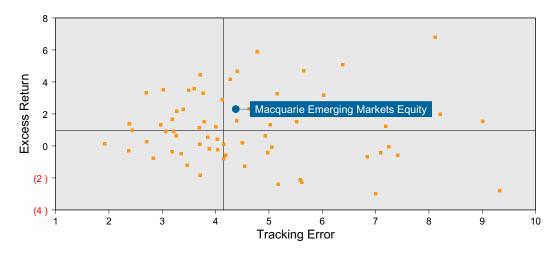


Macquarie Emerging Markets Equity Risk Analysis Summary

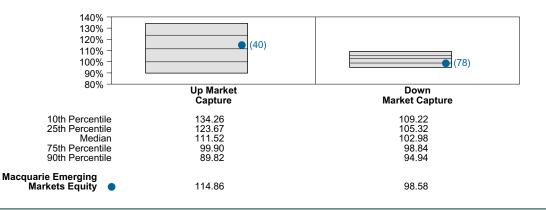
Risk Analysis

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

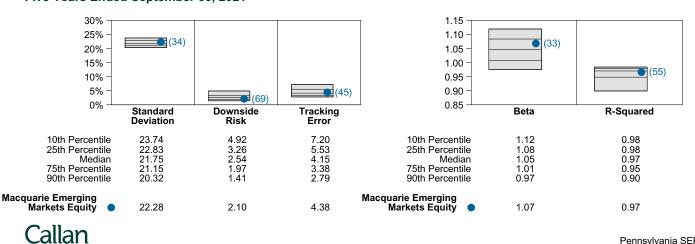
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended September 30, 2021



Market Capture vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2021

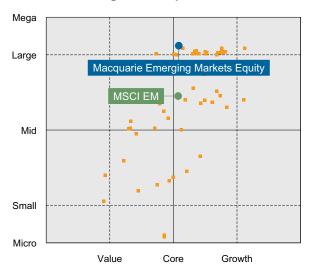


Risk Statistics Rankings vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2021



Current Holdings Based Style Analysis Macquarie Emerging Markets Equity As of September 30, 2021

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

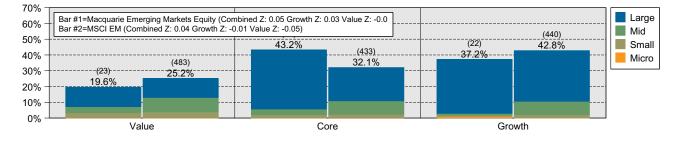


Style Map vs Callan Emerging Broad Holdings as of September 30, 2021

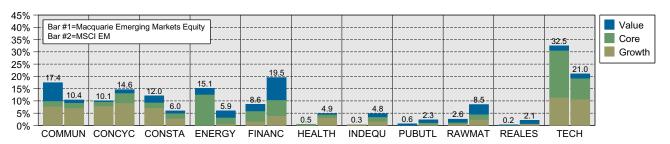
Style Exposure Matrix Holdings as of September 30, 2021

	12.2% (85)	21.2% (85)	32.2% (115)	65.6% (285)
	. ,	. ,	. ,	
Mid	3.8% (8)	3.6% (7)	1.1% (2)	8.5% (17)
IVIIO	0.00/	0.00/	0.5%	00.00/
	9.2% (205)	8.6% (215)	8.5% (214)	26.2% (634)
	3.2% (6)	2.0% (7)	0.9% (2)	6.1% (15)
Small				
	3.7% (186)	2.0% (130)	2.1% (109)	7.9% (425)
	0.1% (2)	0.1% (1)	0.9% (3)	1.1% (6)
Micro				
	0.1% (7)	0.2% (3)	0.0% (2)	0.4% (12)
	19.6% (23)	43.2% (31)	37.2% (22)	100.0% (76)
Total				
	25.2% (483)	32.1% (433)	42.8% (440)	100.0% (1356)
	Value	Core	Growth	Total

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021



Macquarie Emerging Markets Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

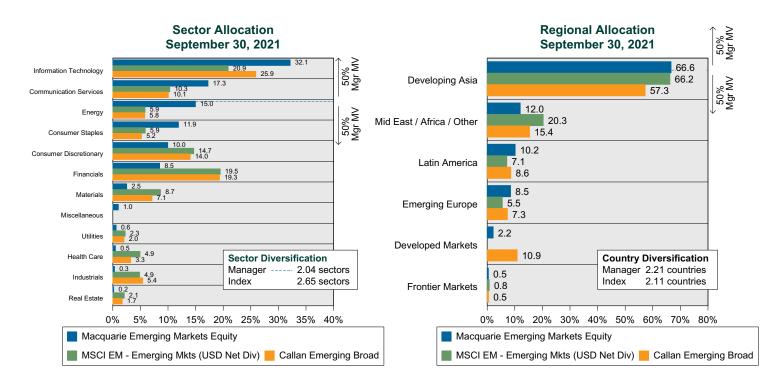
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2021



Sector Weights

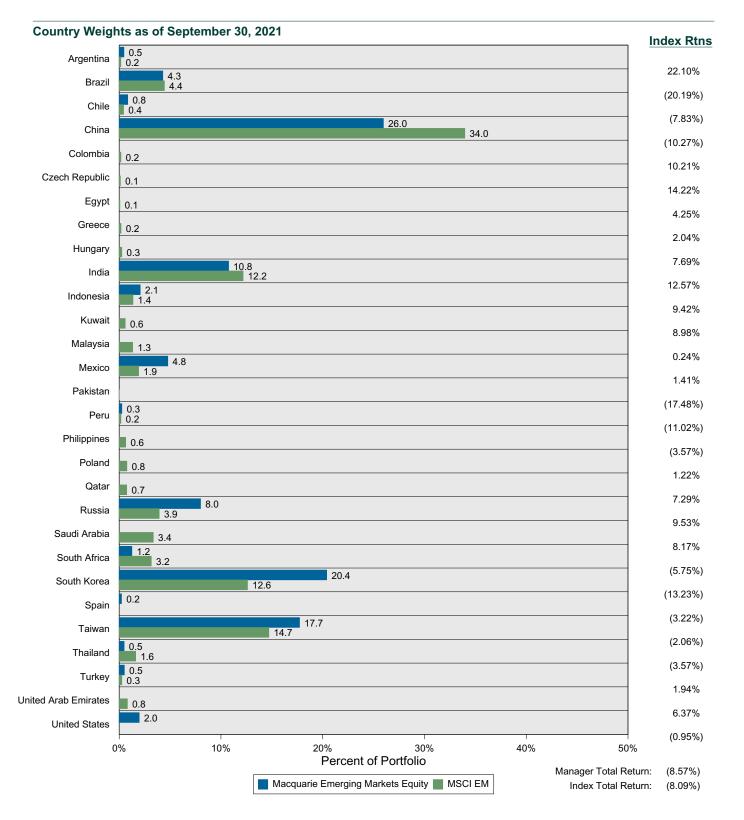
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



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

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2021. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.



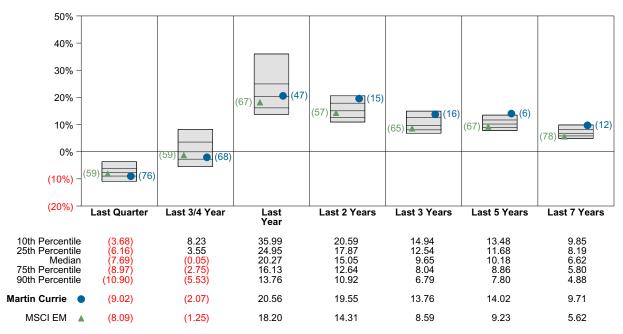
Martin Currie Period Ended September 30, 2021

Investment Philosophy

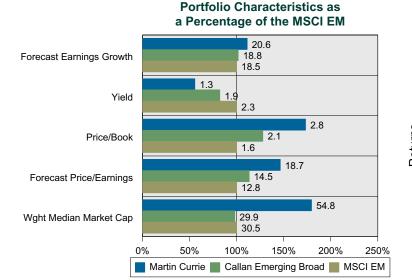
The Martin Currie GEMs team builds long-term, high conviction stock-focused portfolios, driven by fundamental research within an appropriate risk framework. Their primary belief with regard to GEMs investing is that sustainable cash flows and the effective allocation of capital are the main determinants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

Quarterly Summary and Highlights

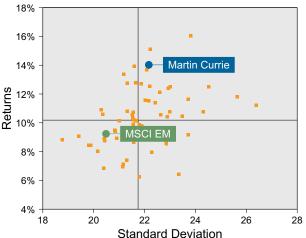
- Martin Currie's portfolio posted a (9.02)% return for the quarter placing it in the 76 percentile of the Callan Emerging Broad group for the quarter and in the 47 percentile for the last year.
- Martin Currie's portfolio underperformed the MSCI EM by 0.93% for the quarter and outperformed the MSCI EM for the year by 2.36%.







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



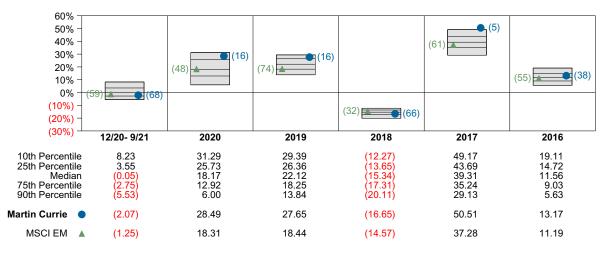


Martin Currie Return Analysis Summary

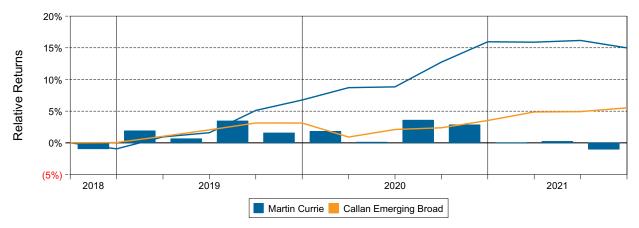
Return Analysis

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

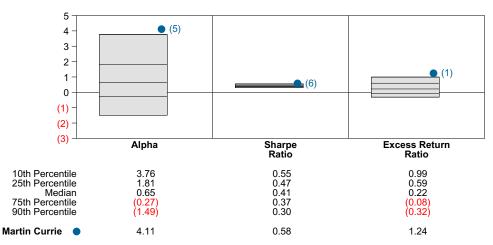
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Return vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2021



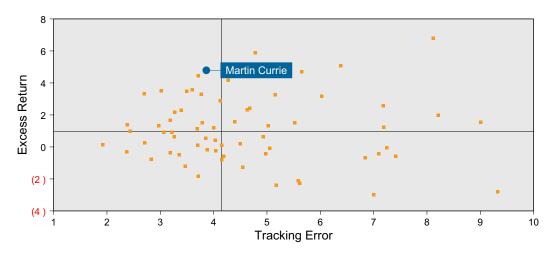


Martin Currie Risk Analysis Summary

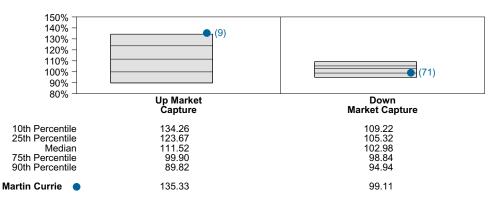
Risk Analysis

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.

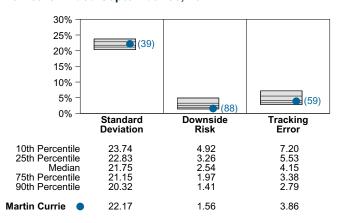
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended September 30, 2021

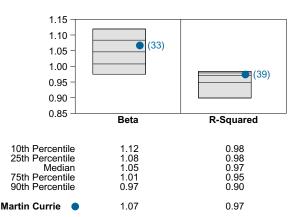


Market Capture vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2021



Risk Statistics Rankings vs MSCI EM - Emerging Mkts (USD Net Div) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2021





Current Holdings Based Style Analysis Martin Currie As of September 30, 2021

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

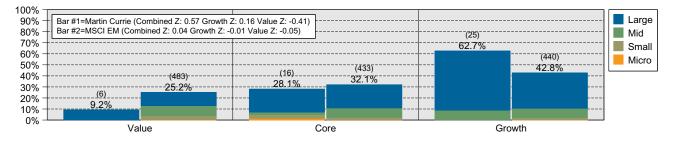


Style Map vs Callan Emerging Broad Holdings as of September 30, 2021

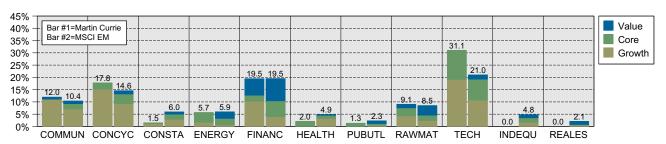
Style Exposure Matrix Holdings as of September 30, 2021

	0.001				
	9.2% (6)	20.9% (8)	53.9% (20)	84.0% (34)	
Large					
	12.2% (85)	21.2% (85)	32.2% (115)	65.6% (285)	
	0.0% (0)	2.3% (2)	8.8% (5)	11.2% (7)	
Mid					
	9.2% (205)	8.6% (215)	8.5% (214)	26.2% (634)	
	0.0% (0)	3.4% (5)	0.0% (0)	3.4% (5)	
Small					
	3.7% (186)	2.0% (130)	2.1% (109)	7.9% (425)	
	0.0% (0)	1.4% (1)	0.0% (0)	1.4% (1)	
Micro					
	0.1% (7)	0.2% (3)	0.0% (2)	0.4% (12)	
	9.2% (6)	28.1% (16)	62.7% (25)	100.0% (47)	
Total					
	25.2% (483)	32.1% (433)	42.8% (440)	100.0 % (1356)	
	Value	Core	Growth	Total	

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

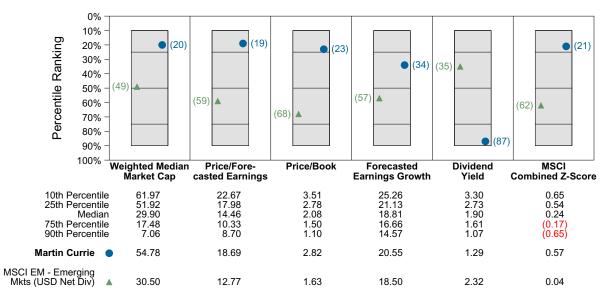


Martin Currie Equity Characteristics Analysis Summary

Portfolio Characteristics

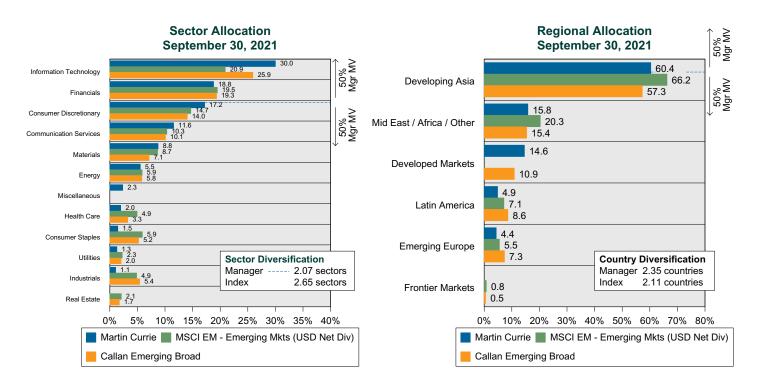
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2021



Sector Weights

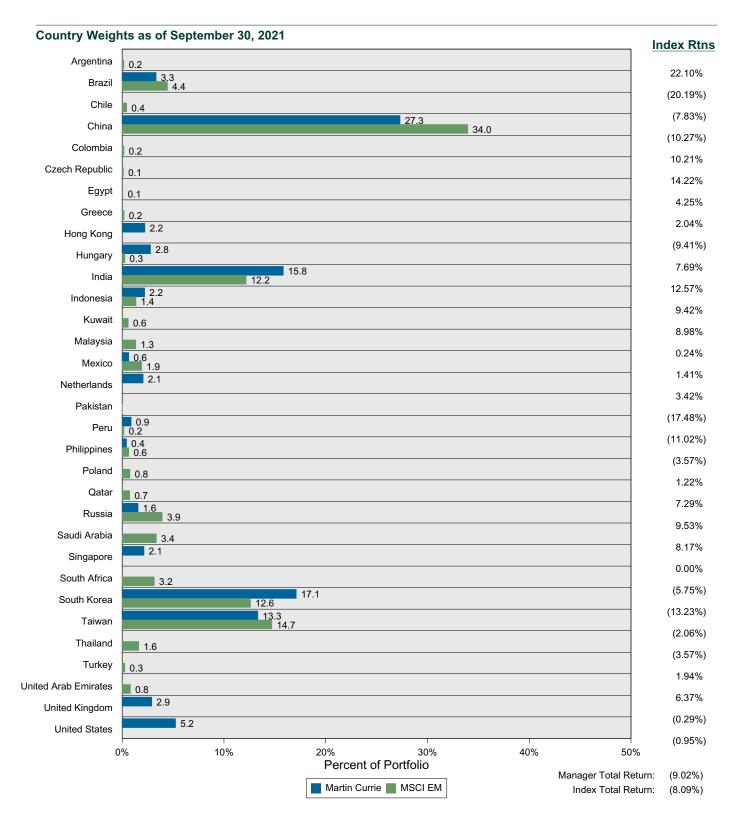
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



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

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2021. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.



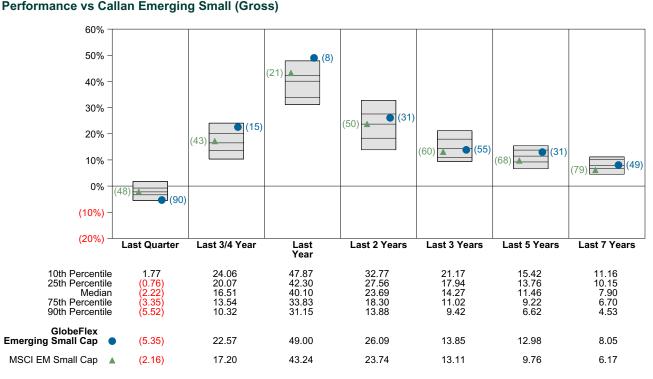
GlobeFlex Emerging Small Cap Period Ended September 30, 2021

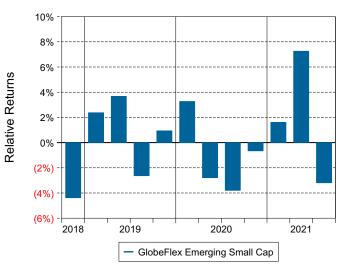
Investment Philosophy

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

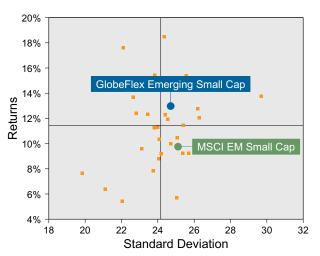
- GlobeFlex Emerging Small Cap's portfolio posted a (5.35)% return for the quarter placing it in the 90 percentile of the Callan Emerging Small group for the quarter and in the 8 percentile for the last year.
- GlobeFlex Emerging Small Cap's portfolio underperformed the MSCI EM Small Cap by 3.19% for the quarter and outperformed the MSCI EM Small Cap for the year by 5.76%.





Relative Return vs MSCI EM Small Cap

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

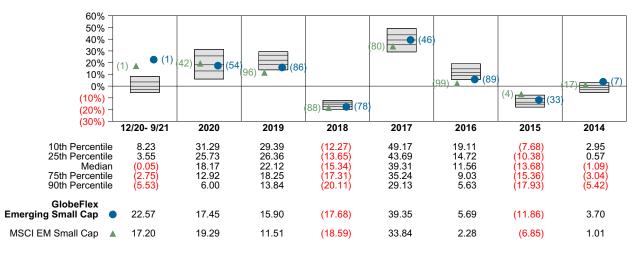


GlobeFlex Emerging Small Cap Return Analysis Summary

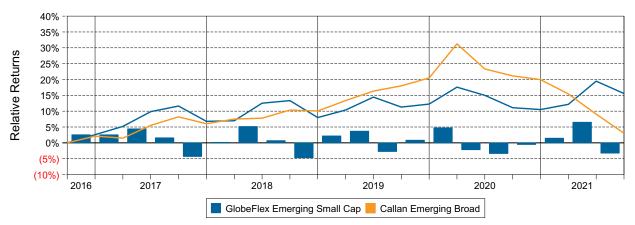
Return Analysis

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

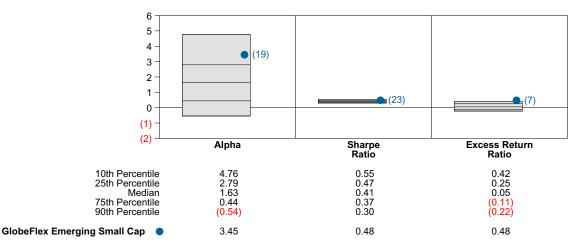
Performance vs Callan Emerging Broad (Gross)



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 September 30, 2021



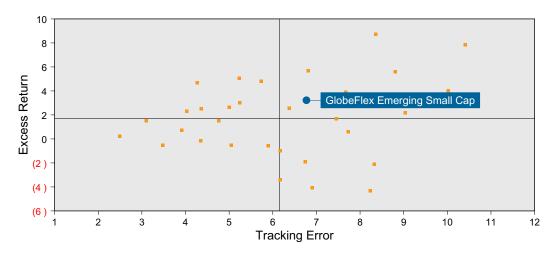


GlobeFlex Emerging Small Cap Risk Analysis Summary

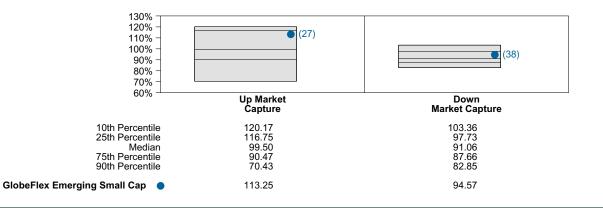
Risk Analysis

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

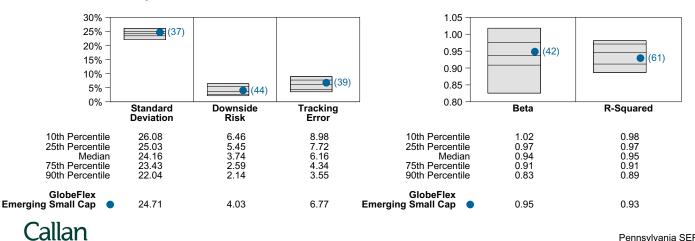
Risk Analysis vs Callan Emerging Small (Gross) Five Years Ended September 30, 2021



Market Capture vs MSCI EM Small Cap Index (USD Net Div) Rankings Against Callan Emerging Small (Gross) Five Years Ended September 30, 2021







Pennsylvania SERS 180

Current Holdings Based Style Analysis GlobeFlex Emerging Small Cap As of September 30, 2021

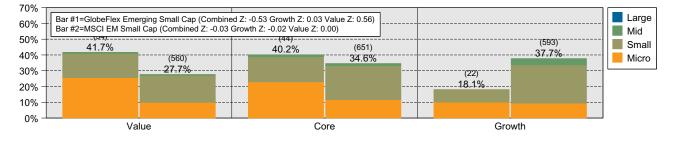
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are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

Style Exposure Matrix

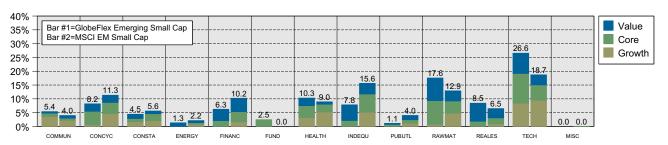


Style Map vs Callan Emerging Small Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021

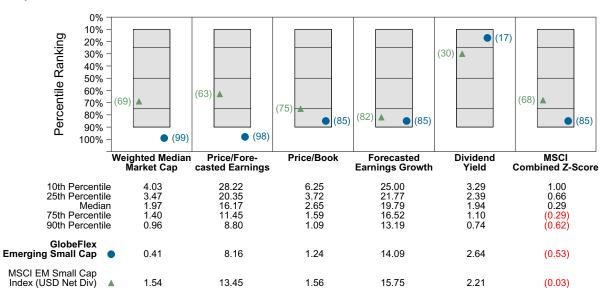


GlobeFlex Emerging Small Cap Equity Characteristics Analysis Summary

Portfolio Characteristics

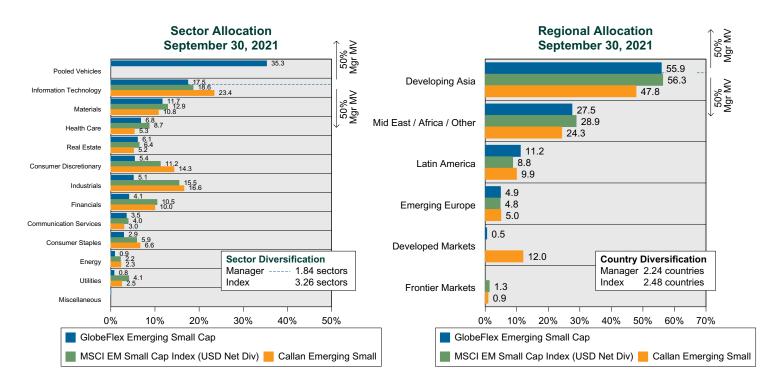
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Small as of September 30, 2021



Sector Weights

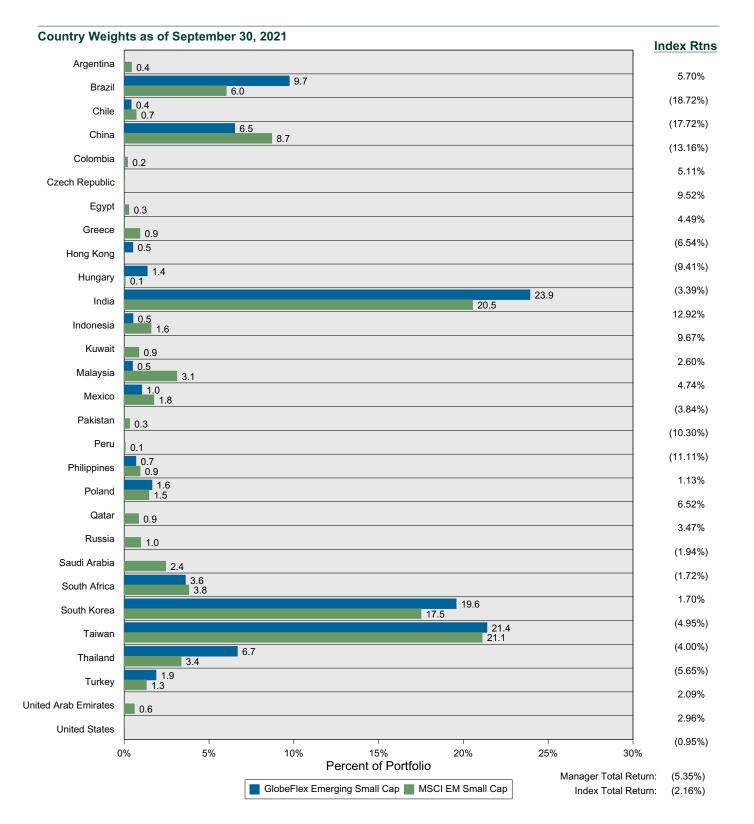
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



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

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2021. 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.



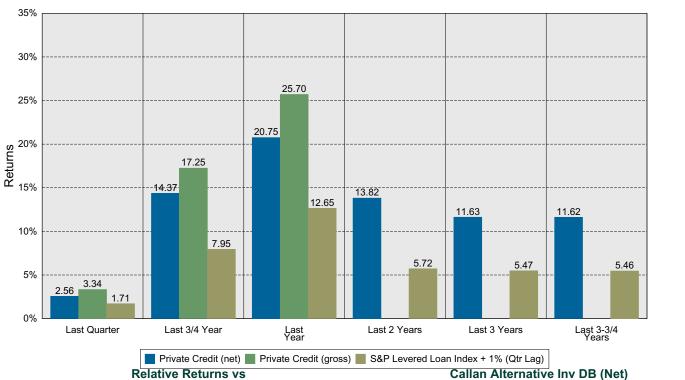
Private Credit Period Ended September 30, 2021

Asset Class Membership Changes

On 01/01/2021, the BAAM Keystone account switched from the Opportunistic Fixed composite to the Private Credit Composite.

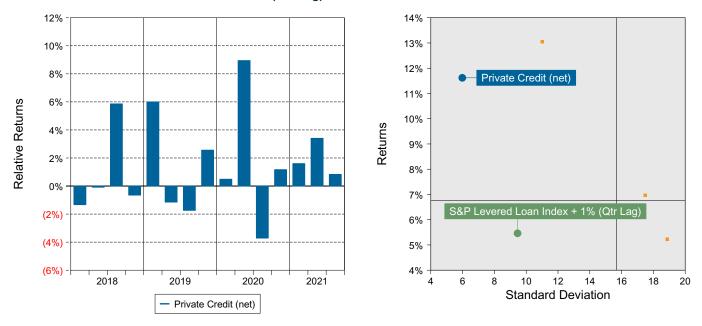
Quarterly Summary and Highlights

- Private Credit (net)'s portfolio posted a 2.56% return for the quarter placing it in the 54 percentile of the Callan Alternative Inv DB group for the quarter and in the 98 percentile for the last year.
- Private Credit (net)'s portfolio outperformed the S&P Levered Loan Index + 1% (Qtr Lag) by 0.85% for the quarter and ٠ outperformed the S&P Levered Loan Index + 1% (Qtr Lag) for the year by 8.10%.



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

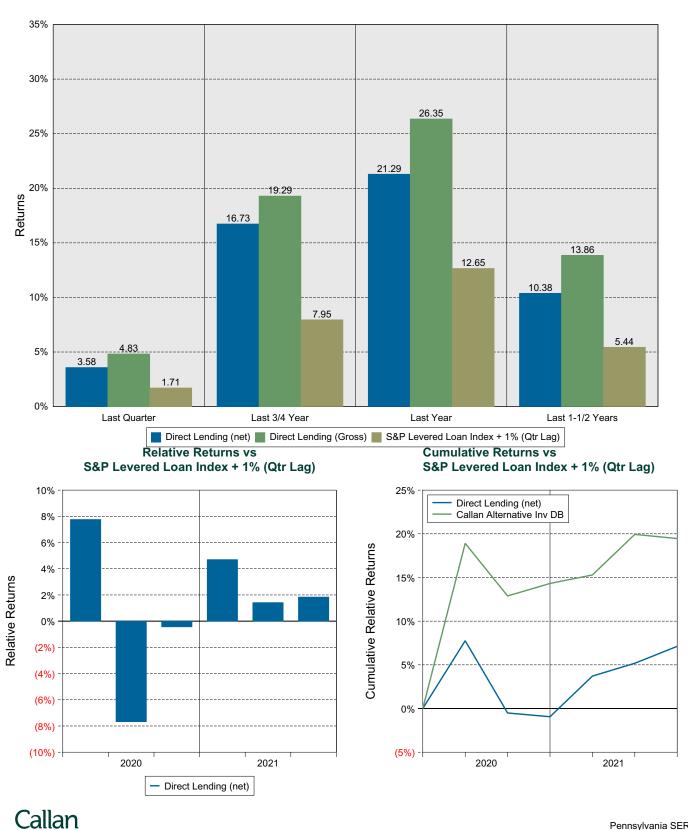
Annualized Three and Three-Quarter Year Risk vs Return



Direct Lending Period Ended September 30, 2021

Quarterly Summary and Highlights

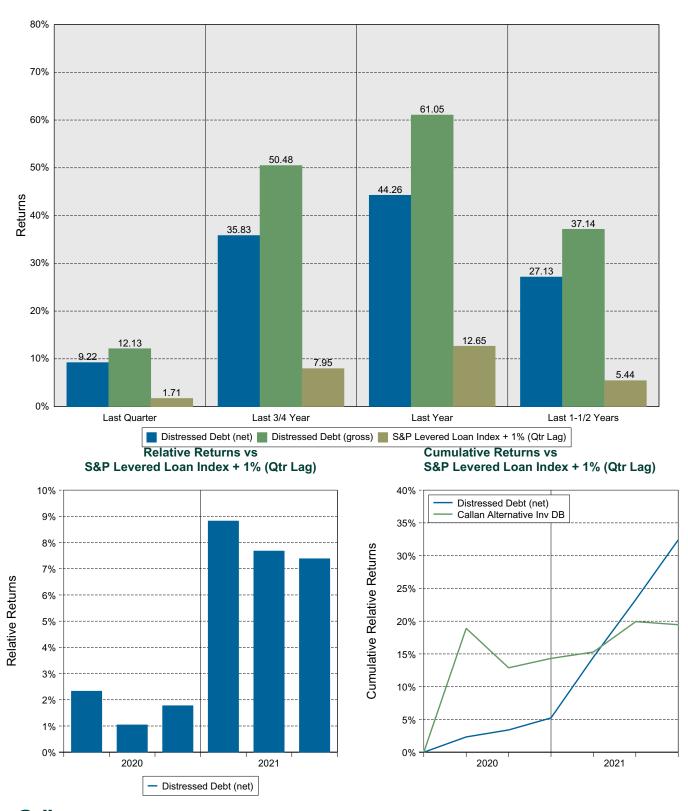
- Direct Lending (net)'s portfolio posted a 3.58% return for the quarter placing it in the 39 percentile of the Callan Alternative Inv DB group for the quarter and in the 98 percentile for the last year.
- Direct Lending (net)'s portfolio outperformed the S&P Levered Loan Index + 1% (Qtr Lag) by 1.87% for the quarter and outperformed the S&P Levered Loan Index + 1% (Qtr Lag) for the year by 8.64%.



Distressed Debt Period Ended September 30, 2021

Quarterly Summary and Highlights

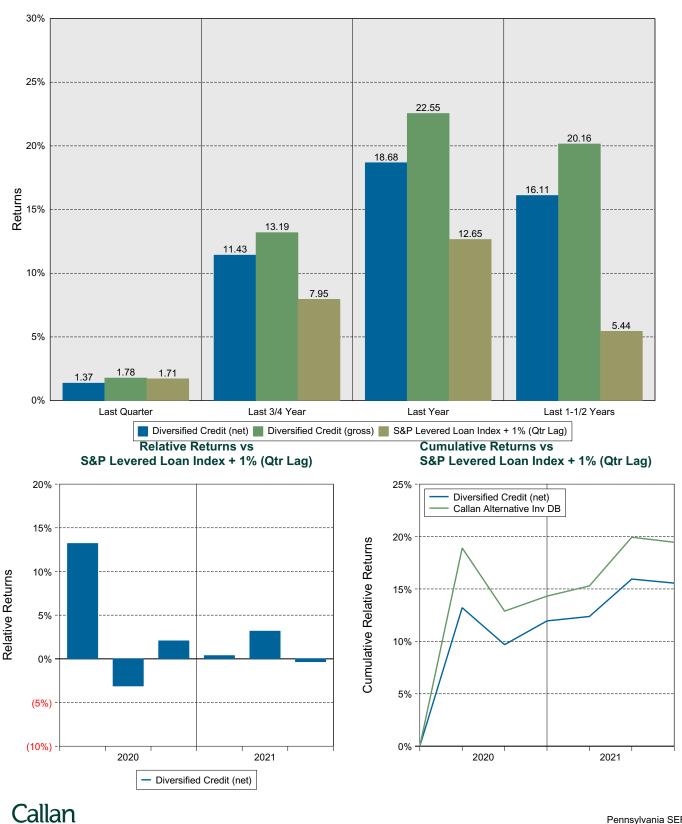
- Distressed Debt (net)'s portfolio posted a 9.22% return for the quarter placing it in the 10 percentile of the Callan Alternative Inv DB group for the quarter and in the 16 percentile for the last year.
- Distressed Debt (net)'s portfolio outperformed the S&P Levered Loan Index + 1% (Qtr Lag) by 7.51% for the quarter and outperformed the S&P Levered Loan Index + 1% (Qtr Lag) for the year by 31.60%.



Diversified Credit Period Ended September 30, 2021

Quarterly Summary and Highlights

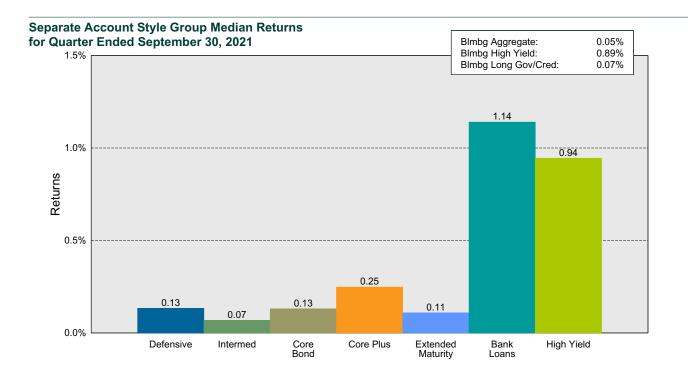
- Diversified Credit (net)'s portfolio posted a 1.37% return for the quarter placing it in the 85 percentile of the Callan Alternative Inv DB group for the quarter and in the 99 percentile for the last year.
- Diversified Credit (net)'s portfolio underperformed the S&P Levered Loan Index + 1% (Qtr Lag) by 0.34% for the quarter and outperformed the S&P Levered Loan Index + 1% (Qtr Lag) for the year by 6.03%.

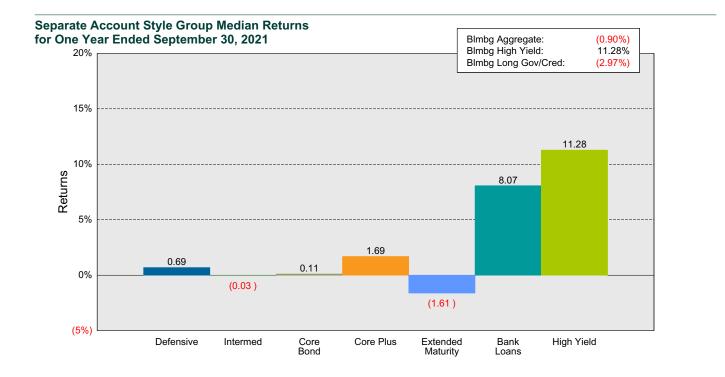


Fixed Income

Domestic Fixed Income Active Management Overview

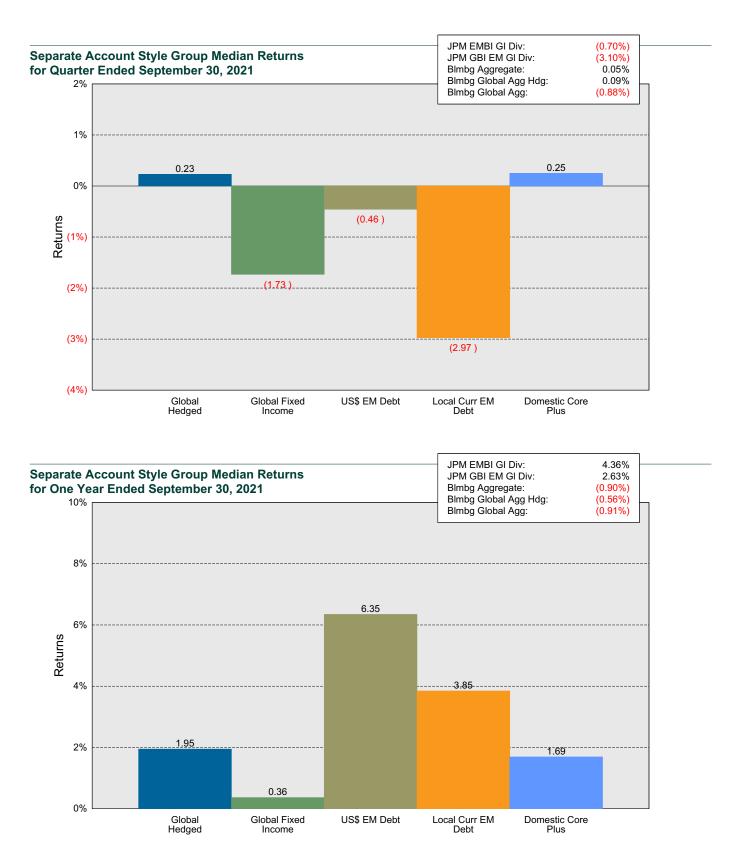
U.S. Treasury yields were relatively unchanged from 6/30/21, masking intra-quarter volatility. The 10-year U.S. Treasury closed the quarter at 1.52%, up sharply from early August when it traded at 1.19%. The Bloomberg US Aggregate Bond Index returned 0.1% for the quarter. Investment grade corporates underperformed U.S. Treasuries by 15 bps on a duration-adjusted basis as spreads widened modestly. TIPS outperformed nominal Treasuries (Bloomberg US TIPS Index: +1.8%; Bloomberg US Treasury Index: 0.1%) and 10-year breakeven spreads widened 5 bps to 2.37%. The Bloomberg High Yield Index rose 0.9% and leveraged loans (S&P LSTA Lev Loan: +1.1%) also performed well. The high yield default rate declined to 0.9% in September, the lowest since March 2014, according to data from J.P. Morgan.





Global Fixed Income Active Management Overview

Overseas developed market returns were muted and U.S. dollar strength eroded returns for unhedged U.S. investors. The Bloomberg Global Aggregate ex-US Bond Index fell 1.6% but was flat (+0.1%) on a hedged basis. The dollar gained roughly 2% vs. a basket of developed market currencies.

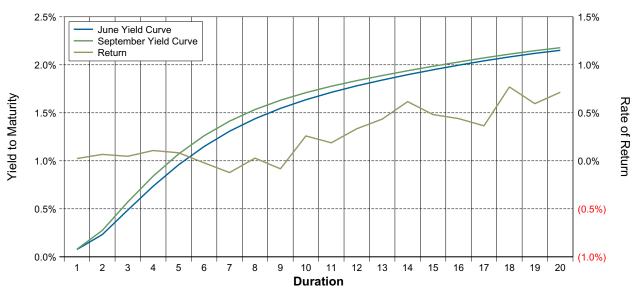


Bond Market Environment

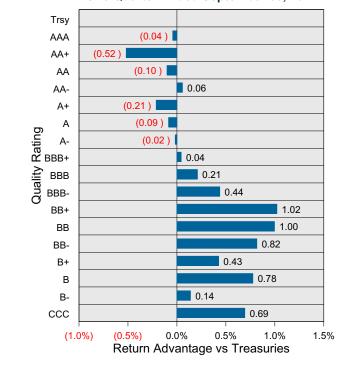
Factors Influencing Bond Returns

The charts below are designed to give you an overview of the factors that influenced bond market returns for the quarter. The first chart shows the shift in the Treasury yield curve and the resulting returns by duration. The second chart shows the average return premium (relative to Treasuries) for bonds with different quality ratings. The final chart shows the average return premium of the different sectors relative to Treasuries. These sector premiums are calculated after differences in quality and term structure have been accounted for across the sectors. They are typically explained by differences in convexity, sector specific supply and demand considerations, or other factors that influence the perceived risk of the sector.

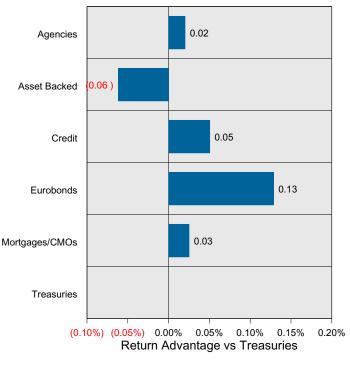
Yield Curve Change and Rate of Return One Quarter Ended September 30, 2021



Duration Adjusted Return Premium to Quality One Quarter Ended September 30, 2021



Quality and Duration Adjusted Return Premium by Sector One Quarter Ended September 30, 2021



Fixed Income Period Ended September 30, 2021

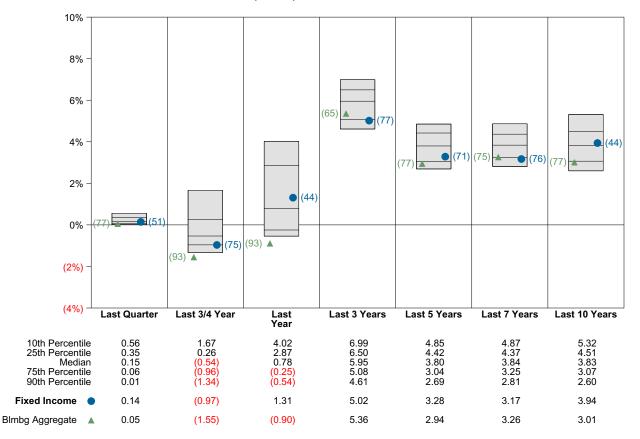
Asset Class Membership Changes

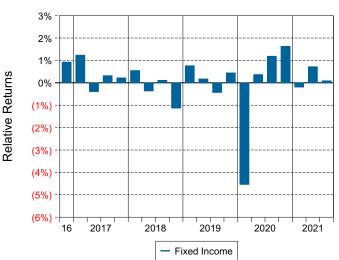
Fixed Income also includes the new fixed income sub-composite which was funded in 03/01/2021.

Quarterly Summary and Highlights

- Fixed Income's portfolio posted a 0.14% return for the quarter placing it in the 51 percentile of the Public Fund -Domestic Fixed group for the quarter and in the 44 percentile for the last year.
- Fixed Income's portfolio outperformed the Blmbg Aggregate by 0.09% for the quarter and outperformed the Blmbg Aggregate for the year by 2.20%.

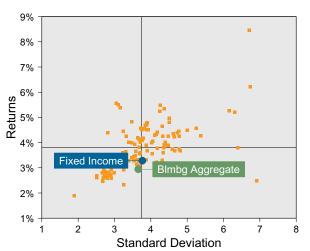
Performance vs Public Fund - Domestic Fixed (Gross)





Relative Return vs Blmbg Aggregate

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

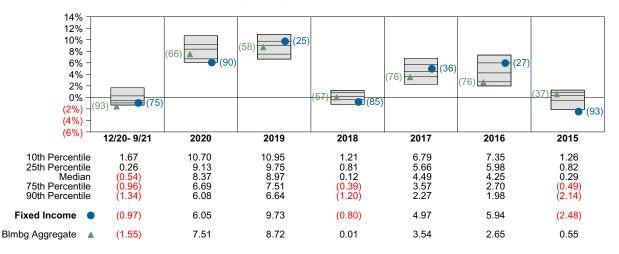


Fixed Income Return Analysis Summary

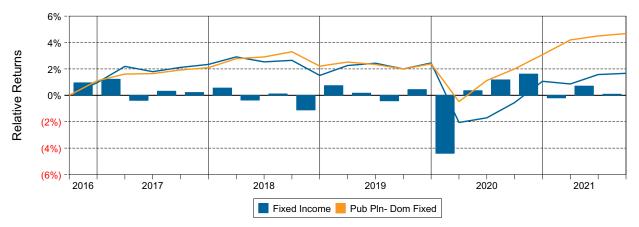
Return Analysis

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.

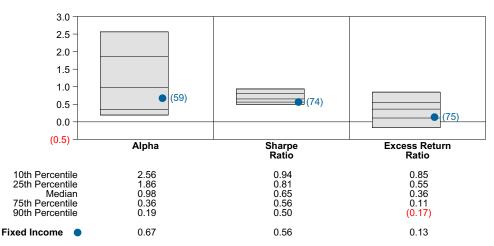
Performance vs Public Fund - Domestic Fixed (Gross)



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 September 30, 2021

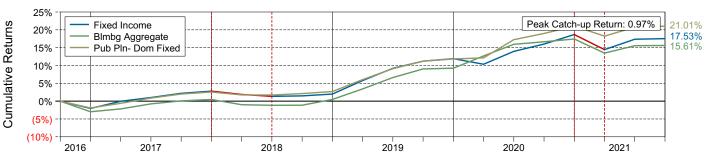




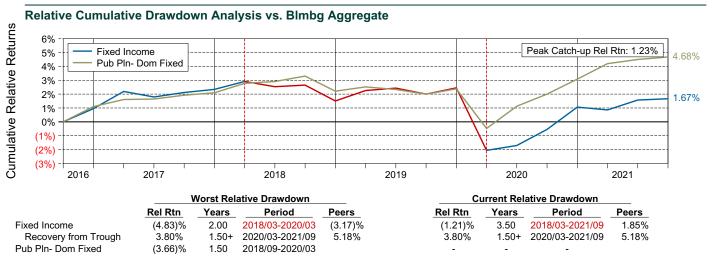
Fixed Income Drawdown Analysis for Five Years Ended September 30, 2021

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.

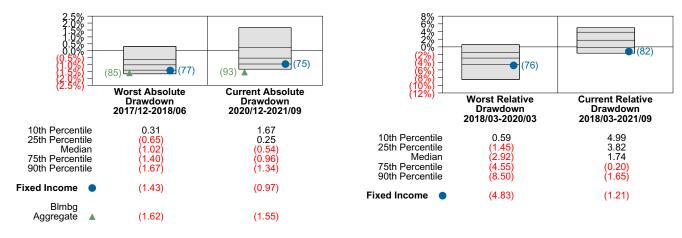
Absolute Cumulative Drawdown Analysis



	Worst Absolute Drawdown				Current Absolute Drawdown					
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Fixed Income	(1.43)%	0.50	2017/12-2018/06	(1.62)%	(0.83)%	(0.97)%	0.75	2020/12-2021/09	(1.55)%	(0.03)%
Recovery from Trough	4.37%	0.75	2018/06-2019/03	4.65%	4.25%	2.70%	0.50+	2021/03-2021/09	1.88%	2.35%
Blmbg Aggregate	(2.18)%	0.50	2016/09-2017/03			(1.55)%	0.75	2020/12-2021/09		
Pub Pln- Dom Fixed	(0.83)%	0.50	2017/12-2018/06			(0.03)%	0.75	2020/12-2021/09		



Drawdown Rankings vs. Blmbg Aggregate Rankings against Public Fund - Domestic Fixed Five Years Ended September 30, 2021

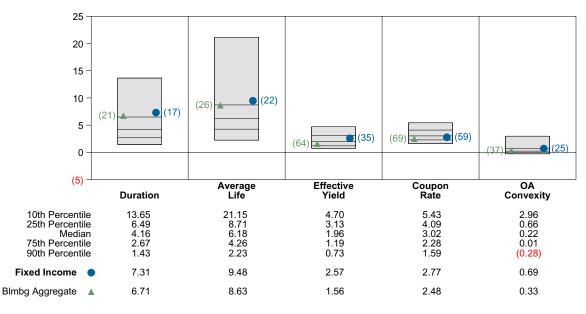


Fixed Income Bond Characteristics Analysis Summary

Portfolio Characteristics

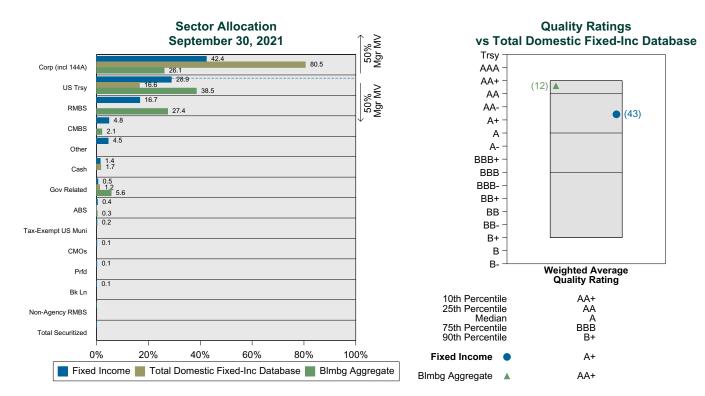
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Total Domestic Fixed-Inc Database as of September 30, 2021



Sector Allocation and Quality Ratings

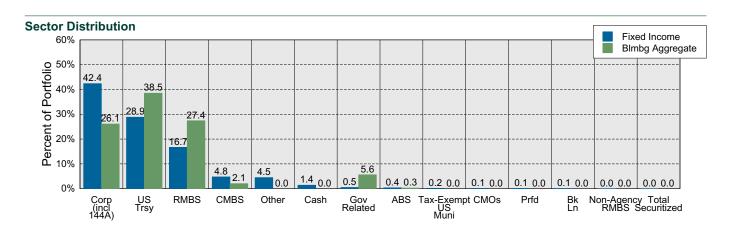
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

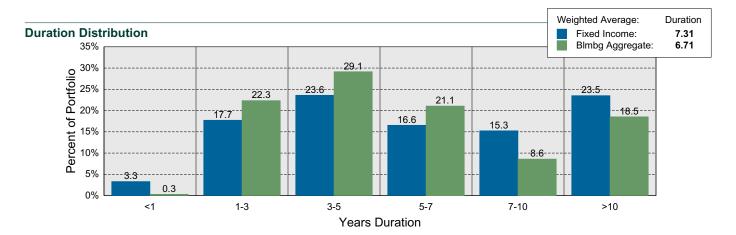


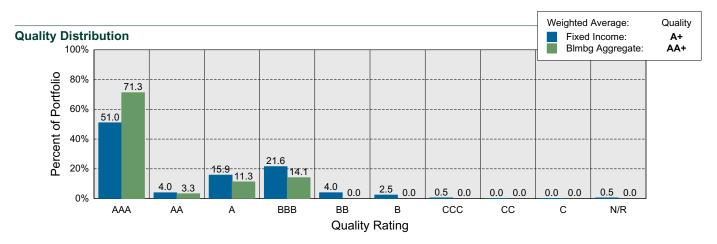
Fixed Income Portfolio Characteristics Summary As of September 30, 2021

Portfolio Structure Comparison

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





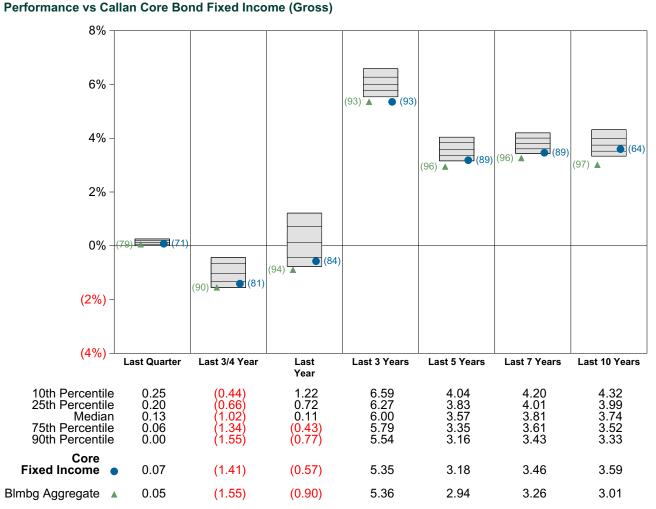


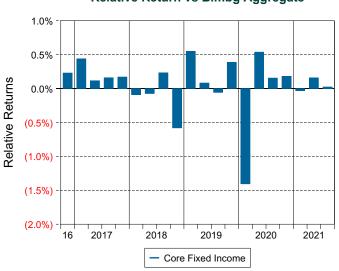
Core Fixed Income

Core Fixed Income Period Ended September 30, 2021

Quarterly Summary and Highlights

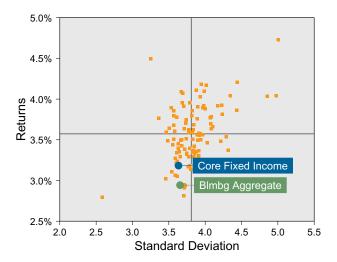
- Core Fixed Income's portfolio posted a 0.07% return for the quarter placing it in the 71 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 84 percentile for the last year.
- Core Fixed Income's portfolio outperformed the Blmbg Aggregate by 0.02% for the quarter and outperformed the Blmbg Aggregate for the year by 0.32%.





Relative Return vs Blmbg Aggregate



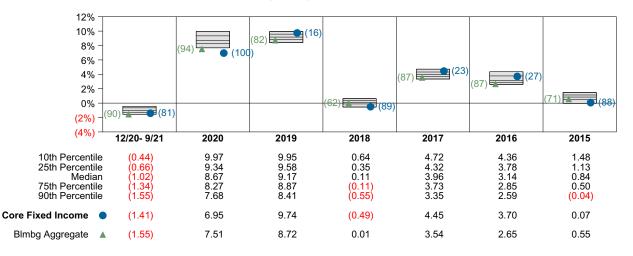


Core Fixed Income Return Analysis Summary

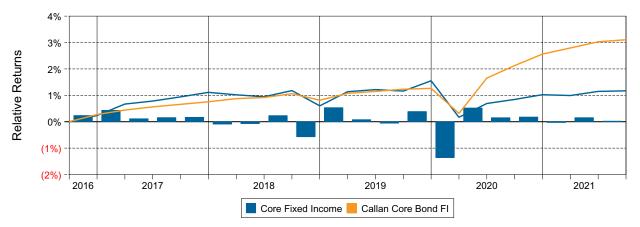
Return Analysis

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

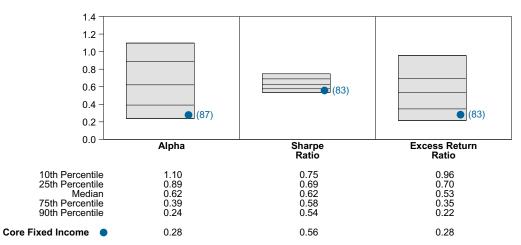
Performance vs Callan Core Bond Fixed Income (Gross)



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 September 30, 2021



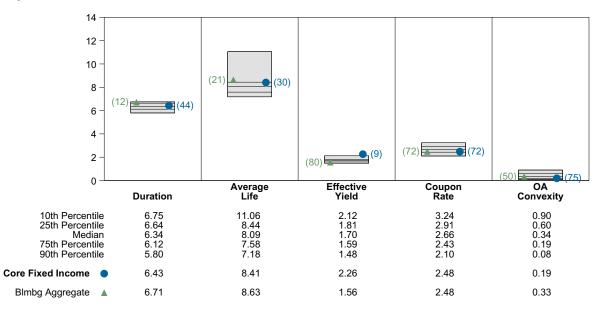


Core Fixed Income Bond Characteristics Analysis Summary

Portfolio Characteristics

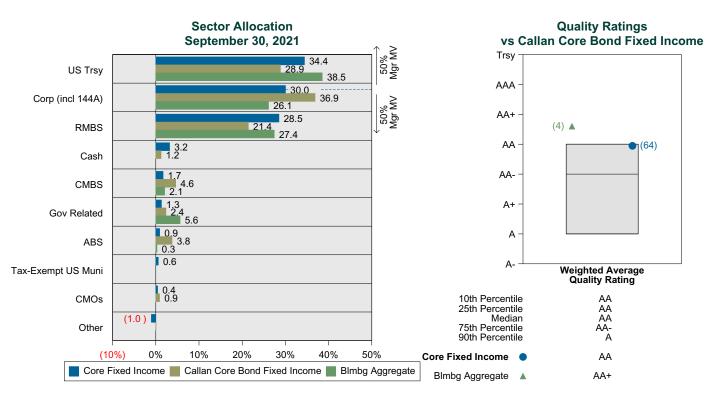
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of September 30, 2021



Sector Allocation and Quality Ratings

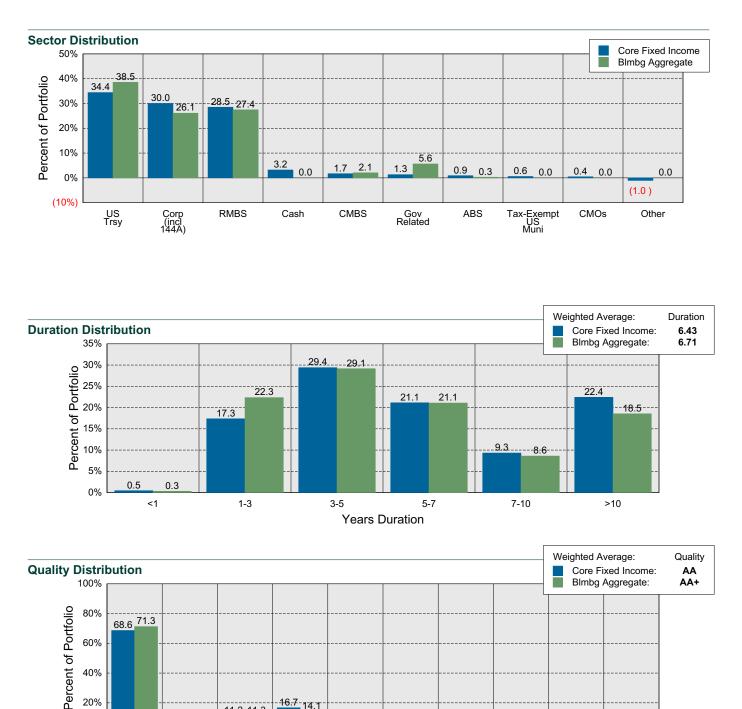
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



Core Fixed Income Portfolio Characteristics Summary As of September 30, 2021

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.



16.7-14.1

BBB

0.0

Quality Rating

BΒ

02

0.2 0.0

В

0.3 0.0

CCC

0.0 0.0

СС

0.0 0.0

С

0.0 0.0

N/R

11.2 11.3

А

3.3 2.7

AA

20%

0%

AAA

Core Fixed Income Managers

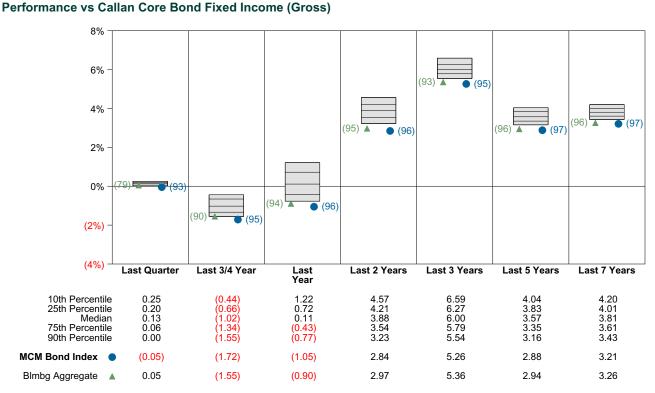
MCM Bond Index Period Ended September 30, 2021

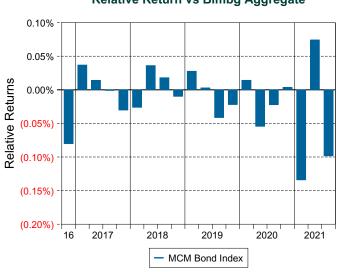
Investment Philosophy

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

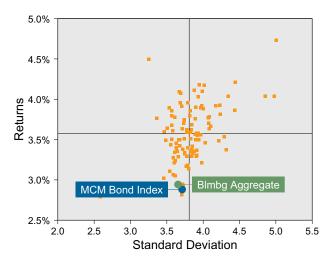
- MCM Bond Index's portfolio posted a (0.05)% return for the quarter placing it in the 93 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 96 percentile for the last year.
- MCM Bond Index's portfolio underperformed the Blmbg Aggregate by 0.10% for the quarter and underperformed the Blmbg Aggregate for the year by 0.16%.





Relative Return vs Blmbg Aggregate

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

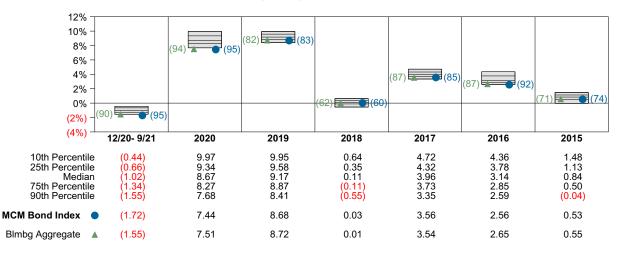


MCM Bond Index Return Analysis Summary

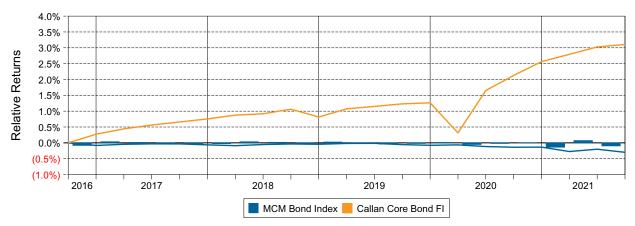
Return Analysis

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.

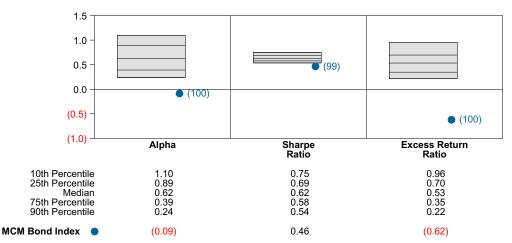
Performance vs Callan Core Bond Fixed Income (Gross)



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 September 30, 2021



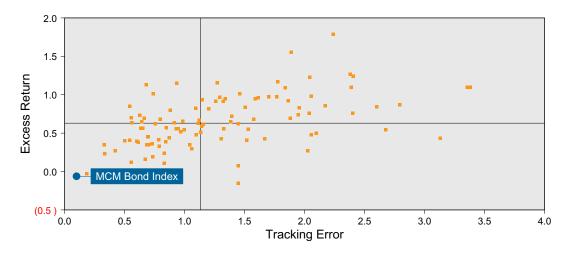


MCM Bond Index Risk Analysis Summary

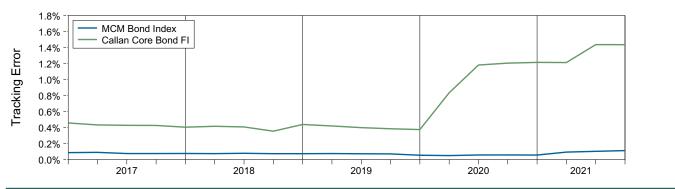
Risk Analysis

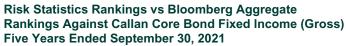
The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over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

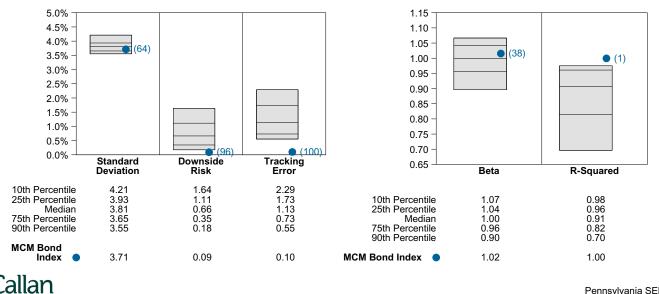
Risk Analysis vs Callan Core Bond Fixed Income (Gross) Five Years Ended September 30, 2021









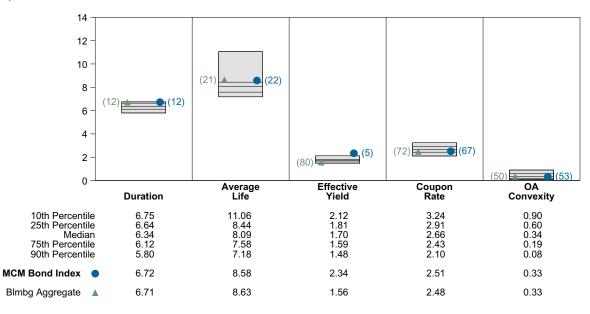


MCM Bond Index Bond Characteristics Analysis Summary

Portfolio Characteristics

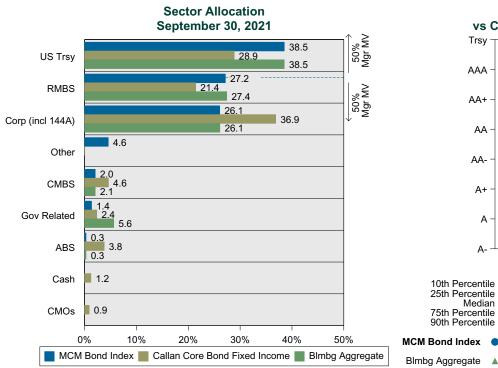
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of September 30, 2021

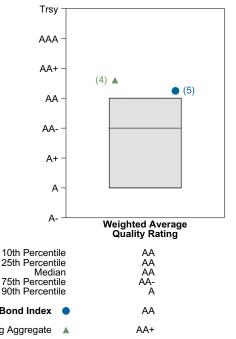


Sector Allocation and Quality Ratings

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.



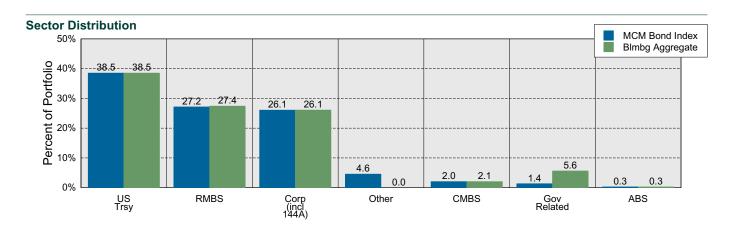
Quality Ratings vs Callan Core Bond Fixed Income

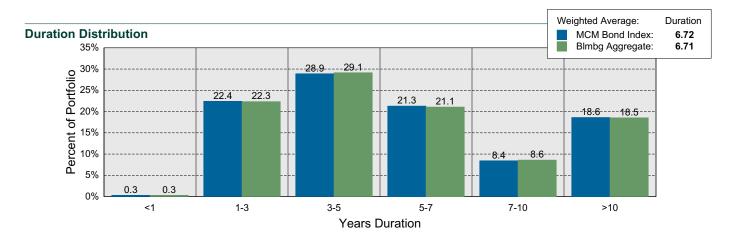


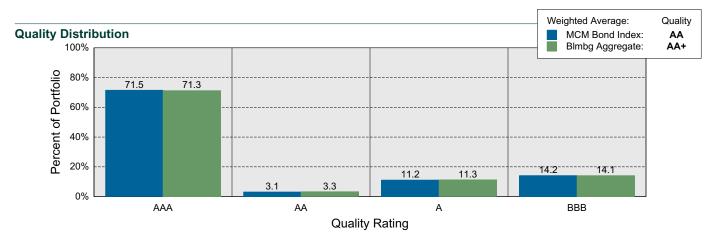
MCM Bond Index Portfolio Characteristics Summary As of September 30, 2021

Portfolio Structure Comparison

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



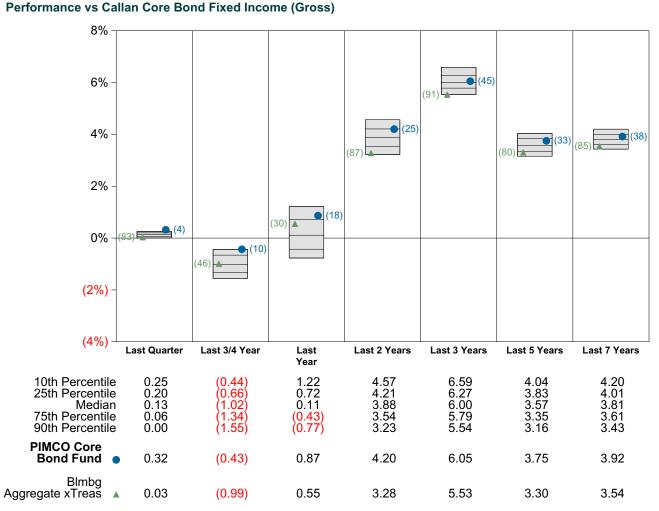


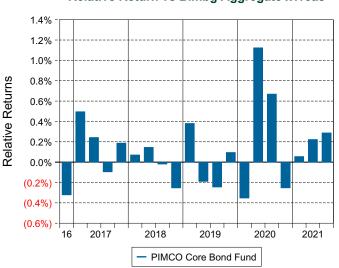


PIMCO Core Bond Fund Period Ended September 30, 2021

Quarterly Summary and Highlights

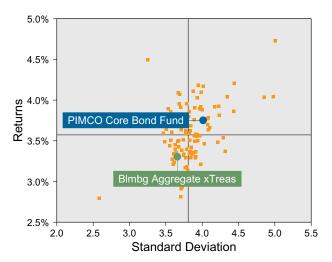
- PIMCO Core Bond Fund's portfolio posted a 0.32% return for the quarter placing it in the 4 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 18 percentile for the last year.
- PIMCO Core Bond Fund's portfolio outperformed the BImbg Aggregate xTreas by 0.29% for the quarter and outperformed the BImbg Aggregate xTreas for the year by 0.31%.





Relative Return vs Blmbg Aggregate xTreas

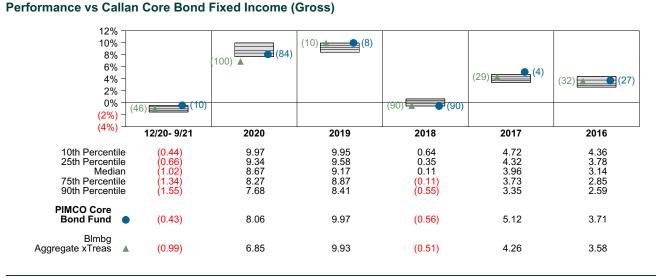




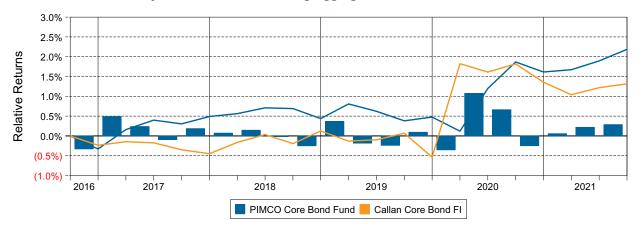
PIMCO Core Bond Fund Return Analysis Summary

Return Analysis

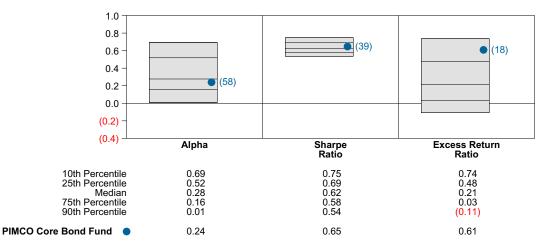
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Return vs Blmbg Aggregate xTreas



Risk Adjusted Return Measures vs Blmbg Aggregate xTreas Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended September 30, 2021

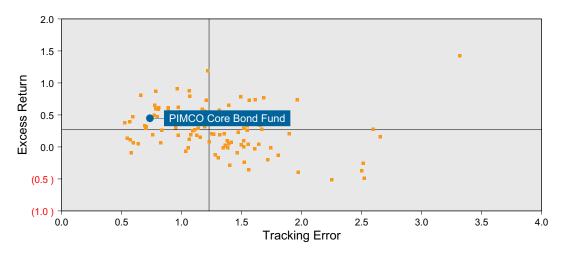


PIMCO Core Bond Fund Risk Analysis Summary

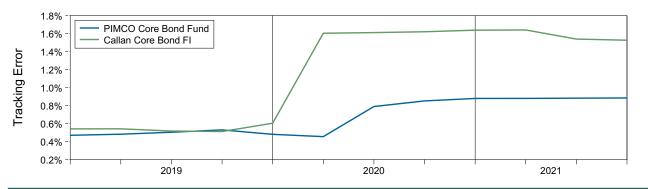
Risk Analysis

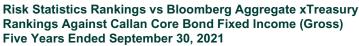
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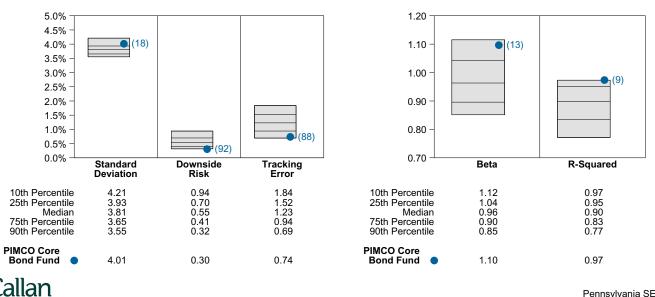
Risk Analysis vs Callan Core Bond Fixed Income (Gross) Five Years Ended September 30, 2021









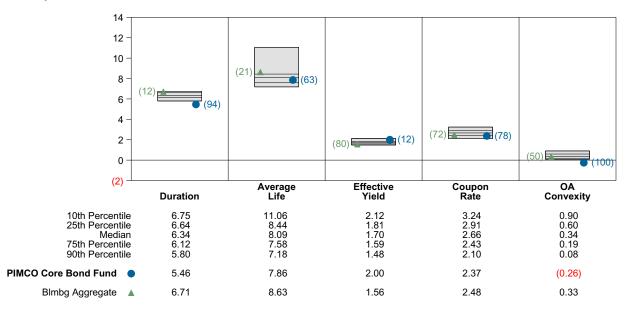


PIMCO Core Bond Fund Bond Characteristics Analysis Summary

Portfolio Characteristics

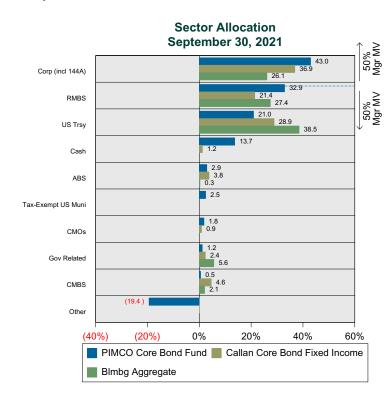
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of September 30, 2021

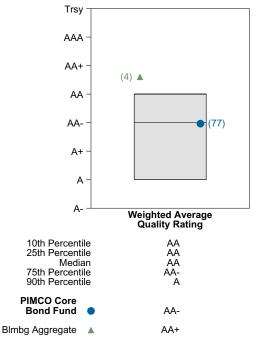


Sector Allocation and Quality Ratings

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Quality Ratings vs Callan Core Bond Fixed Income

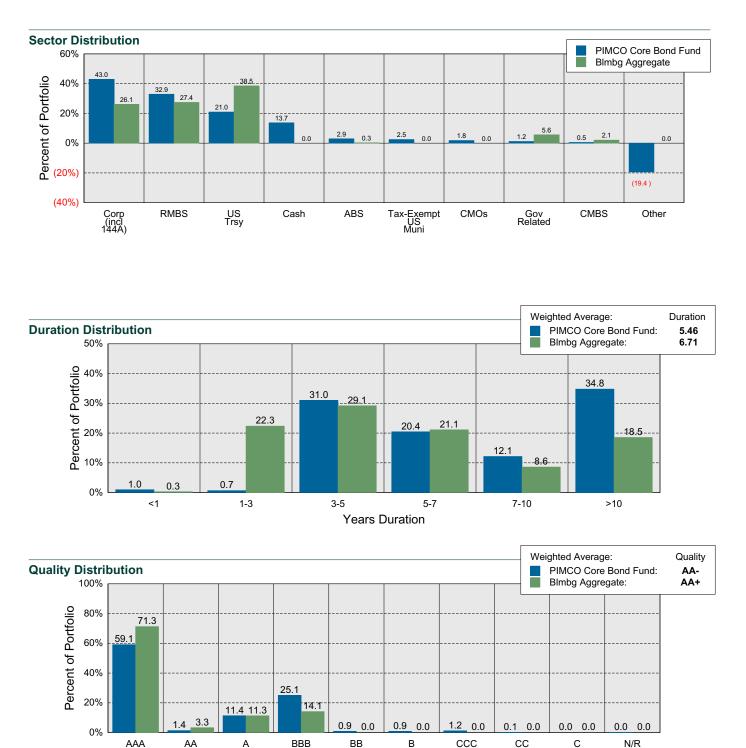




PIMCO Core Bond Fund Portfolio Characteristics Summary As of September 30, 2021

Portfolio Structure Comparison

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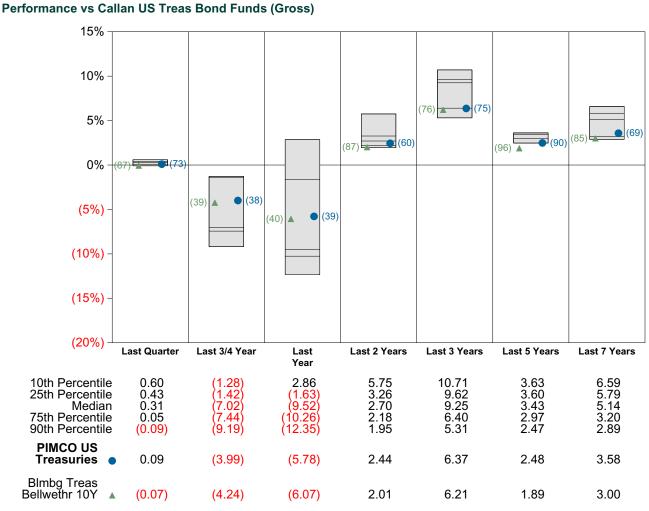
Quality Rating

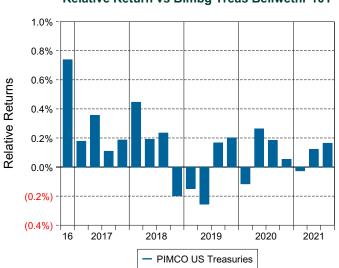
Nominal U.S. Treasuries Managers

PIMCO US Treasuries Period Ended September 30, 2021

Quarterly Summary and Highlights

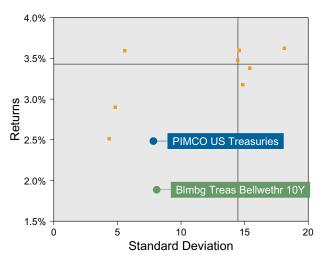
- PIMCO US Treasuries's portfolio posted a 0.09% return for the quarter placing it in the 73 percentile of the Callan US Treas Bond Funds group for the quarter and in the 39 percentile for the last year.
- PIMCO US Treasuries's portfolio outperformed the BImbg Treas Bellwethr 10Y by 0.16% for the quarter and outperformed the BImbg Treas Bellwethr 10Y for the year by 0.29%.





Relative Return vs Blmbg Treas Bellwethr 10Y



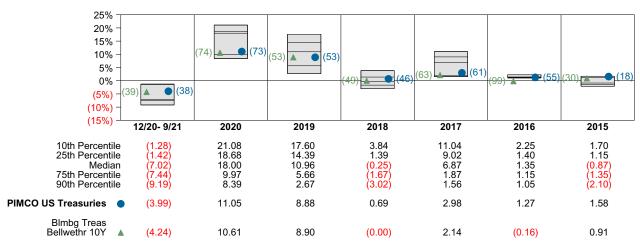


PIMCO US Treasuries Return Analysis Summary

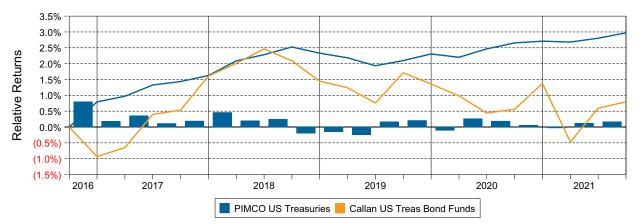
Performance vs Callan US Treas Bond Funds (Gross)

Return Analysis

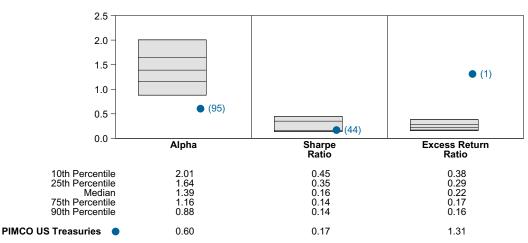
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Return vs Blmbg Treas Bellwethr 10Y



Risk Adjusted Return Measures vs Blmbg Treas Bellwethr 10Y Rankings Against Callan US Treas Bond Funds (Gross) Five Years Ended September 30, 2021



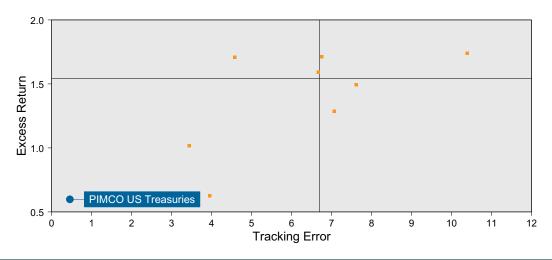


PIMCO US Treasuries Risk Analysis Summary

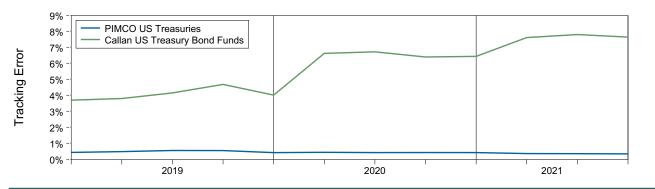
Risk Analysis

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.

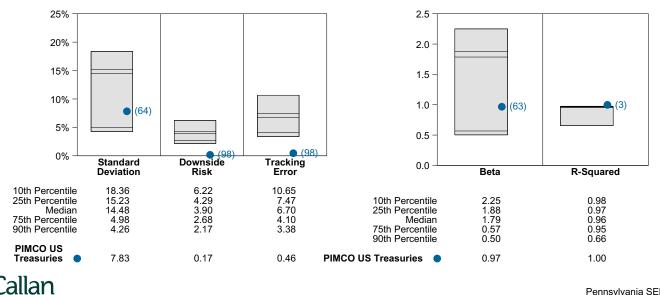
Risk Analysis vs Callan US Treasury Bond Funds (Gross) Five Years Ended September 30, 2021







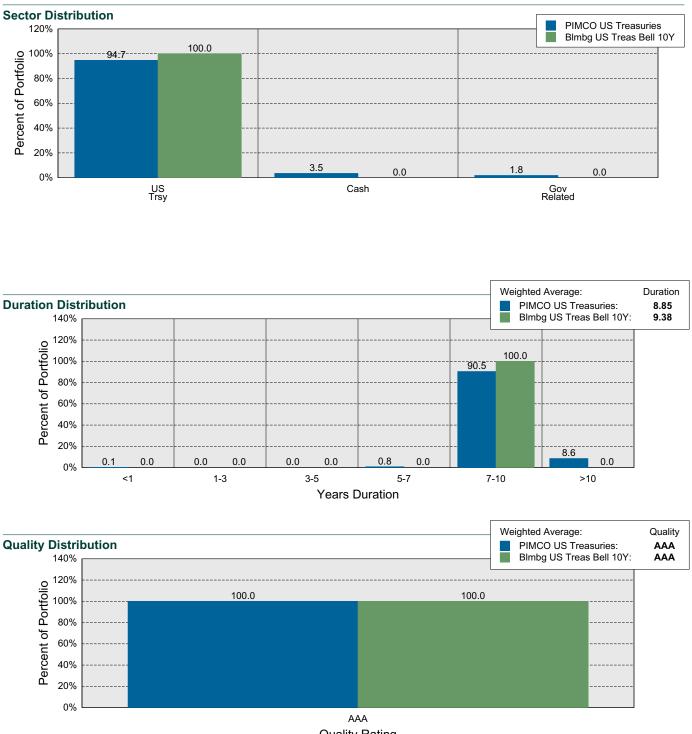




PIMCO US Treasuries Portfolio Characteristics Summary As of September 30, 2021

Portfolio Structure Comparison

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



Quality Rating

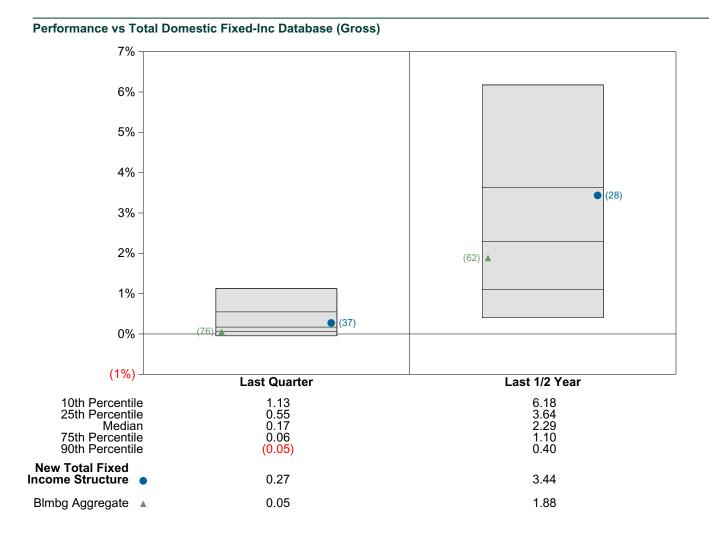


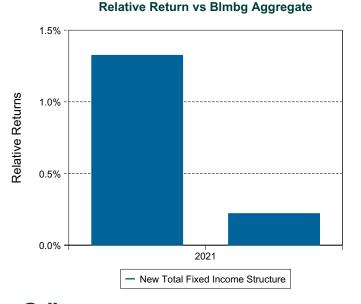
New Total Fixed Income Structure

New Total Fixed Income Structure Period Ended September 30, 2021

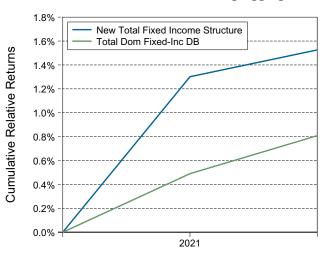
Quarterly Summary and Highlights

- New Total Fixed Income Structure's portfolio posted a 0.27% return for the quarter placing it in the 37 percentile of the Total Domestic Fixed-Inc Database group for the quarter and in the 28 percentile for the last one-half year.
- New Total Fixed Income Structure's portfolio outperformed the BImbg Aggregate by 0.22% for the quarter and outperformed the BImbg Aggregate for the one-half year by 1.55%.





Cumulative Returns vs Blmbg Aggregate

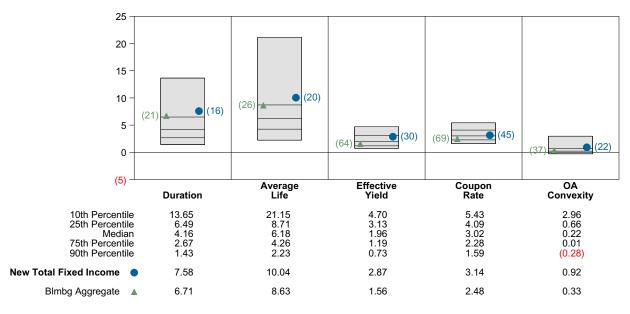


New Total Fixed Income Bond Characteristics Analysis Summary

Portfolio Characteristics

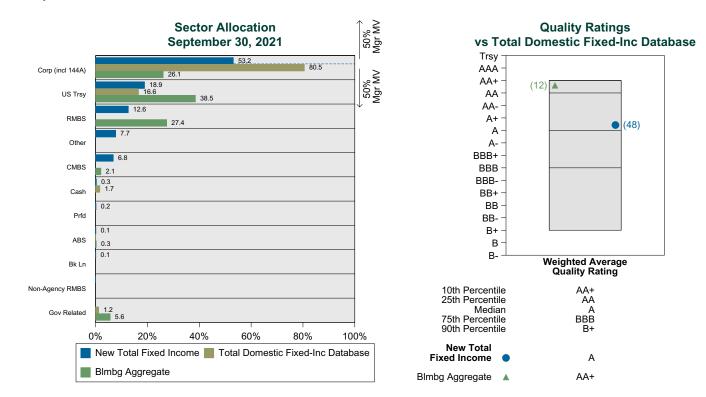
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Total Domestic Fixed-Inc Database as of September 30, 2021



Sector Allocation and Quality Ratings

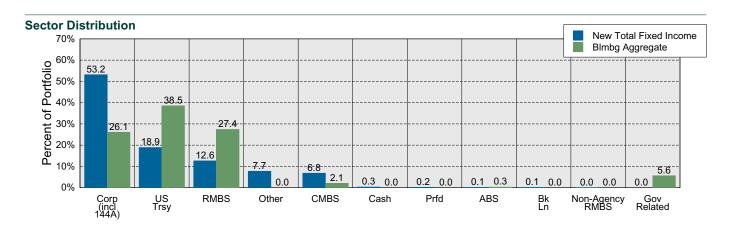
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

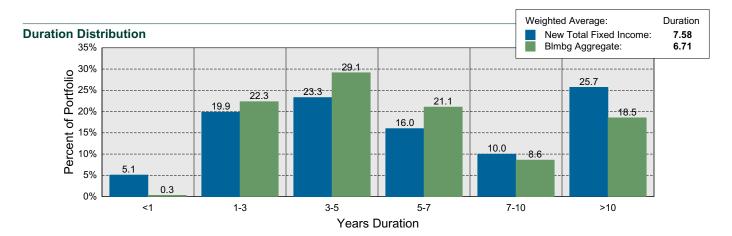


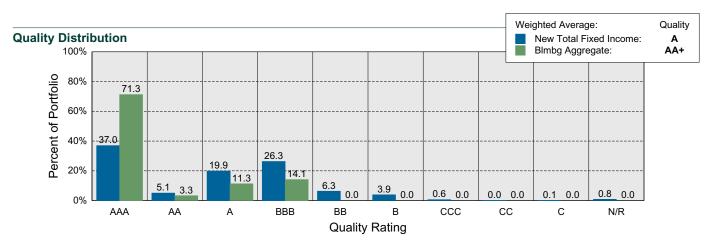
New Total Fixed Income Portfolio Characteristics Summary As of September 30, 2021

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.







New Total Fixed Income Managers

Mellon Intermediate Treasury Index Period Ended September 30, 2021

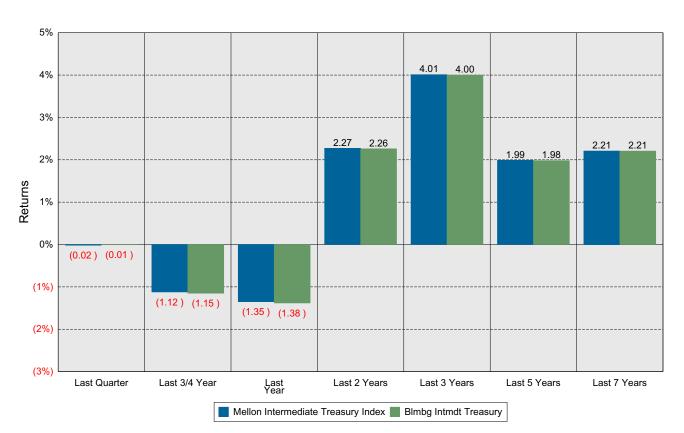
Return History

Callan

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

Quarterly Summary and Highlights

• Mellon Intermediate Treasury Index's portfolio underperformed the Blmbg Intmdt Treasury by 0.01% for the quarter and outperformed the Blmbg Intmdt Treasury for the year by 0.03%.



Relative Return vs Blmbg Intmdt Treasury



Blmbg Intmdt Treasury

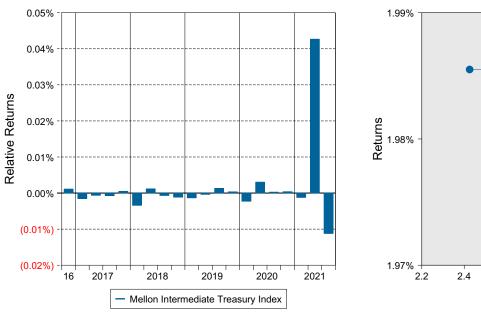
2.8

Standard Deviation

3.0

2.6

Mellon Intermediate Treasury Index





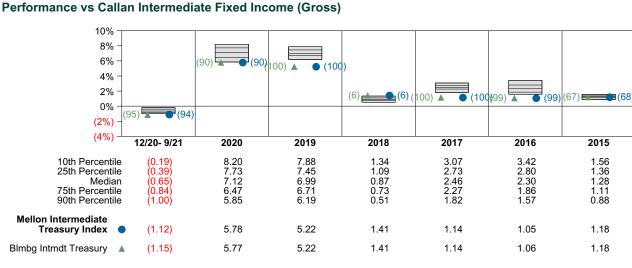
3.4

3.2

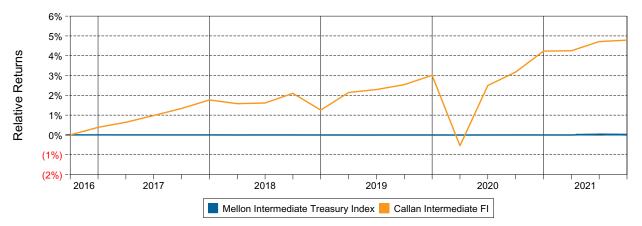
Mellon Intermediate Treasury Index **Return Analysis Summary**

Return Analysis

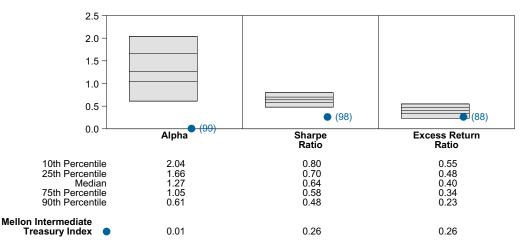
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Return vs Blmbg Intmdt Treasury



Risk Adjusted Return Measures vs Blmbg Intmdt Treasury Rankings Against Callan Intermediate Fixed Income (Gross) Five Years Ended September 30, 2021

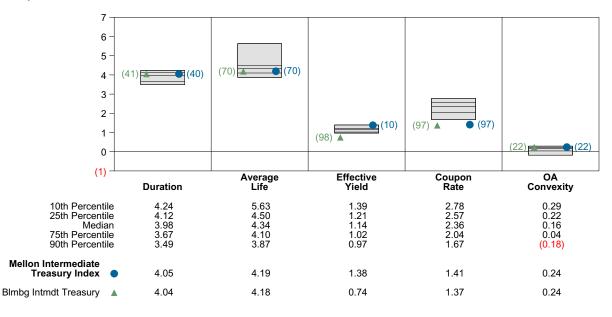


Mellon Intermediate Treasury Index Bond Characteristics Analysis Summary

Portfolio Characteristics

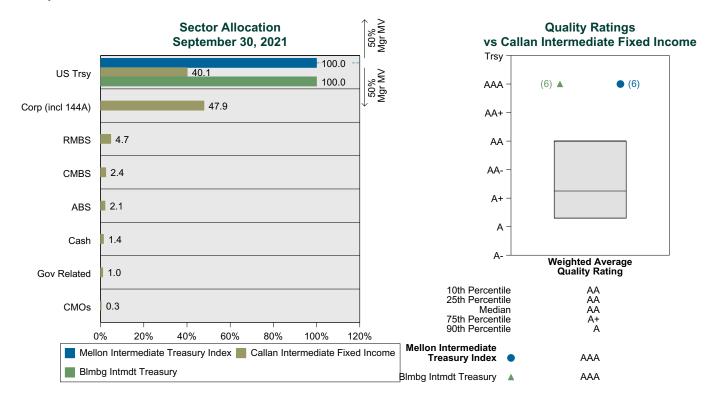
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Intermediate Fixed Income as of September 30, 2021



Sector Allocation and Quality Ratings

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

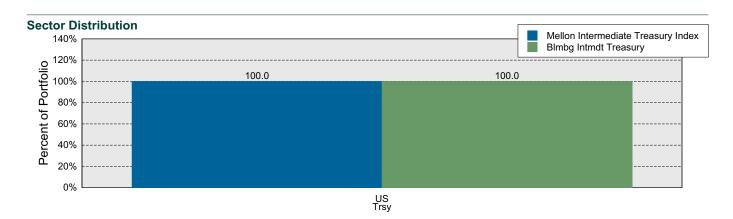


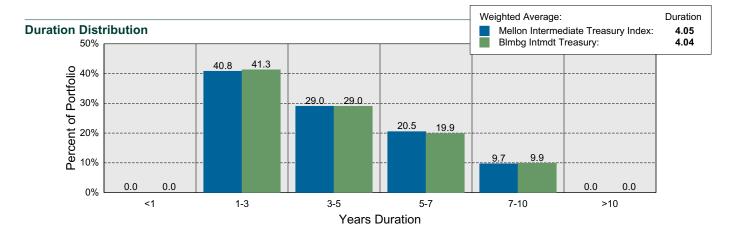


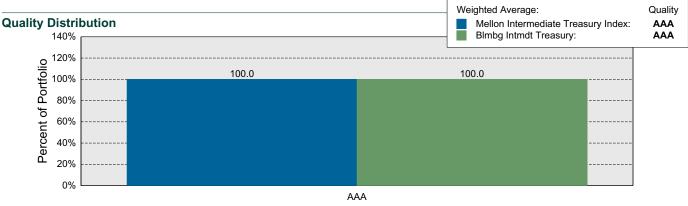
Mellon Intermediate Treasury Index Portfolio Characteristics Summary As of September 30, 2021

Portfolio Structure Comparison

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







Quality Rating



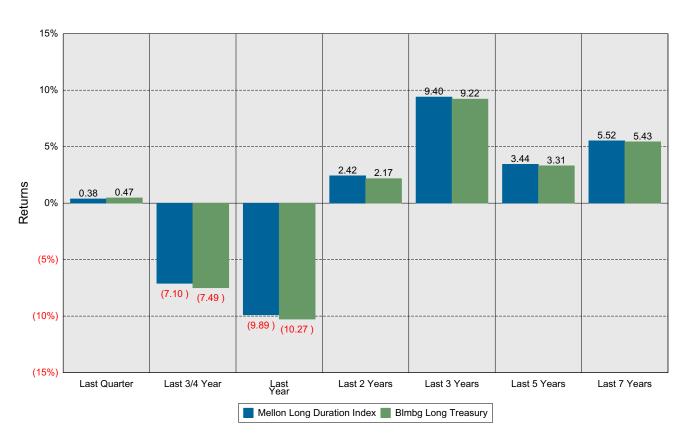
Mellon Long Duration Index Period Ended September 30, 2021

Return History

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

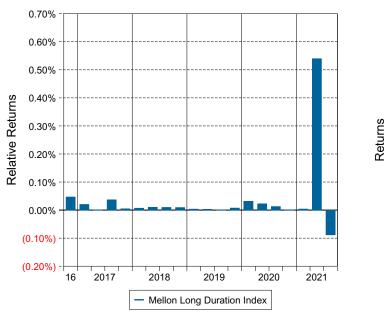
Quarterly Summary and Highlights

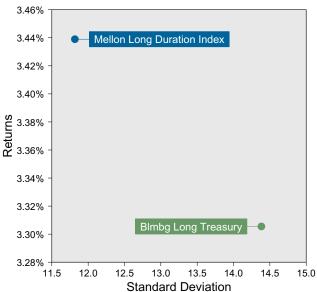
• Mellon Long Duration Index's portfolio underperformed the Blmbg Long Treasury by 0.09% for the quarter and outperformed the Blmbg Long Treasury for the year by 0.38%.



Relative Return vs Blmbg Long Treasury



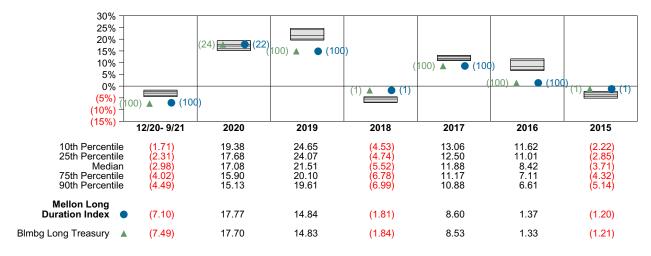




Mellon Long Duration Index Return Analysis Summary

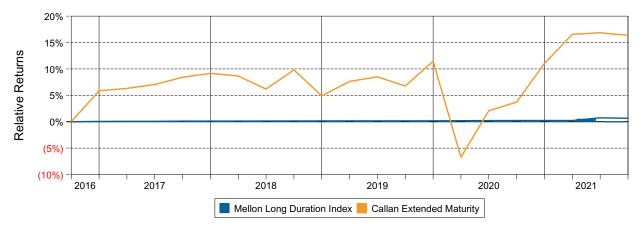
Return Analysis

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

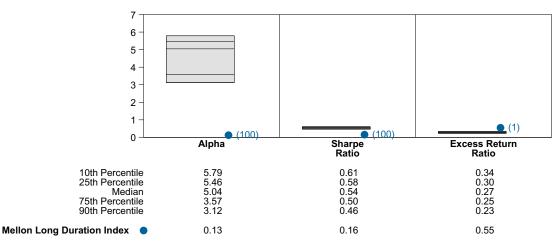


Performance vs Callan Extended Maturity Fixed Income (Gross)

Cumulative and Quarterly Relative Return vs Blmbg Long Treasury



Risk Adjusted Return Measures vs Blmbg Long Treasury Rankings Against Callan Extended Maturity Fixed Income (Gross) Five Years Ended September 30, 2021

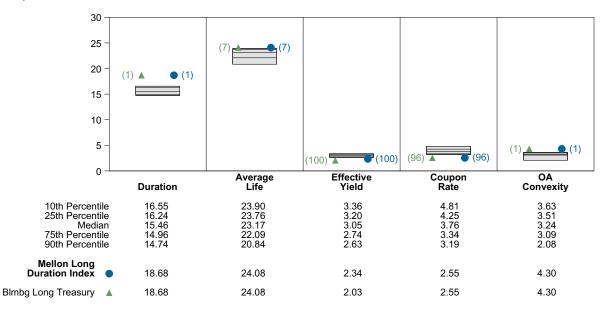


Mellon Long Duration Index Bond Characteristics Analysis Summary

Portfolio Characteristics

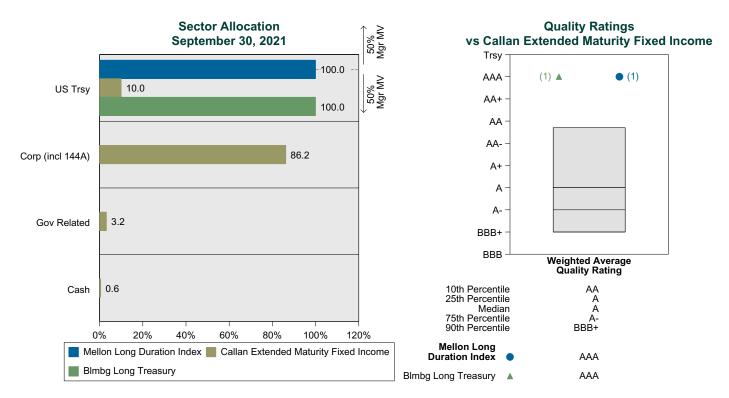
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Extended Maturity Fixed Income as of September 30, 2021



Sector Allocation and Quality Ratings

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



Mellon Long Duration Index Portfolio Characteristics Summary As of September 30, 2021

Portfolio Structure Comparison

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



Quality Rating



Mellon Long Term Credit Index Period Ended September 30, 2021

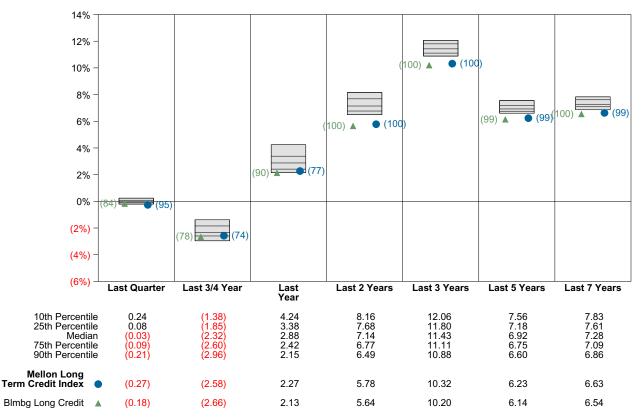
Return History

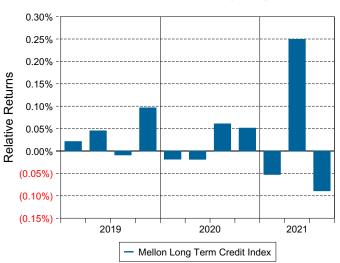
The Mellon Long Term Credit Index account was funded in March of 2021. Previous history reflects the manager's commingled vehicle.

Quarterly Summary and Highlights

- Mellon Long Term Credit Index's portfolio posted a (0.27)% return for the quarter placing it in the 95 percentile of the Callan Extended Maturity Credit group for the quarter and in the 77 percentile for the last year.
- Mellon Long Term Credit Index's portfolio underperformed the BImbg Long Credit by 0.09% for the quarter and outperformed the BImbg Long Credit for the year by 0.14%.

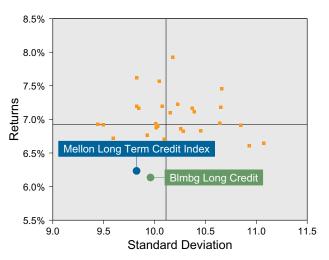
Performance vs Callan Extended Maturity Credit (Gross)





Relative Return vs Blmbg Long Credit

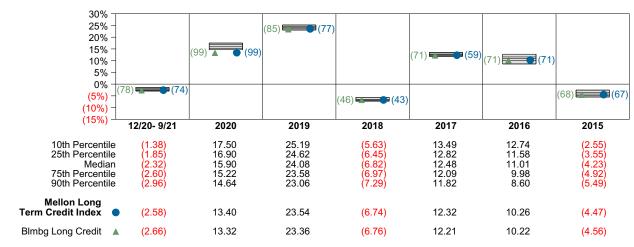
Callan Extended Maturity Credit (Gross) Annualized Five Year Risk vs Return



Mellon Long Term Credit Index Return Analysis Summary

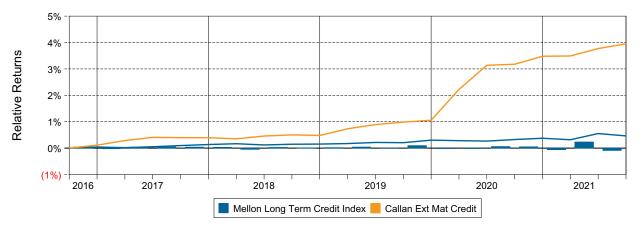
Return Analysis

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.

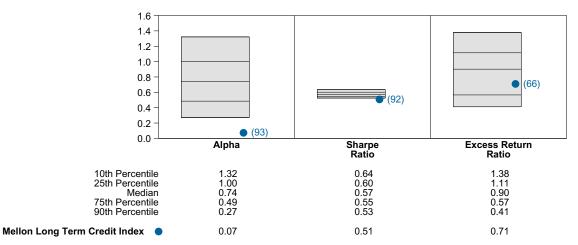


Performance vs Callan Extended Maturity Credit (Gross)

Cumulative and Quarterly Relative Return vs Blmbg Long Credit



Risk Adjusted Return Measures vs Blmbg Long Credit Rankings Against Callan Extended Maturity Credit (Gross) Five Years Ended September 30, 2021



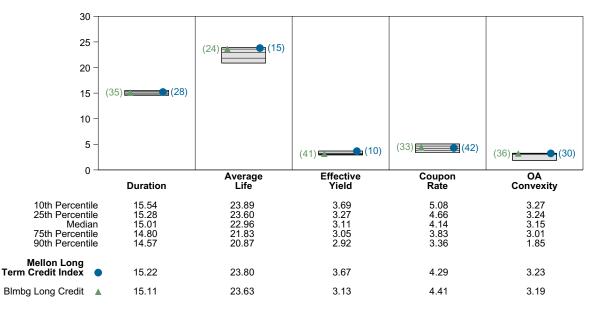


Mellon Long Term Credit Index Bond Characteristics Analysis Summary

Portfolio Characteristics

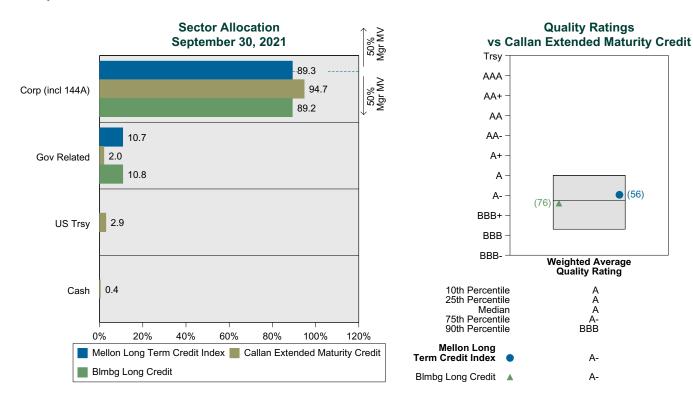
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Extended Maturity Credit as of September 30, 2021



Sector Allocation and Quality Ratings

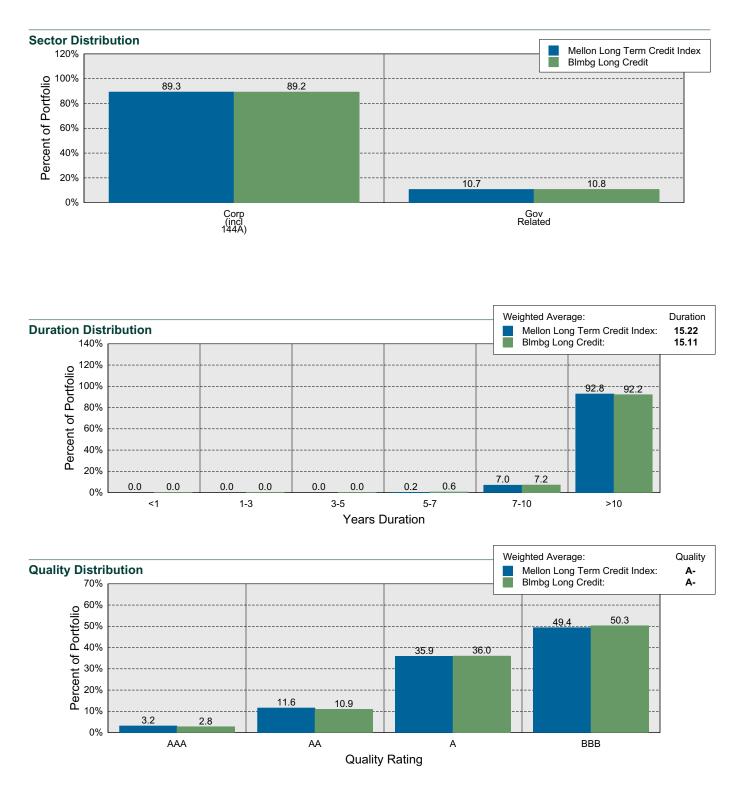
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



Mellon Long Term Credit Index Portfolio Characteristics Summary As of September 30, 2021

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.



Mellon Securitized Index Period Ended September 30, 2021

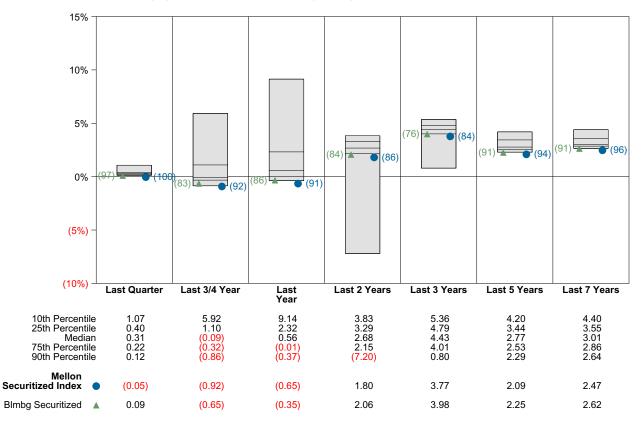
Return History

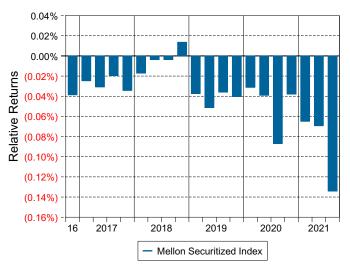
The Mellon Securitized Index account was funded in March of 2021. Previous history reflects the manager's composite returns.

Quarterly Summary and Highlights

- Mellon Securitized Index's portfolio posted a (0.05)% return for the quarter placing it in the 100 percentile of the Callan Mortgage Backed Fixed Income group for the quarter and in the 91 percentile for the last year.
- Mellon Securitized Index's portfolio underperformed the BImbg Securitized by 0.13% for the quarter and underperformed the BImbg Securitized for the year by 0.31%.

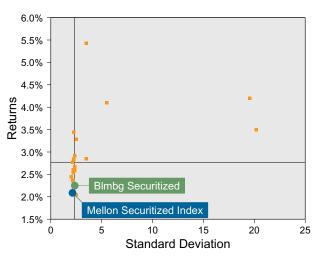
Performance vs Callan Mortgage Backed Fixed Income (Gross)





Relative Return vs Blmbg Securitized

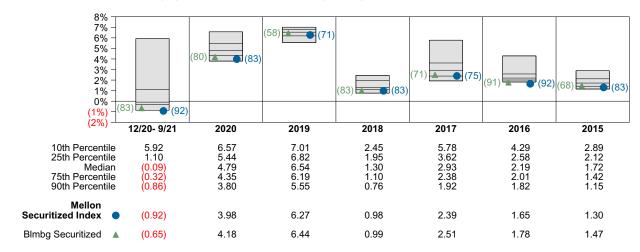
Callan Mortgage Backed Fixed Income (Gross) Annualized Five Year Risk vs Return



Mellon Securitized Index Return Analysis Summary

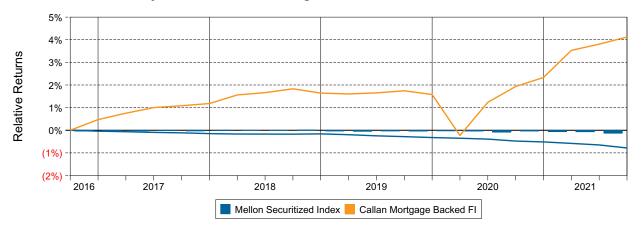
Return Analysis

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.

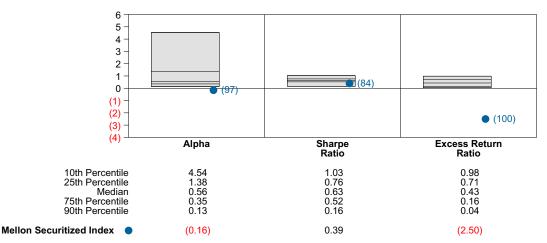


Performance vs Callan Mortgage Backed Fixed Income (Gross)

Cumulative and Quarterly Relative Return vs Blmbg Securitized



Risk Adjusted Return Measures vs Blmbg Securitized Rankings Against Callan Mortgage Backed Fixed Income (Gross) Five Years Ended September 30, 2021

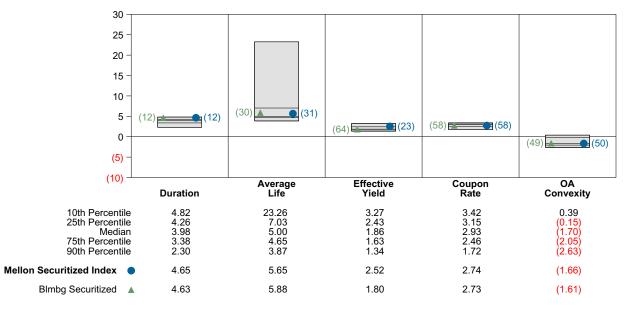


Mellon Securitized Index Bond Characteristics Analysis Summary

Portfolio Characteristics

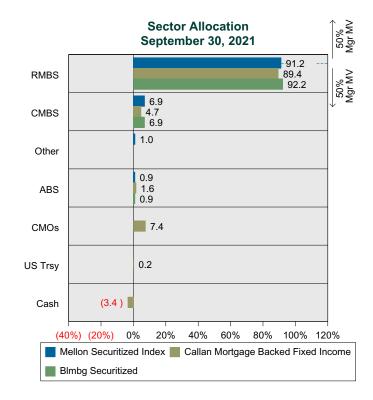
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.



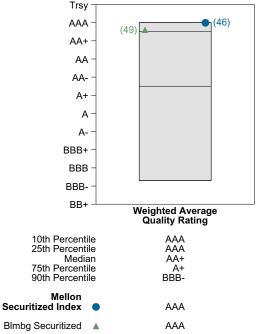


Sector Allocation and Quality Ratings

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





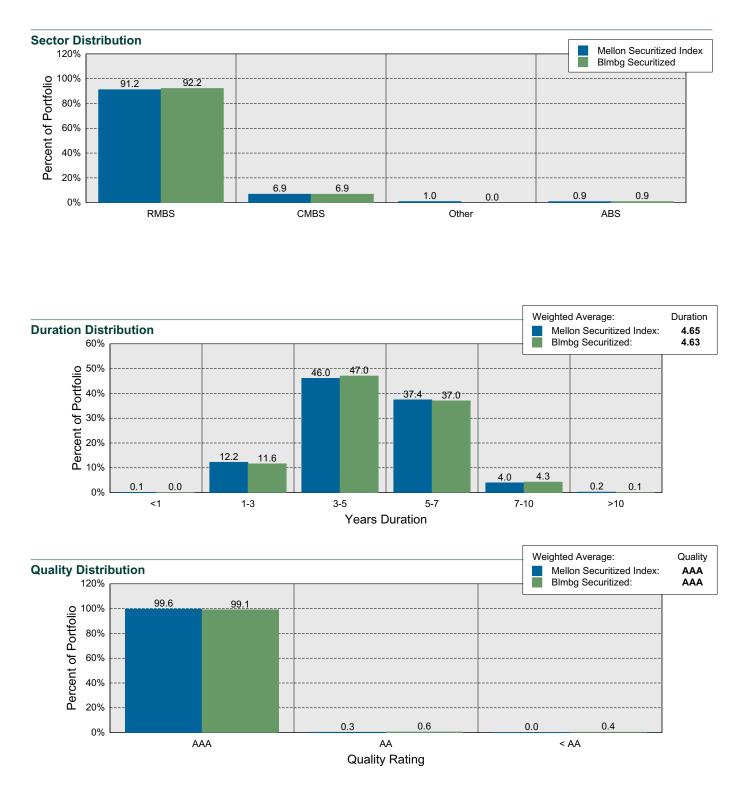




Mellon Securitized Index Portfolio Characteristics Summary As of September 30, 2021

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.





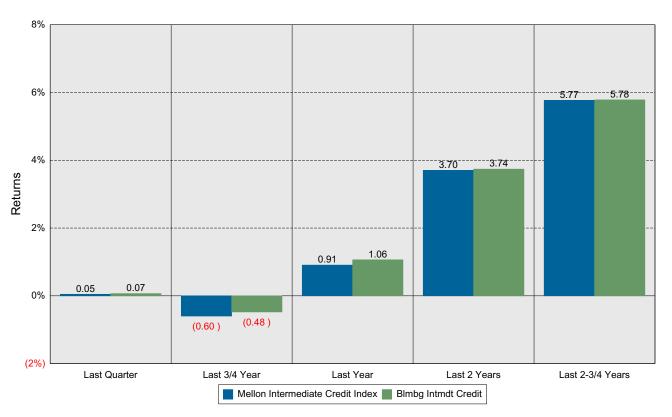
Mellon Intermediate Credit Index Period Ended September 30, 2021

Return History

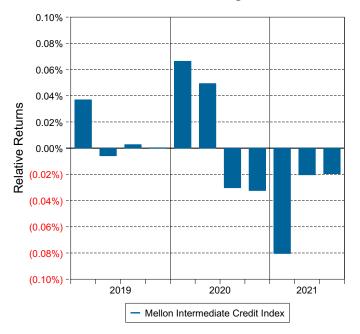
The Mellon Intermediate Credit Index account was funded in March of 2021. Previous history reflects the manager's composite returns.

Quarterly Summary and Highlights

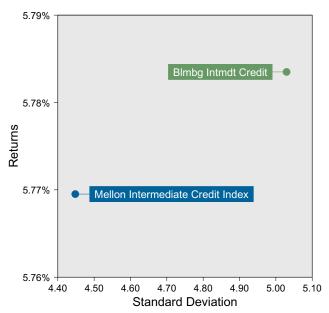
• Mellon Intermediate Credit Index's portfolio underperformed the Blmbg Intmdt Credit by 0.02% for the quarter and underperformed the Blmbg Intmdt Credit for the year by 0.16%.



Relative Return vs Blmbg Intmdt Credit



Annualized Two and Three-Quarter Year Risk vs Return

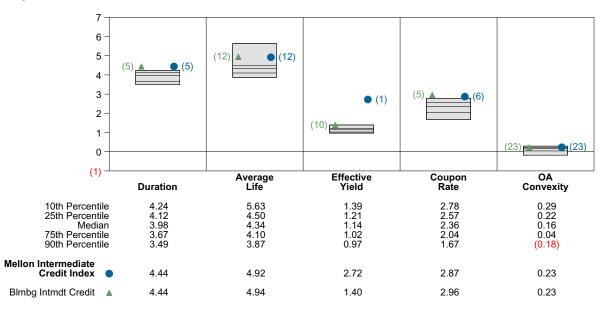


Mellon Intermediate Credit Index Bond Characteristics Analysis Summary

Portfolio Characteristics

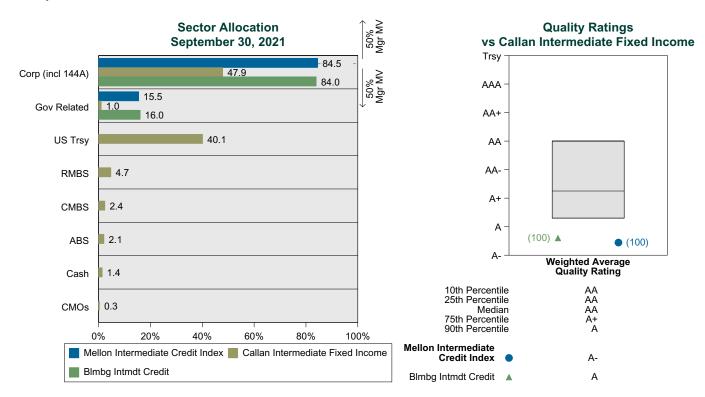
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Intermediate Fixed Income as of September 30, 2021



Sector Allocation and Quality Ratings

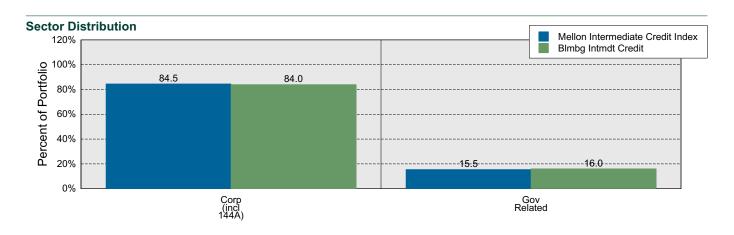
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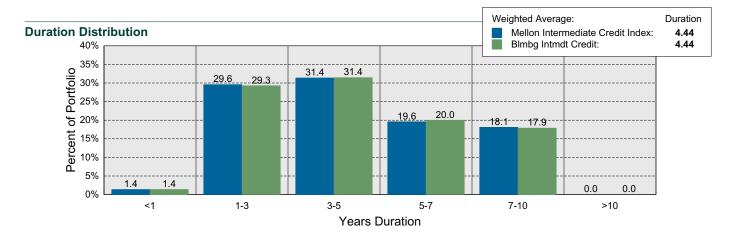


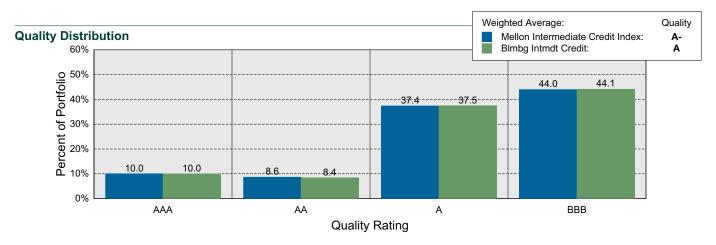
Mellon Intermediate Credit Index Portfolio Characteristics Summary As of September 30, 2021

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.









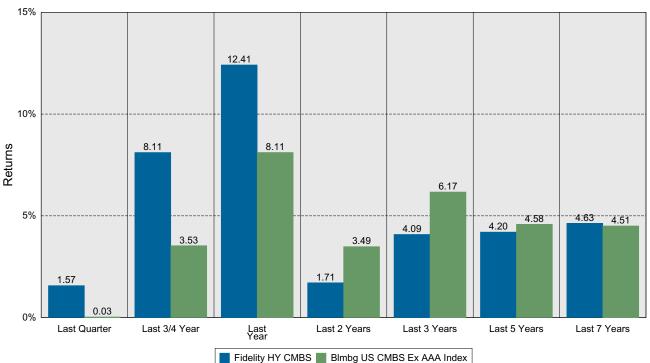
Fidelity HY CMBS Period Ended September 30, 2021

Asset Class Membership Changes

On 03/01/2021, the Fidelity HY CMBS account switched from the Opportunistic Fixed composite to the High Yield composite under the new fixed income structure.

Quarterly Summary and Highlights

- Fidelity HY CMBS's portfolio posted a 1.57% return for the quarter placing it in the 1 percentile of the Callan Global Fixed High Yield group for the quarter and in the 25 percentile for the last year.
- Fidelity HY CMBS's portfolio outperformed the BImbg US CMBS Ex AAA Index by 1.54% for the quarter and outperformed the BImbg US CMBS Ex AAA Index for the year by 4.30%.

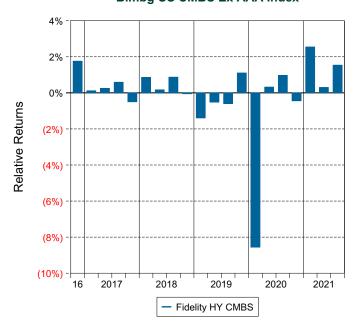


9%

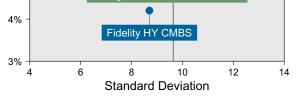
Returns

Relative Returns vs Blmbg US CMBS Ex AAA Index





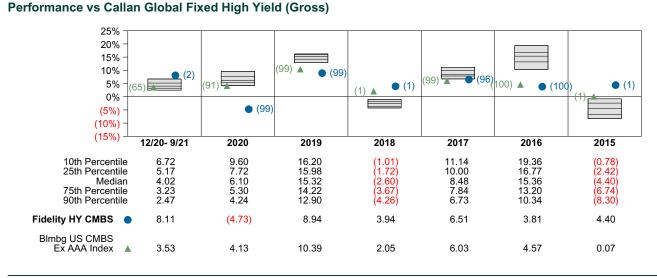
8% -7% -6% -5% -Bimbg US CMBS Ex AAA Index



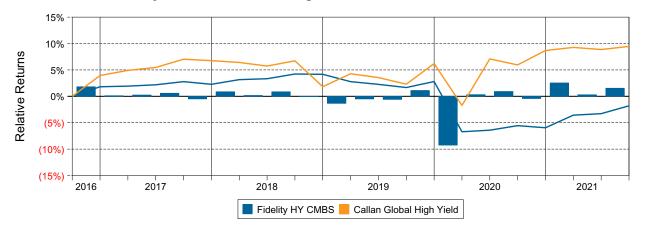
Fidelity HY CMBS Return Analysis Summary

Return Analysis

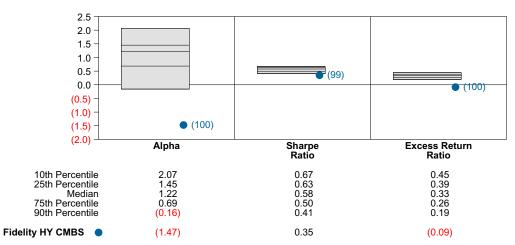
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Return vs Blmbg US CMBS Ex AAA Index



Risk Adjusted Return Measures vs Blmbg US CMBS Ex AAA Index Rankings Against Callan Global Fixed High Yield (Gross) Five Years Ended September 30, 2021



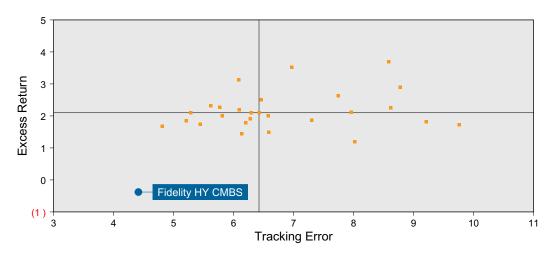


Fidelity HY CMBS Risk Analysis Summary

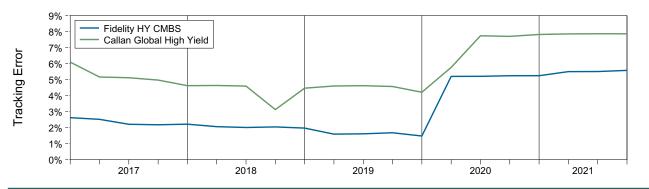
Risk Analysis

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

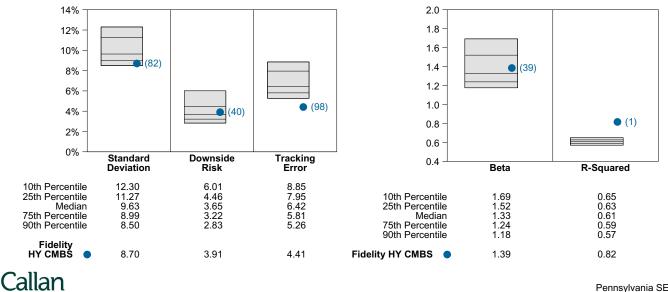
Risk Analysis vs Callan Global Fixed High Yield (Gross) Five Years Ended September 30, 2021









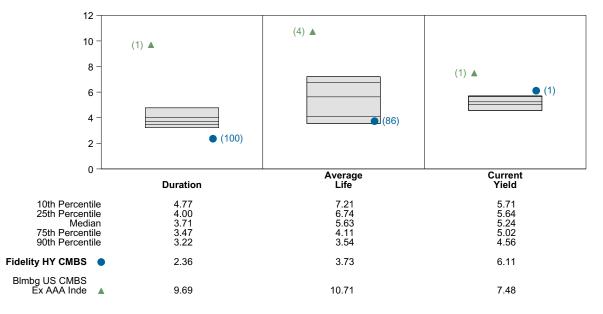


Fidelity HY CMBS Bond Characteristics Analysis Summary

Portfolio Characteristics

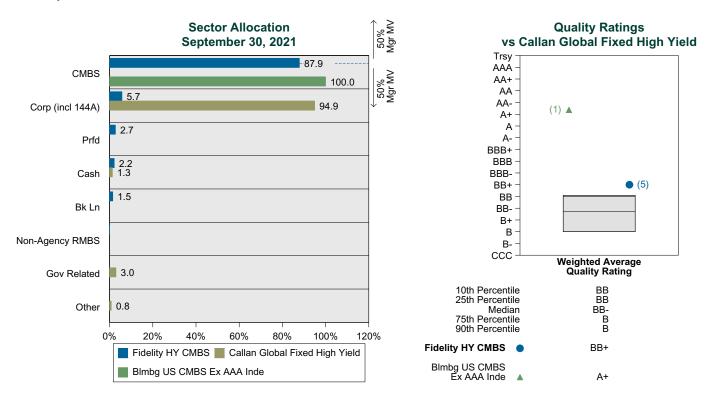
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Global Fixed High Yield as of September 30, 2021



Sector Allocation and Quality Ratings

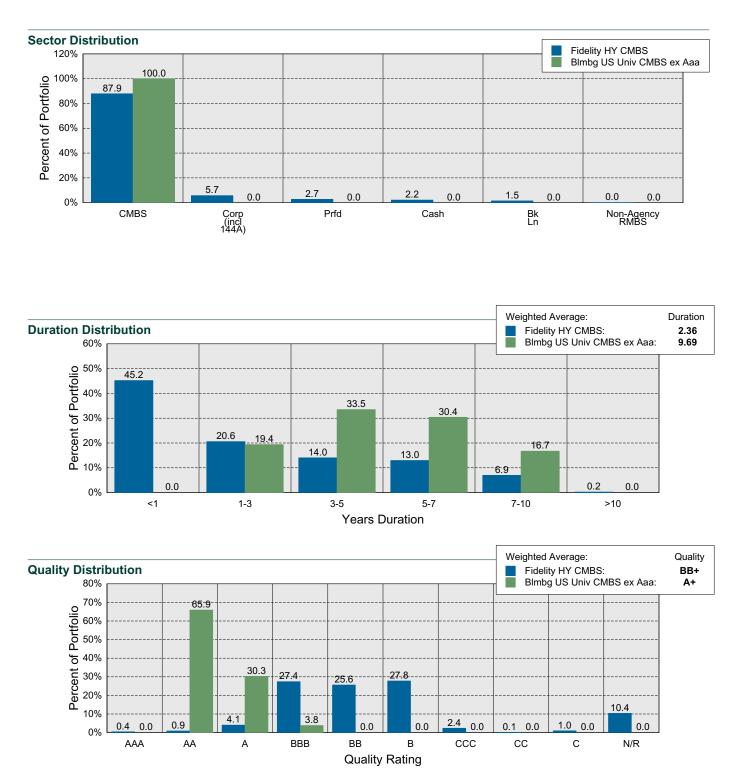
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



Fidelity HY CMBS Portfolio Characteristics Summary As of September 30, 2021

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.



BlackRock High Yield Index Period Ended September 30, 2021

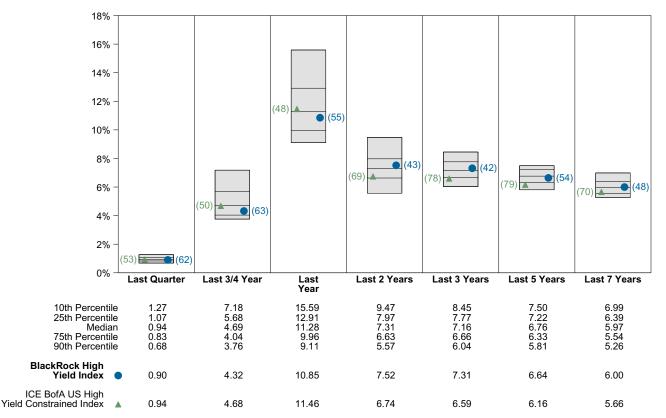
Return History

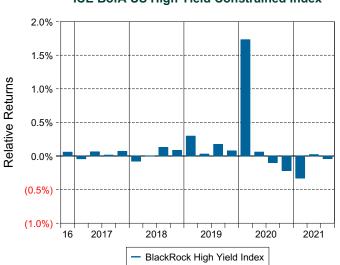
The BlackRock High Yield account was funded in March of 2021. Previous history reflects the manager's composite returns.

Quarterly Summary and Highlights

- BlackRock High Yield Index's portfolio posted a 0.90% return for the quarter placing it in the 62 percentile of the Callan High Yield Fixed Income group for the quarter and in the 55 percentile for the last year.
- BlackRock High Yield Index's portfolio underperformed the ICE BofA US High Yield Constrained Index by 0.04% for the quarter and underperformed the ICE BofA US High Yield Constrained Index for the year by 0.61%.

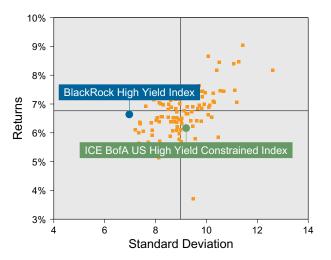
Performance vs Callan High Yield Fixed Income (Gross)





Relative Returns vs ICE BofA US High Yield Constrained Index

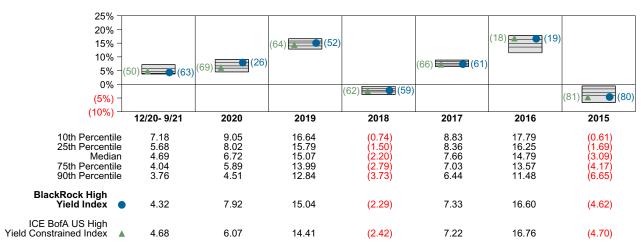
Callan High Yield Fixed Income (Gross) Annualized Five Year Risk vs Return



BlackRock High Yield Index Return Analysis Summary

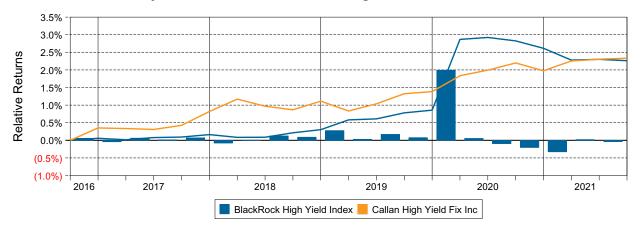
Return Analysis

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.

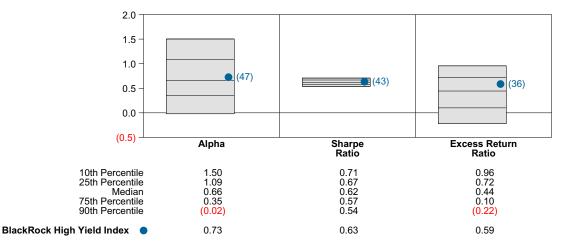


Performance vs Callan High Yield Fixed Income (Gross)

Cumulative and Quarterly Relative Return vs ICE BofA US High Yield Constrained Index







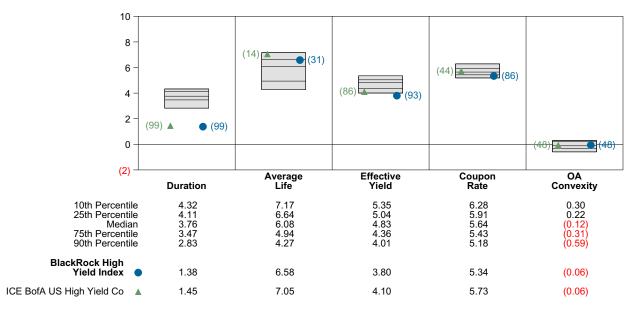


BlackRock High Yield Index Bond Characteristics Analysis Summary

Portfolio Characteristics

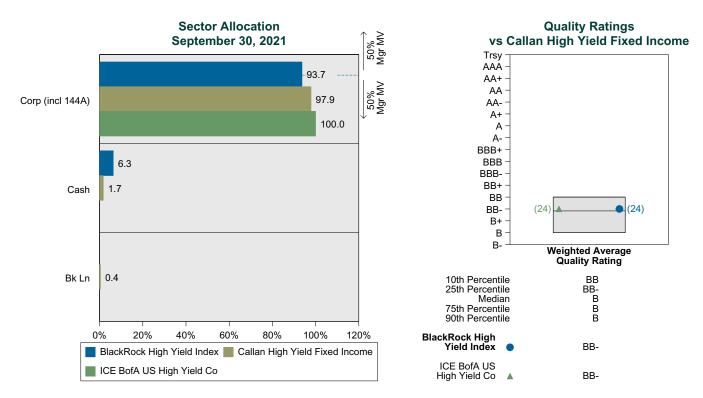
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan High Yield Fixed Income as of September 30, 2021



Sector Allocation and Quality Ratings

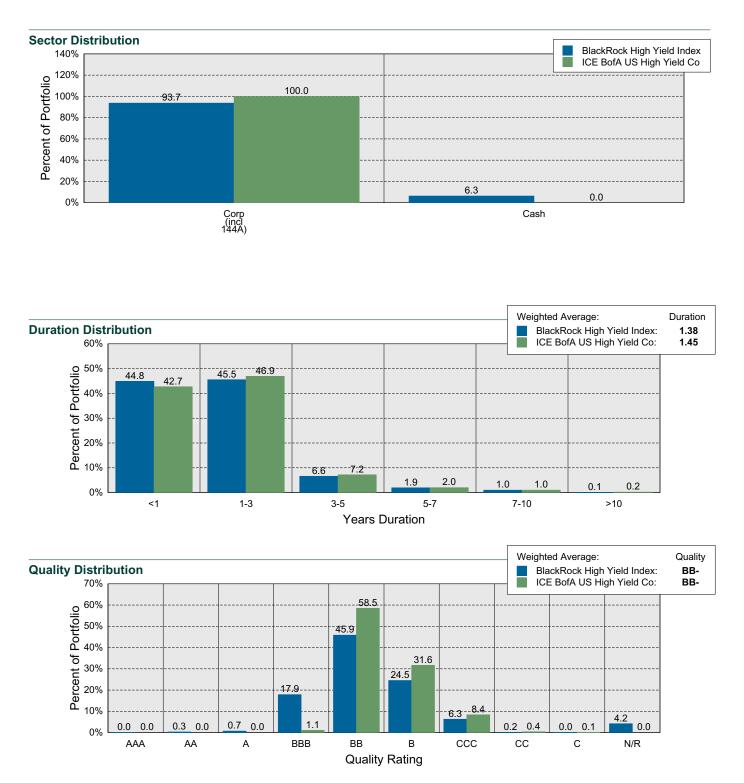
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



BlackRock High Yield Index Portfolio Characteristics Summary As of September 30, 2021

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.



Mellon High Yield Beta Period Ended September 30, 2021

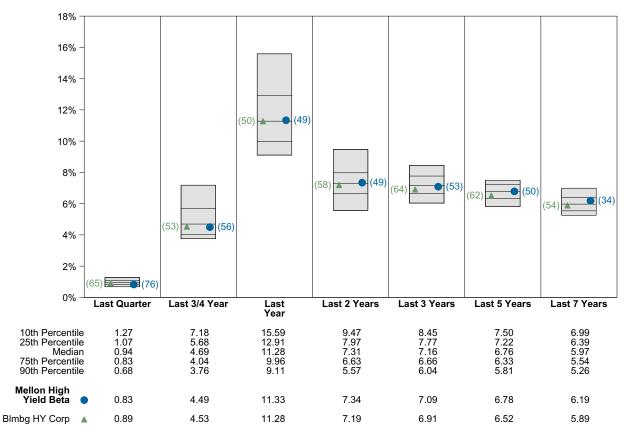
Return History

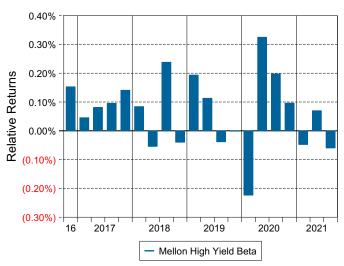
The Mellon High Yield Beta account was funded in May of 2021. Previous history reflects the manager's composite returns.

Quarterly Summary and Highlights

- Mellon High Yield Beta's portfolio posted a 0.83% return for the quarter placing it in the 76 percentile of the Callan High Yield Fixed Income group for the quarter and in the 49 percentile for the last year.
- Mellon High Yield Beta's portfolio underperformed the Blmbg HY Corp by 0.06% for the quarter and outperformed the Blmbg HY Corp for the year by 0.06%.

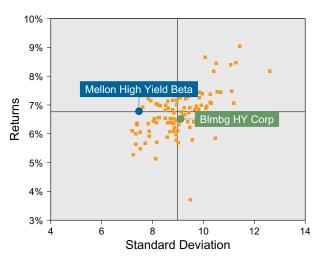
Performance vs Callan High Yield Fixed Income (Gross)





Relative Return vs Blmbg HY Corp

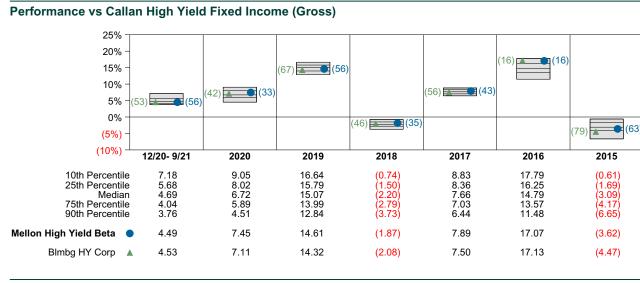
Callan High Yield Fixed Income (Gross) Annualized Five Year Risk vs Return



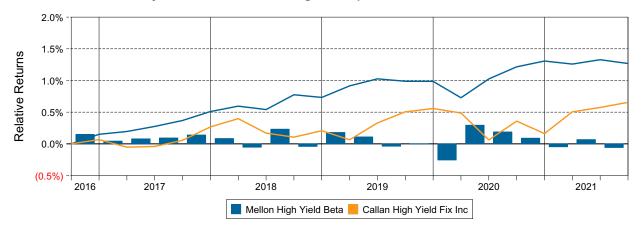
Mellon High Yield Beta Return Analysis Summary

Return Analysis

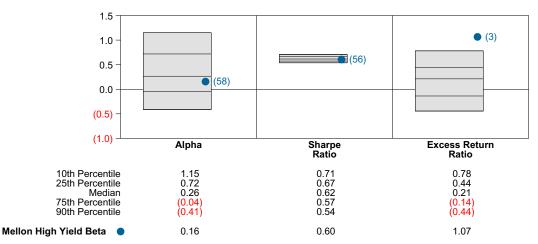
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Return vs Blmbg HY Corp



Risk Adjusted Return Measures vs Blmbg HY Corp Rankings Against Callan High Yield Fixed Income (Gross) Five Years Ended September 30, 2021



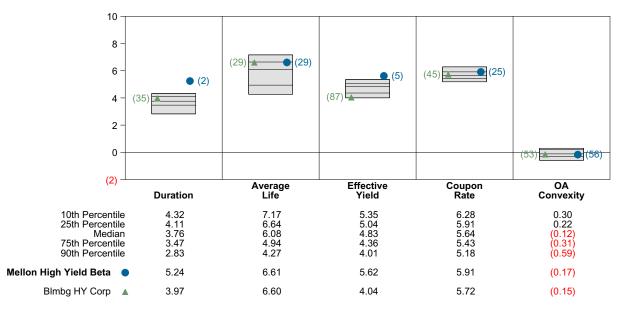


Mellon High Yield Beta Bond Characteristics Analysis Summary

Portfolio Characteristics

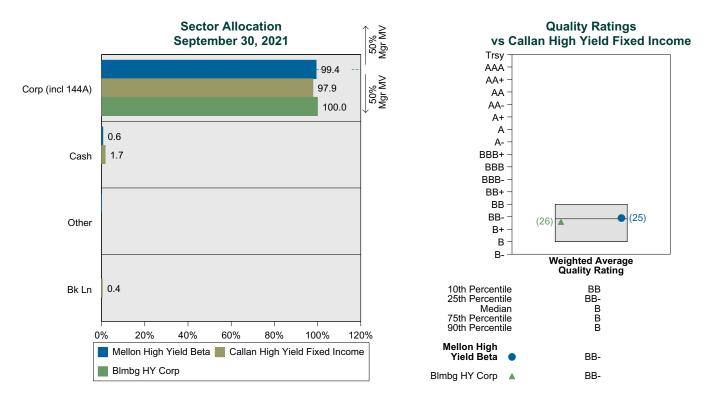
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan High Yield Fixed Income as of September 30, 2021



Sector Allocation and Quality Ratings

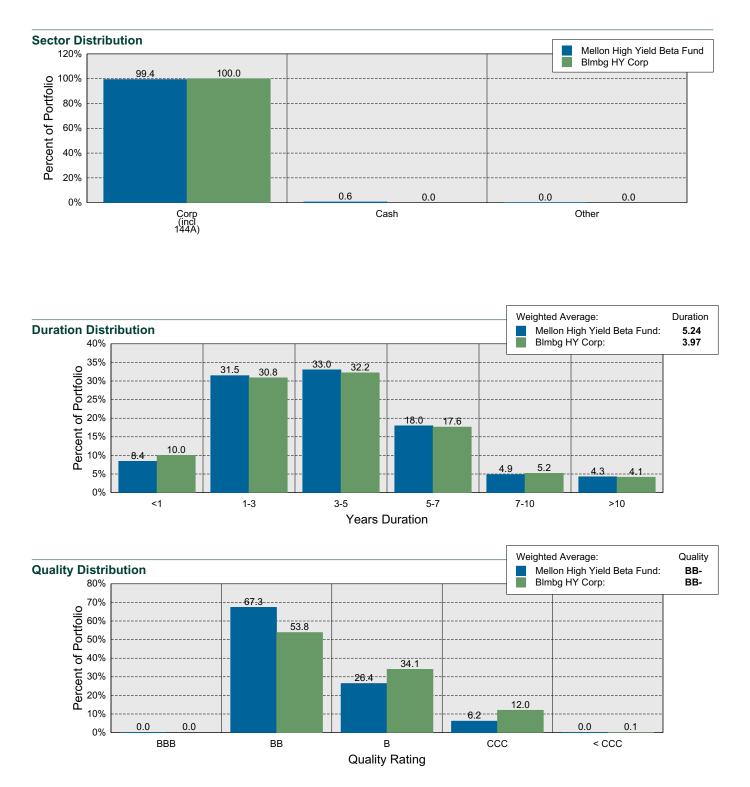
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



Mellon High Yield Beta Fund Portfolio Characteristics Summary As of September 30, 2021

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.



Opportunistic Fixed Income

Opportunistic Fixed Income Period Ended September 30, 2021

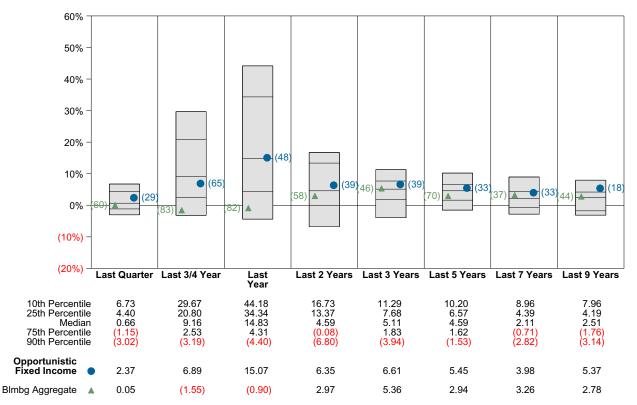
Asset Class Membership Changes

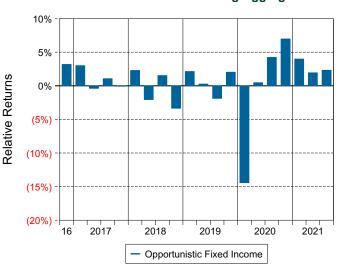
On 01/01/2021, the BAAM Keystone account switched from the Opportunistic Fixed composite to the Private Credit Composite. Additionally, on 03/01/2021, the Fidelity HY CMBS account switched from the Opportunistic Fixed composite to the High Yield composite under the new fixed income structure.

Quarterly Summary and Highlights

- Opportunistic Fixed Income's portfolio posted a 2.37% return for the quarter placing it in the 29 percentile of the Callan Alternative Investments DB group for the quarter and in the 48 percentile for the last year.
- Opportunistic Fixed Income's portfolio outperformed the Blmbg Aggregate by 2.32% for the quarter and outperformed the Blmbg Aggregate for the year by 15.96%.

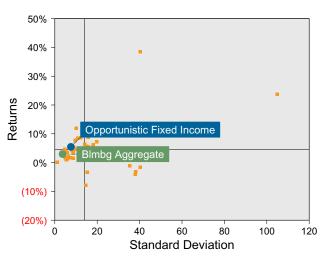
Performance vs Callan Alternative Investments DB (Gross)





Relative Return vs Blmbg Aggregate

Callan Alternative Investments DB (Gross) Annualized Five Year Risk vs Return

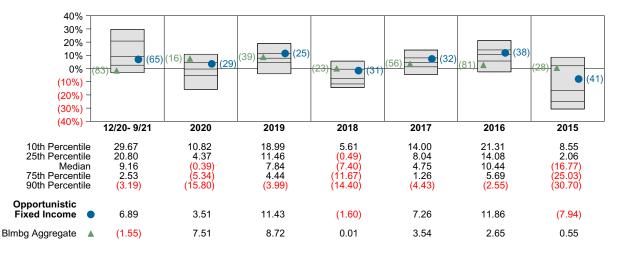


Opportunistic Fixed Income Return Analysis Summary

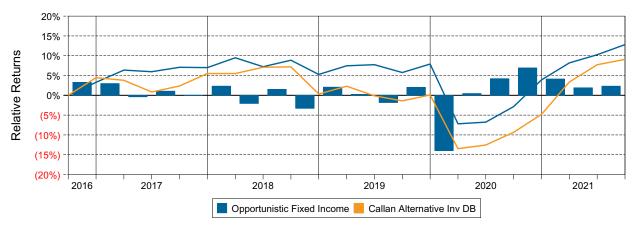
Return Analysis

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

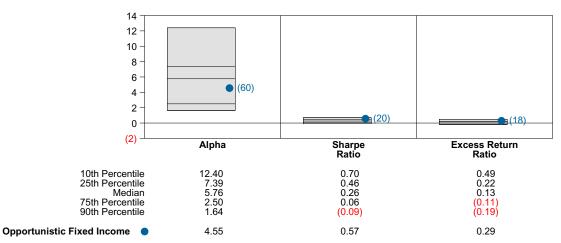




Cumulative and Quarterly Relative Return vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Callan Alternative Inv DB (Gross) Five Years Ended September 30, 2021



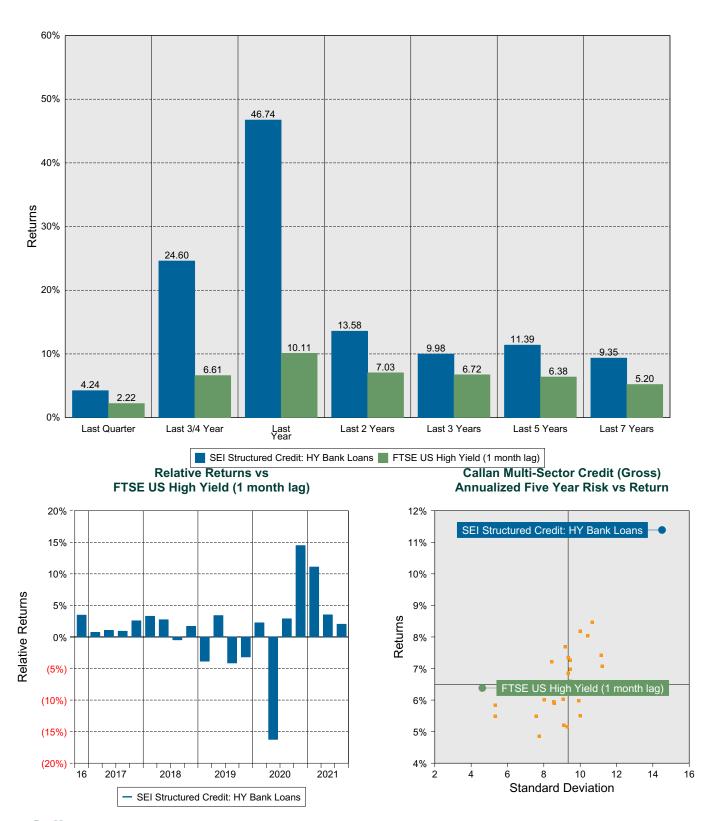


Opportunistic Fixed Income Managers

SEI Structured Credit: HY Bank Loans Period Ended September 30, 2021

Quarterly Summary and Highlights

- SEI Structured Credit: HY Bank Loans's portfolio posted a 4.24% return for the quarter placing it in the 1 percentile of the Callan Multi-Sector Credit group for the quarter and in the 1 percentile for the last year.
- SEI Structured Credit: HY Bank Loans's portfolio outperformed the FTSE US High Yield (1 month lag) by 2.02% for the quarter and outperformed the FTSE US High Yield (1 month lag) for the year by 36.63%.

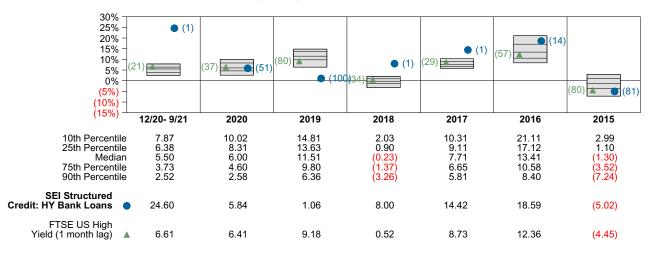


SEI Structured Credit: HY Bank Loans Return Analysis Summary

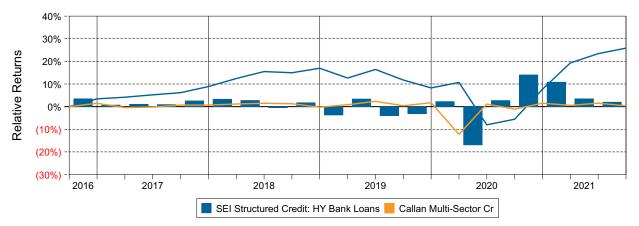
Return Analysis

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.

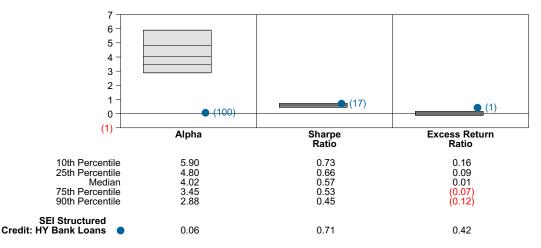
Performance vs Callan Multi-Sector Credit (Gross)



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







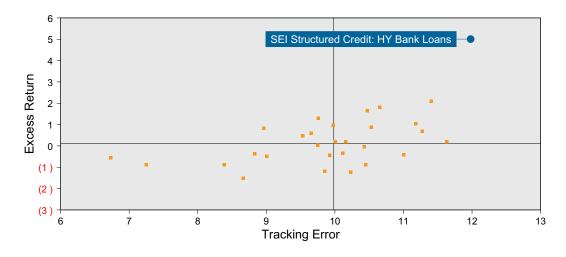


SEI Structured Credit: HY Bank Loans **Risk Analysis Summary**

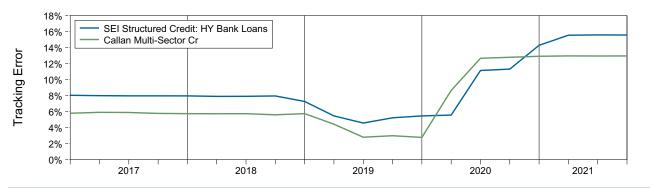
Risk Analysis

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

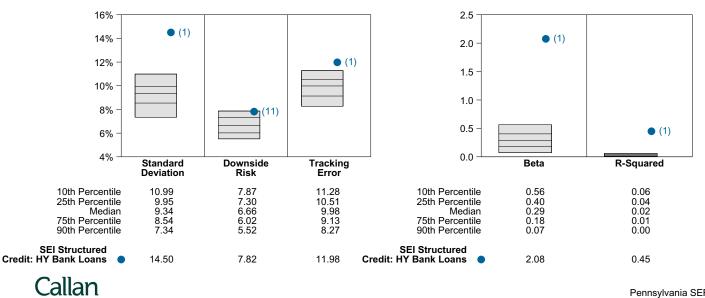
Risk Analysis vs Callan Multi-Sector Credit (Gross) Five Years Ended September 30, 2021









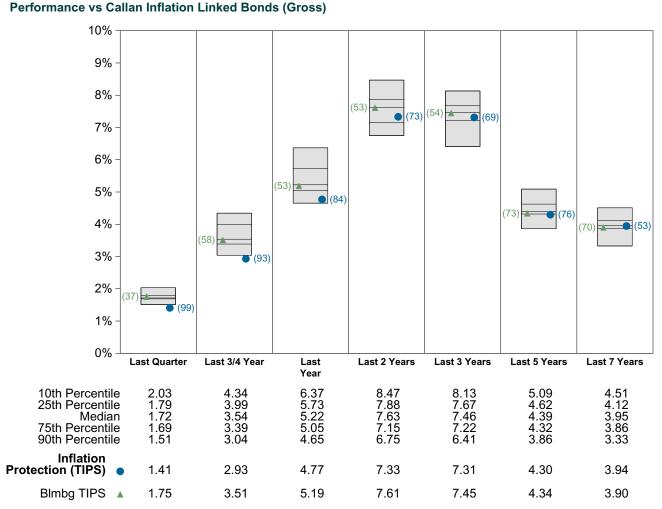


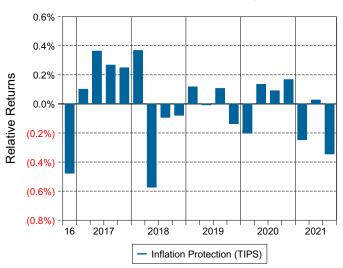
Inflation Protection (TIPS)

Inflation Protection (TIPS) Period Ended September 30, 2021

Quarterly Summary and Highlights

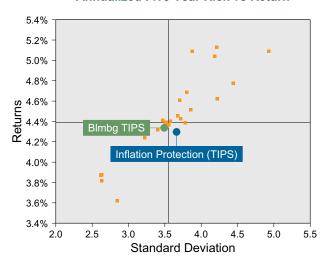
- Inflation Protection (TIPS)'s portfolio posted a 1.41% return for the quarter placing it in the 99 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 84 percentile for the last year.
- Inflation Protection (TIPS)'s portfolio underperformed the Blmbg TIPS by 0.34% for the quarter and underperformed the Blmbg TIPS for the year by 0.42%.





Relative Return vs Blmbg TIPS



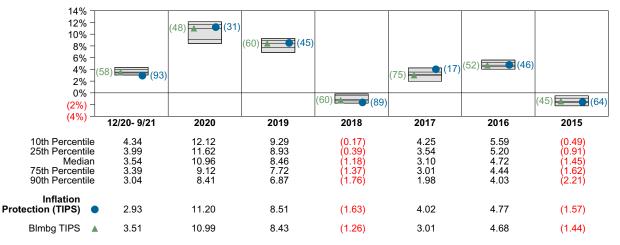


Inflation Protection (TIPS) Return Analysis Summary

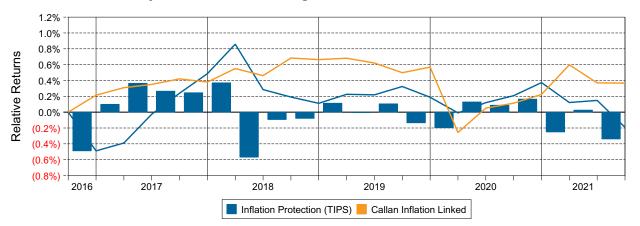
Return Analysis

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

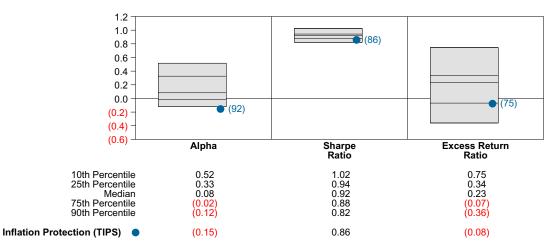




Cumulative and Quarterly Relative Return vs BImbg TIPS



Risk Adjusted Return Measures vs Blmbg TIPS Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2021

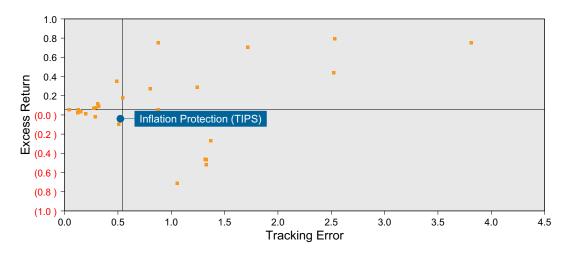


Inflation Protection (TIPS) Risk Analysis Summary

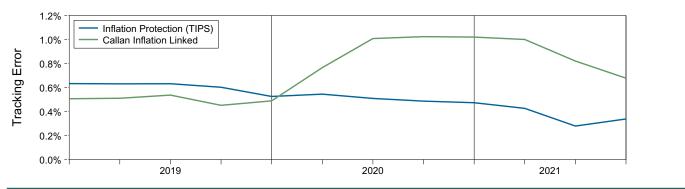
Risk Analysis

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

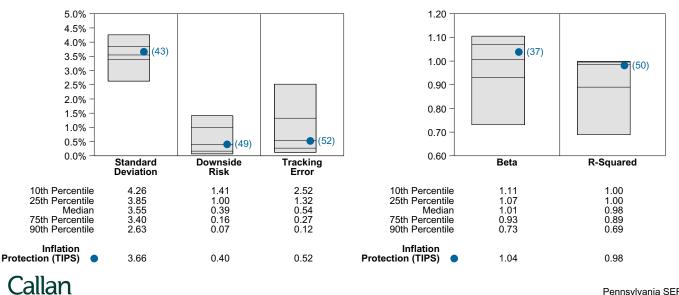
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2021









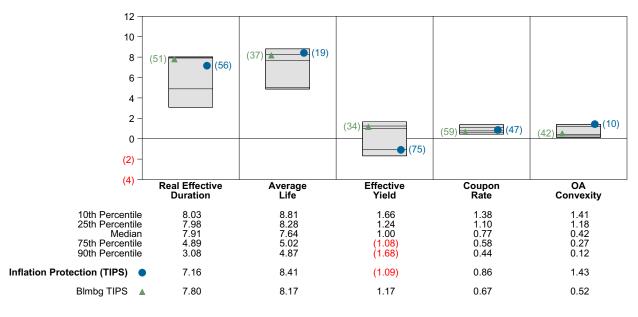


Inflation Protection (TIPS) Bond Characteristics Analysis Summary

Portfolio Characteristics

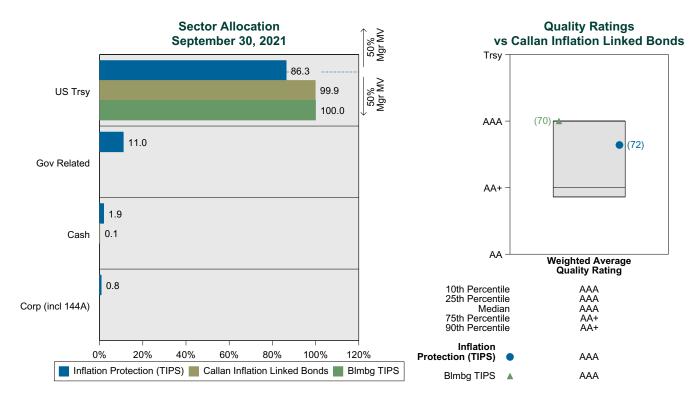
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds as of September 30, 2021



Sector Allocation and Quality Ratings

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

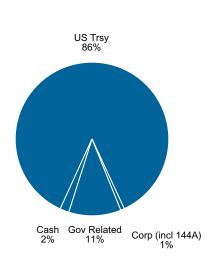


Inflation Protection (TIPS) Portfolio Characteristics Summary As of September 30, 2021

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.

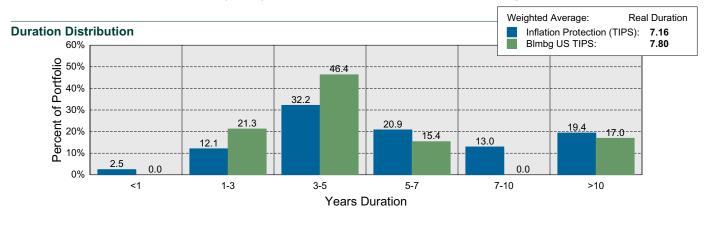
Sector Allocation

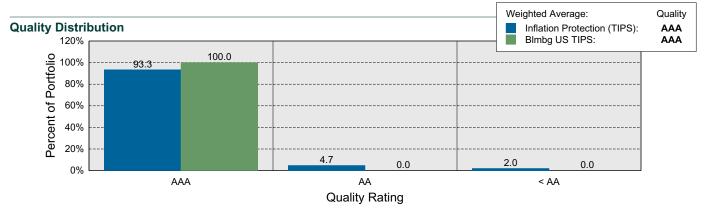


US Trsy 100%

Inflation Protection (TIPS)









Inflation Protection (TIPS) Managers

Brown Brothers TIPS Period Ended September 30, 2021

Investment Philosophy

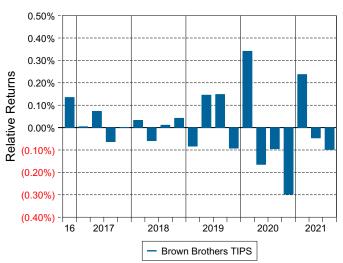
The BBH U.S. TIPS strategy seeks to capture a range of fundamentally-based and technically-based opportunities in the inflation-indexed securities market.

Quarterly Summary and Highlights

- Brown Brothers TIPS's portfolio posted a 1.65% return for the quarter placing it in the 81 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 78 percentile for the last year.
- Brown Brothers TIPS's portfolio underperformed the BImbg TIPS by 0.10% for the quarter and underperformed the BImbg TIPS for the year by 0.20%.

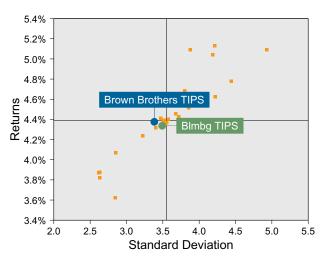
Performance vs Callan Inflation Linked Bonds (Gross)





Relative Return vs Blmbg TIPS

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

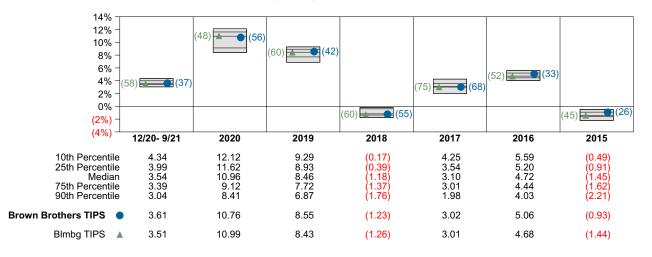


Brown Brothers TIPS Return Analysis Summary

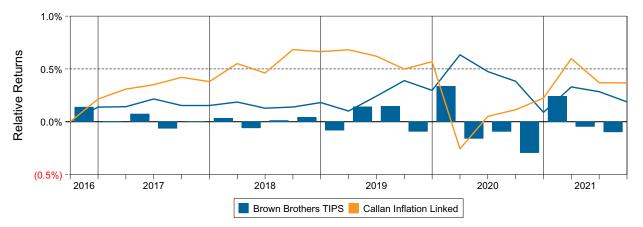
Return Analysis

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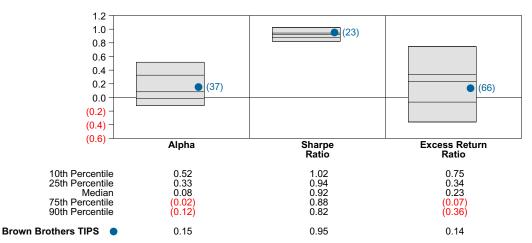




Cumulative and Quarterly Relative Return vs Blmbg TIPS



Risk Adjusted Return Measures vs Blmbg TIPS Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2021

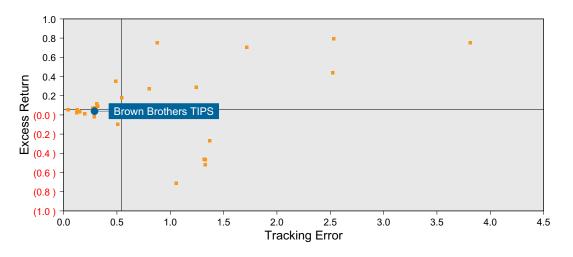


Brown Brothers TIPS Risk Analysis Summary

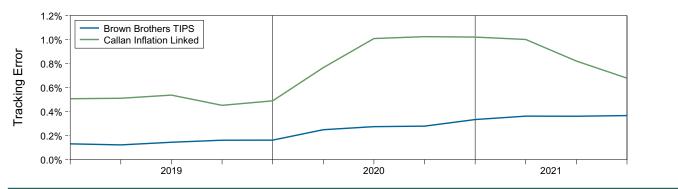
Risk Analysis

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

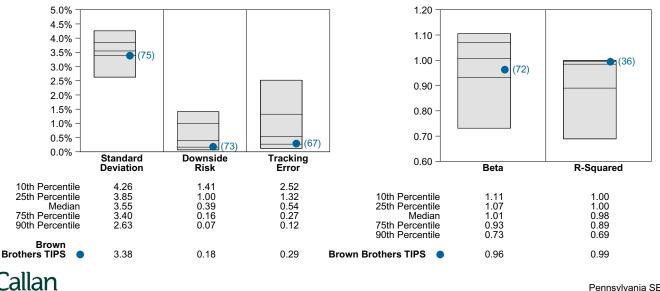
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2021









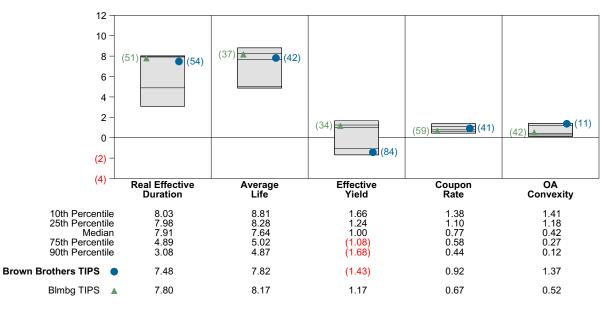


Brown Brothers TIPS Bond Characteristics Analysis Summary

Portfolio Characteristics

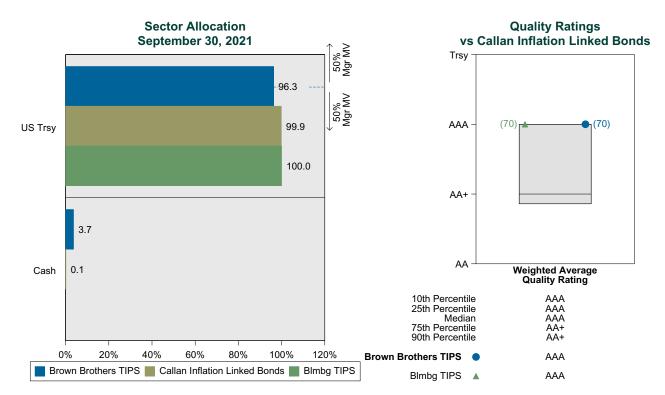
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds as of September 30, 2021



Sector Allocation and Quality Ratings

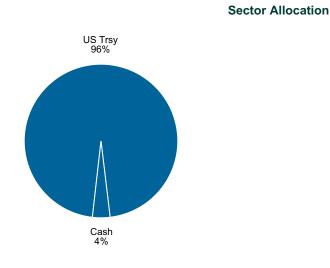
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

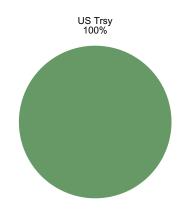


Brown Brothers TIPS Portfolio Characteristics Summary As of September 30, 2021

Portfolio Structure Comparison

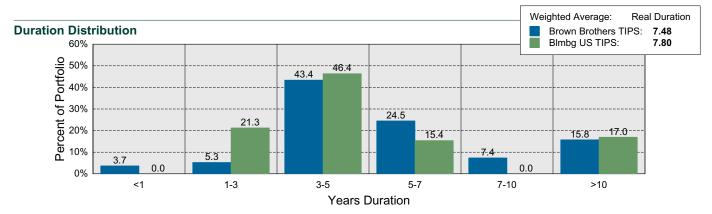
The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution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

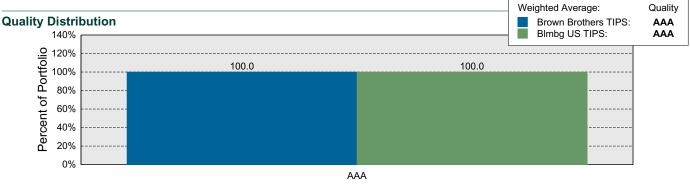




Brown Brothers TIPS







Quality Rating



NISA Inv Adv TIPS Period Ended September 30, 2021

Investment Philosophy

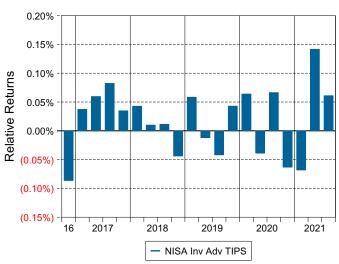
NISA believes that markets offer opportunities to capitalize on moderate inefficiencies for predictable gains. The team applies a fundamental approach and strategy to all fixed income portfolios, regardless of benchmark. Central to their investment philosophy is the following: practice active trading,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

Quarterly Summary and Highlights

Performance vs Callan Inflation Linked Bonds (Gross)

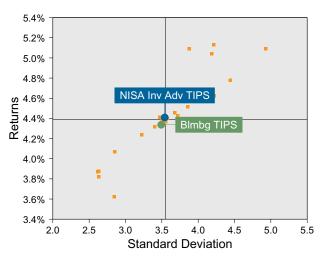
- NISA Inv Adv TIPS's portfolio posted a 1.81% return for the quarter placing it in the 23 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 48 percentile for the last year.
- NISA Inv Adv TIPS's portfolio outperformed the BImbg TIPS by 0.06% for the quarter and outperformed the BImbg TIPS for the year by 0.07%.

10% 9% 8% (37) (53)40 54 7% 6% (48) (53)5% (44) 35 4% 36) (58)3% 2% (23) 1% 0% Last Quarter Last 3/4 Year Last 2 Years Last 3 Years Last 5 Years Last 7 Years Last Year 8.47 7.88 7.63 4.34 3.99 6.37 8.13 7.67 5.09 4.62 4.51 4.12 10th Percentile 2.03 25th Percentile 1.79 1.72 5.73 5.22 3.54 7.46 4.39 3.95 Median 75th Percentile 1.69 3.39 5.05 7.15 7 22 4.32 3.86 90th Percentile 1.51 3 04 4.65 675 641 3 86 3.33 NISA Inv Adv TIPS 1.81 3.64 5.26 7.72 7.50 4.41 3.99 Blmbg TIPS 1 75 3.51 5.19 7.61 7.45 4.34 3.90



Relative Return vs Blmbg TIPS

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

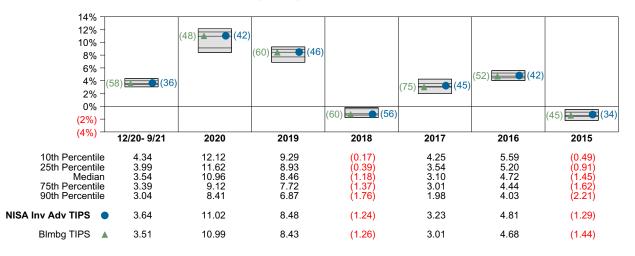


NISA Inv Adv TIPS Return Analysis Summary

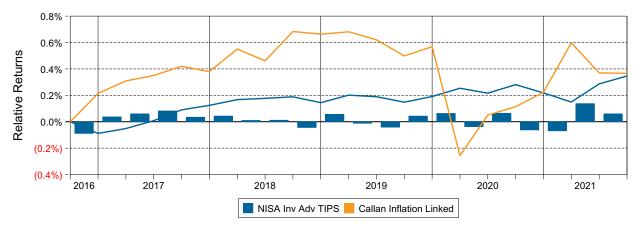
Return Analysis

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

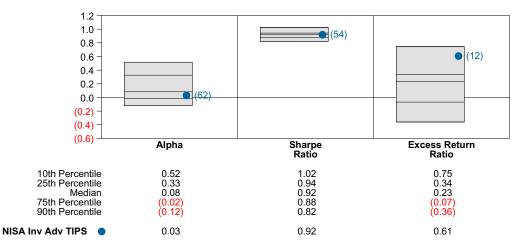




Cumulative and Quarterly Relative Return vs Blmbg TIPS



Risk Adjusted Return Measures vs Blmbg TIPS Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2021



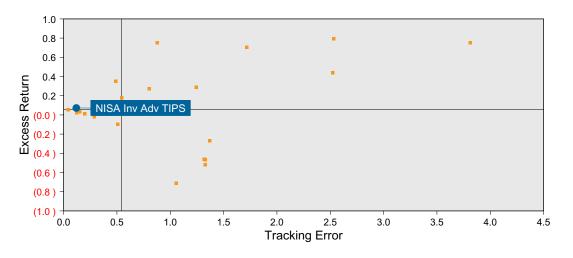


NISA Inv Adv TIPS Risk Analysis Summary

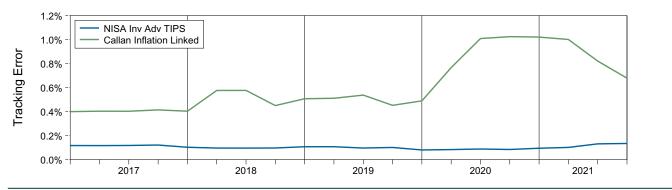
Risk Analysis

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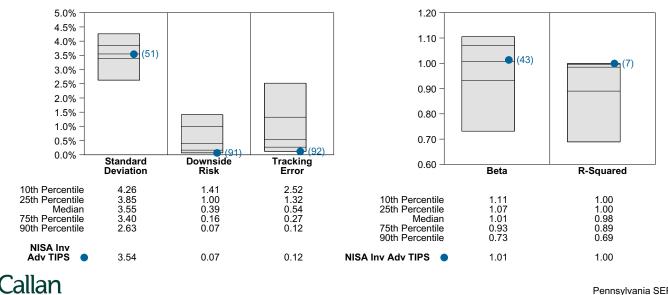
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2021









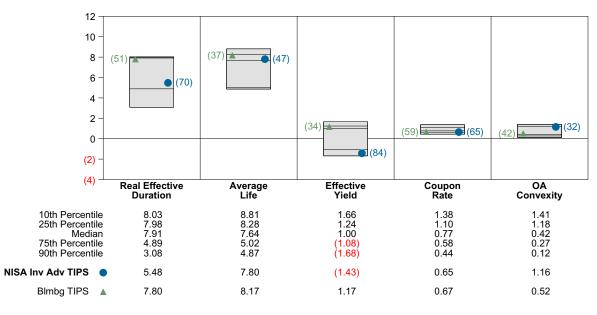


NISA Inv Adv TIPS Bond Characteristics Analysis Summary

Portfolio Characteristics

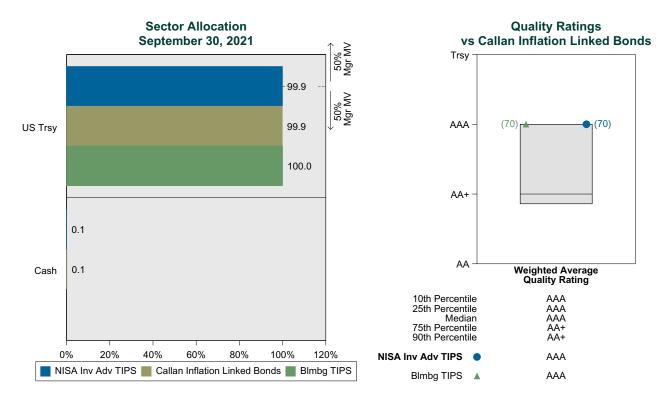
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds as of September 30, 2021



Sector Allocation and Quality Ratings

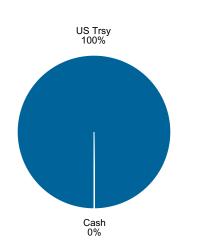
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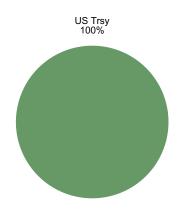
NISA Inv Adv TIPS Portfolio Characteristics Summary As of September 30, 2021

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.

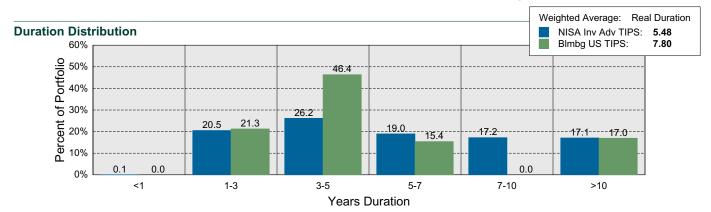


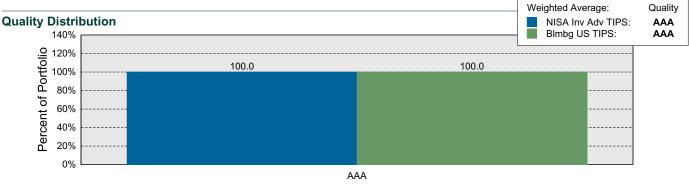
Sector Allocation



NISA Inv Adv TIPS







Quality Rating



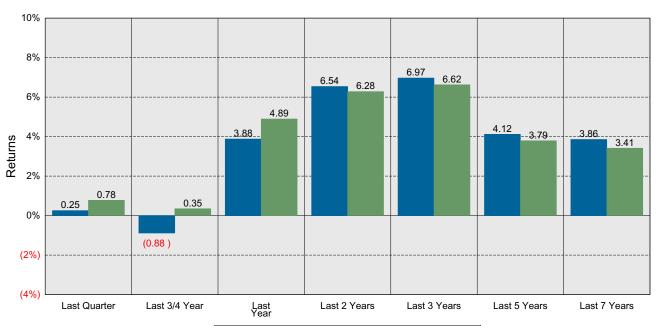
New Century Global TIPS Period Ended September 30, 2021

Investment Philosophy

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

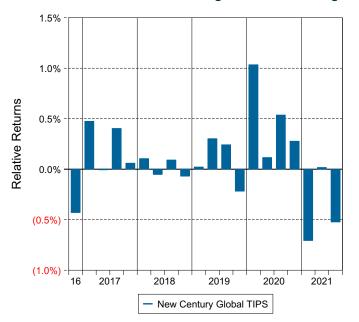
Quarterly Summary and Highlights

- New Century Global TIPS's portfolio posted a 0.25% return for the quarter placing it in the 100 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 98 percentile for the last year.
- New Century Global TIPS's portfolio underperformed the Blmbg Wld Infl-Lnk Unhdg by 0.52% for the quarter and underperformed the Blmbg Wld Infl-Lnk Unhdg for the year by 1.01%.

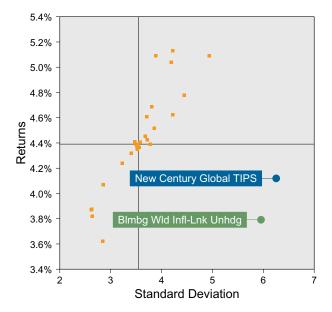




Relative Return vs Blmbg Wld Infl-Lnk Unhdg



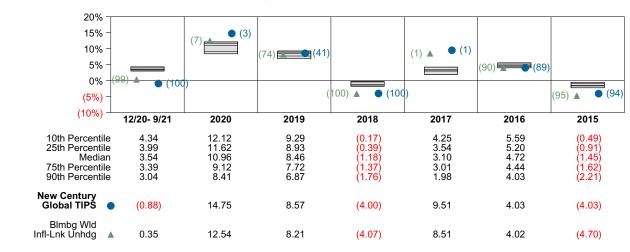




New Century Global TIPS Return Analysis Summary

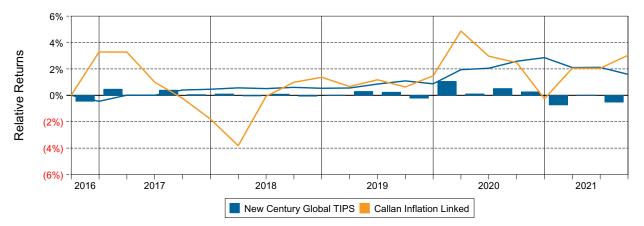
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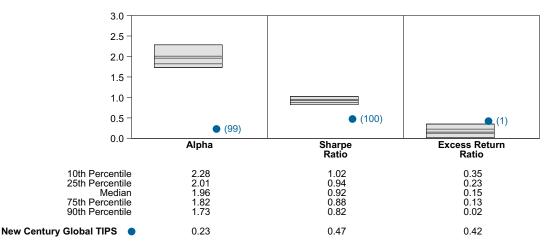


Performance vs Callan Inflation Linked Bonds (Gross)

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



Risk Adjusted Return Measures vs Blmbg Wld Infl-Lnk Unhdg Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2021

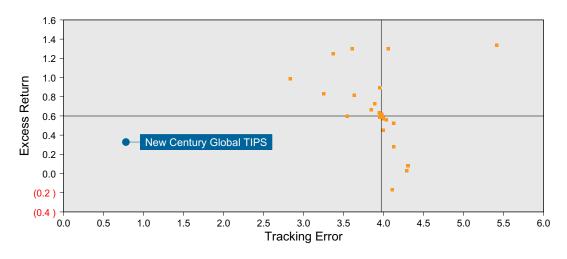


New Century Global TIPS Risk Analysis Summary

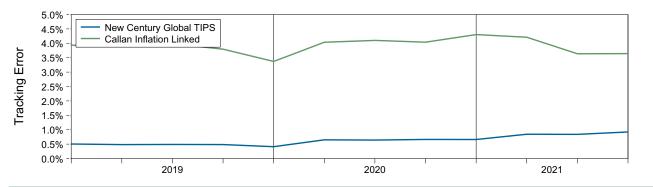
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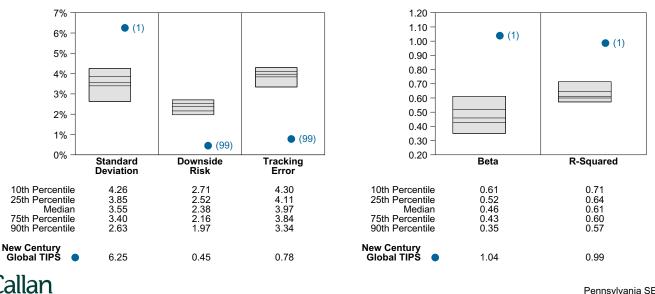
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2021









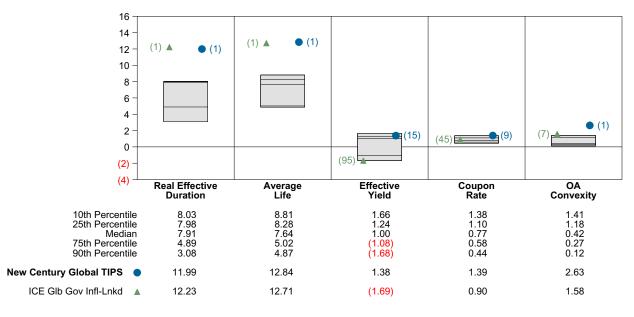


New Century Global TIPS Bond Characteristics Analysis Summary

Portfolio Characteristics

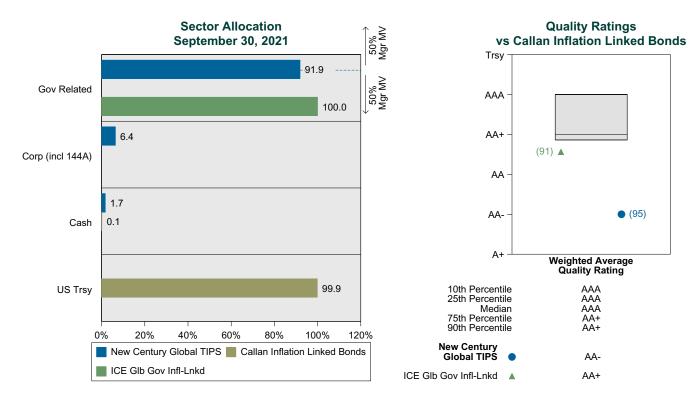
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Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds as of September 30, 2021



Sector Allocation and Quality Ratings

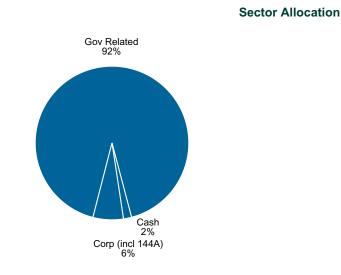
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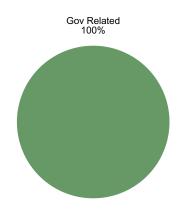


New Century Global TIPS Portfolio Characteristics Summary As of September 30, 2021

Portfolio Structure Comparison

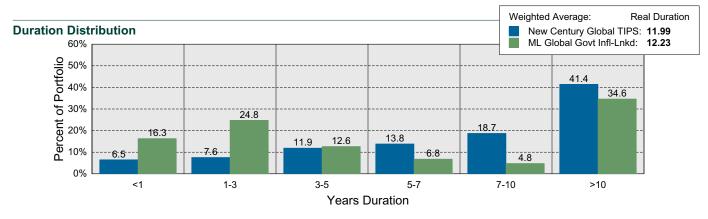
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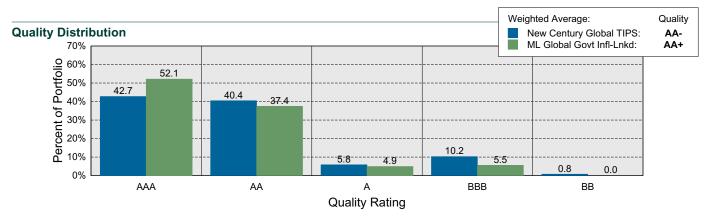




New Century Global TIPS









Research & Disclosures



Education

3rd Quarter 2021

Quarterly Highlights

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/research-library to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / institute@callan.com.

New Research from Callan's Experts

Comparing Actuarial vs. Consultant Rates of Return | In this paper, Callan's Brady O'Connell and John Pirone review the differences between actuarial discount rates and consultant return forecasts. They remind fiduciaries of the importance of these two assumptions, why the numbers vary in practice and use, and why setting asset-allocation strategy is not simply an act of making the consultant return expectation match the actuarial discount rate.

The Role of Real Estate and Infrastructure Debt in a Portfolio

As capital markets assumptions have declined, institutional investors are increasingly interested in real estate and infrastructure debt as they pursue return-seeking assets. In this article, Jan Mende and Munir Iman discuss key aspects of these options.

Now What? The Role of Target Date Funds in Retirement | Much of the attention on the rise of TDFs focused on their role during the "accumulation" phase, as participants build up assets during their career. Now that sponsors have successfully incorporated TDFs into their DC plans to help participants build up assets, the time is right to focus on the potential role of TDFs during retirement by examining the makeup and income-generating possibilities of the post-retirement glidepath.

Blog Highlights

<u>GPs Take 'Credit' for Higher IRRs</u> | Subscription credit facilities are used to finance activities that would otherwise be funded by capital calls from the limited partners in a private markets fund. These "sub lines" give the general partner the flexibility to call capital less frequently by combining multiple cash flows into a single capital call, and they also can delay initial capital calls until a large capital outlay is required. But investors should note that this increases the internal rate of return (IRR) as it shortens the effective investment period. <u>Seeking Yield in All the Right Places</u> | One potential solution to help insurance investors meet their return goals without disproportionately adding risk is investment-grade private placements. This strategy presents opportunities to increase portfolio yields with higher spreads compared to other types of fixed income for similar levels of required capital.

PCE and CPI: What's the Difference? | The CPI is released by the Bureau of Labor Statistics and the PCE by the Bureau of Economic Analysis. While both measure inflation based on a basket of goods, they have subtle differences, including the sources of data, what they cover, and the formulas they use.

Quarterly Periodicals

Private Equity Trends, 2Q21 | A high-level summary of private equity activity in the quarter through all the investment stages

Active vs. Passive Charts, 2Q21 | A comparison of active managers alongside relevant benchmarks over the long term

Market Pulse Flipbook, 2Q21 | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

Capital Markets Review, 2Q21 | Analysis and a broad overview of the economy and public and private market activity each quarter across a wide range of asset classes

Hedge Fund Quarterly, 2Q21 | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

<u>Real Assets Reporter, 2Q21</u> | A summary of market activity for real assets and private real estate during the quarter

Events

A complete list of all upcoming events can be found on our website: callan.com/events-education.

Please mark your calendar and look forward to upcoming invitations:

Research Café: DOL Cybersecurity Tips November 10, 2021 – 9:30 am (PST)

National Conference April 25-27, 2022, in San Francisco

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

Education: By the Numbers

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

3,700 Total attendees of the "Callan College" since 1994

Education

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

Introduction to Investments December 1-2, 2021 - Chicago

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. Our virtual session is held over three days with virtual modules of 2.5-3 hours, while the in-person session lasts one-and-a-half days. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: callan.com/events-education

Introductory Workshop for DC Plan Fiduciaries March 23, 2022 - San Francisco

This one-day workshop centers on the fundamentals of administering a defined contribution (DC) plan. Designed primarily for ERISA fiduciaries and supporting staff members, attendees will gain a better understanding of the key responsibilities of an ERISA fiduciary and best practices for executing those responsibilities. Additionally, we will cover the basics of capital markets theory and DC investment menu design principles; investment manager evaluation, selection, and monitoring; best practices for evaluating fees; the regulatory and legal landscape; and industry trends. This workshop is complimentary and open to institutional investor clients.

Additional information including dates and registration can be found at: callan.com/events/mar-dc-college/



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer

Callan

List of Callan's Investment Manager Clients

Confidential - For Callan Client Use Only

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

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

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



Manager Name	Manager Name

Manager Name	Manager Name