

Bristol County Retirement System

# Analysis of Investment Performance

September 30, 2022

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## ANALYSIS OF INVESTMENT PERFORMANCE

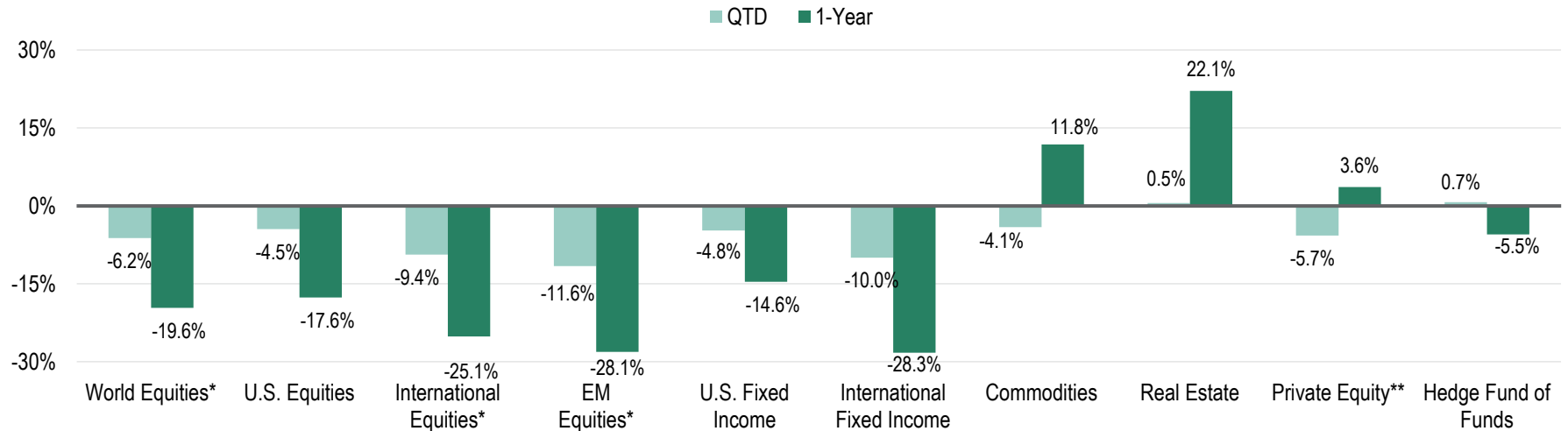
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# Financial Market Conditions

# Quarter In Review

## Summary of Investment Returns



## Quarterly Synopsis

- World equity markets were negative once again. Fears over inflation, slowing growth, and the Ukraine conflict weighed on stocks.
- U.S. equities declined. Two more Federal Reserve rate hikes aimed at combating inflation and uncertainty surrounding the Russia/Ukraine conflict helped lead stocks lower.
- International equities also fell sharply, as high inflation persisted and energy supply concerns grew with the Russia/Ukraine conflict.
- Emerging market equity declined with rising rates, ongoing US dollar strength and continuing inflation concerns.
- U.S. fixed income was negative. Two more interest rate hikes and the Fed's indications for more hikes in the future hurt Treasuries.
- Non-U.S. fixed income fell. The European Central Bank raised rates in both July and September.
- Hedge funds posted a more minor gain. Macro strategies performed best in the quarter.
- Commodities declined as well, with industrial and precious metals both tumbling.

\* Net Dividends Reinvested

\*\* Performance as of Q2 2022 because more recent performance data is not yet available.

Sources: Investment Metrics, Cambridge Associates, FactSet

# Index Returns

Asset Class	Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
World Equity	MSCI World <sup>1</sup>	-6.19	-25.42	-19.63	4.56	5.30	8.11
U.S. Equity	Russell 3000	-4.46	-24.62	-17.63	7.70	8.62	11.39
Non-U. S. Equity	MSCI EAFE <sup>1</sup>	-9.36	-27.09	-25.13	-1.83	-0.84	3.67
Emerging Market Equity	MSCI EM <sup>1</sup>	-11.57	-27.16	-28.11	-2.07	-1.81	1.05
U.S. Fixed Income	Bloomberg U.S. Aggregate	-4.75	-14.61	-14.60	-3.26	-0.27	0.89
Non-U.S. Fixed Income	FTSE <sup>2</sup> Non-U.S. WGBI (Unhedged)	-9.95	-26.83	-28.27	-9.89	-5.12	-3.12
Commodities	Bloomberg Commodity Index	-4.11	13.57	11.80	13.45	6.96	-2.14
Real Estate	NFI-ODCE <sup>3</sup>	0.52	13.08	22.09	12.37	10.24	10.92
Private Equity	Cambridge Associates US Private Equity <sup>4</sup>	-5.7	7.1	3.6	21.2	18.6	15.9
Hedge Funds	HFRI Fund of Funds Composite	0.72	-5.92	-5.51	4.52	3.30	3.57

<sup>1</sup> Net Dividends Reinvested

<sup>2</sup> Formerly Citigroup Non-U.S. WGBI. Citigroup's fixed income indices were purchased by London Stock Exchange Group (LSEG) and were all rebranded to FTSE by July 31, 2018.

FTSE Russell is a unit of LSEG's Information Services Division and a wholly owned subsidiary of LSEG.

<sup>3</sup> NCREIF Fund Index (NFI) – Open End Diversified Core Equity (ODCE)

<sup>4</sup> Performance as of Q2 2022 because more recent performance data is not yet available.

Sources: Investment Metrics, Cambridge Associates, FactSet

# Index Returns

Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500®	-4.88	-23.87	-15.47	8.16	9.24	11.70
Russell 1000	-4.61	-24.59	-17.22	7.95	9.00	11.60
Russell 1000 Growth	-3.60	-30.66	-22.59	10.67	12.17	13.70
Russell 1000 Value	-5.62	-17.75	-11.36	4.36	5.29	9.17
Russell 2000	-2.19	-25.10	-23.50	4.29	3.55	8.55
Russell 2000 Growth	0.24	-29.28	-29.27	2.94	3.60	8.81
Russell 2000 Value	-4.61	-21.12	-17.69	4.72	2.87	7.94
Russell 3000	-4.46	-24.62	-17.63	7.70	8.62	11.39
MSCI EAFE*	-9.36	-27.09	-25.13	-1.83	-0.84	3.67
MSCI World*	-6.19	-25.42	-19.63	4.56	5.30	8.11
MSCI EM*	-11.57	-27.16	-28.11	-2.07	-1.81	1.05

Fixed-Income Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Blbg U.S. Aggregate	-4.75	-14.61	-14.60	-3.26	-0.27	0.89
Blbg U.S. Govt/Credit	-4.56	-15.10	-14.95	-3.15	-0.05	1.02
Blbg U.S. Intermediate Govt/Credit	-3.06	-9.62	-10.14	-1.64	0.38	1.00
Blbg U.S. L/T Govt/Credit	-9.03	-28.94	-27.41	-7.35	-1.17	1.35
Blbg U.S. Government	-4.30	-12.95	-12.81	-3.05	-0.20	0.53
Blbg U.S. Credit	-4.95	-18.07	-17.89	-3.61	-0.05	1.58
Blbg U.S. Mortgage-Backed Securities	-5.35	-13.66	-13.98	-3.67	-0.92	0.51
Blbg U.S. Corporate High Yield	-0.65	-14.74	-14.14	-0.45	1.57	3.94
FTSE Non-U.S. WGBI (Unhedged)***	-9.95	-26.83	-28.27	-9.89	-5.12	-3.12
FTSE 3-Month T-Bill***	0.45	0.62	0.63	0.57	1.13	0.66

Other Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Hueler Stable Value	0.48	1.33	1.75	1.99	2.13	1.97
Bloomberg Commodity	-4.11	13.57	11.80	13.45	6.96	-2.14
HFRI Fund of Funds Composite	0.72	-5.92	-5.51	4.52	3.30	3.57
NCREIF NFI-ODCE	0.52	13.08	22.09	12.37	10.24	10.92
Cambridge Associates Private Equity**	-5.7	-7.1	3.6	21.2	18.6	15.9

\* Net Dividends Reinvested

\*\* Performance reported as of Q1 2022 because more recent performance data is not yet available.

\*\*\*Formerly Citigroup Non-U.S. WGBI. Citigroup's fixed income indices were purchased by London Stock Exchange Group (LSEG) and were all rebranded to FTSE by July 31, 2018. FTSE Russell is a unit of LSEG's Information Services Division and a wholly owned subsidiary of LSEG

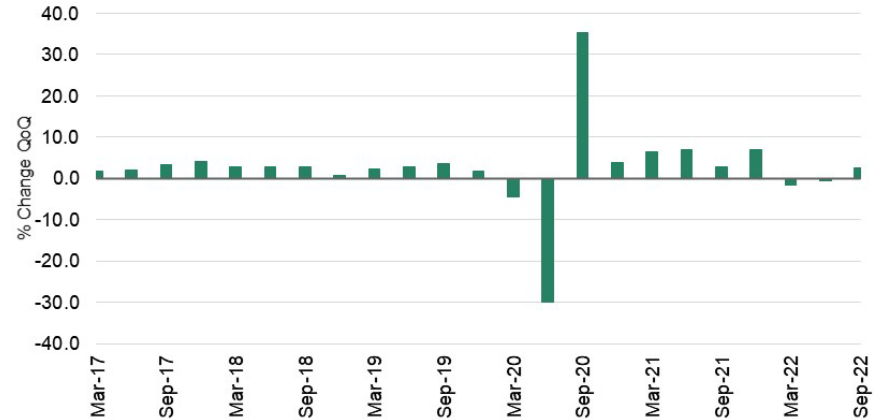
Sources: eVestment Alliance, Hueler Analytics, Investment Metrics, Cambridge Assoc, FactSet

# Quarter In Review: U.S. Economy

## GDP Growth

- U.S. GDP growth rose +2.6% in the quarter ending September 30, reversing a two-quarter slump.
- The quarterly growth comes as fears of recession continue to grow both in the U.S. and globally. The two previous consecutive quarters of negative growth show that the U.S. had technically been in a recession already.
- A narrowing trade deficit, with American retailers exporting more goods and services like travel, boosted GDP. Spending on health care, as well as government spending, also helped.
- The economy is still facing growing challenges, including rising interest rates, persistent inflation, and supply disruptions stemming from the pandemic and the Russia/Ukraine conflict.

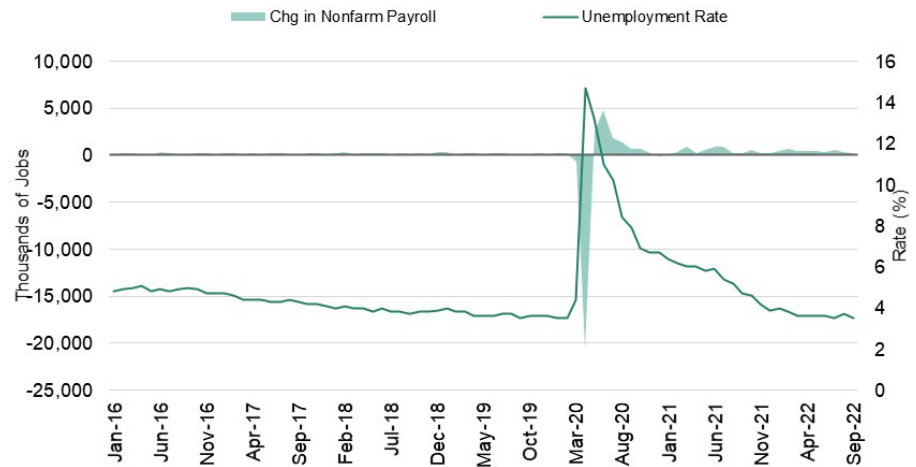
### U.S. Real GDP Growth



## Employment Picture

- The unemployment rate was 3.5% in September, matching July's 29-month low.
- Nonfarm payrolls rose by 263,000 in September. A still-strong labor market means that the Fed has continued to hike interest rates and is likely to continue to do so in the near term.
- The leisure and hospitality sector gained the most in September (83k), while health care added 60k.

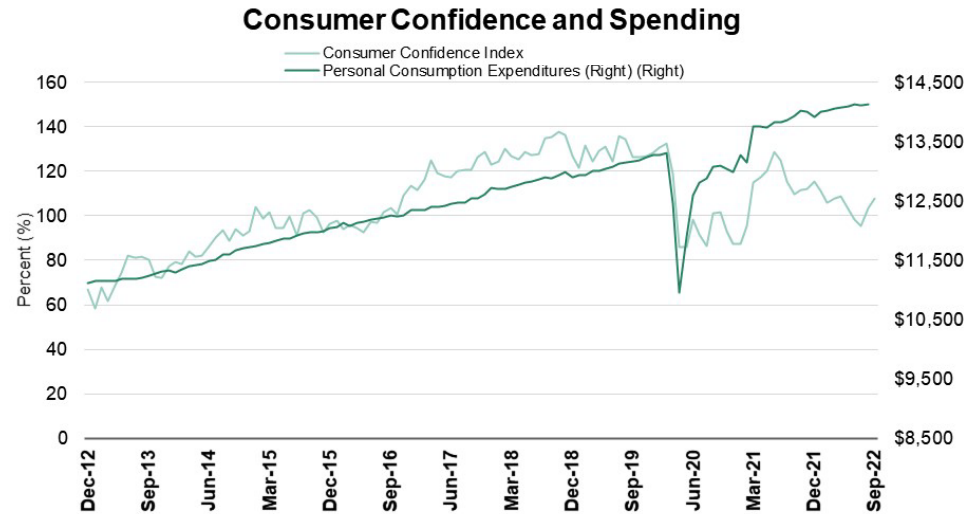
### U.S. Nonfarm Payrolls and Unemployment Rate



# Quarter In Review: U.S. Economy

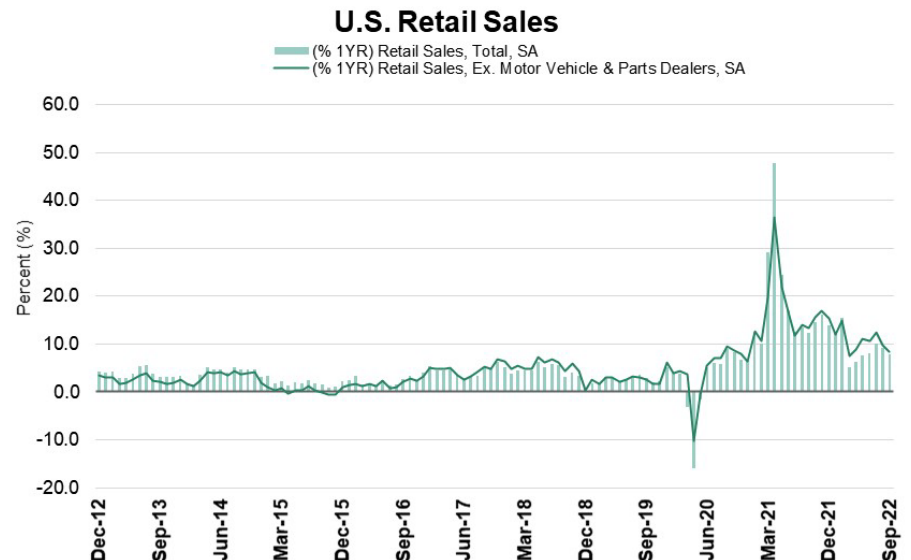
## Consumer Confidence and Spending

- The consumer confidence index rose in the quarter, supported by job growth and higher wages. Inflation concerns subsided a bit with lower gas prices.
- Inflation, the Russia/Ukraine conflict, and negative stock and bond markets still weighed on consumer sentiment, which remained below its 2021 level.
- Though consumer confidence rose, confidence fell even further among CEOs. A recent CEO survey showed that almost all were preparing for a U.S. recession.
- Personal consumption expenditures fell in July and August\*.



## Retail Sales

- Retail sales were flat in September 2022 and +7.8% year over year.
- High inflation and borrowing costs dented sales in September. Sales were down at most types of retail venues, including car dealers, gas stations, electronics and furniture stores.
- Sales at grocery stores (+0.4%) bucked the trend a bit, as food prices rose.



\*The most recent data available.

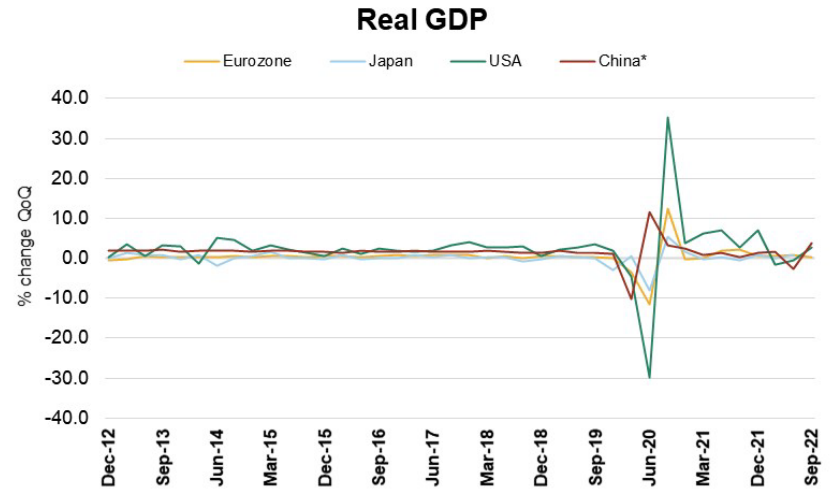
Source this page: FactSet



# Quarter In Review: Global Economy

## World GDP Growth

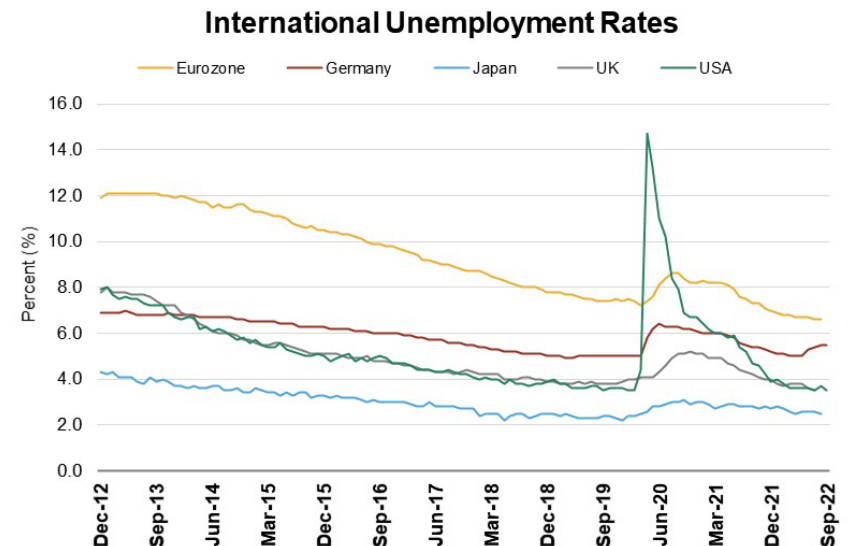
- Eurozone GDP inched up +0.2% quarter over quarter (QoQ). It was the weakest GDP growth rate since mid-2021 and predictions are growing for negative growth in the final quarter of the year.
- China's GDP grew at a rate of +3.9% in the quarter ending September 30. Growth was boosted by a number of policies aimed at stimulating economic activity post Covid lockdowns.
- Japan's GDP rose 0.9% in the quarter ending June 30\*\*. Private consumption rose after a liftoff of COVID-related restrictions.
- U.S. GDP grew +2.6% in the quarter ending September 30.



Note that the figures in the graph above represent the percent change in real GDP from the previous quarter, not the annual growth rate of these economies.

## Global Employment Picture

- Eurozone unemployment was +6.6% in September 2022, unchanged for a second consecutive month and a record low.
- The unemployment rate has been declining since early 2021 as more of Europe has reopened after the height of the pandemic. Still, economists believe that unemployment will likely rise soon as the region's economy struggles.
- Germany (+2.9%) and the Netherlands (+3.6%) were two major European economies with some of the lowest unemployment rates in the Eurozone.
- Japan's unemployment rate stayed steady +2.6% in September.



\*Quarter over quarter data calculations began in 2012.

\*\*Most recent data available.

Source this page: FactSet

# Quarter in Review: Global Equity Overview

Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	-4.88	-23.87	-15.47	8.16	9.24	11.70
MSCI Europe, Australasia and Far East (EAFE)*	-9.36	-27.09	-25.13	-1.83	-0.84	3.67
MSCI Emerging Markets (EM)*	-11.57	-27.16	-28.11	-2.07	-1.81	1.05

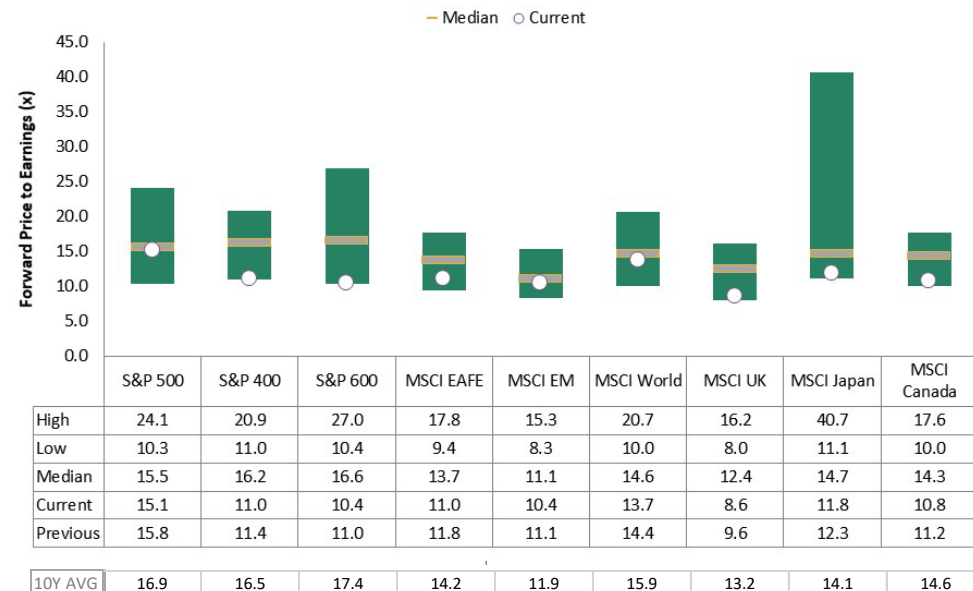
All data in the table are percentages.

\* Net dividends reinvested

## Global Equity Performance and Valuations

- US (-4.9%), developed international (-9.4%), and emerging markets (-11.6%) continued their downward move as heightened inflation and tightening monetary policy continue to hamper global market sentiment and returns.
- US markets outperformed both developed international and emerging markets after a strong start to the quarter. Early in the quarter, markets had priced in the potential for interest rate cuts in 2023 but central banks actually continued to hike rates in order to aggressively combat inflation.
- The energy crisis in Europe hampered Eurozone market returns during the quarter, while geopolitical tensions weighed on market sentiment, as did US dollar, especially in emerging markets.
- Valuations continued to drop for all major indices concurrent with both lowering of EPS expectations by analysts and declining in stock prices.

## Price to Earnings



Data range is from 3/31/00-9/30/22. P/E ratios are forward 12 months.

# Quarter In Review: U.S. Equity

U.S. Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	-4.88	-23.87	-15.47	8.16	9.24	11.70
Russell 1000	-4.61	-24.59	-17.22	7.95	9.00	11.60
Russell 1000 Growth	-3.60	-30.66	-22.59	10.67	12.17	13.70
Russell 1000 Value	-5.62	-17.75	-11.36	4.36	5.29	9.17
Russell 2000	-2.19	-25.10	-23.50	4.29	3.55	8.55
Russell 2000 Growth	0.24	-29.28	-29.27	2.94	3.60	8.81
Russell 2000 Value	-4.61	-21.12	-17.69	4.72	2.87	7.94
Russell Midcap	-3.44	-24.27	-19.39	5.19	6.48	10.30
Russell 3000	-4.46	-24.62	-17.63	7.70	8.62	11.39

All data in the tables are percentages.

## Performance

- US equities were down -4.9% for the quarter ending September 30. The Fed continued to hike interest rates with a third consecutive 75 basis point increase, as it attempts to combat heightened inflation.
- Growth slightly outperformed value across the market cap spectrum. Markets began to price in peak interest rates midway through the quarter, raising expectations of a soft landing and favoring growth. However, a stark reversal followed in August as the Fed's release of July meeting notes communicating the need to continue to raise rates in order to aggressively fight inflation.
- Small cap stocks slightly outperformed large cap. Similar to large cap, small cap growth beat small cap value despite continued concerns regarding slowing economic growth.
- Two sectors were positive in the quarter, consumer discretionary sector (+4.4%) and energy (+2.35%). Telecom (service providers in particular) were the laggards (-12.7%), dropping the sector's trailing 1-year return to -39.1%.

S&P 500 Sector Returns	QTD	1-Year
Cons. Disc.	4.36	-20.89
Cons. Staples	-6.62	-0.09
Energy	2.35	45.70
Financials	-3.10	-17.65
Healthcare	-5.18	-3.37
Industrials	-4.72	-13.87
IT	-6.21	-20.00
Materials	-7.13	-12.15
Telecom	-12.72	-39.05
Real Estate	-11.03	-16.37
Utilities	-5.99	5.58

# Quarter in Review: International Equity

MSCI International Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
World ex. U.S.	-9.20	-26.23	-23.91	-1.21	-0.39	3.62
EAFE	-9.36	-27.09	-25.13	-1.83	-0.84	3.67
EAFE Local Currency	-3.59	-14.46	-11.11	2.51	2.83	7.44
Europe	-10.15	-28.83	-24.80	-1.72	-1.24	3.45
Europe ex U.K.	-9.94	-31.69	-27.82	-1.68	-1.31	4.18
U.K.	-10.76	-18.65	-14.08	-1.73	-1.06	1.88
Japan	-7.67	-26.38	-29.30	-2.65	-0.63	4.84
Pacific ex Japan	-8.82	-18.72	-18.79	-1.39	0.59	2.91

All data in the tables are percentages and net dividends reinvested.

## Performance

- Developed international stocks fell -9.2% during the quarter, despite a short-lived rally in July that came off hopes that US interest rates were nearing peak levels. International markets declined for the remainder of the quarter as the European Central Bank continued to raise interest rates.
- Europe continues to face headwinds, declining -10.2% in the quarter. The UK especially struggled in the midst of inflation, an ongoing energy crisis, and recessionary fears. Against the US dollar, the UK sterling fell to an all-time low in September following the proposed tax cuts and stimulative programs announced by the new Prime Minister.
- Japanese stocks fell -7.7% in the quarter ending September 30, as the yen again weakened relative to the US dollar. The Bank of Japan intervened to support the yen for the first time since 1998.
- All international equities sectors declined in the quarter, as telecommunications, utilities and real estate fell 13.7%, 13.3%, and 13.1% respectively.

MSCI EAFE Sector Returns	QTD	1-Year
Consumer Disc.	-9.84	-32.26
Cons. Staples	-7.09	-17.29
Energy	-5.02	6.04
Financials	-9.57	-22.06
Healthcare	-10.56	-19.75
Industrials	-8.31	-31.52
IT	-8.30	-38.91
Materials	-8.87	-21.27
Telecom	-13.73	-28.63
Utilities	-13.34	-20.26
Real Estate	-13.07	-29.09

# Quarter in Review: Emerging Market Equity

MSCI EM Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Emerging Markets	-11.57	-27.16	-28.11	-2.07	-1.81	1.05
EM Local Currency	-8.18	-20.75	-21.47	1.06	1.12	4.46
Asia	-14.03	-28.82	-29.51	-0.81	-1.07	3.08
EMEA	-5.34	-32.23	-33.84	-6.48	-4.21	-3.04
Latin America	3.61	3.02	0.24	-3.39	-2.64	-2.28

All data in the tables are percentages and net dividends reinvested.

## Performance

- Emerging markets fell -11.6% during the quarter, as global growth slowed and heightened inflationary pressures and rising interest rates resulted in decreased external demand.
- Turkey was the best performing market (+24.1%); despite inflation hitting 80%, as the central bank lowered interest rates twice during the quarter ending September 30. Latin America (+3.6%) produced a positive return as Brazil (+8.5%) showed signs of an economic recovery with its inflation rate continuing to stabilize.
- The continued Russian war in Ukraine led to an energy crisis in Europe, hurting emerging European markets, while China remained impacted by lower growth due to its zero Covid policy.
- All emerging markets sectors were negative in the quarter. The continued concerns around the weakness of the Chinese property market impacted real estate (-19.3%) while inflation and concerns for decreased demand weighed on telecom (-19.3%) and consumer discretionary (-18.7%).

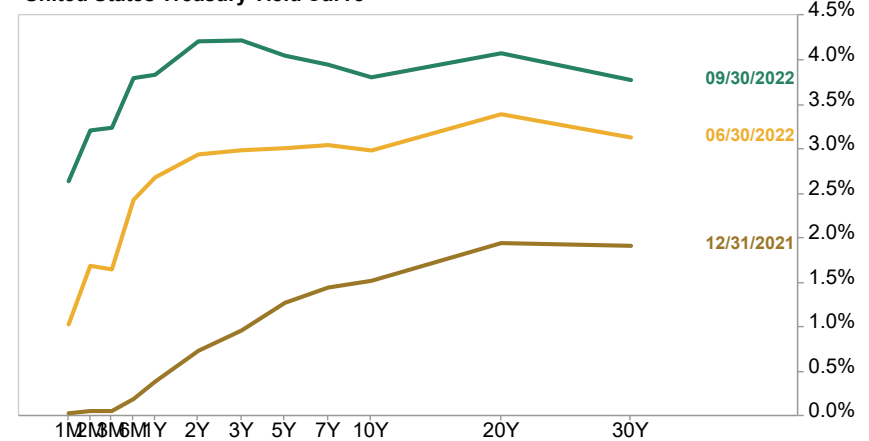
MSCI EM Sector Returns	QTD	1-Year
Cons. Disc.	-18.73	-33.73
Cons. Staples	-4.53	-17.81
Energy	-2.57	-30.07
Financials	-5.14	-14.25
Healthcare	-13.80	-42.77
Industrials	-9.90	-20.84
IT	-15.45	-36.12
Materials	-7.36	-26.26
Telecom	-19.29	-36.20
Utilities	-4.30	-8.01
Real Estate	-19.33	-31.93

# Quarter In Review: Fixed Income Overview

## Yield Curve

- Yields rose across the curve in the quarter ended September 30 as the Federal Reserve hiked rates again in both July and September.
- Shorter-maturity yields rose the most over the quarter, with 1- and 3-year Treasuries rising by 125 basis points and 126 basis points respectively over the prior quarter.
- 5- and 7-year Treasury yields increased 105 basis points and 93 basis points, ending the quarter at 4.06% and 3.97%, respectively. 10- and 20-year Treasury yields increased to 3.83% and 4.08% respectively, an 85 basis point and 70 basis point increase over the prior quarter.

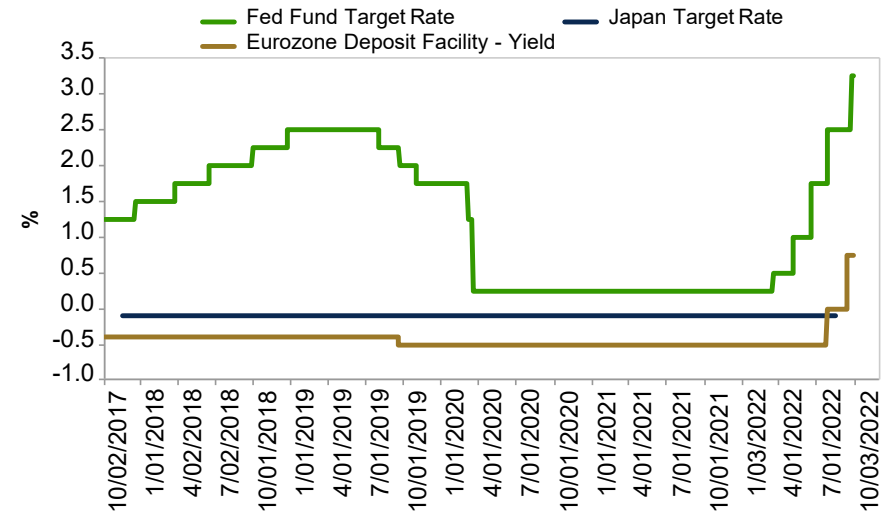
United States Treasury Yield Curve



## Monetary Policies/Global Interest Rates

- Central bank deposit rates remained negative in Japan, while rates in Europe turned positive for the first time since 2013 and ended the quarter at 0.75%.
- The U.S. policy rate is above those of the Eurozone and Japan, at 3.25%.
- With continued pressure from inflation, the Federal Reserve approved two more 0.75% interest rate hikes in July and September.

Central Bank Target Rates



Interest Rates	Fed Funds Rate	EZ Deposit Facility Rate
Average	4.95	0.81
Max	20.00	3.75
Min	0.25	-0.50

# Quarter In Review: U.S. Fixed Income

U.S. Fixed Income Indices*	QTD	YTD	1-Year	3-Year	5-Year	10-Year
U.S. Aggregate	-4.75	-14.61	-14.60	-3.26	-0.27	0.89
Government/Credit	-4.56	-15.10	-14.95	-3.15	-0.05	1.02
Government	-4.30	-12.95	-12.81	-3.05	-0.20	0.53
Investment Grade Corporate	-5.06	-18.72	-18.53	-3.65	-0.03	1.70
Investment Grade CMBS	-3.82	-11.78	-12.35	-2.12	0.65	1.64
U.S. Corporate High Yield	-0.65	-14.74	-14.14	-0.45	1.57	3.94
FTSE** 3-Month T-Bill	0.45	0.62	0.63	0.57	1.13	0.66
Hueler Stable Value	0.44	0.85	1.70	2.05	2.13	1.97

\* Bloomberg Indices, unless otherwise noted.

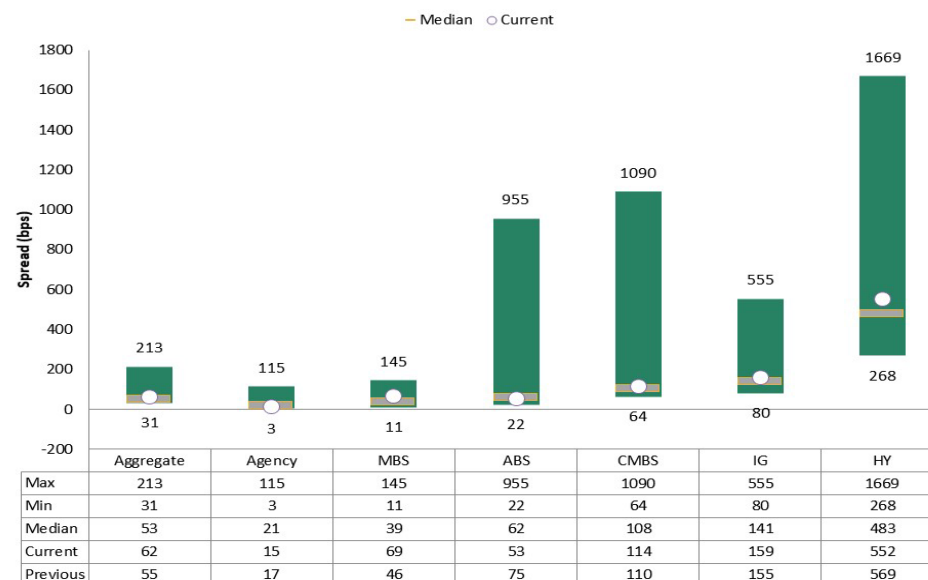
\*\* Formerly Citigroup. Citigroup's fixed income indices were purchased by London Stock Exchange Group (LSEG) and were rebranded to FTSE by July 31, 2018. FTSE Russell is a unit of LSEG's Information Services Division and a wholly owned subsidiary of LSEG.

All data in the table are percentages.

## Performance and Spreads

- The U.S. Aggregate Index was negative in the quarter. All sectors but cash (FTSE\*\* 3-Month T-Bill) and Stable Value delivered significantly negative returns.
- Cash had the strongest sector performance at +0.45% for the quarter. U.S. Corporate Investment Grade experienced the weakest performance in the quarter ended September 30 (-5.06%).
- Domestic fixed income spreads increased across MBS, CMBS, and Investment Grade, with MBS showing the largest increase at 23 basis points over the prior quarter. Agency, ABS, and High Yield spreads decreased, with ABS showing the largest decrease at 22 basis points over the prior quarter.

Fixed Income Spreads



Sources this page: Investment Metrics, Hueler Analytics, FactSet

Data range is from 9/29/00-9/30/22

# Quarter In Review: International Fixed Income

Global Fixed Income Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Bloomberg Global Aggregate	-6.94	-19.89	-20.43	-5.74	-2.32	-0.93
Bloomberg Global Aggregate (Hgd)	-3.34	-12.09	-12.05	-3.07	0.32	1.69
FTSE Non-U.S. WGBI*	-9.95	-26.83	-28.27	-9.89	-5.12	-3.12
FTSE Non-U.S. WGBI (Hgd)	-3.30	-12.26	-12.30	-4.17	0.27	2.10
JPM EMBI Global Diversified**	-4.57	-23.95	-24.28	-7.15	-2.62	1.08
JPM GBI-EM Global Diversified***	-4.73	-18.57	-20.63	-7.06	-3.92	-2.43

All data in the table are percentages.

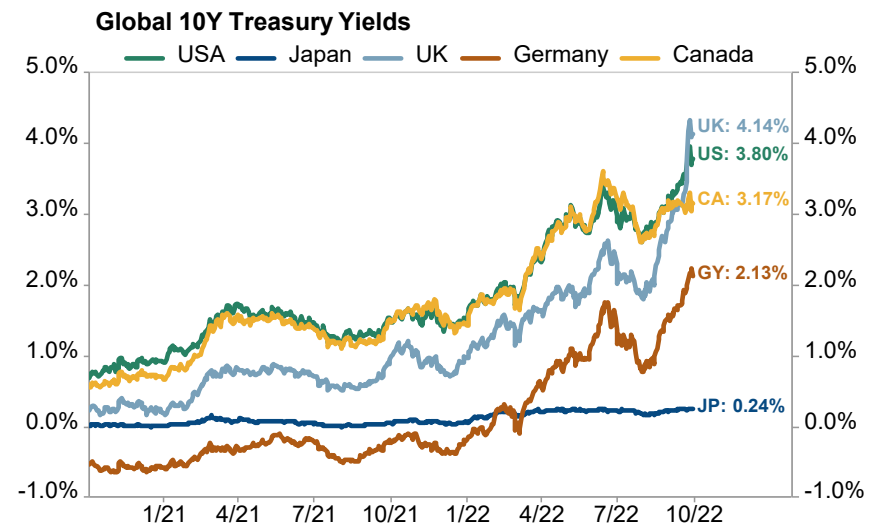
\* Formerly Citigroup. The FTSE Non-U.S. World Government Bond Index (WGBI) measures the performance of fixed-rate, local currency, investment grade sovereign bonds excluding the U.S.

\*\* The JP Morgan Emerging Market Bond Index (EMBI) Global Diversified index measures government bonds in hard currencies.

\*\*\* The JP Morgan Government Bond Index – Emerging Markets (GBI-EM) Global Diversified index measures government bonds in local currencies.

## Global Performance and Yields

- Government yields rose in the quarter across most developed markets, with the exception of Japan.
- Central Banks in the U.S., Canada, and the UK continued to raise rates during the quarter. Emerging markets central banks were generally ahead of developed markets in raising rates, although inflationary pressures may result in further tightening.
- The U.S. dollar appreciated relative to the yen, British pound and Euro.
- Global returns were negative for the quarter ended September 30, with non-USD investment grade sovereign bonds suffering the most.





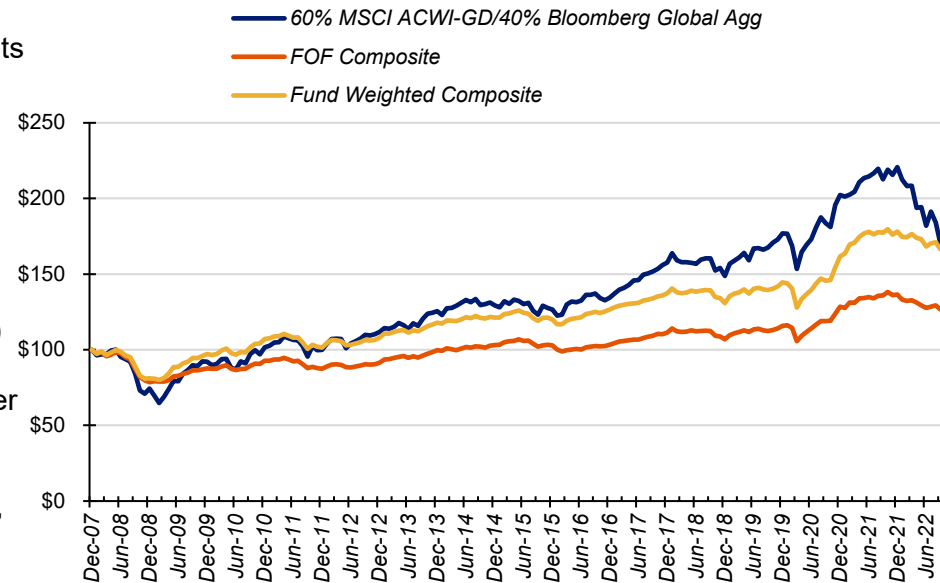
# Quarter In Review: Absolute Return Strategies

HFRI Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Fund of Funds Composite	-0.70	-7.24	-6.84	4.03	3.00	3.43
Fund Weighted Composite	-1.09	-6.66	-6.26	6.00	4.41	4.56
Event Driven	-0.69	-8.00	-7.04	5.13	3.91	4.84
Equity Hedge	-2.71	-14.13	-13.58	6.11	4.29	5.28
Macro	1.68	10.34	9.96	7.72	5.55	3.11
Emerging Markets	-6.26	-17.59	-18.03	1.48	0.54	2.80
Relative Value	-0.19	-2.31	-2.13	3.44	3.27	4.11

## Hedge Fund Performance

- The HFRI Fund Weighted Composite Index dropped -1.09% during the quarter ending September 30. Macro funds outperformed the rest of the hedge fund landscape (+1.68%), while Emerging Markets (-6.26%) and Equity Hedge (-2.71%) continued to struggle.
- Within Macro, currency focused funds outperformed peers during the quarter (+6.09%) as macro trends such as the consistent strength of the US dollar continues to provide a clear theme for investors to trade.
- In Emerging Markets, funds targeting investment in India (+4.79%) outperformed peers and were positive during the quarter, while those focused on China (-13.66%) underperformed during a quarter of significant stock market turmoil in the country.
- The Fund of Funds Composite declined -0.70% during the quarter, outperforming the 60% MSCI ACWI / 40% Bloomberg Global Aggregate blended index, which fell -6.75%.

**HFR Fund Weighted and Fund of Funds Composite Growth of \$100 | January 2008 - September 2022**



# Quarter In Review: Private Equity

## Performance

- The total return for private equity funds, comprising performance across all strategies, was -5.7% for the quarter ending Q2 2022 and 3.6% over the 1-year period.
- The 3-, 5-, 10-, and 20-year returns for US private equity funds were 21.2%, 18.6%, 15.9% and 13.5%, respectively, as of 6/30/2022.
- As increases in interest rates affected costs and discount rates, and public market equivalents fell, both buyout (-4.5%) and venture capital managers had negative performance (-8.5%) in Q2 2022.

## Fundraising

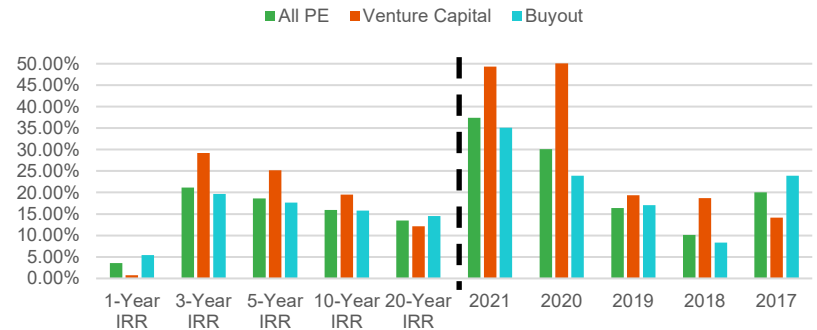
- Globally, private equity funds raised approximately \$121 billion across 148 funds in Q3 2022. This is below the average number of funds over the past 20 quarters.
- As of October 2022, there were 3,389 private equity funds raising capital targeting an aggregate \$1,250 billion. Dry powder has come down from peak in 2021 but remains elevated. The public markets remain an attractive source of value for take-privates.

## Exit Activity

- Buyout exit activity, both IPOs and distributions, declined from the strong levels of the latter half of 2020 and 2021. Activity in GP-led secondaries and sales to strategics continue to provide liquidity.

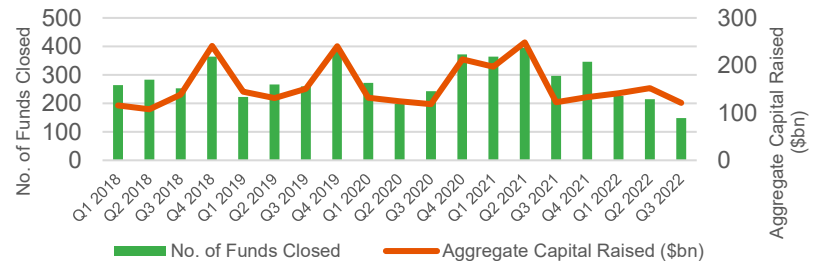
Sources: Thomson Reuters and Preqin. All data is as of the latest available. Performance data was final as of 6/30/22 and buyout and venture fundraising and exit data as of Q3 2022.

## Private Equity Performance by Investment Horizon and Vintage Year



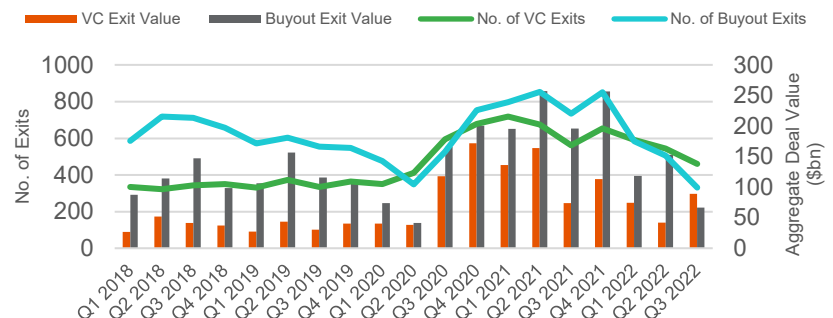
Performance is pooled IRR of the peer group as reported by ThomsonOne/Cambridge Associates. All PE includes VC, Growth Equity, Buyout, Subordinated Capital, Credit opportunities, and Control-Oriented Distressed funds. Source: Thomson Reuters

## Global Private Equity Fundraising



Fundraising data includes all private equity excluding venture to match prior year presentation. Source: Preqin

## Global Private Equity Exits



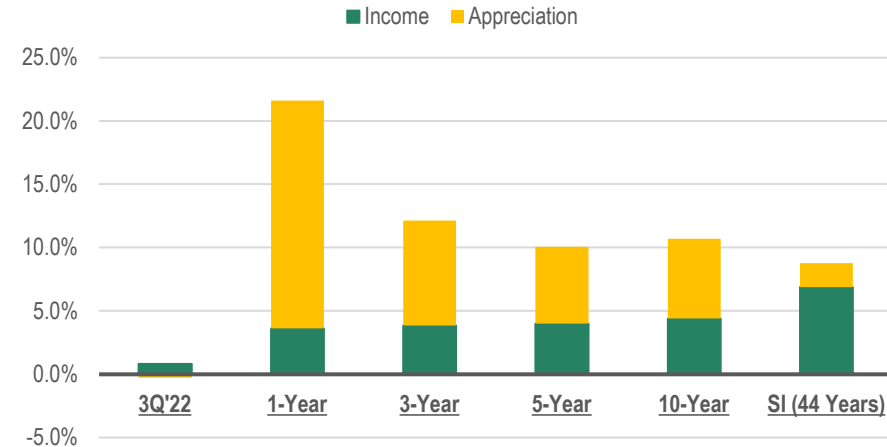
Source: Preqin

# Quarter In Review: Real Estate

## Real Estate Performance\*

- NFI-ODCE returned +0.52% (Gross) for the quarter, while the NCREIF-NPI returned +0.57% and the NAREIT Equity REIT Index returned -10.83%.
- Income return for the NFI-ODCE was +0.81% for the quarter. Appreciation of assets generated a -0.28% return for the quarter<sup>1</sup>. This is the first negative appreciation we have seen since 2020. Appreciation was negative in the first three quarters of that year.
- In the U.S., for the quarter ended September 30, the retail sector appreciation was -0.80%, apartment sector appreciation was +0.30%, office sector appreciation was -1.70% and industrial sector appreciation was +0.35%. For the same time period, retail sector income was +1.19%, apartment sector income was +0.90%, office sector income was 1.04% and industrial sector income was +0.76%.
- In the U.S., the return for the quarter by region was: East (+0.26%), Midwest (+0.21%), South (+1.08%) and West (+0.58%).

NCREIF Fund Index (NFI) Open-End Diversified Core (ODCE) Real Estate Performance<sup>1</sup>

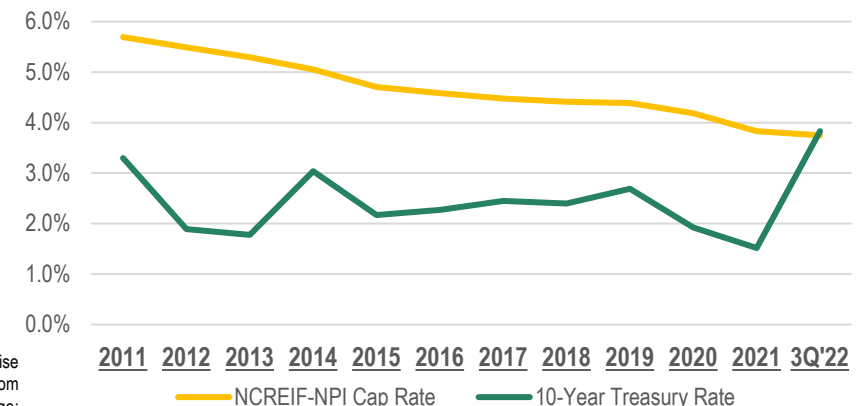


The NFI-ODCE (Open-end Diversified Core Equity) is defined by NCREIF as a fund-level cap-weighted, gross of fee, time-weighted return index with an inception date of December 31, 1977. 1. The sum of income and appreciation returns may not equal total return due to rounding and/or the compounding of individual component returns to each other.

## Real Estate Capitalization Rates\* vs. Treasuries

- Nationally, cap rates expanded 5 basis point in the quarter to 3.75%.
- The 10-year Treasury averaged a yield of 3.10% in the quarter and ended the quarter at 3.83%. As a result, the spread between the 10-year Treasury rate and cap-rates at the end of the quarter became negative with the 10-year treasury rate (3.83%) exceeded the NPI cap rate (3.75%).

Capitalization Rates & 10-Year U.S. Treasury Rates

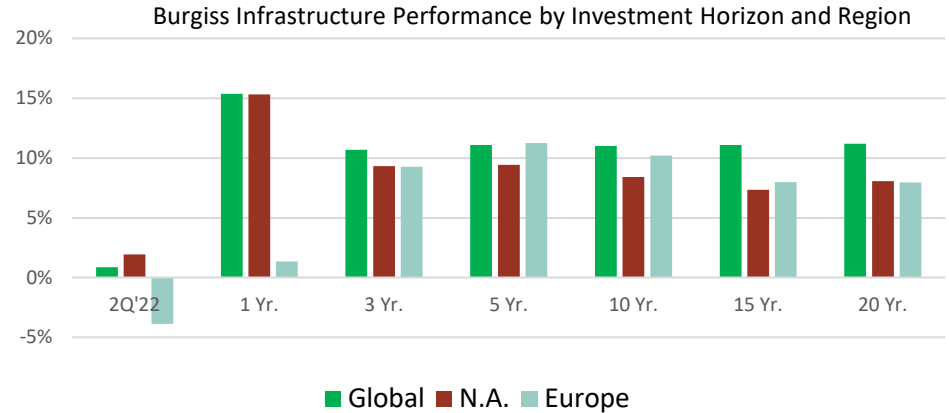


\*A cap rate is the potential rate of return on a real estate investment. Assuming no change in net operating income, real estate valuations rise when cap rates fall. Comparing cap rates to the 10-year U.S. Treasury provides investors with an estimated spread for expected returns from real estate (higher risk) vs. fixed rate bond (lower risk) investments. NFI-ODCE returns are preliminary performance. Sources this page: NCREIF, NPI, FRED Economic Data (Federal Reserve Bank of St Louis) 1. The sum of income and appreciation returns may not equal total return due to rounding and/or the compounding of individual component returns to each other.

# Quarter In Review: Infrastructure

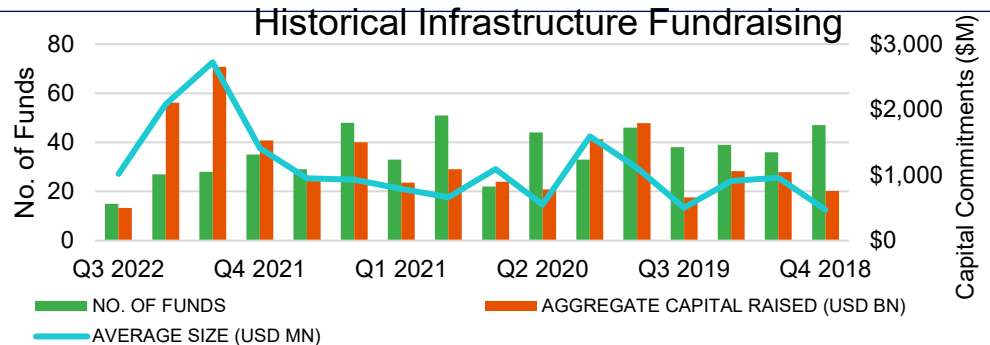
## Performance

- The total return for North American private infrastructure funds was 1.94% in the quarter and 15.32% over the 1-year period ending June 2022\* .
- On a relative basis, North American infrastructure led in performance throughout the quarter ending June 30, 2022 (1.94%) whereas Global and European funds posted 0.86% and -3.88%, respectively.
- The 3-, 5-, 10-, 15-, and 20-year return for North American private infrastructure funds was 9.33%, 9.42%, 8.41%, 7.35%, 8.08%, respectively, as of June 30, 2022.
- Public infrastructure registered a -7.32% return in Q2 2022 as per the FTSE Global Core Infrastructure 50/50 Index. Trailing 1-, 3-, 5-year returns are 3.65%, 4.67% and 6.70%.



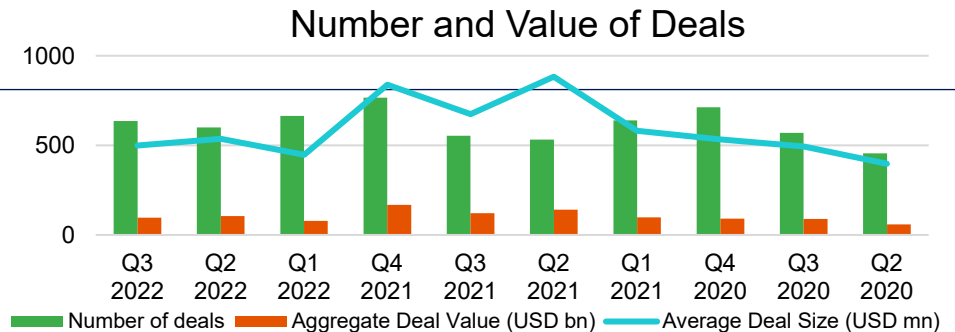
## Fundraising

- Aggregate capital raised over the quarter decreased from the previous quarter, as did the number of fund closings. A total of \$13.2 billion in capital commitment was raised across 15 funds. Fundraising was down from the \$56.1 billion raised across 27 funds in the quarter ended June 30.
- Investor concern over exposure to inflation continues to drive capital to the asset class. 2022 continues to be a strong fundraising year for infrastructure.
- Core and core plus strategies represent a majority of the infrastructure funds in the market, making up 212 of the 406 total funds (52%) or \$186 billion of the \$302 billion of capital from funds in markets (62%).



## Market Activity

- Infrastructure transaction activity was slightly up in the quarter relative to the previous quarter levels; however, aggregate transaction values were down slightly, averaging \$96 billion for the quarter ended September 30. Market activity has been dominated by larger assets changing hands, including the privatization of large public infrastructure companies.



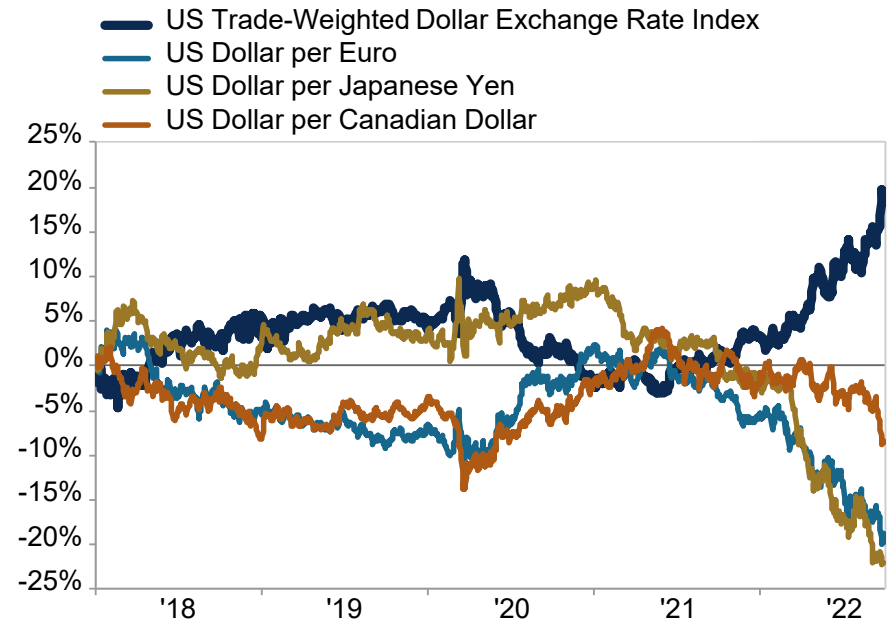
\*Most recent data available from Burgiss Privatel. Subject to one quarter lag. Preliminary returns Source: Preqin

# Quarter In Review: Commodities and Currencies

BCOM Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Bloomberg Commodity Index (BCOM)	-4.11	13.57	11.80	13.45	6.96	-2.14
Energy	-5.36	49.80	30.28	11.37	6.77	-6.26
Agriculture	-0.20	12.82	19.88	21.26	8.16	-2.10
Industrial Metals	-7.27	-16.18	-8.97	8.23	3.92	-0.38
Precious Metals	-7.60	-11.65	-7.83	2.62	3.49	-2.85
Livestock	2.55	-0.95	0.88	-6.21	-4.69	-3.52

## Commodity and Currency Highlights

- The Bloomberg Commodity Index declined in the quarter. The overall energy commodity sector was the worst performing subsector in the index. Crude oil and Brent crude prices were sharply lower in the quarter, but natural gas ended the quarter higher.
- Industrial metals (-7.3%) fell with sharp declines for aluminum (-11%) and copper (-7.7%). Zinc is the only industrial metal that is higher YTD with supply constrained by European zinc smelters powering down with high energy prices due to the Russia/Ukraine war.
- Other commodity sectors were mixed. Precious metals (-7.6%) were lower, with gold prices down -7.9%. Even with so much market uncertainty, gold did not provide a hedge. Agriculture was down slightly (-0.2%) with corn and wheat higher amid supply issues.
- The U.S. dollar continued to appreciate relative to the yen, British pound and euro. The euro remains near parity with the dollar.



## Total Plan

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Quarter	1 Quarter Ending Jun-2022	1 Quarter Ending Mar-2022	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Total Fund</b>	<b>812,639</b>	<b>100.0</b>	<b>-4.0</b>	<b>-8.0</b>	<b>-2.3</b>	<b>-13.7</b>	<b>-10.0</b>	<b>6.3</b>	<b>5.9</b>	<b>7.5</b>	<b>7.6</b>	<b>7.3</b>	<b>01/01/2000</b>
<i>Total Plan Index</i>			-5.5	-11.0	-4.3	-19.6	-16.0	2.6	3.8	5.8	6.2	4.6	
<i>Total Plan Allocation Index</i>			-5.1	-10.1	-3.3	-17.6	-13.6	3.5	4.2				
<b>Total Domestic Equity</b>	<b>150,428</b>	<b>18.5</b>	<b>-5.4</b>	<b>-17.4</b>	<b>-6.4</b>	<b>-26.8</b>	<b>-22.1</b>	<b>6.7</b>	<b>6.1</b>	<b>8.8</b>	<b>10.4</b>	<b>5.5</b>	<b>01/01/2000</b>
<i>S&amp;P 500 Index</i>			-4.9	-16.1	-4.6	-23.9	-15.5	8.2	9.2	11.4	11.7	6.0	
<i>Russell 3000 Index</i>			-4.5	-16.7	-5.3	-24.6	-17.6	7.7	8.6	10.9	11.4	6.2	
<b>NT S&amp;P 500 Index</b>	<b>20,227</b>	<b>2.5</b>	<b>-4.9</b>	<b>-16.1</b>	<b>-4.6</b>	<b>-23.8</b>	<b>-15.3</b>					<b>-15.3</b>	<b>10/01/2021</b>
<i>S&amp;P 500</i>			-4.9	-16.1	-4.6	-23.9	-15.5	8.2	9.2	11.4	11.7	-15.5	
<b>ClearBridge Large Cap Growth</b>	<b>23,151</b>	<b>2.8</b>	<b>-5.5</b>	<b>-21.4</b>	<b>-11.5</b>	<b>-34.3</b>	<b>-28.2</b>	<b>5.1</b>				<b>5.9</b>	<b>09/01/2018</b>
<i>Russell 1000 Growth Index</i>			-3.6	-20.9	-9.0	-30.7	-22.6	10.7	12.2	13.7	13.7	8.8	
<b>Columbia</b>	<b>21,311</b>	<b>2.6</b>	<b>-4.1</b>	<b>-23.2</b>	<b>-14.8</b>	<b>-37.2</b>	<b>-36.6</b>	<b>5.5</b>	<b>7.2</b>	<b>9.2</b>		<b>9.9</b>	<b>09/01/2013</b>
<i>Russell 1000 Growth Index</i>			-3.6	-20.9	-9.0	-30.7	-22.6	10.7	12.2	13.7	13.7	13.5	
<b>LSV</b>	<b>27,866</b>	<b>3.4</b>	<b>-6.8</b>	<b>-10.5</b>	<b>-0.7</b>	<b>-17.2</b>	<b>-11.5</b>	<b>4.9</b>	<b>4.6</b>	<b>7.8</b>	<b>10.1</b>	<b>8.1</b>	<b>09/01/2004</b>
<i>Russell 1000 Value Index</i>			-5.6	-12.2	-0.7	-17.8	-11.4	4.4	5.3	8.2	9.2	7.3	
<b>Lyrical</b>	<b>26,464</b>	<b>3.3</b>	<b>-6.1</b>	<b>-17.1</b>	<b>-4.7</b>	<b>-25.9</b>	<b>-20.4</b>	<b>6.6</b>	<b>2.8</b>	<b>6.6</b>		<b>8.2</b>	<b>09/01/2013</b>
<i>Russell 1000 Value Index</i>			-5.6	-12.2	-0.7	-17.8	-11.4	4.4	5.3	8.2	9.2	8.0	
<b>Frontier Capital Appreciation</b>	<b>15,455</b>	<b>1.9</b>	<b>-4.6</b>	<b>-18.9</b>	<b>-4.5</b>	<b>-26.2</b>	<b>-21.9</b>	<b>4.2</b>				<b>4.4</b>	<b>12/01/2018</b>
<i>Russell 2000 Growth Index</i>			0.2	-19.3	-12.6	-29.3	-29.3	2.9	3.6	7.1	8.8	2.8	
<b>Earnest Partners</b>	<b>15,953</b>	<b>2.0</b>	<b>-4.6</b>	<b>-14.6</b>	<b>-1.0</b>	<b>-19.4</b>	<b>-15.9</b>	<b>7.4</b>	<b>5.9</b>	<b>10.0</b>	<b>10.7</b>	<b>10.7</b>	<b>04/01/2003</b>
<i>Russell 2000 Value Index</i>			-4.6	-15.3	-2.4	-21.1	-17.7	4.7	2.9	7.4	7.9	9.1	

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Quarter	1 Quarter Ending Jun-2022	1 Quarter Ending Mar-2022	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Total International Equity</b>	<b>144,838</b>	<b>17.8</b>	<b>-9.5</b>	<b>-14.4</b>	<b>-6.9</b>	<b>-27.9</b>	<b>-27.2</b>	<b>-0.2</b>	<b>0.3</b>	<b>4.8</b>	<b>4.9</b>	<b>8.2</b>	<b>01/01/2000</b>
MSCI EAFE (net)			-9.4	-14.5	-5.9	-27.1	-25.1	-1.8	-0.8	2.8	3.7	2.3	
MSCI AC World ex USA			-9.8	-13.5	-5.3	-26.2	-24.8	-1.1	-0.3	3.8	3.5	3.2	
Arrowstreet Capital	29,138	3.6	-9.5	-12.1	-3.2	-22.9	-22.4	6.3	4.5	7.9	7.4	7.1	07/01/2001
MSCI AC World ex USA			-9.8	-13.5	-5.3	-26.2	-24.8	-1.1	-0.3	3.8	3.5	4.9	
Freedom Capital Intl	28,067	3.5	-11.1	-14.1	-3.9	-26.6	-25.8	-2.1	-1.1	3.6	5.6	7.5	06/01/1998
MSCI EAFE (net)			-9.4	-14.5	-5.9	-27.1	-25.1	-1.8	-0.8	2.8	3.7	3.3	
Fiera International Equity	26,174	3.2	-7.8	-15.7	-10.0	-30.0	-24.9	3.1				6.6	12/01/2018
MSCI EAFE (Net)			-9.4	-14.5	-5.9	-27.1	-25.1	-1.8	-0.8	2.8	3.7	0.4	
Aberdeen Emerging Markets	30,826	3.8	-10.9	-12.5	-12.4	-31.7	-33.8	-2.4	-1.3			1.4	03/01/2017
MSCI Emerging Markets Index			-11.4	-11.3	-6.9	-26.9	-27.8	-1.7	-1.4	4.3	1.4	1.7	
William Blair Emerging Markets	30,632	3.8	-8.1	-17.8								-24.5	04/01/2022
MSCI Emerging Markets Index			-11.4	-11.3	-6.9	-26.9	-27.8	-1.7	-1.4	4.3	1.4	-21.5	
<b>Global REITs</b>													
Brookfield Global Real Estate	12,493	1.5	-11.8	-16.6	-1.6	-27.6	-22.6	-6.6				-2.4	12/01/2018
FTSE EPRA/NAREIT Developed Index			-11.4	-17.2	-3.8	-29.4	-22.1	-5.6	0.1	2.4	3.8	-1.1	



	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Quarter	1 Quarter Ending Jun-2022	1 Quarter Ending Mar-2022	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Total Domestic Fixed</b>	<b>47,781</b>	<b>5.9</b>	<b>-4.7</b>	<b>-5.1</b>	<b>-6.2</b>	<b>-15.2</b>	<b>-15.2</b>	<b>-2.7</b>	<b>0.3</b>	<b>1.1</b>	<b>1.4</b>	<b>4.6</b>	<b>01/01/2000</b>
<i>Barclays Cap Aggregate</i>			-4.8	-4.7	-5.9	-14.6	-14.6	-3.3	-0.3	0.5	0.9	3.9	
NT Aggregate Bond Index	16,486	2.0	-4.7	-4.7	-5.9	-14.5	-14.6					-14.6	10/01/2021
<i>Blmbg. U.S. Aggregate</i>			-4.8	-4.7	-5.9	-14.6	-14.6	-3.3	-0.3	0.5	0.9	-14.6	
Income Research & Management	31,232	3.8	-4.4	-5.2	-6.4	-15.2	-15.1	-2.4	0.5	1.4	1.7	4.8	12/01/1996
<i>Blmbg. U.S. Gov't/Credit</i>			-4.6	-5.0	-6.3	-15.1	-14.9	-3.1	-0.1	0.8	1.0	4.2	
<b>Total Global Fixed</b>	<b>71,856</b>	<b>8.8</b>	<b>-3.6</b>	<b>-9.5</b>	<b>-4.5</b>	<b>-16.7</b>	<b>-16.9</b>	<b>-3.4</b>	<b>-1.1</b>	<b>1.7</b>	<b>1.3</b>	<b>5.1</b>	<b>01/01/2000</b>
<i>Blmbg. Global Aggregate</i>			-6.9	-8.3	-6.2	-19.9	-20.4	-5.7	-2.3	-0.6	-0.9	3.1	
<b>Broad Mkt Global Fixed Income</b>	<b>23,788</b>	<b>2.9</b>	<b>-1.0</b>	<b>-8.5</b>	<b>-3.8</b>	<b>-12.8</b>	<b>-12.3</b>	<b>-2.0</b>	<b>0.0</b>	<b>2.4</b>	<b>1.7</b>	<b>5.1</b>	<b>12/01/2002</b>
<i>Blmbg. Global Aggregate</i>			-6.9	-8.3	-6.2	-19.9	-20.4	-5.7	-2.3	-0.6	-0.9	2.7	
PIMCO Diversified Income	10,431	1.3	-2.5	-9.2	-7.3	-17.9	-17.8	-3.7	-0.2	2.5	2.3	4.7	08/01/2006
<i>Global Diversified Index**</i>			-4.6	-10.1	-7.1	-20.3	-20.7	-4.9	-1.6	1.1	1.0	4.0	
GoldenTree Multi-Sector Opportunistic Fund	13,357	1.6	0.2	-7.6	-0.2	-7.6	-6.3	4.3				3.9	05/01/2019
<i>GoldenTree Blended Benchmark*</i>			0.4	-7.2	-2.3	-9.0	-8.4	0.8	2.2	3.9	3.7	1.2	
EnTrust Global Recovery Fund	11,512	1.4	-12.4	-13.0	-11.4	-32.5	-31.3					-27.0	02/01/2021
<i>Blmbg. Global Aggregate</i>			-6.9	-8.3	-6.2	-19.9	-20.4	-5.7	-2.3	-0.6	-0.9	-14.5	
Bardin Hill Opportunistic Credit	21,459	2.6	0.4	-5.8	3.1	-2.4	-2.0					15.7	03/01/2021
<i>Blmbg. Global Aggregate</i>			-6.9	-8.3	-6.2	-19.9	-20.4	-5.7	-2.3	-0.6	-0.9	-14.3	

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Quarter	1 Quarter Ending Jun-2022	1 Quarter Ending Mar-2022	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Emerging Market Debt Composite</b>	<b>15,096</b>	<b>1.9</b>	<b>-5.1</b>	<b>-12.6</b>	<b>-9.6</b>	<b>-25.0</b>	<b>-27.5</b>	<b>-9.2</b>	<b>-5.2</b>			<b>-2.5</b>	<b>01/01/2017</b>
<i>50%/50% Blend **</i>			<i>-4.6</i>	<i>-10.0</i>	<i>-8.2</i>	<i>-21.3</i>	<i>-22.5</i>	<i>-7.1</i>	<i>-3.2</i>	<i>0.7</i>	<i>-0.6</i>	<i>-0.9</i>	
<b>Stone Harbor EMD</b>	<b>8,149</b>	<b>1.0</b>	<b>-3.1</b>	<b>-11.2</b>	<b>-8.7</b>	<b>-21.5</b>	<b>-22.8</b>	<b>-6.4</b>	<b>-3.6</b>			<b>-1.6</b>	<b>11/01/2016</b>
<i>50%/50% Blend **</i>			<i>-4.6</i>	<i>-10.0</i>	<i>-8.2</i>	<i>-21.3</i>	<i>-22.5</i>	<i>-7.1</i>	<i>-3.2</i>	<i>0.7</i>	<i>-0.6</i>	<i>-1.6</i>	
<b>Ashmore Emerging Markets Total Return</b>	<b>6,947</b>	<b>0.9</b>	<b>-7.3</b>	<b>-14.0</b>	<b>-10.6</b>	<b>-28.8</b>	<b>-32.3</b>	<b>-12.2</b>	<b>-7.1</b>			<b>-4.3</b>	<b>01/01/2017</b>
<i>50%/50% Blend **</i>			<i>-4.6</i>	<i>-10.0</i>	<i>-8.2</i>	<i>-21.3</i>	<i>-22.5</i>	<i>-7.1</i>	<i>-3.2</i>	<i>0.7</i>	<i>-0.6</i>	<i>-0.9</i>	
<b>Hedge Funds</b>													
<b>PRIT Absolute Return</b>	<b>30,476</b>	<b>3.8</b>	<b>-0.7</b>	<b>-3.7</b>	<b>0.9</b>	<b>-3.5</b>	<b>-2.2</b>	<b>2.9</b>	<b>3.1</b>	<b>3.5</b>	<b>4.3</b>	<b>3.8</b>	<b>10/01/2008</b>
<i>HFRI Fund of Funds Composite Index</i>			<i>-0.2</i>	<i>-3.9</i>	<i>-2.8</i>	<i>-6.7</i>	<i>-6.3</i>	<i>4.2</i>	<i>3.1</i>	<i>3.2</i>	<i>3.5</i>	<i>2.7</i>	
<i>HFRI FOF: Diversified Index</i>			<i>0.3</i>	<i>-3.1</i>	<i>-1.6</i>	<i>-4.3</i>	<i>-4.0</i>	<i>4.8</i>	<i>3.7</i>	<i>3.4</i>	<i>3.7</i>	<i>2.9</i>	
<b>Total Real Estate</b>	<b>115,030</b>	<b>14.2</b>	<b>0.7</b>	<b>4.4</b>	<b>4.2</b>	<b>9.5</b>	<b>20.3</b>	<b>10.5</b>	<b>10.6</b>	<b>10.0</b>	<b>10.0</b>	<b>7.6</b>	<b>01/01/1995</b>
<i>NCREIF Property Index</i>			<i>0.6</i>	<i>3.2</i>	<i>5.3</i>	<i>9.3</i>	<i>16.1</i>	<i>9.9</i>	<i>8.6</i>	<i>8.5</i>	<i>9.5</i>	<i>9.4</i>	
<b>RREEF America REIT II</b>	<b>25,255</b>	<b>3.1</b>	<b>-0.6</b>	<b>6.4</b>	<b>6.4</b>	<b>12.6</b>	<b>24.9</b>	<b>13.5</b>	<b>11.3</b>	<b>10.7</b>	<b>11.9</b>	<b>8.6</b>	<b>04/01/2005</b>
<i>NCREIF Property Index</i>			<i>0.6</i>	<i>3.2</i>	<i>5.3</i>	<i>9.3</i>	<i>16.1</i>	<i>9.9</i>	<i>8.6</i>	<i>8.5</i>	<i>9.5</i>	<i>8.5</i>	
<b>Intercontinental</b>	<b>49,570</b>	<b>6.1</b>	<b>1.6</b>	<b>7.2</b>	<b>5.7</b>	<b>15.2</b>	<b>26.4</b>	<b>14.4</b>	<b>12.6</b>			<b>11.9</b>	<b>01/01/2017</b>
<i>NCREIF Property Index</i>			<i>0.6</i>	<i>3.2</i>	<i>5.3</i>	<i>9.3</i>	<i>16.1</i>	<i>9.9</i>	<i>8.6</i>	<i>8.5</i>	<i>9.5</i>	<i>8.4</i>	
<b>Total Infrastructure</b>	<b>51,705</b>	<b>6.4</b>	<b>0.3</b>	<b>2.8</b>	<b>1.1</b>	<b>4.3</b>	<b>8.8</b>	<b>11.5</b>	<b>12.9</b>			<b>12.4</b>	<b>03/01/2016</b>
<i>Dow Jones Brookfield Global Infrastructure</i>			<i>-11.1</i>	<i>-7.1</i>	<i>3.2</i>	<i>-14.8</i>	<i>-8.4</i>	<i>-0.4</i>	<i>2.5</i>	<i>5.2</i>	<i>5.7</i>	<i>5.9</i>	
<b>IFM</b>	<b>41,969</b>	<b>5.2</b>	<b>0.4</b>	<b>2.7</b>	<b>1.4</b>	<b>4.6</b>	<b>8.6</b>	<b>10.7</b>	<b>12.7</b>			<b>13.0</b>	<b>04/01/2017</b>
<i>Dow Jones Brookfield Global Infrastructure</i>			<i>-11.1</i>	<i>-7.1</i>	<i>3.2</i>	<i>-14.8</i>	<i>-8.4</i>	<i>-0.4</i>	<i>2.5</i>	<i>5.2</i>	<i>5.7</i>	<i>3.6</i>	

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Quarter	1 Quarter Ending Jun-2022	1 Quarter Ending Mar-2022	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Total Timber &amp; Farmland</b>	<b>54,471</b>	<b>6.7</b>	<b>1.2</b>	<b>1.0</b>	<b>2.9</b>	<b>5.2</b>	<b>9.8</b>	<b>6.4</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>8.7</b>	<b>12/01/2013</b>
<i>50% Timberland / 50% Farmland Index***</i>			2.2	1.7	2.9	6.9	11.4	5.7	4.6	4.2	5.9	5.6	
Hancock Timber & Farmland Fund	25,501	3.1	-1.6	-0.1	2.2	0.5	5.2					4.5	08/01/2020
<i>50% Timberland / 50% Farmland Index</i>			2.2	1.7	2.9	6.9	11.4	5.7	4.6	4.2	5.9	7.9	
BTG Pactual U.S. Timberland Fund	11,662	1.4	4.1	1.5	1.5	7.2	12.0					11.8	07/01/2020
<i>NCREIF Timberland Index</i>			2.4	1.9	3.2	7.6	12.5	5.8	4.7	4.3	5.9	7.7	
Ceres Farms	15,228	1.9	4.0	4.3	7.0	16.1	22.3					17.0	08/01/2020
<i>NCREIF Farmland Index</i>			2.0	1.4	2.6	6.2	10.2	6.5	6.3	6.6	9.5	7.7	
Bristol County Cash	22,205	2.7	0.5	0.1	0.0	0.6	0.6	0.7	1.7	1.4	1.2	2.5	01/01/1997
<i>90 Day U.S. Treasury Bill</i>			0.5	0.1	0.0	0.6	0.6	0.6	1.1	0.9	0.7	2.0	

\*\*Stone Harbor 50/50 Blend: 50% JPM EMBI Global Diversified Index/50% JPM GBI-EM Global Diversified US Index

\*\*PIMCO Index: 33% BC Global Agg/33% ML Global HY/33% JPM EMBI Global.

\*GoldenTree Blended Benchmark: 50% Merrill Lynch High Yield Index / 50% S&P/LSTA Leveraged Loan Index

\*\*\* Prior to 7/1/2020, the Total Timber & Farmland composite is benchmarked 100% to the NCREIF Timberland Index

	Market Value (\$)	%	1 Quarter	1 Quarter Ending Jun-2022	1 Quarter Ending Mar-2022	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Other Fixed Income</b>													
Invesco Mortgage Recovery Fund	62,752	0.0	0.0	-0.1	-0.2	-0.3	-3.0	-4.1	7.9	3.4	16.8	13.7	03/31/2010
<b>Real Assets</b>													
<b>Closed-End Real Estate</b>													
Invesco Mortgage Recovery II	4,486,413	0.6	0.0	-2.9	-1.4	-4.3	-4.5	-17.3	0.5			4.2	05/20/2016
TerraCap Partners IV	8,832,125	1.1	0.0	-0.7	1.2	0.6	14.1	11.4				10.5	07/17/2018
TerraCap Partners V	19,249,968	2.4	0.0	-0.7	1.2	0.4	11.1					8.2	10/16/2020
<b>Closed-End Infrastructure</b>													
GCM Customized Infrastructures Strategies II, LP	9,736,132	1.2	0.0	2.7	-0.5	2.2	8.5	13.0	12.2			11.4	03/10/2016
<b>Closed-End Timber</b>													
Brookfield Timberlands Fund V	244,288	0.0	0.0	-6.4	0.2	-6.5	-9.0	1.3	3.7	4.0		6.7	12/23/2013
Eastern Timberland Opportunities II	1,835,684	0.2	0.0	1.9	1.2	3.2	5.6	4.7	5.4	6.0		7.6	07/03/2014

	Market Value (\$)	%	1 Quarter	1 Quarter Ending Jun-2022	1 Quarter Ending Mar-2022	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Total Private Equity</b>	<b>111,358,693</b>	<b>13.7</b>	<b>-4.7</b>	<b>-2.8</b>	<b>6.6</b>	<b>-1.5</b>	<b>7.6</b>	<b>24.8</b>	<b>22.6</b>	<b>18.9</b>	<b>16.0</b>	<b>177.7</b>	<b>01/05/1995</b>
<b>Active Funds</b>													
BlackRock Vesey Street Fund III	147,576	0.0	0.0	-5.8	1.9	-4.0	-1.8	1.5	-5.2	-5.1	8.8	4.1	07/17/2006
DuPont Capital Management II	317,208	0.0	0.0	-8.2	-3.5	-11.5	-2.6	-2.3	-3.3	-2.3	0.5	0.4	08/14/2006
DN Partners II	2,911,591	0.4	0.0	0.0	31.0	31.0	31.0	14.9	26.8	7.8	2.3	0.3	01/11/2007
BlackRock Vesey Street Fund IV	491,314	0.1	0.0	-31.0	-8.0	-36.0	-28.3	0.0	5.5	6.3	9.2	7.9	02/24/2009
Mesirow PE Fund V	2,985,168	0.4	0.0	-10.3	-10.0	-19.5	-16.6	24.3	19.9	17.0	17.7	15.9	04/09/2009
PRIT Vintage 2014	11,209,606	1.4	-3.7	-2.9	3.4	-3.2	11.8	26.2	25.4	24.5		22.1	05/01/2014
PRIT Vintage 2015	16,819,604	2.1	-9.2	-4.6	-3.3	-16.1	-6.5	27.2	28.7	26.6		25.8	03/01/2015
PRIT Vintage 2016	8,932,504	1.1	-6.7	1.3	1.1	-4.1	5.8	29.7	21.5			20.1	03/01/2016
PRIT Vintage 2017	18,777,841	2.3	-5.3	1.4	8.7	4.5	9.5	26.9	23.7			23.6	04/30/2017
PRIT Vintage 2018	16,076,750	2.0	-4.7	-2.0	7.3	0.2	12.8	28.5				25.1	05/30/2018
PRIT Vintage 2019	9,693,055	1.2	-3.4	-2.3	5.5	-0.6	29.0	36.7				36.1	03/31/2019
PRIT Vintage 2020	6,721,417	0.8	-6.9	-0.4	19.8	9.1	10.9					11.9	02/29/2020
PRIT Vintage 2021	7,791,604	1.0	-2.6	-1.0	26.0	15.5	2.5					-2.0	03/31/2021
PRIT Vintage 2022	1,541,732	0.2	23.0	-42.9	-82.0	-18.9						-18.9	02/28/2022
GCM Grosvenor SOF III	2,594,980	0.3	0.0	-3.2	-1.5	-4.7						1.8	12/15/2021
Pomona Capital Fund X	4,346,742	0.5	0.0	-20.0								42.3	03/25/2022

	Allocation		Performance (%)									
	Market Value (\$000)	%	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<b>Total Fund</b>	<b>812,639</b>	<b>100.0</b>	<b>17.0</b>	<b>12.4</b>	<b>17.5</b>	<b>-3.7</b>	<b>17.3</b>	<b>7.3</b>	<b>0.2</b>	<b>5.3</b>	<b>18.9</b>	<b>15.7</b>
<i>Total Plan Index</i>			12.1	13.5	18.9	-4.7	15.9	6.2	0.8	6.3	17.8	12.6
<i>Total Plan Allocation Index</i>			13.6	12.1	18.3	-4.7	16.4					
<b>Total Domestic Equity</b>	<b>150,428</b>	<b>18.5</b>	<b>23.4</b>	<b>21.8</b>	<b>29.7</b>	<b>-11.1</b>	<b>23.6</b>	<b>9.0</b>	<b>0.7</b>	<b>11.0</b>	<b>39.1</b>	<b>16.3</b>
<i>S&amp;P 500 Index</i>			28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7	32.4	16.0
<i>Russell 3000 Index</i>			25.7	20.9	31.0	-5.2	21.1	12.7	0.5	12.6	33.6	16.4
<b>NT S&amp;P 500 Index</b>	<b>20,227</b>	<b>2.5</b>										
<i>S&amp;P 500</i>			28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7	32.4	16.0
<b>Columbia</b>	<b>21,311</b>	<b>2.6</b>	<b>10.0</b>	<b>48.1</b>	<b>37.9</b>	<b>-4.3</b>	<b>35.6</b>	<b>-8.2</b>	<b>8.7</b>	<b>10.5</b>		
<i>Russell 1000 Growth Index</i>			27.6	38.5	36.4	-1.5	30.2	7.1	5.7	13.1	33.5	15.3
<b>ClearBridge Large Cap Growth</b>	<b>23,151</b>	<b>2.8</b>	<b>23.0</b>	<b>31.6</b>	<b>33.2</b>							
<i>Russell 1000 Growth Index</i>			27.6	38.5	36.4	-1.5	30.2	7.1	5.7	13.1	33.5	15.3
<b>Intech Large Cap Growth</b>		<b>0.0</b>					<b>30.0</b>	<b>6.1</b>	<b>4.4</b>	<b>10.4</b>	<b>33.9</b>	<b>14.8</b>
<i>Russell 1000 Growth Index</i>			27.6	38.5	36.4	-1.5	30.2	7.1	5.7	13.1	33.5	15.3
<b>LSV</b>	<b>27,866</b>	<b>3.4</b>	<b>30.0</b>	<b>-1.6</b>	<b>24.7</b>	<b>-11.7</b>	<b>18.9</b>	<b>16.7</b>	<b>-2.1</b>	<b>13.3</b>	<b>40.9</b>	<b>21.2</b>
<i>Russell 1000 Value Index</i>			25.2	2.8	26.5	-8.3	13.7	17.3	-3.8	13.5	32.5	17.5
<b>Lyrical</b>	<b>26,464</b>	<b>3.3</b>	<b>30.4</b>	<b>12.8</b>	<b>27.3</b>	<b>-20.8</b>	<b>19.3</b>	<b>15.3</b>	<b>-4.3</b>	<b>14.3</b>		
<i>Russell 1000 Value Index</i>			25.2	2.8	26.5	-8.3	13.7	17.3	-3.8	13.5	32.5	17.5
<b>Frontier Capital Appreciation</b>	<b>15,455</b>	<b>1.9</b>	<b>18.2</b>	<b>18.1</b>	<b>28.9</b>							
<i>Russell 2000 Growth Index</i>			2.8	34.6	28.5	-9.3	22.2	11.3	-1.4	5.6	43.3	14.6
<b>Rice Hall James</b>		<b>0.0</b>				<b>1.0</b>	<b>13.3</b>	<b>7.1</b>	<b>-0.1</b>	<b>5.4</b>	<b>36.4</b>	<b>13.3</b>
<i>Russell 2000 Growth Index</i>			2.8	34.6	28.5	-9.3	22.2	11.3	-1.4	5.6	43.3	14.6

	Allocation		Performance (%)									
	Market Value (\$000)	%	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Earnest Partners	15,953	2.0	20.6	17.8	25.8	-13.4	20.0	24.4	-4.5	8.9	34.9	14.9
<i>Russell 2000 Value Index</i>			28.3	4.6	22.4	-12.9	7.8	31.7	-7.5	4.2	34.5	18.1
<b>Total International Equity</b>	<b>144,838</b>	<b>17.8</b>	<b>8.8</b>	<b>14.7</b>	<b>22.8</b>	<b>-12.7</b>	<b>27.7</b>	<b>8.4</b>	<b>-4.3</b>	<b>-3.2</b>	<b>21.8</b>	<b>24.4</b>
<i>MSCI EAFE (net)</i>			11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3
<i>MSCI AC World ex USA</i>			8.3	11.1	22.1	-13.8	27.8	5.0	-5.3	-3.4	15.8	17.4
Arrowstreet Capital	29,138	3.6	15.2	22.8	23.6	-12.0	27.3	6.9	-1.9	-2.7	23.4	19.1
<i>MSCI AC World ex USA</i>			8.3	11.1	22.1	-13.8	27.8	5.0	-5.3	-3.4	15.8	17.4
Freedom Capital Intl	28,067	3.5	11.0	4.4	21.4	-12.9	28.0	6.8	1.4	-2.9	33.2	31.5
<i>MSCI EAFE (net)</i>			11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3
Fiera International Equity	26,174	3.2	17.7	20.2	32.3							
<i>MSCI EAFE (Net)</i>			11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3
MFS International Equity		0.0					28.0	0.3	0.0	-4.2	18.6	22.5
<i>MSCI EAFE (Net)</i>			11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3
Lazard Emerging Markets		0.0	6.1	-1.0	17.5	-18.1	27.5	20.9	-20.4	-4.0	-0.8	21.8
<i>MSCI Emerging Markets Index</i>			-2.2	18.7	18.9	-14.2	37.8	11.6	-14.6	-1.8	-2.3	18.6
Aberdeen Emerging Markets	30,826	3.8	-3.7	28.7	21.5	-13.7						
<i>MSCI Emerging Markets Index</i>			-2.2	18.7	18.9	-14.2	37.8	11.6	-14.6	-1.8	-2.3	18.6
William Blair Emerging Markets	30,632	3.8										
<i>MSCI Emerging Markets Index</i>			-2.2	18.7	18.9	-14.2	37.8	11.6	-14.6	-1.8	-2.3	18.6
Global REITs												
Brookfield Global Real Estate	12,493	1.5	23.8	-10.3	20.4							
<i>FTSE EPRA/NAREIT Developed Index</i>			27.2	-8.2	23.1	-4.7	11.4	5.0	0.1	15.9	4.4	28.7

	Allocation		Performance (%)									
	Market Value (\$000)	%	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<b>Total Domestic Fixed</b>	<b>47,781</b>	<b>5.9</b>	<b>-1.2</b>	<b>10.0</b>	<b>9.3</b>	<b>-0.1</b>	<b>3.8</b>	<b>3.9</b>	<b>0.7</b>	<b>6.1</b>	<b>-2.1</b>	<b>9.7</b>
<i>Barclays Cap Aggregate</i>			-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
<b>NT Aggregate Bond Index</b>	<b>16,486</b>	<b>2.0</b>										
<i>Blmbg. U.S. Aggregate</i>			-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
<b>Income Research &amp; Management</b>	<b>31,232</b>	<b>3.8</b>	<b>-1.2</b>	<b>10.9</b>	<b>10.1</b>	<b>-0.2</b>	<b>4.5</b>	<b>4.0</b>	<b>0.2</b>	<b>7.2</b>	<b>-1.4</b>	<b>7.7</b>
<i>Blmbg. U.S. Gov't/Credit</i>			-1.7	8.9	9.7	-0.4	4.0	3.0	0.1	6.0	-2.4	4.8
<b>IR+M TIPS</b>		<b>0.0</b>			<b>6.9</b>	<b>-0.3</b>	<b>2.0</b>	<b>4.1</b>	<b>-0.5</b>	<b>0.9</b>	<b>-5.5</b>	<b>5.0</b>
<i>Barclays Cap US Treas: US TIPS</i>			6.0	11.0	8.4	-1.3	3.0	4.7	-1.4	3.6	-8.6	7.0
<b>Total Global Fixed</b>	<b>71,856</b>	<b>8.8</b>	<b>2.0</b>	<b>3.7</b>	<b>9.6</b>	<b>-2.4</b>	<b>10.0</b>	<b>8.5</b>	<b>-1.1</b>	<b>2.1</b>	<b>-1.5</b>	<b>11.0</b>
<i>Blmbg. Global Aggregate</i>			-4.7	9.2	6.8	-1.2	7.4	2.1	-3.2	0.6	-2.6	4.3
<b>Broad Mkt Global Fixed Income</b>	<b>23,788</b>	<b>2.9</b>	<b>2.6</b>	<b>3.3</b>	<b>8.9</b>	<b>-0.9</b>	<b>8.7</b>	<b>8.8</b>	<b>-1.1</b>	<b>2.1</b>	<b>-1.5</b>	<b>11.0</b>
<i>Blmbg. Global Aggregate</i>			-4.7	9.2	6.8	-1.2	7.4	2.1	-3.2	0.6	-2.6	4.3
<b>Franklin Templeton Global Bond</b>		<b>0.0</b>		<b>-5.3</b>								
<i>FTSE World Government Bond Index</i>			-7.0	10.1	5.9	-0.8	7.5	1.6	-3.6	-0.5	-4.0	1.6
<b>PIMCO Diversified Income</b>	<b>10,431</b>	<b>1.3</b>	<b>0.3</b>	<b>6.5</b>	<b>12.8</b>	<b>-1.0</b>	<b>8.8</b>	<b>10.6</b>	<b>1.2</b>	<b>3.0</b>	<b>-0.9</b>	<b>15.0</b>
<i>Global Diversified Index**</i>			-1.6	8.0	11.7	-3.0	9.0	9.0	-2.0	2.0	-0.5	13.9
<b>GoldenTree Multi-Sector Opportunistic Fund</b>	<b>13,357</b>	<b>1.6</b>	<b>10.7</b>	<b>7.8</b>								
<i>GoldenTree Blended Benchmark*</i>			5.3	4.7	11.5	-0.9	5.8	13.8	-2.7	2.1	6.4	12.6
<b>Colchester Global Bond</b>		<b>0.0</b>				<b>-0.5</b>	<b>8.7</b>	<b>4.3</b>	<b>-5.5</b>	<b>0.3</b>	<b>-2.9</b>	
<i>FTSE World Government Bond Index</i>			-7.0	10.1	5.9	-0.8	7.5	1.6	-3.6	-0.5	-4.0	1.6
<b>EnTrust Global Recovery Fund</b>	<b>11,512</b>	<b>1.4</b>										
<i>Blmbg. Global Aggregate</i>			-4.7	9.2	6.8	-1.2	7.4	2.1	-3.2	0.6	-2.6	4.3



	Allocation		Performance (%)									
	Market Value (\$000)	%	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Bardin Hill Opportunistic Credit <i>Blmbg. Global Aggregate</i>	21,459	2.6	-4.7	9.2	6.8	-1.2	7.4	2.1	-3.2	0.6	-2.6	4.3
<b>Emerging Market Debt Composite</b>	<b>15,096</b>	<b>1.9</b>	<b>-7.6</b>	<b>4.3</b>	<b>12.4</b>	<b>-6.8</b>	<b>14.0</b>					
<i>50%/50% Blend **</i>			-5.3	4.0	14.3	-5.2	12.7	10.2	-7.1	0.7	-7.1	17.2
Stone Harbor EMD	8,149	1.0	-5.0	5.7	14.7	-8.7	14.3					
<i>50%/50% Blend **</i>			-5.3	4.0	14.3	-5.2	12.7	10.2	-7.1	0.7	-7.1	17.2
Ashmore Emerging Markets Total Return	6,947	0.9	-10.1	2.9	9.8	-5.3	13.7					
<i>50%/50% Blend **</i>			-5.3	4.0	14.3	-5.2	12.7	10.2	-7.1	0.7	-7.1	17.2
Hedge Funds												
PRIT Absolute Return	30,476	3.8	9.5	1.3	7.7	-1.6	8.2	3.6	-1.9	5.5	12.6	8.4
<i>HFRI Fund of Funds Composite Index</i>			6.2	10.9	8.4	-4.0	7.8	0.5	-0.3	3.4	9.0	4.8
<i>HFRI FOF: Diversified Index</i>			5.9	10.6	8.1	-3.3	6.9	0.4	-0.2	3.4	9.0	4.8
<b>Total Real Estate</b>	<b>115,030</b>	<b>14.2</b>	<b>21.9</b>	<b>-2.0</b>	<b>9.5</b>	<b>12.6</b>	<b>7.6</b>	<b>9.6</b>	<b>12.8</b>	<b>10.4</b>	<b>7.8</b>	<b>6.5</b>
<i>NCREIF Property Index</i>			17.7	1.6	6.4	6.7	7.0	8.0	13.3	11.8	11.0	10.5
RREEF America REIT II	25,255	3.1	25.0	2.1	7.3	8.4	7.4	9.1	16.7	13.0	15.0	12.4
<i>NCREIF Property Index</i>			17.7	1.6	6.4	6.7	7.0	8.0	13.3	11.8	11.0	10.5
Intercontinental	49,570	6.1	24.3	1.6	9.1	10.7	8.5					
<i>NCREIF Property Index</i>			17.7	1.6	6.4	6.7	7.0	8.0	13.3	11.8	11.0	10.5
<b>Total Infrastructure</b>	<b>51,705</b>	<b>6.4</b>	<b>17.3</b>	<b>7.3</b>	<b>15.4</b>	<b>16.0</b>	<b>15.9</b>					
<i>Dow Jones Brookfield Global Infrastructure</i>			19.9	-7.0	28.7	-7.9	15.8	12.5	-14.4	16.4	15.9	16.0
IFM	41,969	5.2	18.3	4.0	16.1	16.9						
<i>Dow Jones Brookfield Global Infrastructure</i>			19.9	-7.0	28.7	-7.9	15.8	12.5	-14.4	16.4	15.9	16.0

	Allocation		Performance (%)									
	Market Value (\$000)	%	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<b>Total Timber &amp; Farmland</b>	<b>54,471</b>	<b>6.7</b>	<b>9.4</b>	<b>4.5</b>	<b>7.2</b>	<b>1.9</b>	<b>14.4</b>	<b>5.8</b>	<b>12.7</b>	<b>15.9</b>		
<i>50% Timberland / 50% Farmland Index***</i>			8.5	1.8	1.3	3.2	3.6	2.6	5.0	10.5	9.7	7.8
Hancock Timber & Farmland Fund	25,501	3.1	6.9									
<i>50% Timberland / 50% Farmland Index</i>			8.5	1.8	1.3	3.2	3.6	2.6	5.0	10.5	9.7	7.8
BTG Pactual U.S. Timberland Fund	11,662	1.4	14.7									
<i>NCREIF Timberland Index</i>			9.2	0.8	1.3	3.2	3.6	2.6	5.0	10.5	9.7	7.8
Ceres Farms	15,228	1.9	14.5									
<i>NCREIF Farmland Index</i>			7.8	3.1	4.8	6.7	6.2	7.1	10.4	12.6	20.9	18.6
Bristol County Cash	22,205	2.7	0.4	0.7	2.7	3.8	0.8	0.3	1.2	0.9	0.2	0.1
<i>90 Day U.S. Treasury Bill</i>			0.0	0.7	2.3	1.9	0.9	0.3	0.0	0.0	0.0	0.1

\*\*Stone Harbor 50/50 Blend: 50% JPM EMBI Global Diversified Index/50% JPM GBI-EM Global Diversified US Index

\*\*PIMCO Index: 33% BC Global Agg/33% ML Global HY/33% JPM EMBI Global.

\*GoldenTree Blended Benchmark: 50% Merrill Lynch High Yield Index / 50% S&P/LSTA Leveraged Loan Index

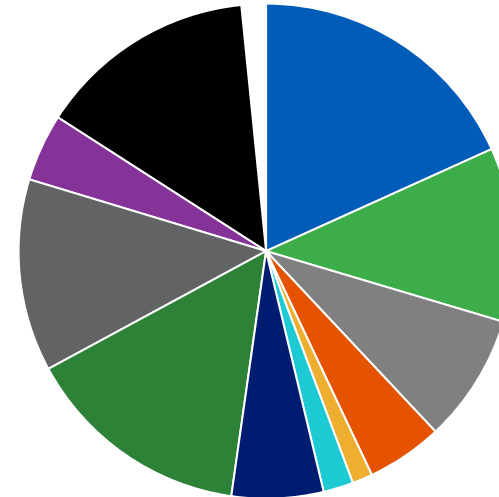
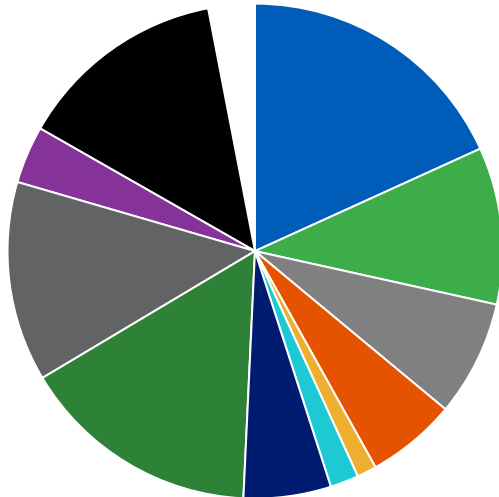
\*\*\* Prior to 7/1/2020, the Total Timber & Farmland composite is benchmarked 100% to the NCREIF Timberland Index

Policy Index	Weight (%)
Jan-1976	
Blmbg. U.S. Aggregate	35.0
MSCI EAFE (Net)	15.0
S&P 500	50.0
Jul-2007	
Blmbg. U.S. Aggregate	33.0
MSCI EAFE (Net)	22.0
S&P 500	45.0
Jul-2010	
Blmbg. U.S. Aggregate	33.0
MSCI EAFE (Net)	25.5
S&P 500	41.5
Jan-2017	
Blmbg. U.S. Aggregate	18.0
Russell 3000 Index	34.0
Blmbg. Global Aggregate	16.5
MSCI AC World ex USA	24.0
NCREIF Property Index	7.5
Jan-2020	
Blmbg. U.S. Aggregate	13.5
Russell 3000 Index	36.5
Blmbg. Global Aggregate	14.5
MSCI AC World ex USA	24.5
NCREIF Property Index	11.0

Policy Index	Weight (%)
Jan-2017	
Russell 3000 Index	30.0
NCREIF Timberland Index	3.0
FTSE EPRA/NAREIT Developed Index	2.0
MSCI EAFE Index	12.5
MSCI Emerging Markets Index	10.5
Blmbg. U.S. Aggregate	11.0
Blmbg. U.S. TIPS	2.0
Blmbg. Global Aggregate	6.5
50% JPM EMBI Global Div./ 50% JPM GBI-EM Global Div.	7.0
FTSE High Yield Market Capped Index	3.0
HFRI FOF: Diversified Index	5.0
NCREIF Property Index	7.5
Jan-2020	
Russell 3000 Index	34.0
NCREIF Timberland Index	3.0
FTSE EPRA/NAREIT Developed Index	2.0
MSCI EAFE Index	11.0
MSCI Emerging Markets Index	11.0
Blmbg. U.S. Aggregate	5.0
Blmbg. Global Aggregate	3.0
50% JPM EMBI Global Div./ 50% JPM GBI-EM Global Div.	4.0
FTSE High Yield Market Capped Index	3.0
HFRI FOF: Diversified Index	4.0
NCREIF Property Index	11.0
NCREIF Farmland Index	3.0
Dow Jones Brookfield Global Infrastructure	6.0

Sep-2022 : \$812,639,317

Jun-2022 : \$810,770,304



Segments	Market Value (\$)	Allocation (%)
Domestic Equity	147,935,010	18.2
International Equity	83,379,746	10.3
Emerging Equity	61,458,036	7.6
Domestic Fixed Income	47,780,590	5.9
International Fixed Income	10,431,073	1.3
Emerging Fixed Income	15,096,033	1.9
Global Fixed Income	46,328,526	5.7
Real Estate	127,522,779	15.7
Alternative Investment	106,175,806	13.1
Hedge Fund	30,475,787	3.8
Private Equity	111,358,693	13.7
Cash Equivalent	24,697,237	3.0

Segments	Market Value (\$)	Allocation (%)
Domestic Equity	147,814,462	18.2
International Equity	92,273,738	11.4
Emerging Equity	68,018,019	8.4
Domestic Fixed Income	40,354,127	5.0
International Fixed Income	10,699,994	1.3
Emerging Fixed Income	15,911,147	2.0
Global Fixed Income	48,555,951	6.0
Real Estate	120,478,111	14.9
Alternative Investment	101,956,131	12.6
Hedge Fund	35,679,153	4.4
Private Equity	116,025,196	14.3
Cash Equivalent	13,004,274	1.6

	Market Value As of 07/01/2022	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2022
<b>Domestic Equity</b>							
NT S&P 500 Index	12,082,732	10,000,000		-1,038		-1,854,500	20,227,195
ClearBridge Large Cap Growth	24,544,653			-39,454		-1,353,773	23,151,426
Columbia	22,233,238					-922,224	21,311,014
LSV	29,932,415			-45,080		-2,020,849	27,866,486
Lyrical	28,220,737			-54,350		-1,702,409	26,463,978
Earnest Partners	16,749,921			-35,168		-761,804	15,952,949
Frontier Capital Appreciation	16,205,819					-751,243	15,454,576
<b>International Equity</b>							
Arrowstreet Capital	32,184,955	63,691		-63,691		-3,046,802	29,138,153
Freedom Capital Intl	31,648,354			-74,993		-3,506,238	28,067,123
Fiera International Equity	28,440,429			-54,819		-2,211,140	26,174,470
Aberdeen Emerging Markets	34,695,371			-73,235		-3,796,443	30,825,693
William Blair Emerging Markets	33,322,649	81,399		-81,399		-2,690,305	30,632,343
<b>Global REITs</b>							
Brookfield Global Real Estate	14,167,568					-1,674,404	12,493,164
<b>Domestic Fixed Income</b>							
NT Aggregate Bond Index	7,581,049	10,000,000		-1,038		-1,094,468	16,485,543
Income Research & Management	32,710,326			-29,373		-1,448,658	31,232,295
Invesco Mortgage Recovery Fund	62,752						62,752
<b>International Fixed Income</b>							
PIMCO Diversified Income	10,699,994					-268,921	10,431,073
GoldenTree Multi-Sector Opportunistic Fund	13,330,045					26,926	13,356,971
Stone Harbor EMD	8,417,756			-11,952		-256,382	8,149,422
Ashmore Emerging Markets Total Return	7,493,391					-546,779	6,946,611

Bristol County Retirement System

Financial Reconciliation

1 Quarter Ending September 30, 2022

	Market Value As of 07/01/2022	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2022
EnTrust Global Recovery Fund	15,141,607		-1,975,260			-1,654,220	11,512,127
Bardin Hill Opportunistic Credit	20,084,299	1,391,776		-58,268	-48,061	89,682	21,459,428
Short Term Investments							
Bristol County Cash	10,849,221	52,281,170	-41,048,657			122,890	22,204,624
Total Private Equity							
DN Partners II	2,911,591						2,911,591
DuPont Capital Management II	317,208						317,208
BlackRock Vesey Street Fund III	147,576						147,576
BlackRock Vesey Street Fund IV	491,314						491,314
Mesirow PE Fund V	3,120,168		-135,000				2,985,168
PRIT Vintage 2014	11,955,739	14,125	-317,156	-2,434	-18,827	-421,840	11,209,606
PRIT Vintage 2015	18,807,826	-38,201	-223,597	-12,307	-41,143	-1,672,973	16,819,604
PRIT Vintage 2016	10,074,812	44,805	-516,979	-628	-28,211	-641,295	8,932,504
PRIT Vintage 2017	20,004,054	-69,675	-93,395	-1,193	-48,744	-1,013,206	18,777,841
PRIT Vintage 2018	16,722,823	15,356	126,417	-7,536	-53,952	-726,358	16,076,750
PRIT Vintage 2019	9,757,937	286,496	-19,972	-6,620	-23,820	-300,966	9,693,055
PRIT Vintage 2020	6,516,366	676,746	-2,116	-1,407	-40,578	-427,594	6,721,417
PRIT Vintage 2021	7,115,194	874,220	-3	-1,670	-67,126	-129,012	7,791,604
PRIT Vintage 2022	744,322	591,397	617	-1,939	-5,482	212,817	1,541,732
GCM Grosvenor SOF III	2,991,525	574,737	-971,281				2,594,980
Pomona Capital Fund X	4,346,742						4,346,742

	Market Value As of 07/01/2022	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2022
<b>Real Assets</b>							
RREEF America REIT II	24,707,601	750,000		-60,354		-142,091	25,255,156
Intercontinental	48,873,665			-86,857		783,233	49,570,041
Invesco Mortgage Recovery II	4,486,413						4,486,413
TerraCap Partners IV	8,992,897		-160,772				8,832,125
TerraCap Partners V	19,249,968						19,249,968
Brookfield Timberlands Fund V	1,054,528	2,404	-812,644		-2,404	2,404	244,288
Eastern Timberland Opportunities II	2,117,796		-282,112				1,835,684
GCM Customized Infrastructures Strategies II, LP	9,848,102	171,208	-283,178	-13,749	-4,054	17,803	9,736,132
IFM	41,892,031			-81,454		157,949	41,968,526
BTG Pactual U.S. Timberland Fund	11,198,261					464,075	11,662,336
Hancock Timber & Farmland Fund	26,064,793		-83,416	-66,136		-414,693	25,500,548
Ceres Farms	9,780,620	5,000,000		-141,343		589,015	15,228,292
<b>Hedge Fund of Funds</b>							
PRIT Absolute Return	35,679,153		-5,000,000	-82,916		-120,449	30,475,787
<b>Total Fund</b>	<b>810,770,304</b>	<b>90,211,654</b>	<b>-51,798,504</b>	<b>-1,218,471</b>	<b>-382,402</b>	<b>-34,943,262</b>	<b>812,639,317</b>



	Market Value As of 10/01/2021	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2022
<b>Domestic Equity</b>							
NT S&P 500 Index	15,000,000	26,501,201	-17,000,000	-2,239		-4,271,767	20,227,195
ClearBridge Large Cap Growth	39,029,700		-7,000,000	-208,203		-8,670,071	23,151,426
Columbia	38,553,729		-5,000,000			-12,242,715	21,311,014
LSV	38,433,055		-7,000,000	-214,466		-3,352,103	27,866,486
Lyrical	38,995,324		-5,500,000	-280,350		-6,750,996	26,463,978
Earnest Partners	19,123,462			-156,589		-3,013,924	15,952,949
Frontier Capital Appreciation	19,775,742					-4,321,166	15,454,576
<b>International Equity</b>							
Arrowstreet Capital	37,533,320	272,062		-272,062		-8,395,167	29,138,153
Freedom Capital Intl	39,184,939		-1,000,000	-328,731		-9,789,084	28,067,123
Fiera International Equity	37,000,104		-2,000,000	-248,779		-8,576,855	26,174,470
Lazard Emerging Markets	42,917,991		-40,069,623			-2,848,368	
Aberdeen Emerging Markets	41,721,574	4,000,000		-315,999		-14,579,882	30,825,693
William Blair Emerging Markets		40,096,374		-96,374		-9,367,657	30,632,343
<b>Global REITs</b>							
Brookfield Global Real Estate	20,074,511		-4,000,000			-3,581,348	12,493,164
<b>Domestic Fixed Income</b>							
NT Aggregate Bond Index	13,000,000	28,001,892	-21,500,000	-2,930		-3,013,419	16,485,543
Income Research & Management	47,508,925		-10,000,000	-132,858		-6,143,772	31,232,295
Invesco Mortgage Recovery Fund	64,669					-1,917	62,752

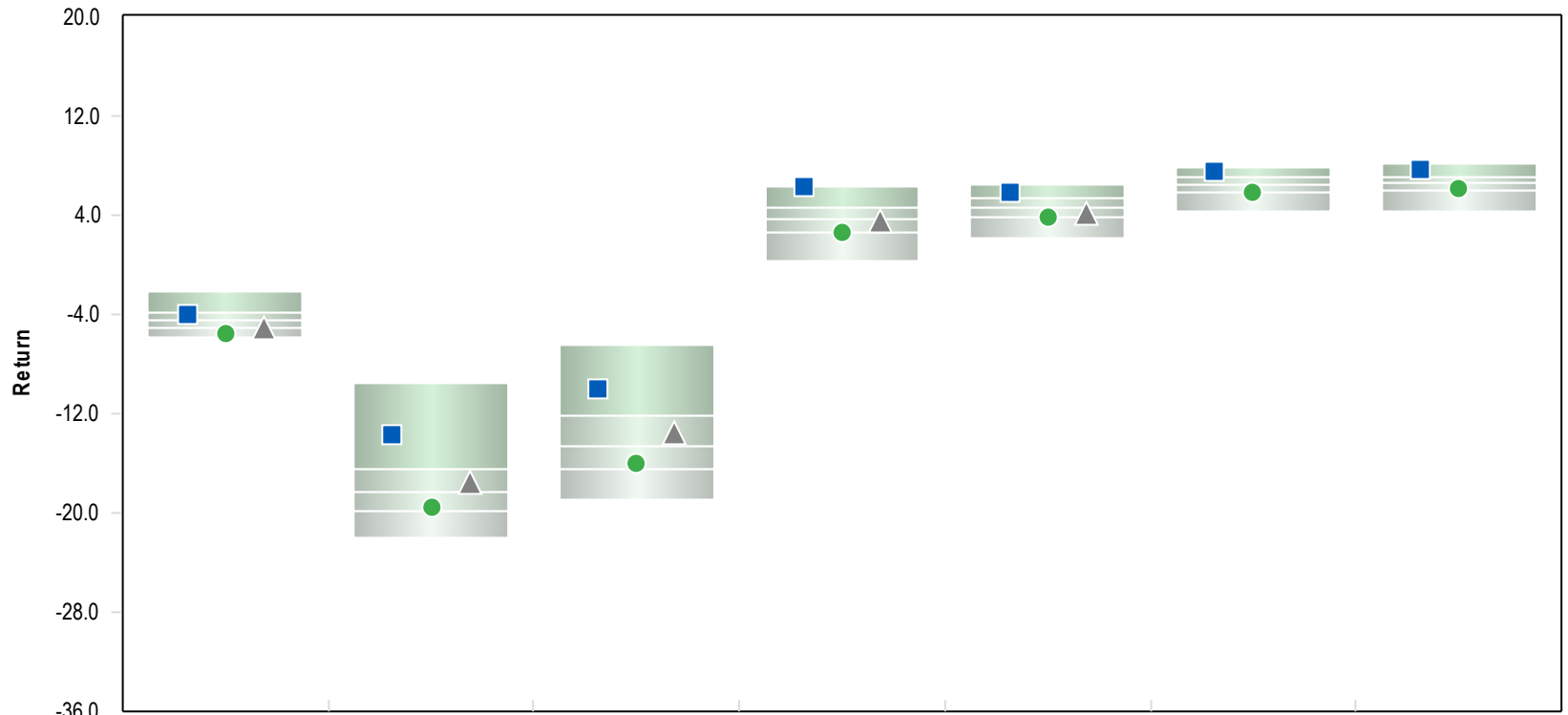
## Bristol County Retirement System

## Financial Reconciliation

1 Year Ending September 30, 2022

	Market Value As of 10/01/2021	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2022
International Fixed Income							
PIMCO Diversified Income	24,720,930		-11,000,000			-3,289,856	10,431,073
GoldenTree Multi-Sector Opportunistic Fund	19,192,940		-5,000,000			-835,969	13,356,971
Stone Harbor EMD	12,676,830		-2,000,000	-57,108		-2,470,301	8,149,422
Ashmore Emerging Markets Total Return	12,391,071		-2,000,000			-3,444,460	6,946,611
EnTrust Global Recovery Fund	9,548,874	9,009,894	-1,975,260			-5,071,381	11,512,127
Bardin Hill Opportunistic Credit	18,673,587	7,996,020	-4,534,311	-172,207	-115,384	-388,277	21,459,428
Short Term Investments							
Bristol County Cash	36,666,220	209,249,657	-223,838,739			127,487	22,204,624
Total Private Equity							
DN Partners II	2,221,933					689,658	2,911,591
Charles River XI	9,497					-9,497	
DuPont Capital Management II	375,164	2,003	-50,781	-2,003		-7,175	317,208
BlackRock Vesey Street Fund III	150,223					-2,647	147,576
BlackRock Vesey Street Fund IV	1,204,022	11,546	-485,689		-11,546	-227,019	491,314
Mesirov PE Fund V	4,752,308	25,000	-1,125,000	-19,261		-647,879	2,985,168
PRIT Vintage 2014	12,098,555	172,192	-2,340,538	-10,386	-70,434	1,360,217	11,209,606
PRIT Vintage 2015	22,003,283	285,605	-4,221,501	-33,430	-154,924	-1,059,430	16,819,604
PRIT Vintage 2016	10,965,168	271,827	-2,862,634	-3,617	-113,064	674,825	8,932,504
PRIT Vintage 2017	16,999,049	2,431,715	-2,310,947	-21,692	-181,692	1,861,408	18,777,841
PRIT Vintage 2018	13,719,010	1,696,297	-1,130,349	-11,871	-191,134	1,994,797	16,076,750
PRIT Vintage 2019	6,848,135	1,721,373	-976,600	-25,478	-100,077	2,225,702	9,693,055
PRIT Vintage 2020	3,017,937	3,221,324	-52,414	-2,976	-151,352	688,898	6,721,417
PRIT Vintage 2021	2,172,487	5,489,983	-2,280	-4,496	-187,403	323,312	7,791,604
PRIT Vintage 2022		1,702,845	617	-2,920	-6,980	-151,829	1,541,732
GCM Grosvenor SOF III		4,519,924	-1,981,079			56,135	2,594,980
Pomona Capital Fund X		3,200,000				1,146,742	4,346,742

	Market Value As of 10/01/2021	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2022
<b>Real Assets</b>							
RREEF America REIT II	15,876,191	5,000,000		-210,998		4,589,962	25,255,156
Intercontinental	36,024,240	5,000,000		-1,373,906		9,919,707	49,570,041
Invesco Mortgage Recovery II	4,698,019					-211,606	4,486,413
TerraCap Partners IV	8,612,354	65,049	-1,009,646	-65,049		1,229,418	8,832,125
TerraCap Partners V	12,216,412	5,404,044	-236,742			1,866,254	19,249,968
Brookfield Timberlands Fund V	1,177,718	8,067	-839,774	-5,478	-2,589	-93,656	244,288
Eastern Timberland Opportunities II	2,188,004		-468,413			116,093	1,835,684
GCM Customized Infrastructures Strategies II, LP	10,656,426	1,080,554	-2,808,114	-55,768	-35,004	898,039	9,736,132
IFM	37,041,868	1,900,000		-311,641		3,338,298	41,968,526
BTG Pactual U.S. Timberland Fund	5,572,203	5,000,000	-171,240			1,261,374	11,662,336
Hancock Timber & Farmland Fund	24,847,553		-388,832	-257,833		1,299,660	25,500,548
Ceres Farms	8,636,611	5,000,000		-498,974		2,090,655	15,228,292
<b>Hedge Fund of Funds</b>							
PRIT Absolute Return	31,227,931	5,000,000	-5,000,000	-369,092		-383,051	30,475,787
<b>Total Fund</b>	<b>917,099,797</b>	<b>390,836,447</b>	<b>-398,879,889</b>	<b>-5,801,834</b>	<b>-1,321,584</b>	<b>-89,293,620</b>	<b>812,639,317</b>



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Fund	-4.0 (31)	-13.7 (11)	-10.0 (12)	6.3 (6)	5.9 (11)	7.5 (10)	7.6 (12)
● Total Plan Index	-5.5 (87)	-19.6 (70)	-16.0 (69)	2.6 (78)	3.8 (78)	5.8 (76)	6.2 (69)
▲ Total Plan Allocation Index	-5.1 (80)	-17.6 (43)	-13.6 (40)	3.5 (54)	4.2 (68)		

5th Percentile	-2.2	-9.6	-6.5	6.4	6.5	7.9	8.1
1st Quartile	-3.8	-16.4	-12.1	4.6	5.3	7.0	7.1
Median	-4.4	-18.3	-14.6	3.7	4.7	6.4	6.7
3rd Quartile	-5.0	-19.8	-16.4	2.7	3.9	5.8	6.0
95th Percentile	-5.9	-22.0	-18.9	0.3	2.2	4.3	4.4

Population

354

347

345

331

315

300

268

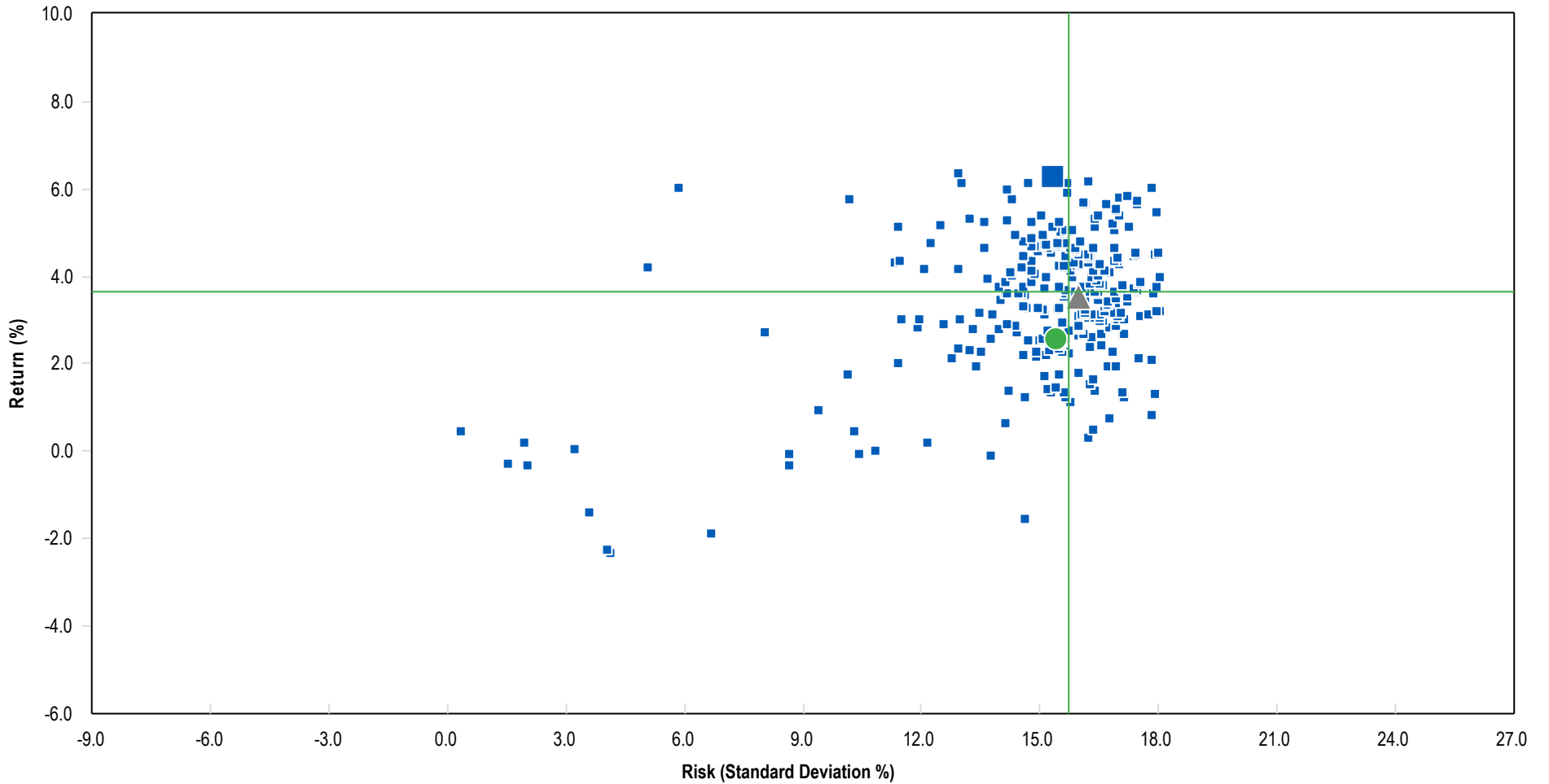
Parentheses contain percentile rankings.  
Calculation based on quarterly periodicity.



	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Total Fund	17.0 (10)	12.4 (56)	17.5 (72)	-3.7 (35)	17.3 (10)	7.3 (60)	0.2 (37)	5.3 (72)	18.9 (20)	15.7 (3)
● Total Plan Index	12.1 (71)	13.5 (41)	18.9 (53)	-4.7 (58)	15.9 (27)	6.2 (87)	0.8 (21)	6.3 (54)	17.8 (29)	12.6 (49)

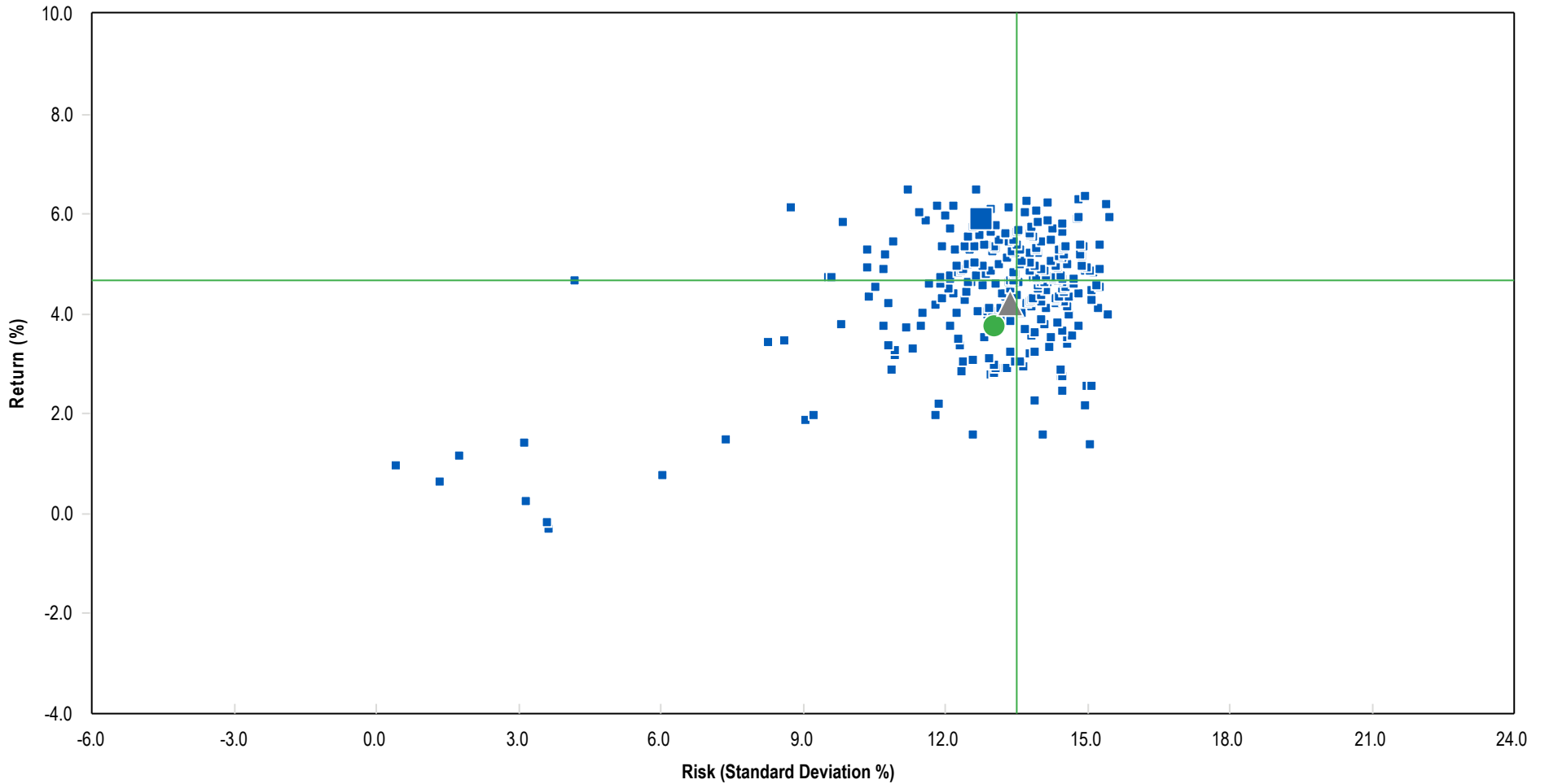
5th Percentile	18.0	18.9	22.4	-1.3	18.6	10.0	1.7	8.7	21.7	15.3
1st Quartile	15.0	15.1	20.5	-3.2	16.0	8.4	0.6	7.2	18.2	13.5
Median	13.5	12.9	19.2	-4.4	14.9	7.5	-0.2	6.4	15.9	12.5
3rd Quartile	11.7	11.3	17.2	-5.2	13.6	6.8	-1.4	5.0	14.0	11.4
95th Percentile	5.1	5.8	12.6	-6.7	10.1	5.2	-2.7	2.9	8.9	8.3

Parentheses contain percentile rankings.  
Calculation based on quarterly periodicity.

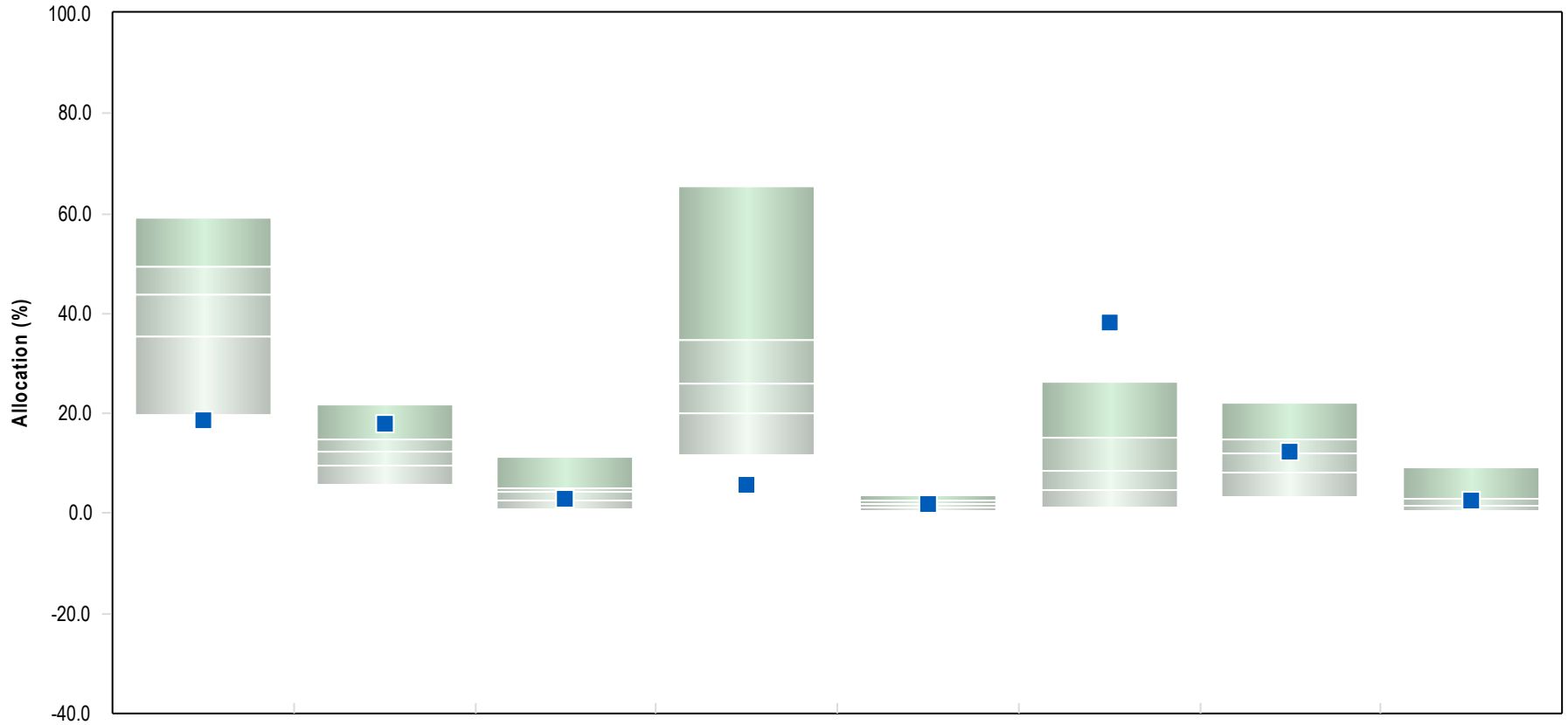


	Return	Standard Deviation
■ Total Fund	6.3	15.3
● Total Plan Index	2.6	15.4
▲ Total Plan Allocation Index	3.5	16.0
— Median	3.7	15.7

Calculation based on quarterly periodicity.



Calculation based on quarterly periodicity.

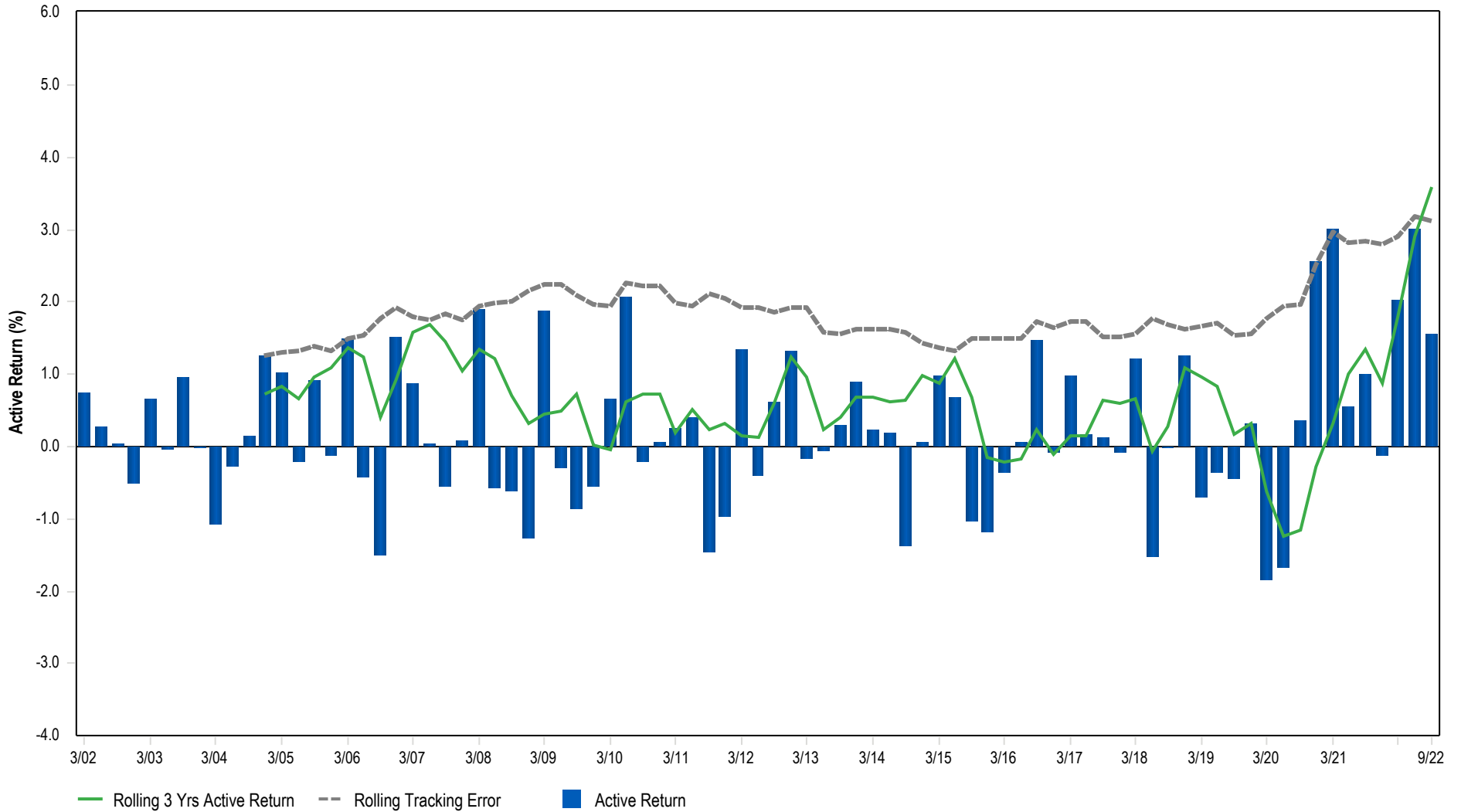


	US Equity	Global ex-US Equity	Global Fixed Income	US Fixed	Emg Mkt Fixed	Alternatives	Total Real Estate	Cash & Equivalents
■ Total Fund	18.5 (96)	17.8 (16)	2.9 (71)	5.9 (100)	1.9 (45)	38.0 (2)	12.2 (47)	2.7 (26)
5th Percentile	59.3	21.8	11.2	65.4	3.7	26.4	22.2	9.2
1st Quartile	49.4	14.8	5.2	34.7	2.5	15.1	14.7	2.9
Median	43.9	12.4	4.3	26.0	1.9	8.7	11.9	1.5
3rd Quartile	35.4	9.5	2.7	20.0	1.3	4.5	8.0	0.7
95th Percentile	19.8	5.9	0.9	11.6	0.7	1.1	3.4	0.1
Population	527	495	127	532	8	202	352	467

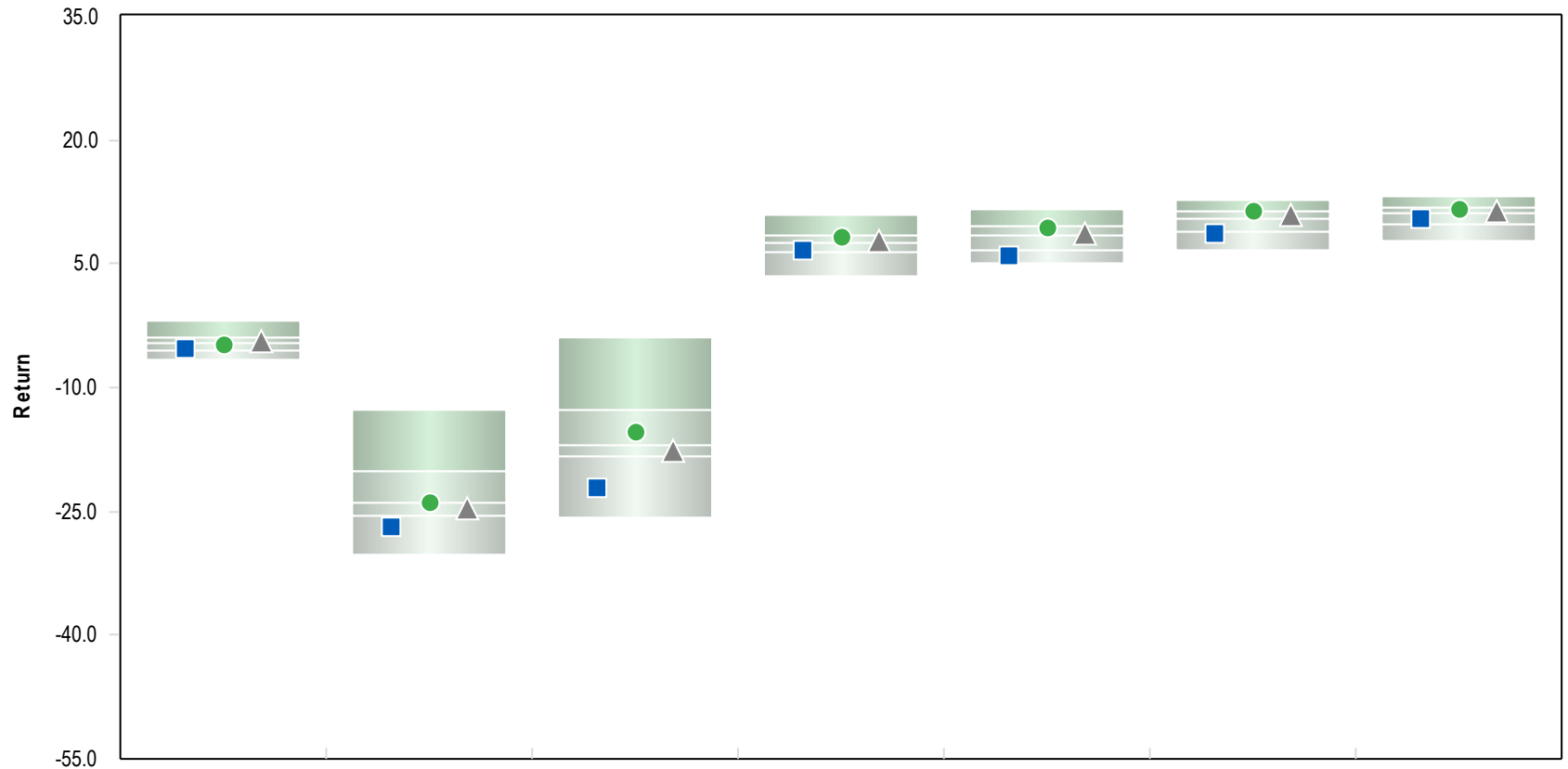
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Total Fund	-4.0	-13.7	-10.0	6.3	5.9	7.5	7.6	17.0	12.4	17.5	-3.7
Total Plan Index	-5.5	-19.6	-16.0	2.6	3.8	5.8	6.2	12.1	13.5	18.9	-4.7
Difference	1.5	5.9	6.0	3.7	2.1	1.7	1.4	4.9	-1.1	-1.4	1.0



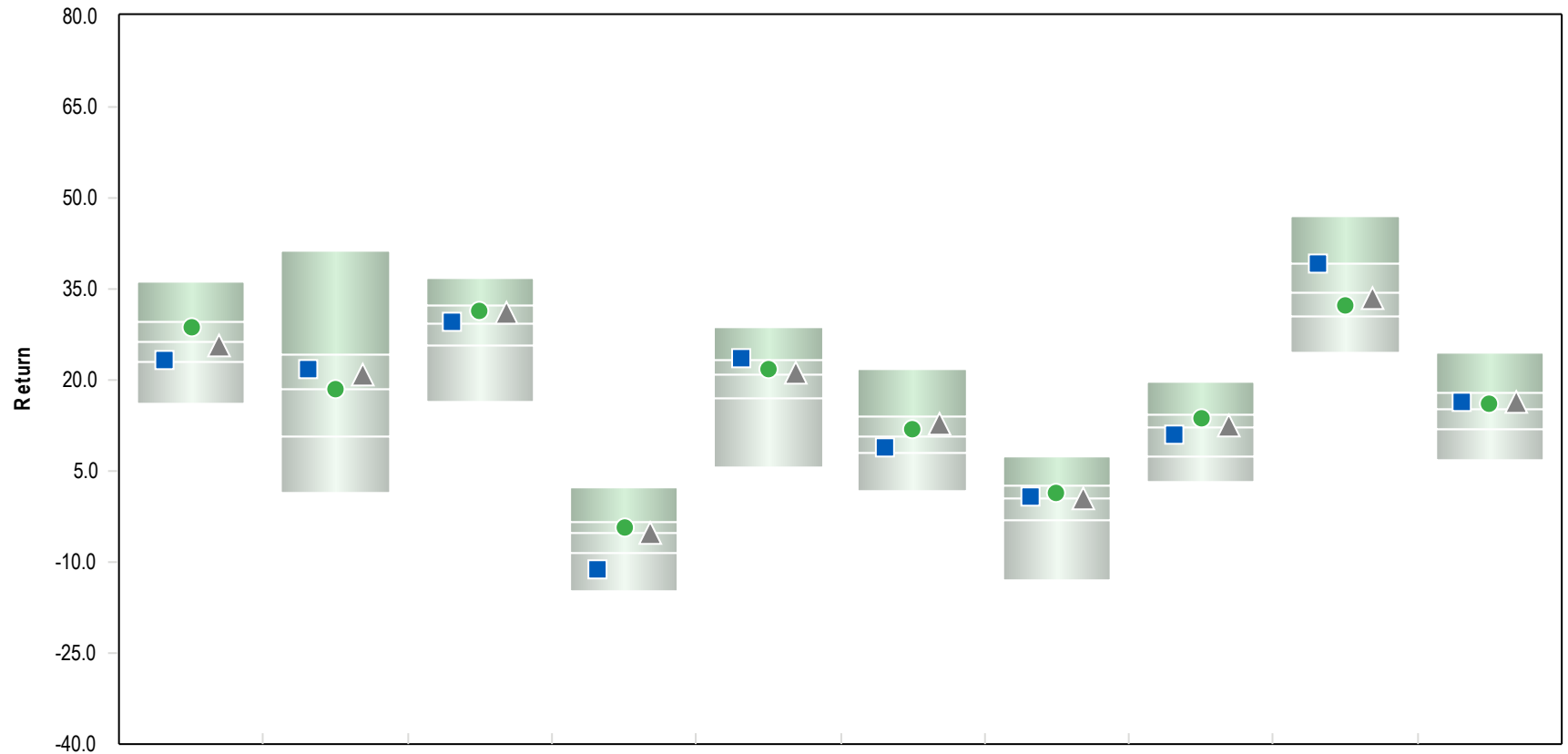
## Domestic Equity



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Domestic Equity	-5.4 (70)	-26.8 (84)	-22.1 (91)	6.7 (64)	6.1 (84)	8.8 (81)	10.4 (64)
● S&P 500 Index	-4.9 (57)	-23.9 (50)	-15.5 (41)	8.2 (35)	9.2 (31)	11.4 (23)	11.7 (36)
▲ Russell 3000 Index	-4.5 (43)	-24.6 (64)	-17.6 (65)	7.7 (46)	8.6 (45)	10.9 (40)	11.4 (48)

5th Percentile	-1.9	-12.7	-3.9	10.8	11.5	12.7	13.2
1st Quartile	-4.0	-20.0	-12.7	8.4	9.5	11.3	11.8
Median	-4.6	-23.9	-17.0	7.5	8.4	10.5	11.2
3rd Quartile	-5.6	-25.6	-18.4	6.4	6.8	8.9	9.8
95th Percentile	-6.7	-30.3	-25.8	3.6	5.1	6.6	7.7

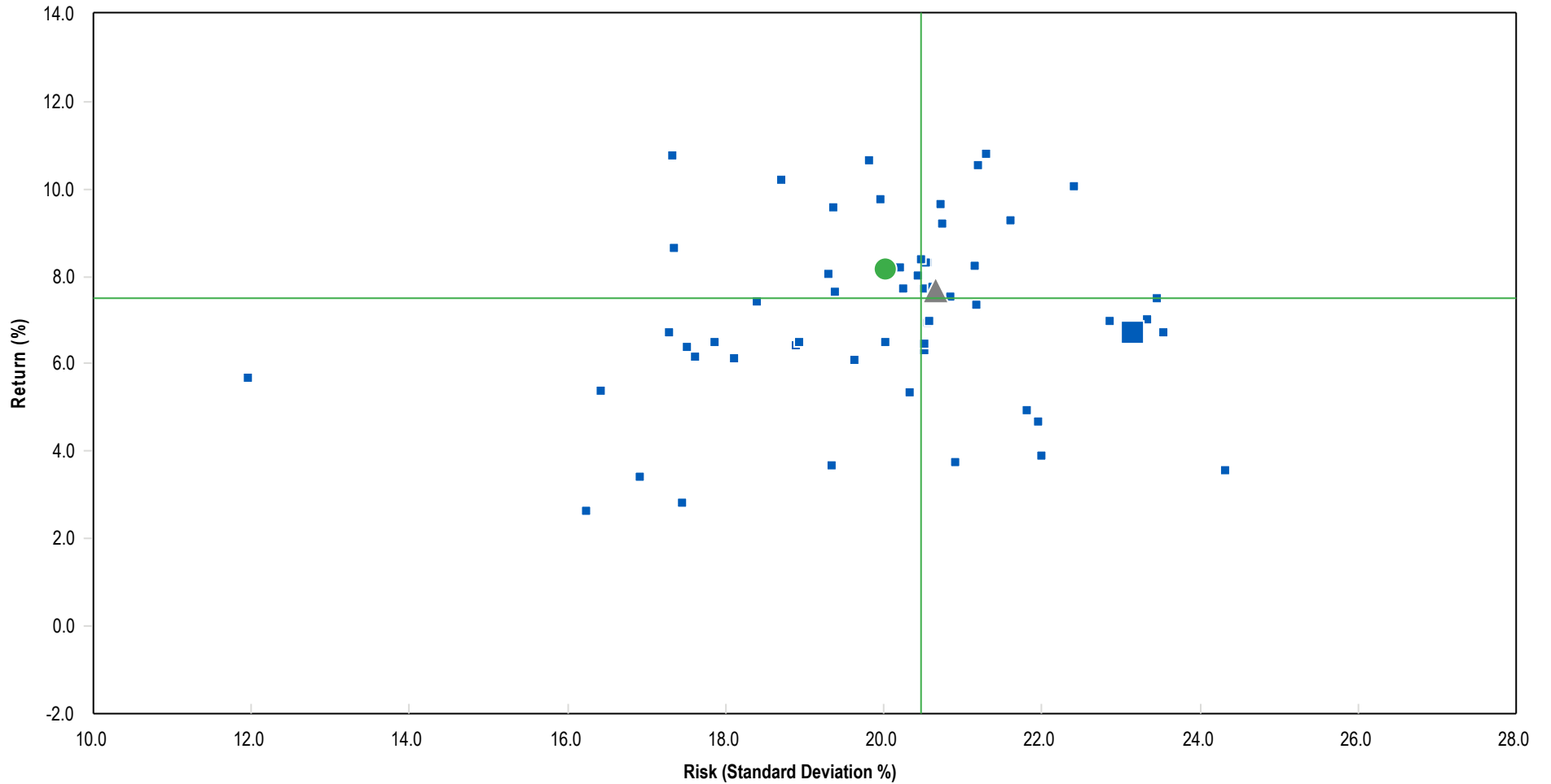
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



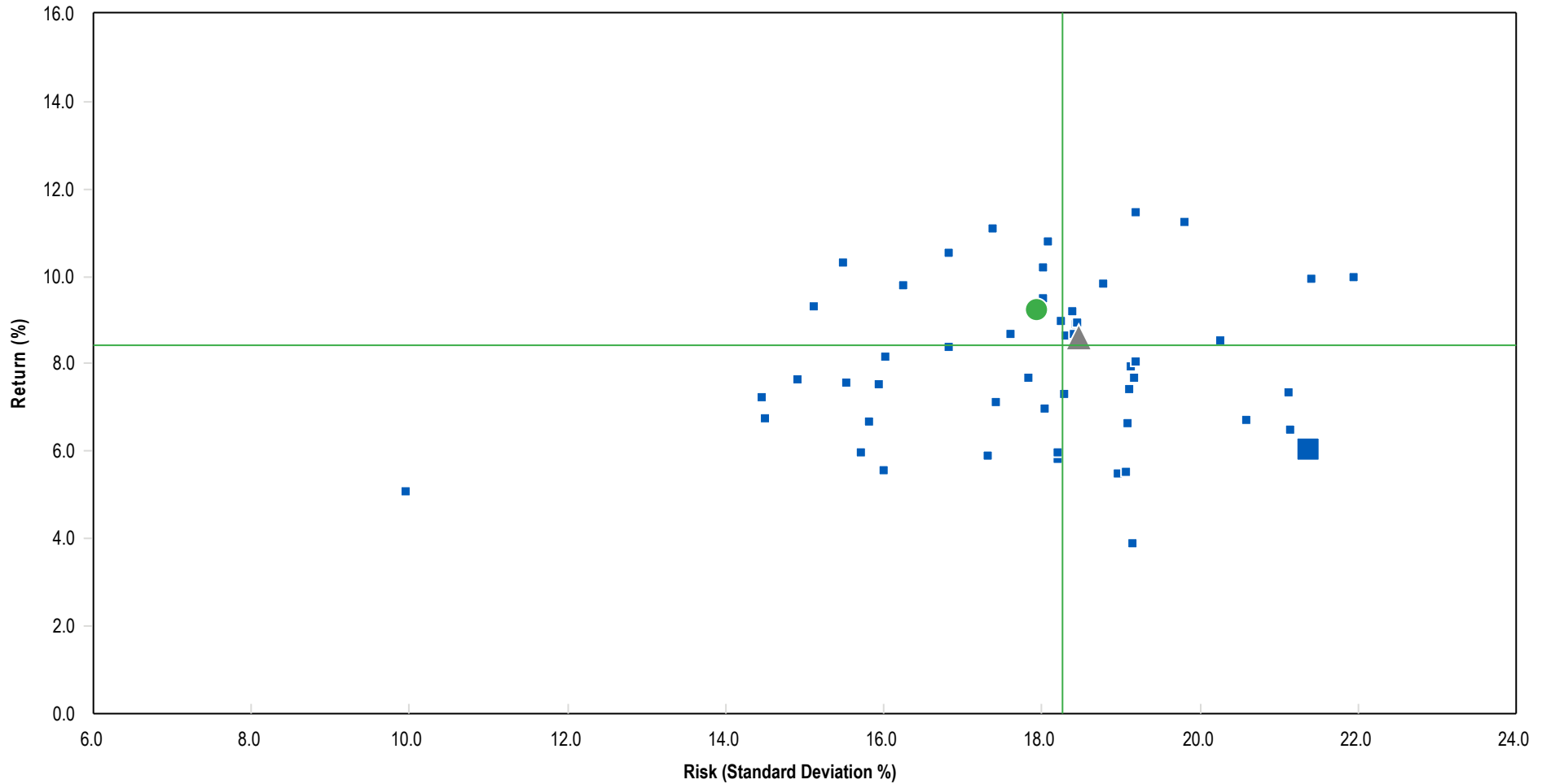
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Total Domestic Equity	23.4 (75)	21.8 (37)	29.7 (48)	-11.1 (85)	23.6 (24)	9.0 (67)	0.7 (44)	11.0 (58)	39.1 (26)	16.3 (39)
● S&P 500 Index	28.7 (30)	18.4 (54)	31.5 (31)	-4.4 (39)	21.8 (42)	12.0 (47)	1.4 (37)	13.7 (33)	32.4 (65)	16.0 (42)
▲ Russell 3000 Index	25.7 (57)	20.9 (40)	31.0 (36)	-5.2 (55)	21.1 (49)	12.7 (38)	0.5 (47)	12.6 (47)	33.6 (55)	16.4 (36)

5th Percentile	36.2	41.2	36.7	2.4	28.6	21.8	7.5	19.7	46.9	24.4
1st Quartile	29.6	24.3	32.2	-3.3	23.3	14.1	2.7	14.3	39.2	18.0
Median	26.3	18.6	29.2	-5.1	20.9	10.8	0.4	12.2	34.3	15.3
3rd Quartile	23.0	10.8	25.8	-8.6	17.1	8.1	-3.2	7.4	30.5	11.8
95th Percentile	16.2	1.5	16.3	-14.9	5.5	1.6	-13.1	3.3	24.4	6.7

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



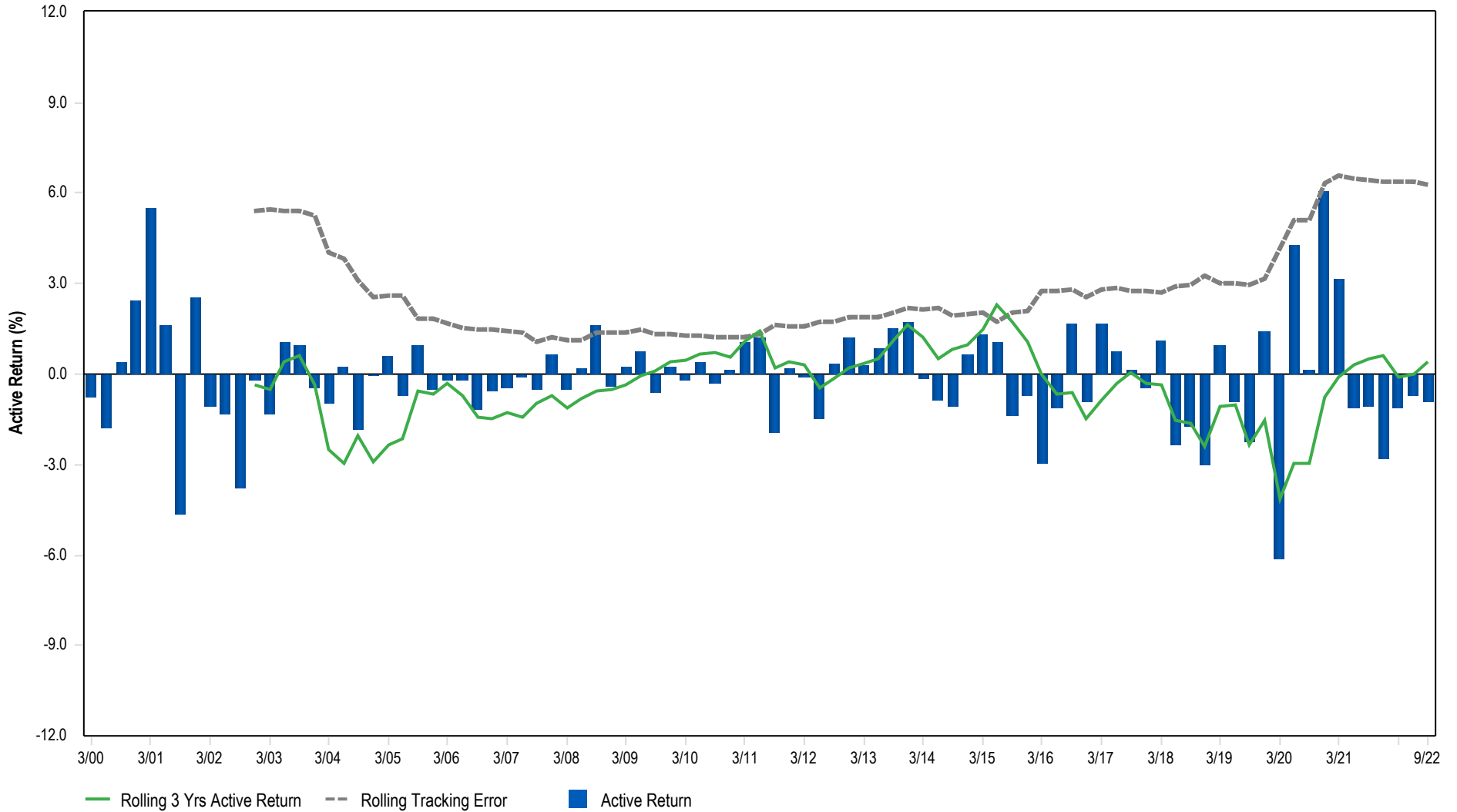
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total Domestic Equity	6.1	21.4
● S&P 500 Index	9.2	17.9
▲ Russell 3000 Index	8.6	18.5
— Median	8.4	18.3

Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Total Domestic Equity	-5.4	-26.8	-22.1	6.7	6.1	8.8	10.4	23.4	21.8	29.7	-11.1
Russell 3000 Index	-4.5	-24.6	-17.6	7.7	8.6	10.9	11.4	25.7	20.9	31.0	-5.2
Difference	-0.9	-2.2	-4.5	-1.0	-2.5	-2.1	-1.0	-2.3	0.9	-1.3	-5.9

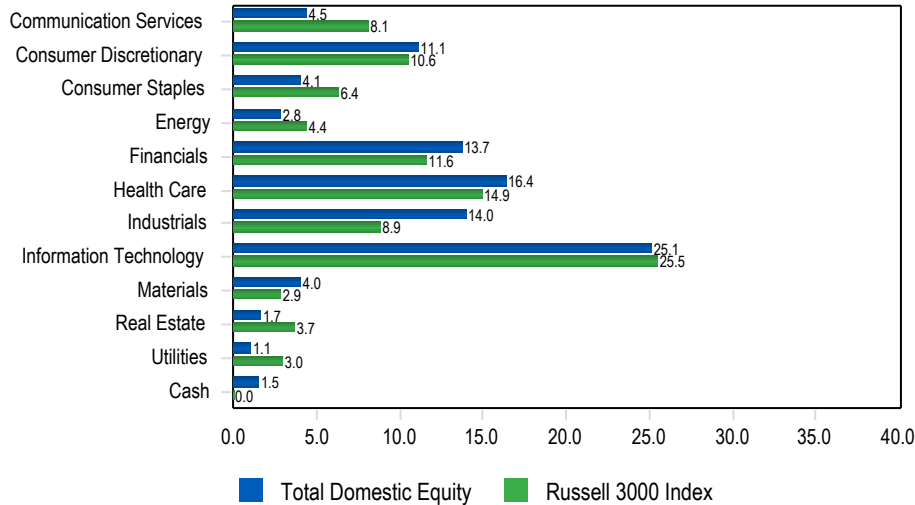


Buy-and-Hold Portfolio	-5.3
Portfolio Trading	-0.1
Actual Return	-5.4
Benchmark Return	-4.5
Actual Active Return	-0.9
Stock Selection	-1.7
Sector Selection	0.5
Interaction	0.4
Total Selection	-0.8
Portfolio Trading	-0.1
Benchmark Trading	0.0
Active Trading Impact	-0.1
Buy & Hold Active Return	-0.9

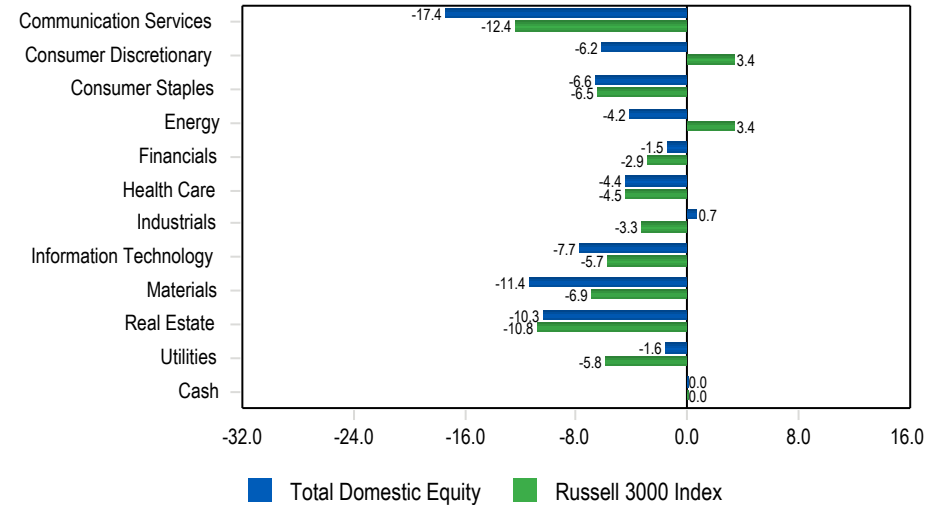
	Allocation — 07/01/2022		Performance — 1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction		
Communication Services	4.5	8.1	-17.4	-12.4	-0.4	0.3	0.2	0.1	
Consumer Discretionary	11.1	10.6	-6.2	3.4	-1.0	0.0	-0.1	-1.0	
Consumer Staples	4.1	6.4	-6.6	-6.5	0.0	0.0	0.0	0.0	
Energy	2.8	4.4	-4.2	3.4	-0.3	-0.1	0.1	-0.3	
Financials	13.7	11.6	-1.5	-2.9	0.2	0.0	0.0	0.2	
Health Care	16.4	14.9	-4.4	-4.5	0.0	0.0	0.0	0.0	
Industrials	14.0	8.9	0.7	-3.3	0.3	0.1	0.2	0.6	
Information Technology	25.1	25.5	-7.7	-5.7	-0.5	0.0	0.0	-0.5	
Materials	4.0	2.9	-11.4	-6.9	-0.1	0.0	0.0	-0.2	
Real Estate	1.7	3.7	-10.3	-10.8	0.0	0.1	0.0	0.1	
Utilities	1.1	3.0	-1.6	-5.8	0.1	0.0	-0.1	0.1	
Cash	1.5	0.0	0.0	0.0	0.0	0.1	0.0	0.1	
Total	100.0	100.0	-5.3	-4.4	-1.7	0.5	0.4	-0.8	



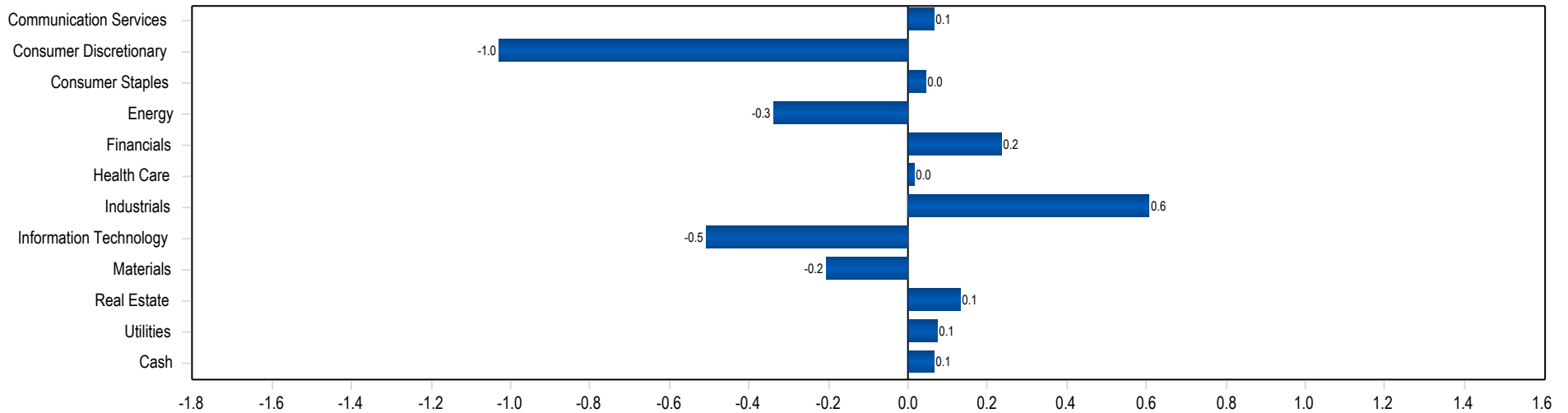
**Allocation**



**Performance**



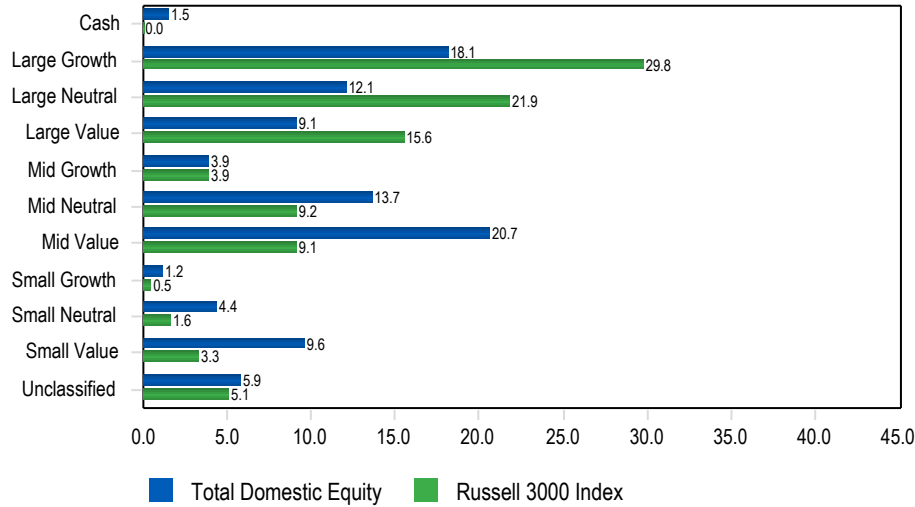
**Total Attribution**



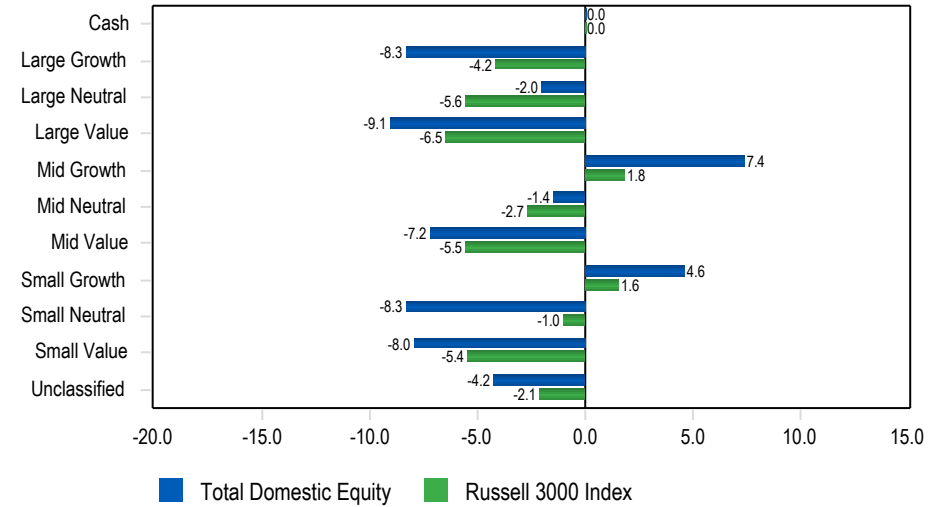
Buy-and-Hold Portfolio	-5.3
Portfolio Trading	-0.1
Actual Return	-5.4
Benchmark Return	-4.5
Actual Active Return	-0.9
Stock Selection	-1.0
Style Selection	0.3
Interaction	-0.2
Total Selection	-0.8
Portfolio Trading	-0.1
Benchmark Trading	0.0
Active Trading Impact	-0.1
Buy & Hold Active Return	-0.9

	Allocation-07/01/2022		Performance-1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction		
Cash	1.5	0.0	0.0	0.0	0.0	0.1	0.0	0.1	
Large Growth	18.1	29.8	-8.3	-4.2	-1.2	0.0	0.5	-0.8	
Large Neutral	12.1	21.9	-2.0	-5.6	0.8	0.1	-0.3	0.5	
Large Value	9.1	15.6	-9.1	-6.5	-0.4	0.1	0.2	-0.1	
Mid Growth	3.9	3.9	7.4	1.8	0.2	0.0	0.0	0.2	
Mid Neutral	13.7	9.2	-1.4	-2.7	0.1	0.1	0.1	0.3	
Mid Value	20.7	9.1	-7.2	-5.5	-0.1	-0.1	-0.2	-0.5	
Small Growth	1.2	0.5	4.6	1.6	0.0	0.0	0.0	0.1	
Small Neutral	4.4	1.6	-8.3	-1.0	-0.1	0.1	-0.2	-0.2	
Small Value	9.6	3.3	-8.0	-5.4	-0.1	-0.1	-0.2	-0.3	
Unclassified	5.9	5.1	-4.2	-2.1	-0.1	0.0	0.0	-0.1	
Total	100.0	100.0	-5.3	-4.4	-1.0	0.3	-0.2	-0.8	

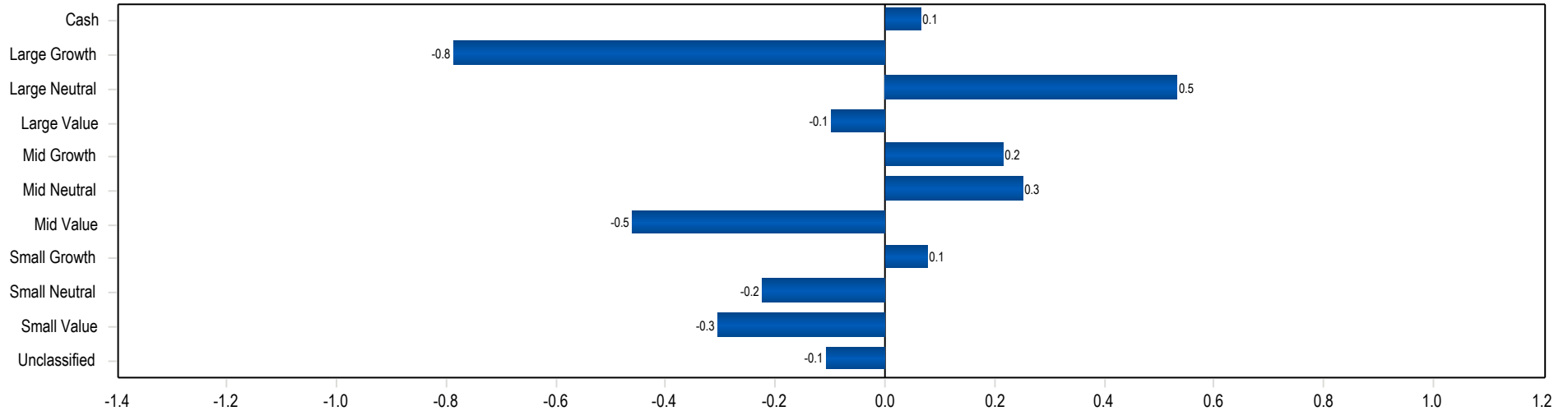
Allocation



Performance



Total Attribution



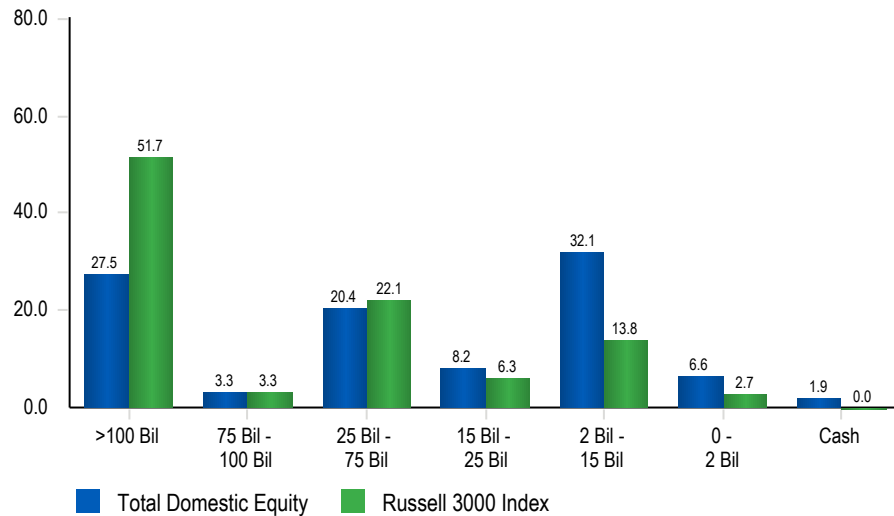
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Amazon.com Inc	2.4	2.8	-0.4	6.4
Microsoft Corp	1.8	4.9	-3.1	-9.1
Apple Inc	1.7	5.9	-4.2	1.2
Visa Inc	1.6	0.8	0.8	-9.6
Ameriprise Financial Inc	1.4	0.1	1.3	6.5
Uber Technologies Inc	1.1	0.1	1.0	29.5
United Rentals Inc.	1.0	0.1	0.9	11.2
Unitedhealth Group Inc	1.0	1.3	-0.3	-1.4
NVIDIA Corporation	1.0	0.8	0.2	-19.9
Assurant Inc.	0.9	0.0	0.9	-15.6
% of Portfolio	13.9	16.8	-2.9	

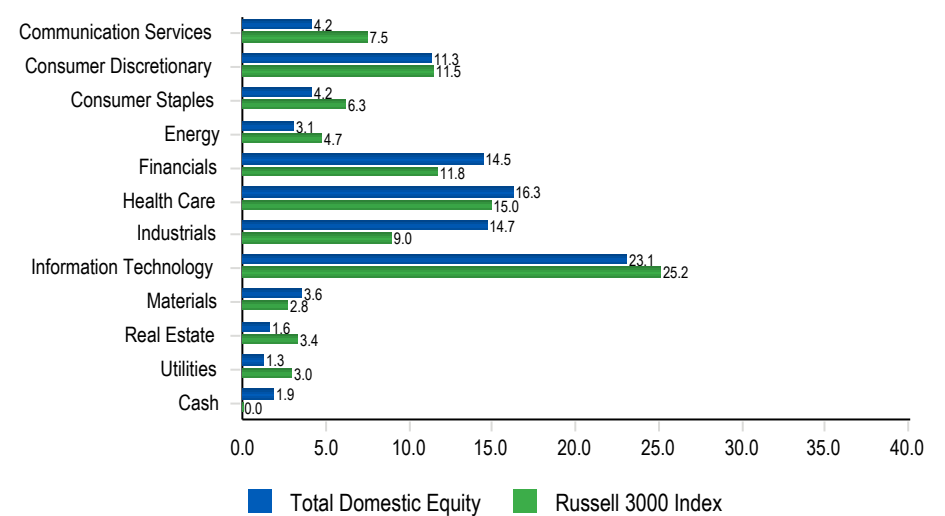
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	165,096,188,528	395,275,363,427
Median Mkt. Cap (\$)	15,757,843,020	1,824,968,540
Price/Earnings ratio	13.2	17.2
Price/Book ratio	2.8	3.5
5 Yr. EPS Growth Rate (%)	17.1	18.3
Current Yield (%)	1.6	1.8
Beta (5 Years, Monthly)	1.1	1.0
Number of Stocks	757	2,986

Distribution of Market Capitalization (%)



Sector Weights (%)



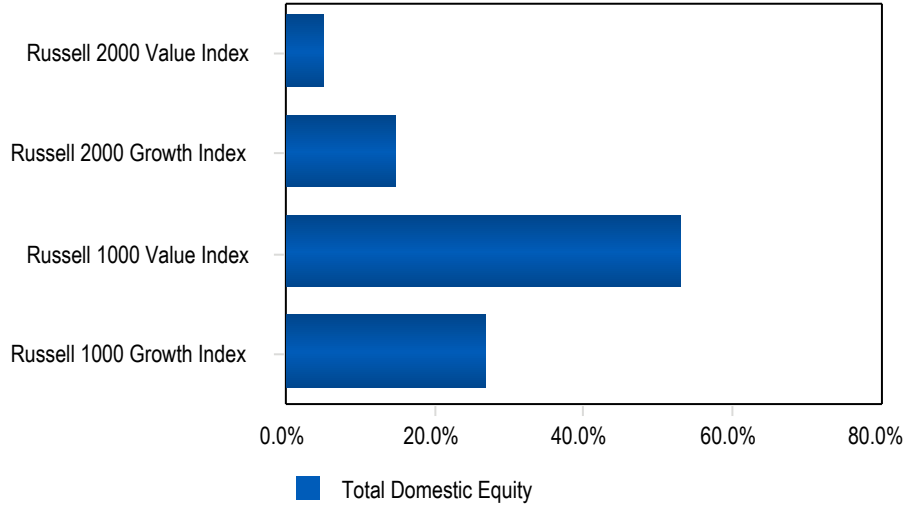
## Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Wolfspeed Inc	0.3	0.0	0.3	62.9
Array Technologies Inc	0.2	0.0	0.2	50.6
CommScope Holding Co Inc	0.3	0.0	0.3	50.5
Sarepta Therapeutics Inc	0.2	0.0	0.2	47.5
Constellation Energy Corp	0.0	0.1	-0.1	45.5
Enphase Energy Inc	0.0	0.1	-0.1	42.1
Dick's Sporting Goods Inc.	0.1	0.0	0.1	39.4
Etsy Inc	0.0	0.0	0.0	36.8
Livent Corp	0.1	0.0	0.1	35.1
Netflix Inc	0.4	0.3	0.1	34.6
% of Portfolio	1.6	0.5	1.1	

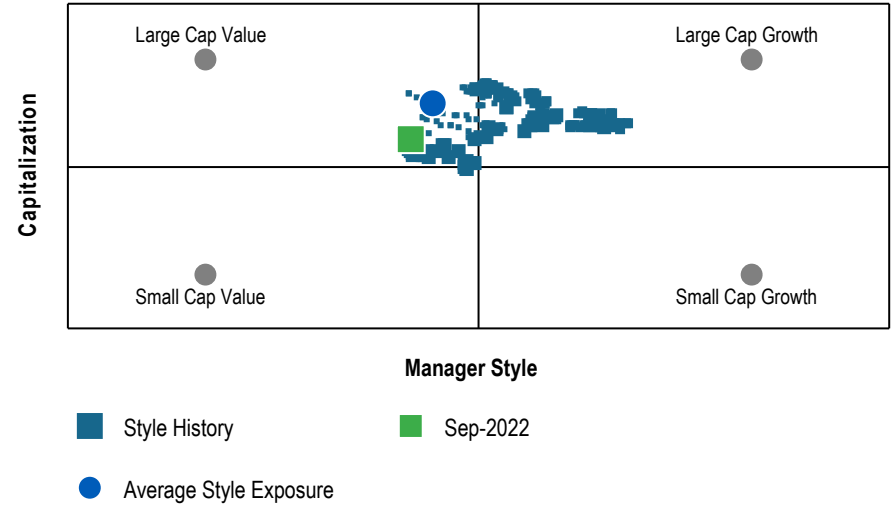
## Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Sotera Health Co	0.0	0.0	0.0	-65.2
Cardlytics Inc	0.0	0.0	0.0	-57.9
Trinseo PLC	0.0	0.0	0.0	-52.0
SiTime Corp	0.1	0.0	0.1	-51.7
Argo Group International Holdings Ltd	0.0	0.0	0.0	-46.9
Semtech Corp	0.1	0.0	0.1	-46.5
Scotts Miracle-Gro Co (The)	0.1	0.0	0.1	-45.4
Ouster Inc	0.0	0.0	0.0	-40.5
2U Inc	0.0	0.0	0.0	-40.3
Steelcase Inc.	0.1	0.0	0.1	-38.4
% of Portfolio	0.4	0.0	0.4	

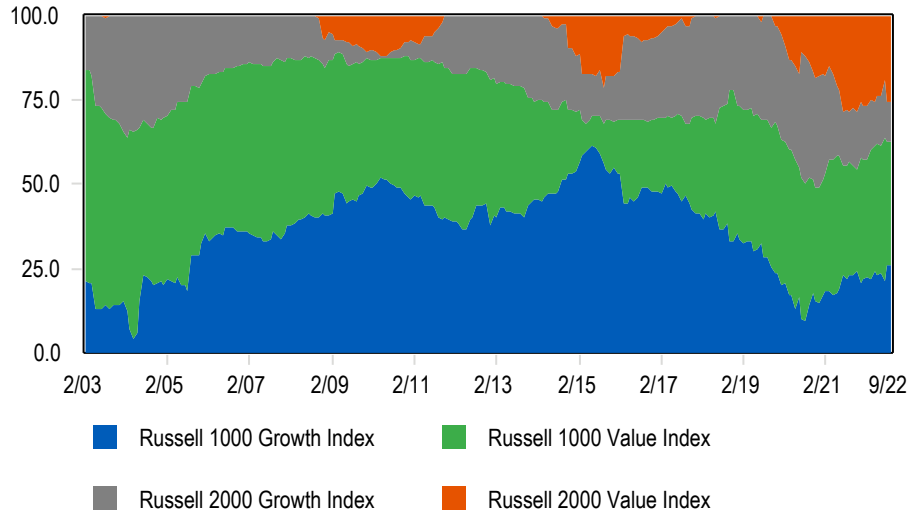
Investment Style Exposure



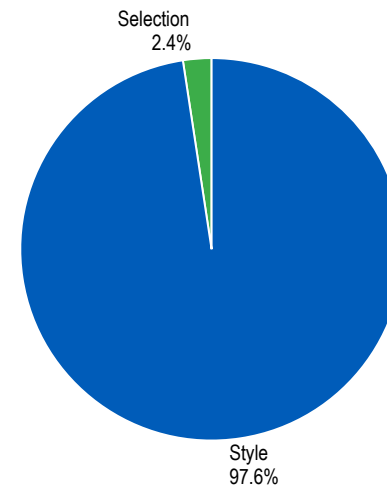
Style Map(36 Months)

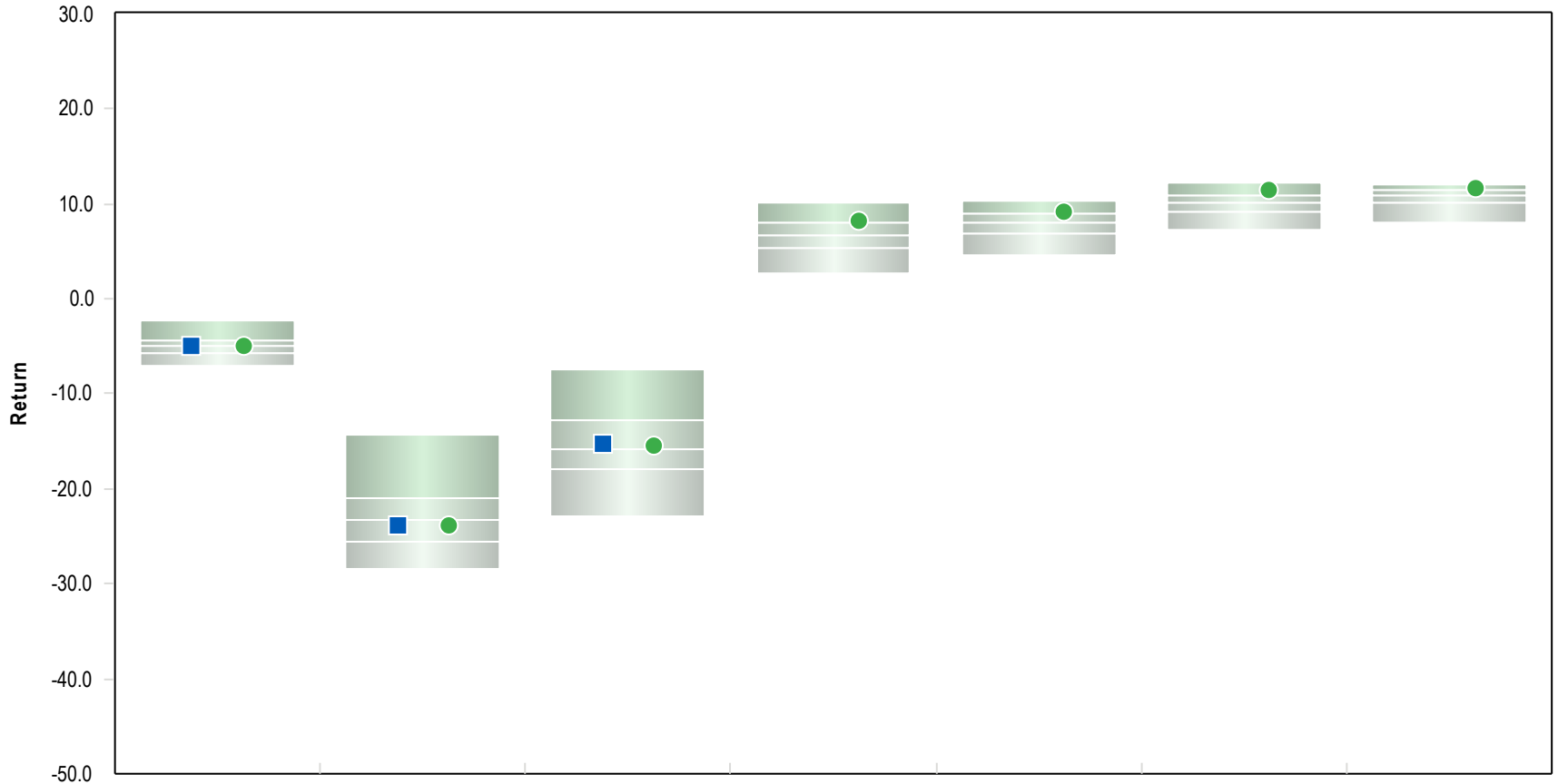


Style History(36 Months)



Return Variance





	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ NT S&P 500 Index	-4.9 (44)	-23.8 (56)	-15.3 (44)				
● S&P 500	-4.9 (45)	-23.9 (56)	-15.5 (45)	8.2 (22)	9.2 (22)	11.4 (18)	11.7 (13)
5th Percentile	-2.3	-14.3	-7.4	10.1	10.4	12.2	12.0
1st Quartile	-4.3	-21.1	-12.8	8.0	9.0	11.0	11.4
Median	-5.0	-23.2	-15.8	6.6	8.1	10.1	11.0
3rd Quartile	-5.7	-25.5	-18.0	5.4	7.0	9.3	10.1
95th Percentile	-7.0	-28.4	-22.8	2.6	4.7	7.2	8.1

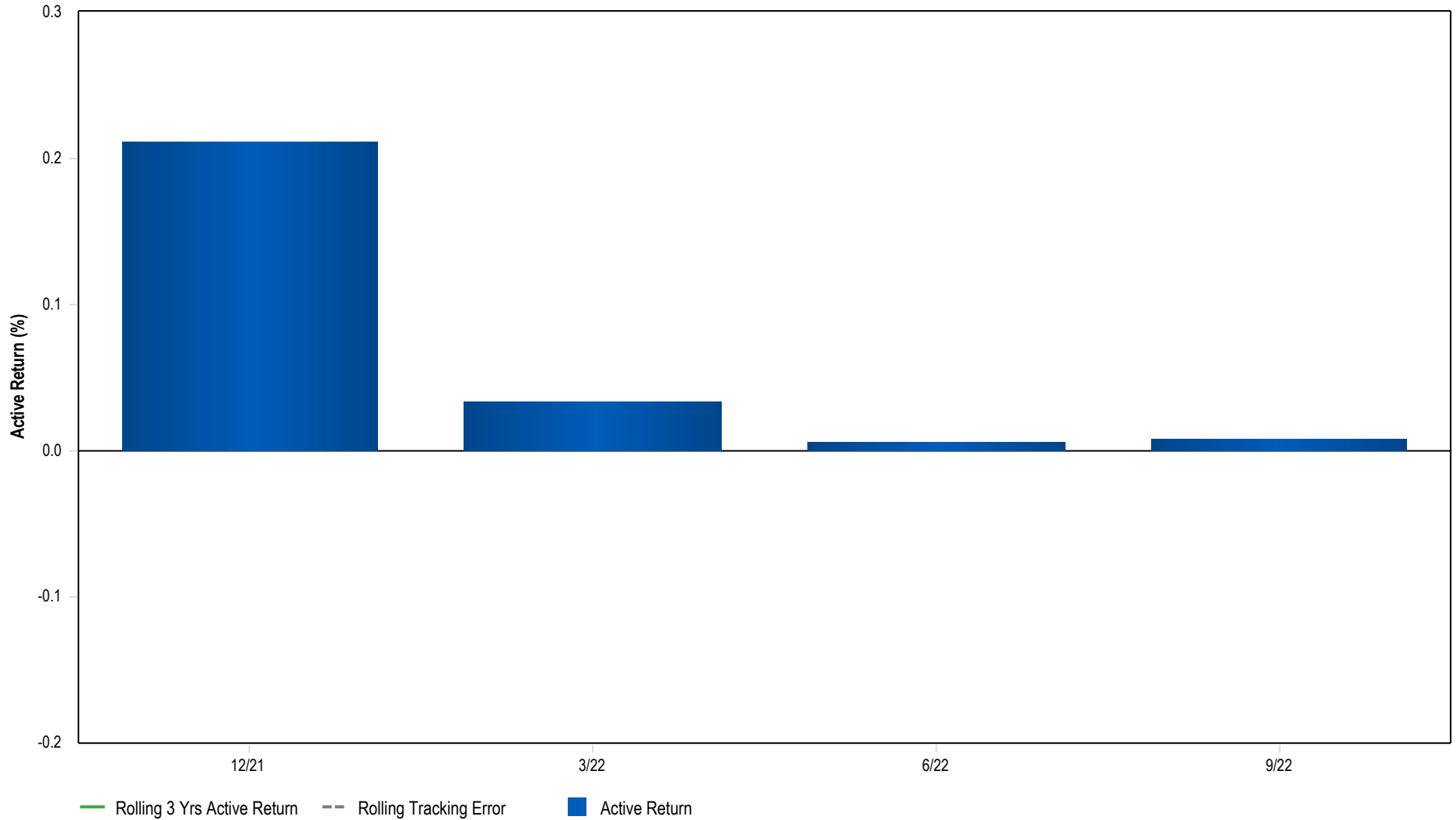
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

Bristol County Retirement System

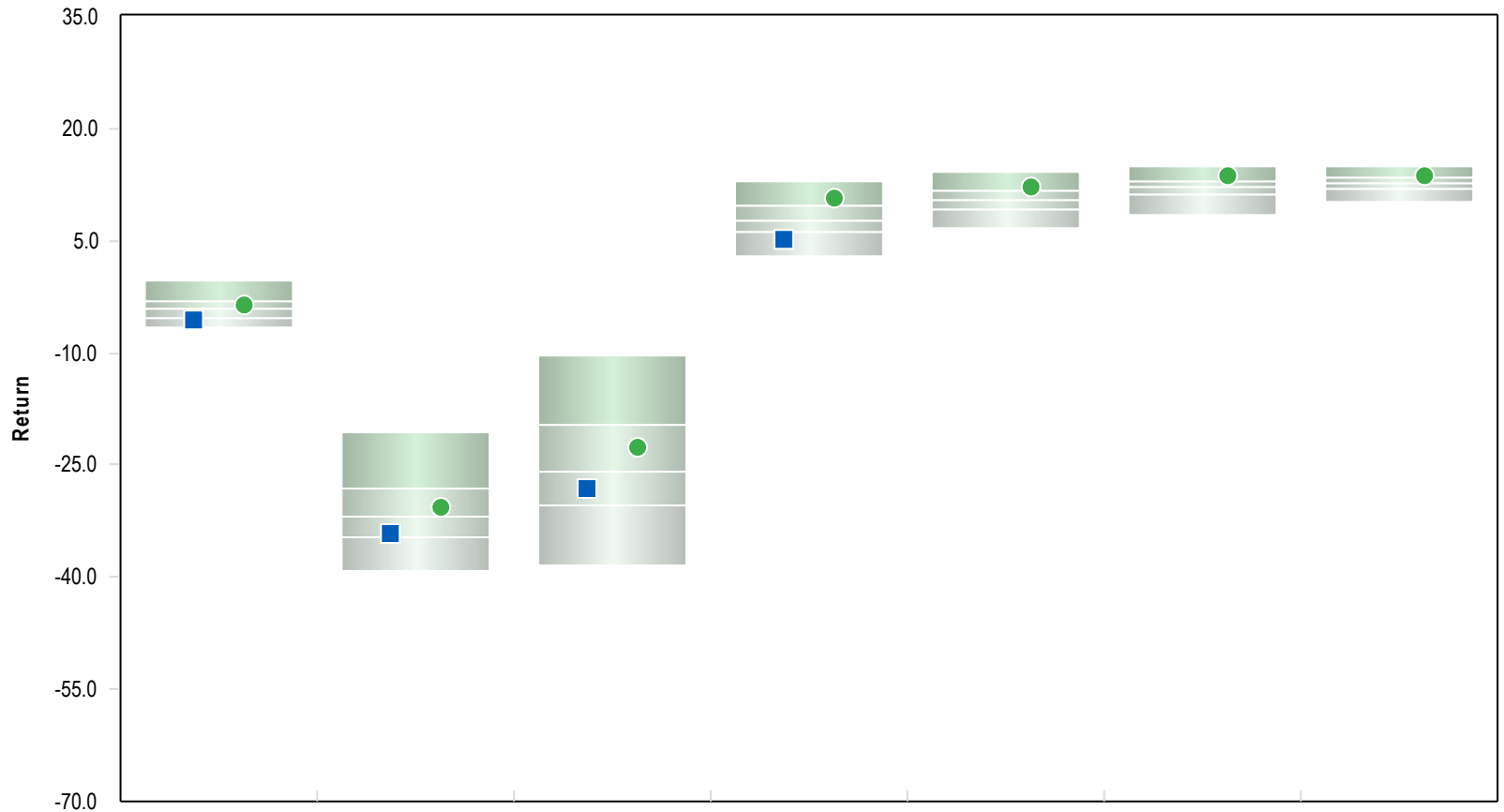
Comparative Performance & Rolling Return

As of September 30, 2022

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
NT S&P 500 Index	-4.9	-23.8	-15.3								
S&P 500	-4.9	-23.9	-15.5	8.2	9.2	11.4	11.7	28.7	18.4	31.5	-4.4
Difference	0.0	0.1	0.2								



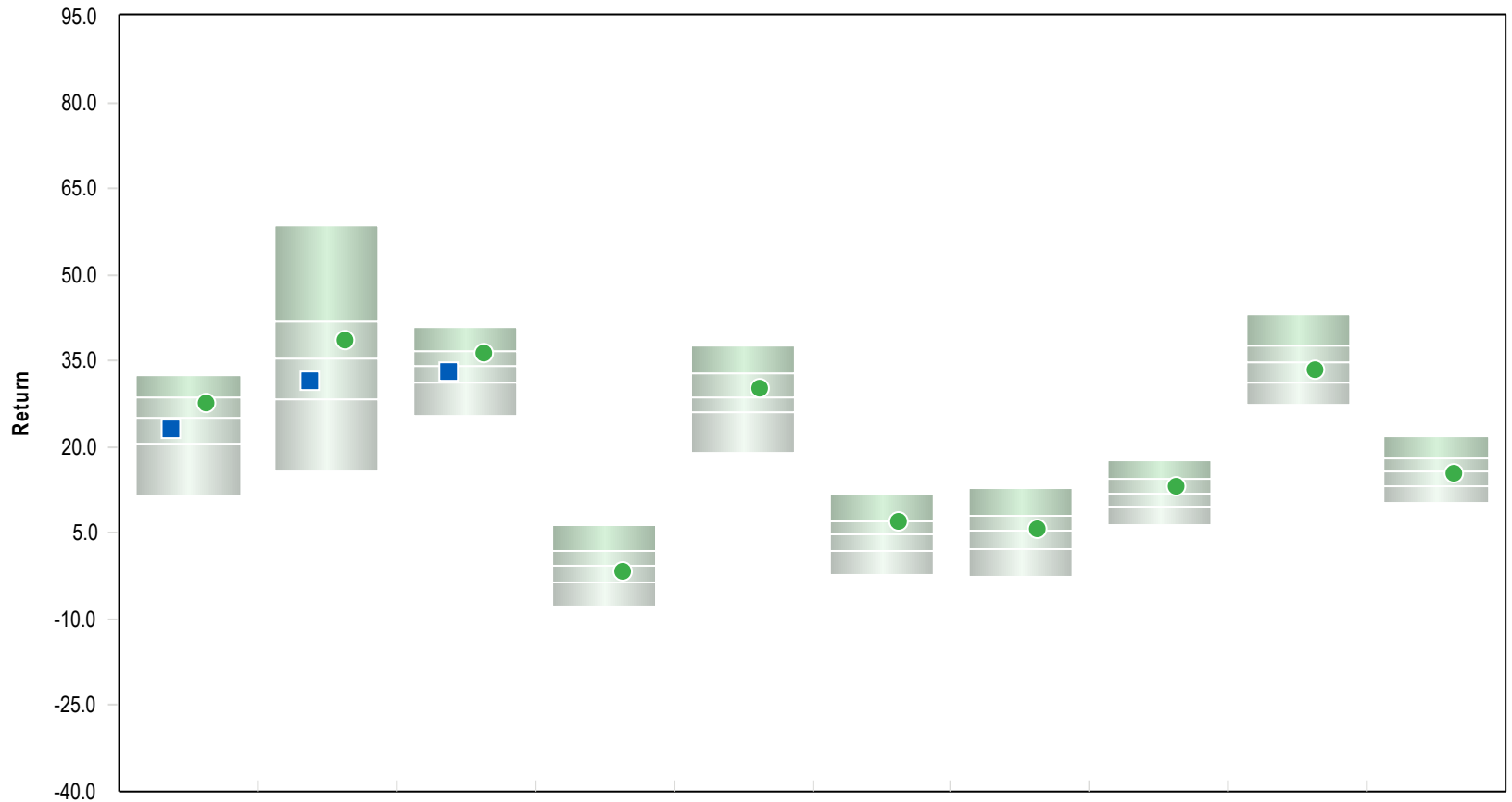




	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ ClearBridge Large Cap Growth	-5.5 (83)	-34.3 (72)	-28.2 (66)	5.1 (85)	12.2 (20)	13.7 (14)	13.7 (19)
● Russell 1000 Growth Index	-3.6 (36)	-30.7 (43)	-22.6 (37)	10.7 (18)	12.2 (20)	13.7 (14)	13.7 (19)

5th Percentile	-0.4	-20.5	-10.3	13.1	14.2	14.9	14.8
1st Quartile	-3.1	-28.2	-19.6	9.6	11.8	13.1	13.4
Median	-4.1	-31.9	-25.8	7.8	10.5	12.1	12.8
3rd Quartile	-5.3	-34.7	-30.4	6.1	9.2	11.1	12.0
95th Percentile	-6.7	-39.1	-38.5	3.0	6.6	8.5	10.2

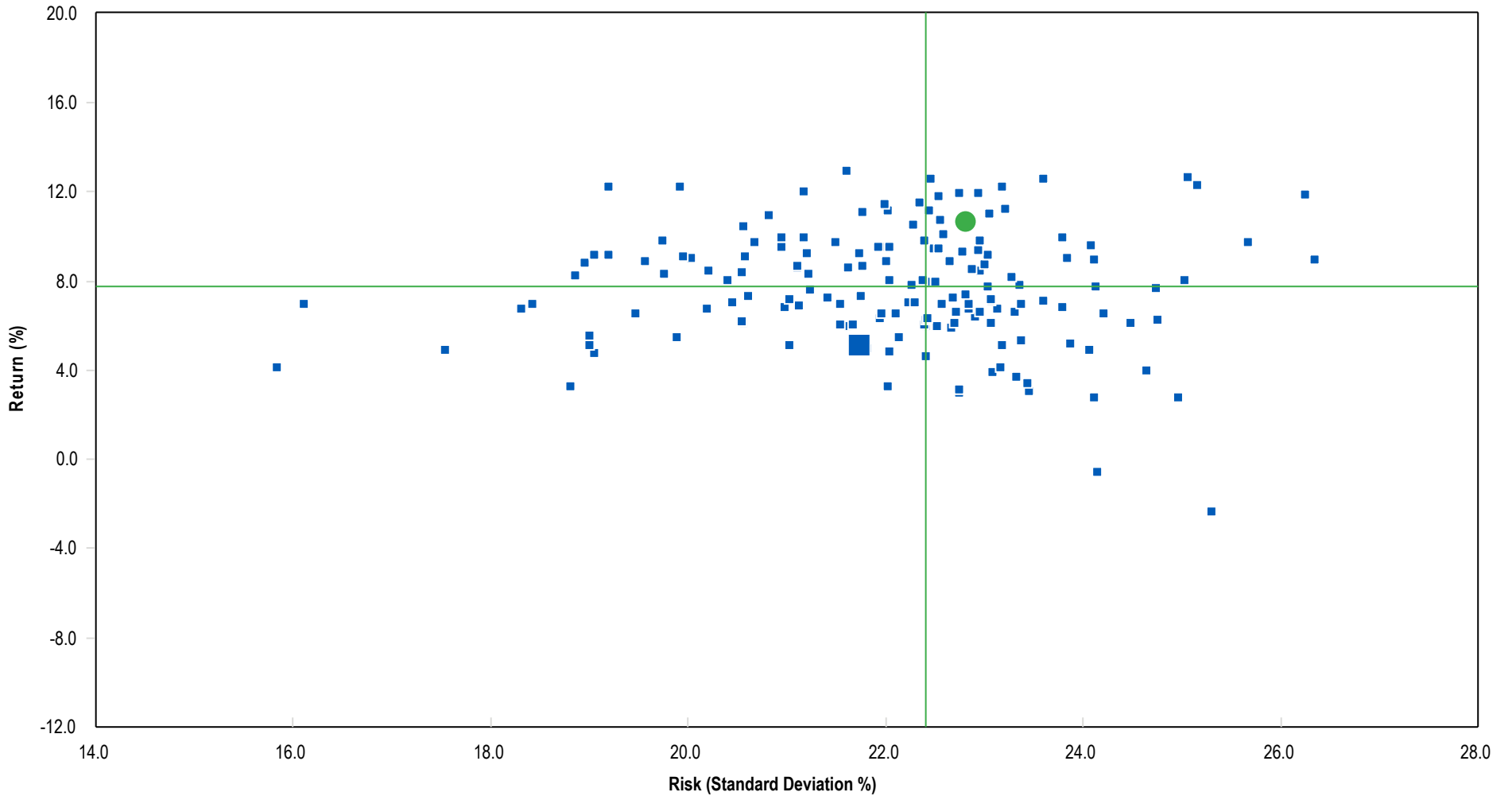
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ ClearBridge Large Cap Growth	23.0 (63)	31.6 (68)	33.2 (58)		30.2 (40)	7.1 (26)	5.7 (49)	13.1 (39)	33.5 (61)	15.3 (53)
● Russell 1000 Growth Index	27.6 (32)	38.5 (35)	36.4 (27)	-1.5 (58)	30.2 (40)	7.1 (26)	5.7 (49)	13.1 (39)	33.5 (61)	15.3 (53)

5th Percentile	32.5	58.6	40.7	6.3	37.6	11.8	12.8	17.6	43.3	21.7
1st Quartile	28.5	41.8	36.7	1.9	32.7	7.2	8.1	14.4	37.6	17.8
Median	24.9	35.4	34.0	-0.5	28.5	4.6	5.4	11.9	34.6	15.6
3rd Quartile	20.5	28.5	31.2	-3.7	26.0	1.9	2.3	9.6	31.3	13.3
95th Percentile	11.6	15.7	25.3	-7.8	18.9	-2.3	-2.5	6.3	27.5	10.1

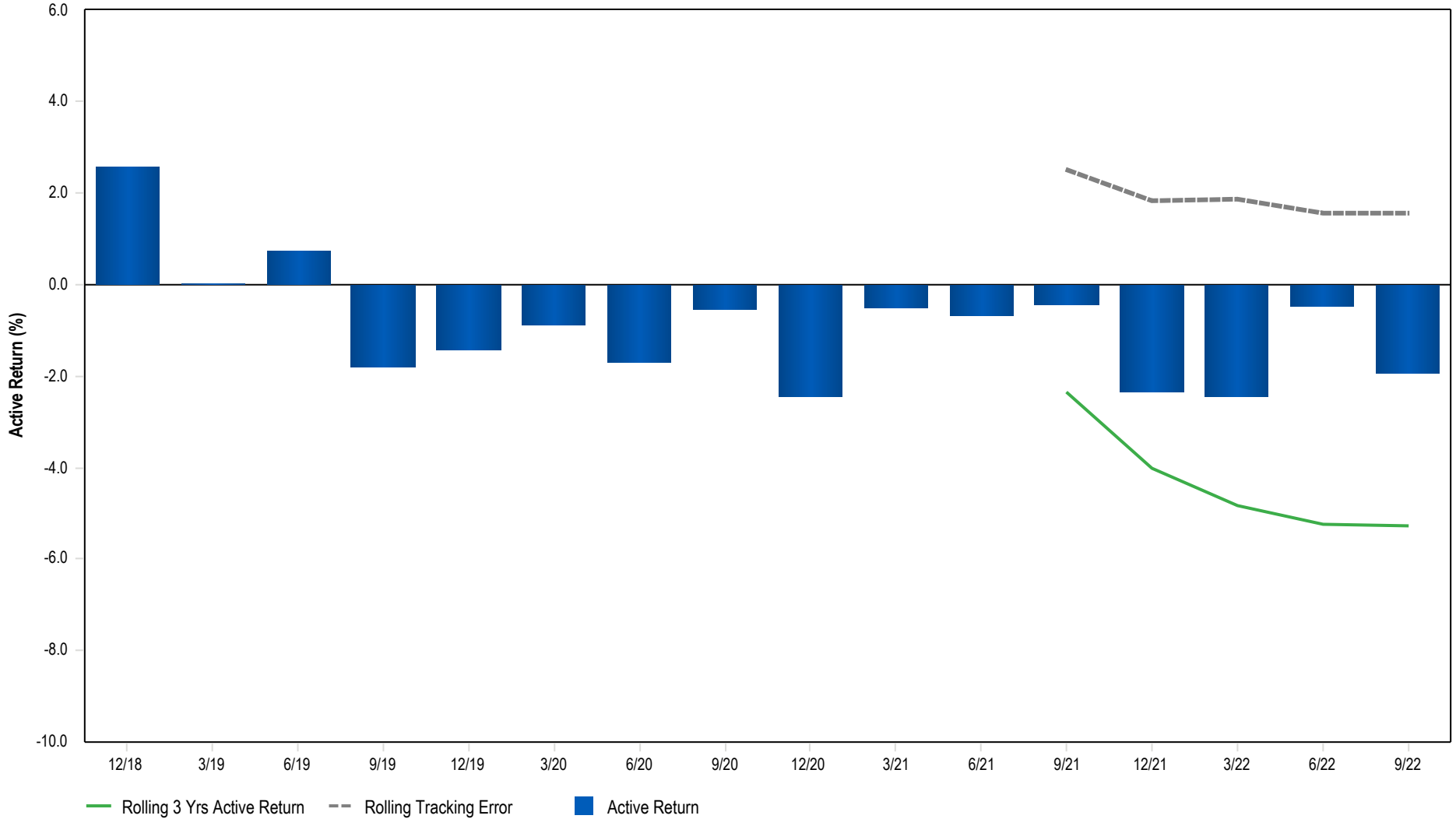
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ ClearBridge Large Cap Growth	5.1	21.7
● Russell 1000 Growth Index	10.7	22.8
— Median	7.8	22.4

Calculation based on monthly periodicity.

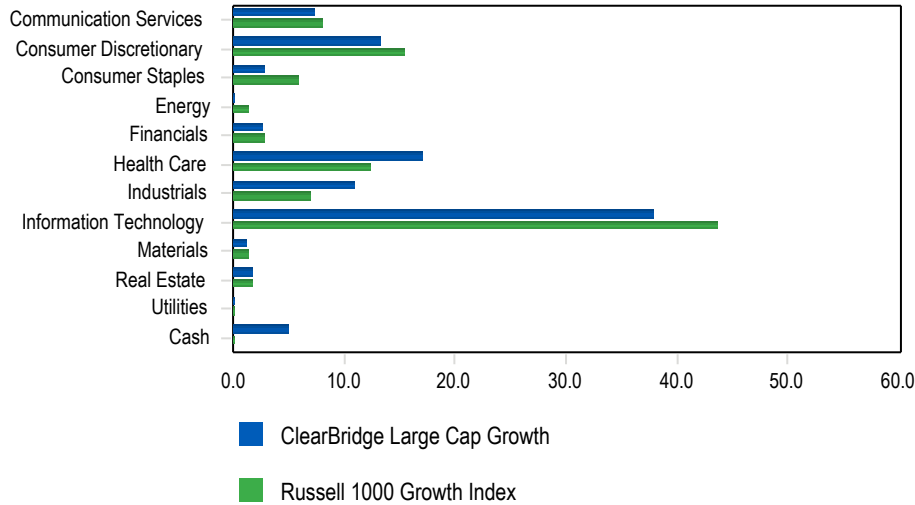
	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
ClearBridge Large Cap Growth	-5.5	-34.3	-28.2	5.1				23.0	31.6	33.2	
Russell 1000 Growth Index	-3.6	-30.7	-22.6	10.7	12.2	13.7	13.7	27.6	38.5	36.4	-1.5
Difference	-1.9	-3.6	-5.6	-5.6				-4.6	-6.9	-3.2	



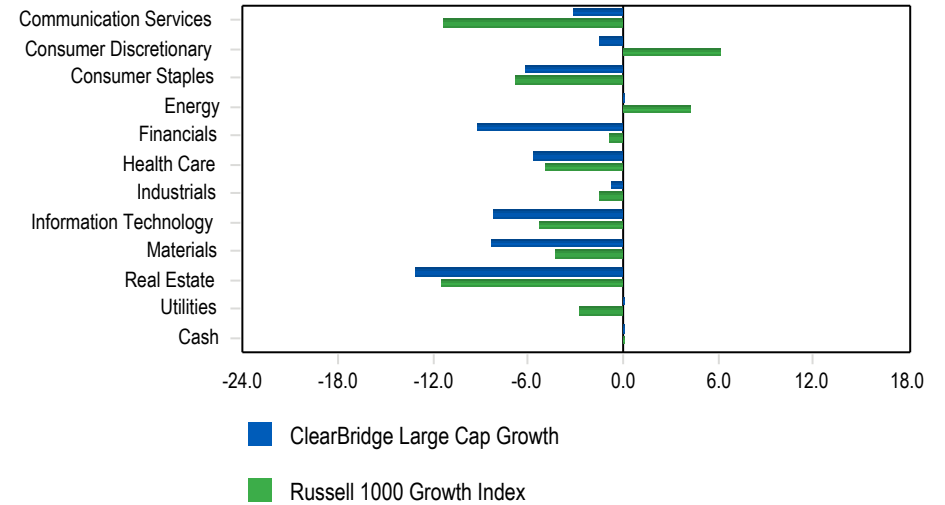
Buy-and-Hold Portfolio	-5.3
Portfolio Trading	-0.2
Actual Return	-5.5
Benchmark Return	-3.6
Actual Active Return	-1.9
Stock Selection	-2.1
Sector Selection	0.1
Interaction	0.3
Total Selection	-1.7
Portfolio Trading	-0.2
Benchmark Trading	0.0
Active Trading Impact	-0.2
Buy & Hold Active Return	-1.9

	Allocation — 07/01/2022		Performance — 1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction		
Communication Services	7.3	8.1	-3.1	-11.3	0.7	0.1	-0.1	0.7	
Consumer Discretionary	13.3	15.5	-1.5	6.1	-1.2	-0.2	0.2	-1.2	
Consumer Staples	2.9	5.9	-6.2	-6.8	0.0	0.1	0.0	0.1	
Energy	0.0	1.5	0.0	4.3	0.0	-0.1	0.0	-0.1	
Financials	2.7	3.0	-9.2	-0.9	-0.2	0.0	0.0	-0.2	
Health Care	17.1	12.3	-5.6	-4.9	-0.1	-0.1	0.0	-0.2	
Industrials	10.9	7.1	-0.7	-1.6	0.1	0.1	0.0	0.2	
Information Technology	37.9	43.6	-8.1	-5.2	-1.3	0.1	0.2	-1.0	
Materials	1.3	1.4	-8.3	-4.3	-0.1	0.0	0.0	-0.1	
Real Estate	1.7	1.8	-13.0	-11.4	0.0	0.0	0.0	0.0	
Utilities	0.0	0.0	0.0	-2.7	0.0	0.0	0.0	0.0	
Cash	5.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	
Total	100.0	100.0	-5.3	-3.6	-2.1	0.1	0.3	-1.7	

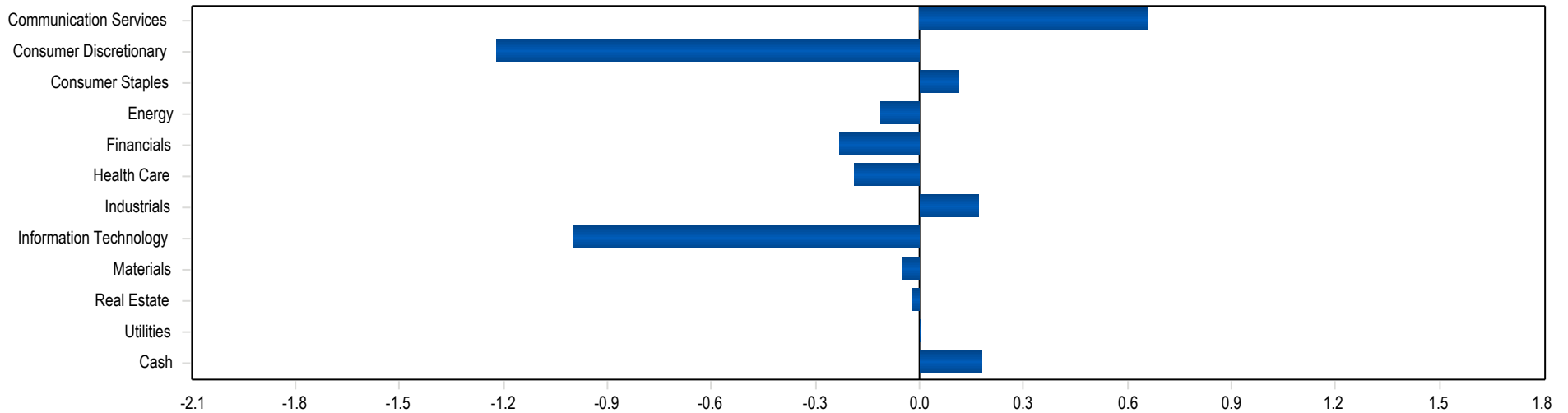
Allocation



Performance



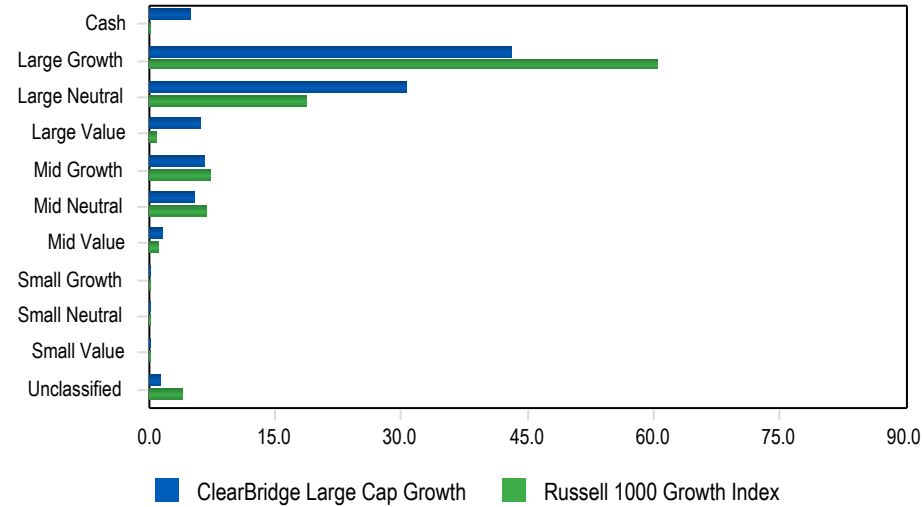
Total Attribution



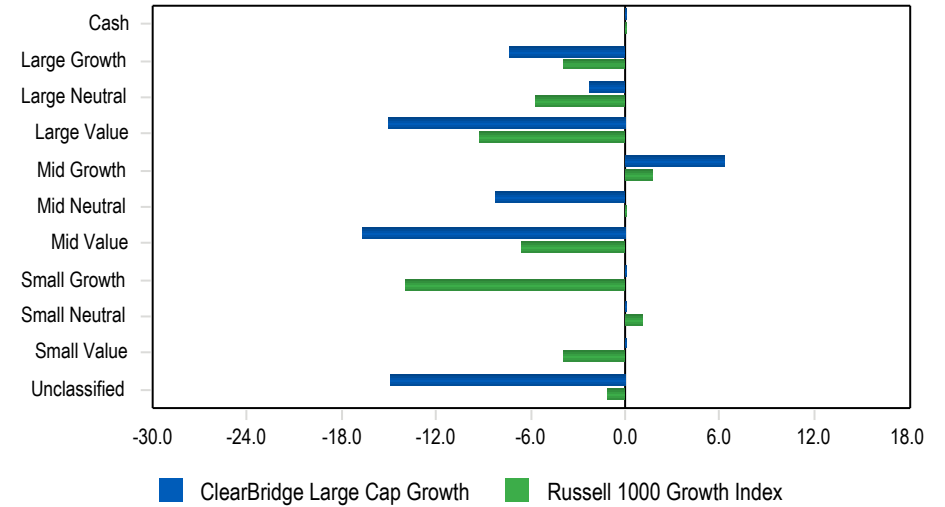
Buy-and-Hold Portfolio	-5.3
Portfolio Trading	-0.2
Actual Return	-5.5
Benchmark Return	-3.6
Actual Active Return	-1.9
Stock Selection	-2.4
Style Selection	-0.4
Interaction	1.1
Total Selection	-1.7
Portfolio Trading	-0.2
Benchmark Trading	0.0
Active Trading Impact	-0.2
Buy & Hold Active Return	-1.9

	Allocation-07/01/2022		Performance-1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction		
Cash	5.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	
Large Growth	43.2	60.5	-7.4	-4.0	-2.0	0.1	0.6	-1.4	
Large Neutral	30.6	18.8	-2.2	-5.7	0.6	-0.2	0.4	0.8	
Large Value	6.1	1.1	-15.0	-9.3	-0.1	-0.3	-0.3	-0.6	
Mid Growth	6.6	7.3	6.3	1.7	0.3	0.0	0.0	0.3	
Mid Neutral	5.5	6.8	-8.3	0.0	-0.6	0.0	0.1	-0.5	
Mid Value	1.7	1.1	-16.8	-6.6	-0.1	0.0	-0.1	-0.2	
Small Growth	0.0	0.2	0.0	-14.0	0.0	0.0	0.0	0.0	
Small Neutral	0.0	0.2	0.0	1.1	0.0	0.0	0.0	0.0	
Small Value	0.0	0.0	0.0	-4.0	0.0	0.0	0.0	0.0	
Unclassified	1.3	4.1	-15.0	-1.2	-0.6	-0.1	0.4	-0.2	
Total	100.0	100.0	-5.3	-3.6	-2.4	-0.4	1.1	-1.7	

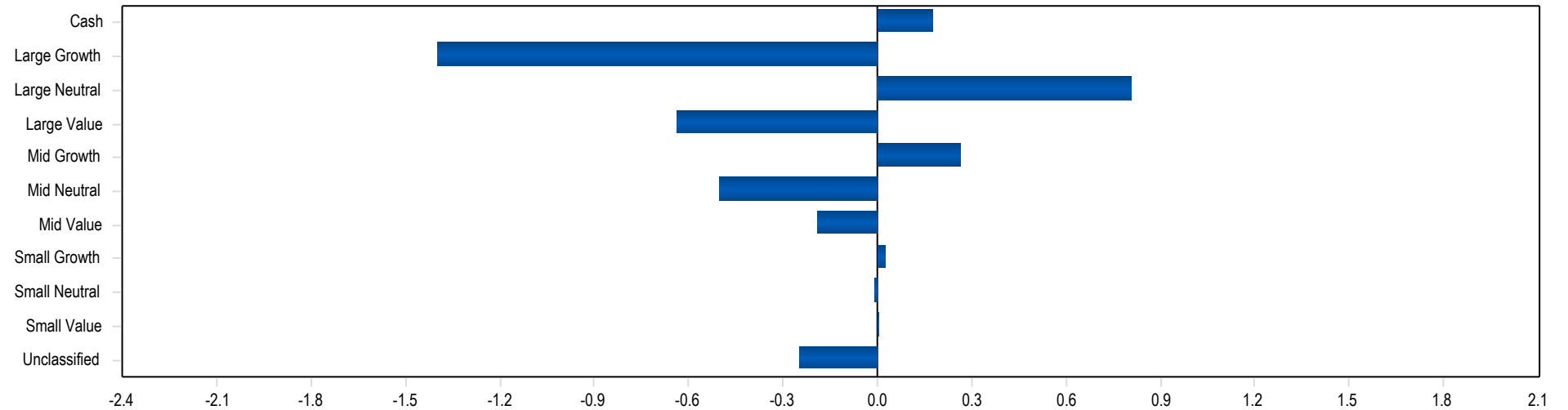
Allocation



Performance



Total Attribution





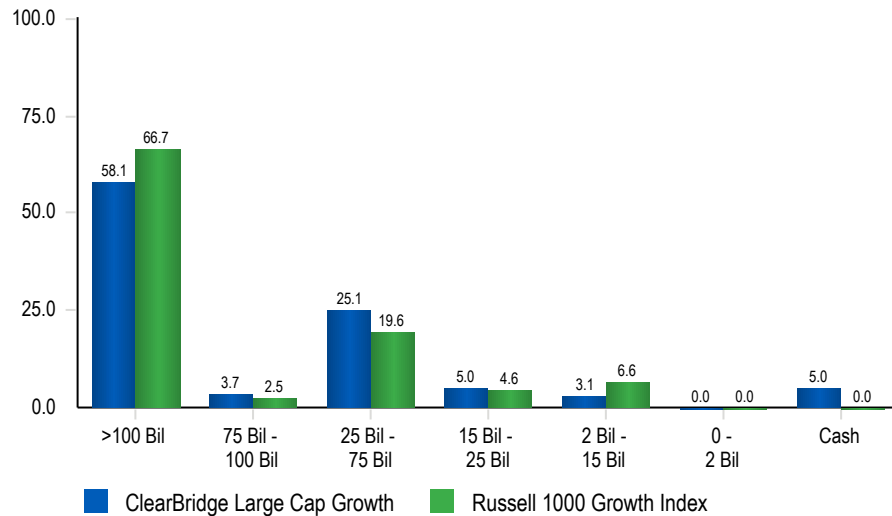
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Amazon.com Inc	8.2	5.9	2.3	6.4
Microsoft Corp	6.9	10.3	-3.4	-9.1
Visa Inc	5.4	1.7	3.7	-9.6
Unitedhealth Group Inc	5.1	2.5	2.6	-1.4
Apple Inc	4.8	12.5	-7.7	1.2
Palo Alto Networks Inc	3.5	0.3	3.2	-0.5
Thermo Fisher Scientific Inc	3.3	0.1	3.2	-6.6
Meta Platforms Inc	3.2	0.4	2.8	-15.9
Monster Beverage Corp	2.8	0.2	2.6	-6.2
Zoetis Inc	2.8	0.4	2.4	-13.6
% of Portfolio	46.0	34.3	11.7	

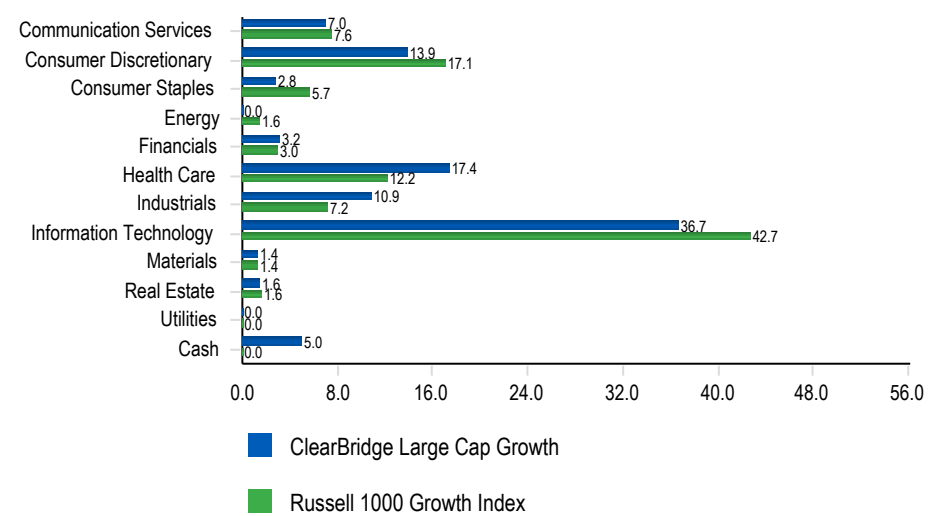
Portfolio Characteristics

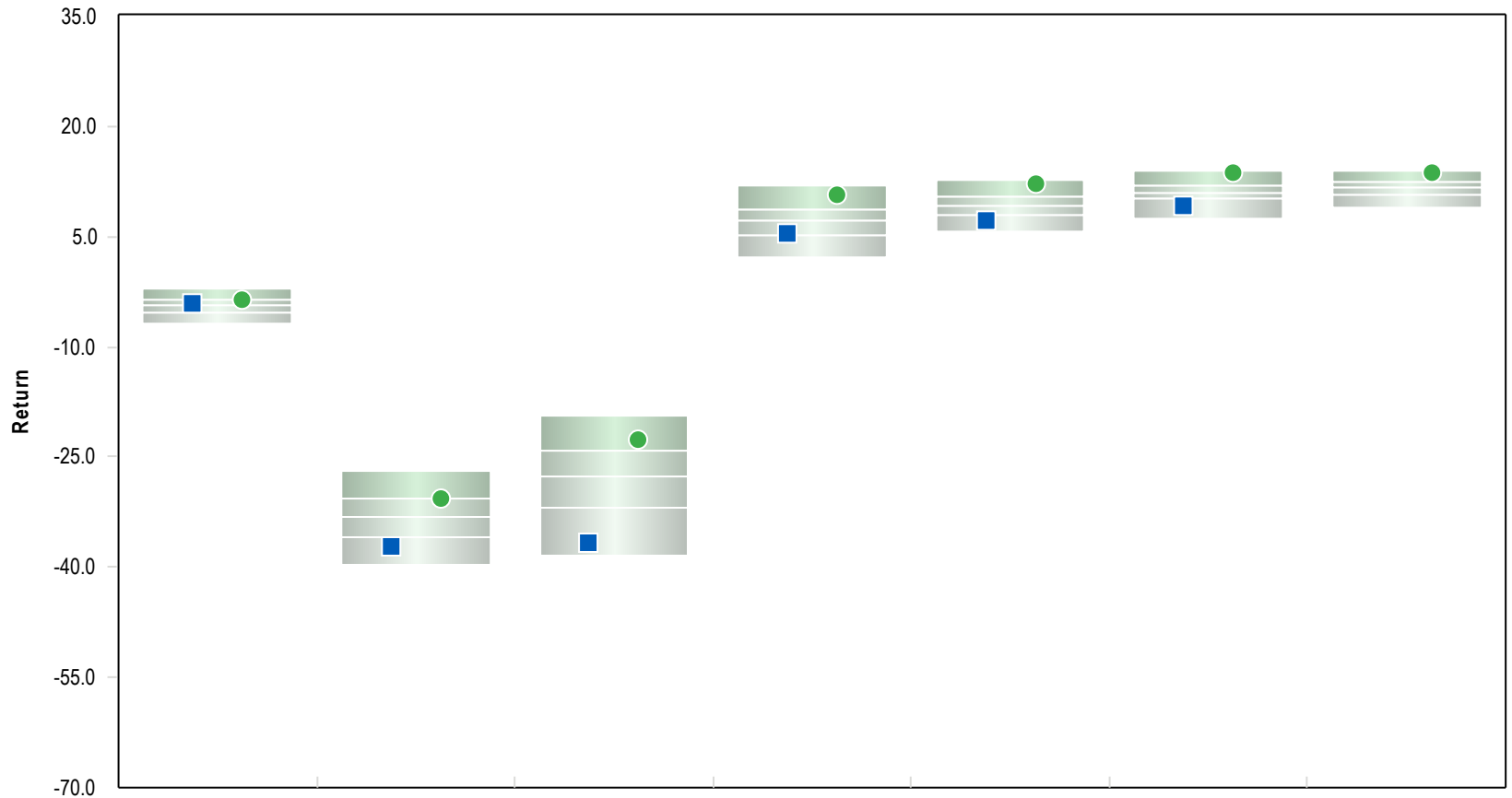
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	427,656,434,352	700,406,311,076
Median Mkt. Cap (\$)	75,561,766,280	13,379,319,520
Price/Earnings ratio	27.5	24.9
Price/Book ratio	5.5	9.1
5 Yr. EPS Growth Rate (%)	20.1	24.0
Current Yield (%)	0.8	1.1
Beta (3 Years, Monthly)	0.9	1.0
Number of Stocks	41	518

Distribution of Market Capitalization (%)



Sector Weights (%)

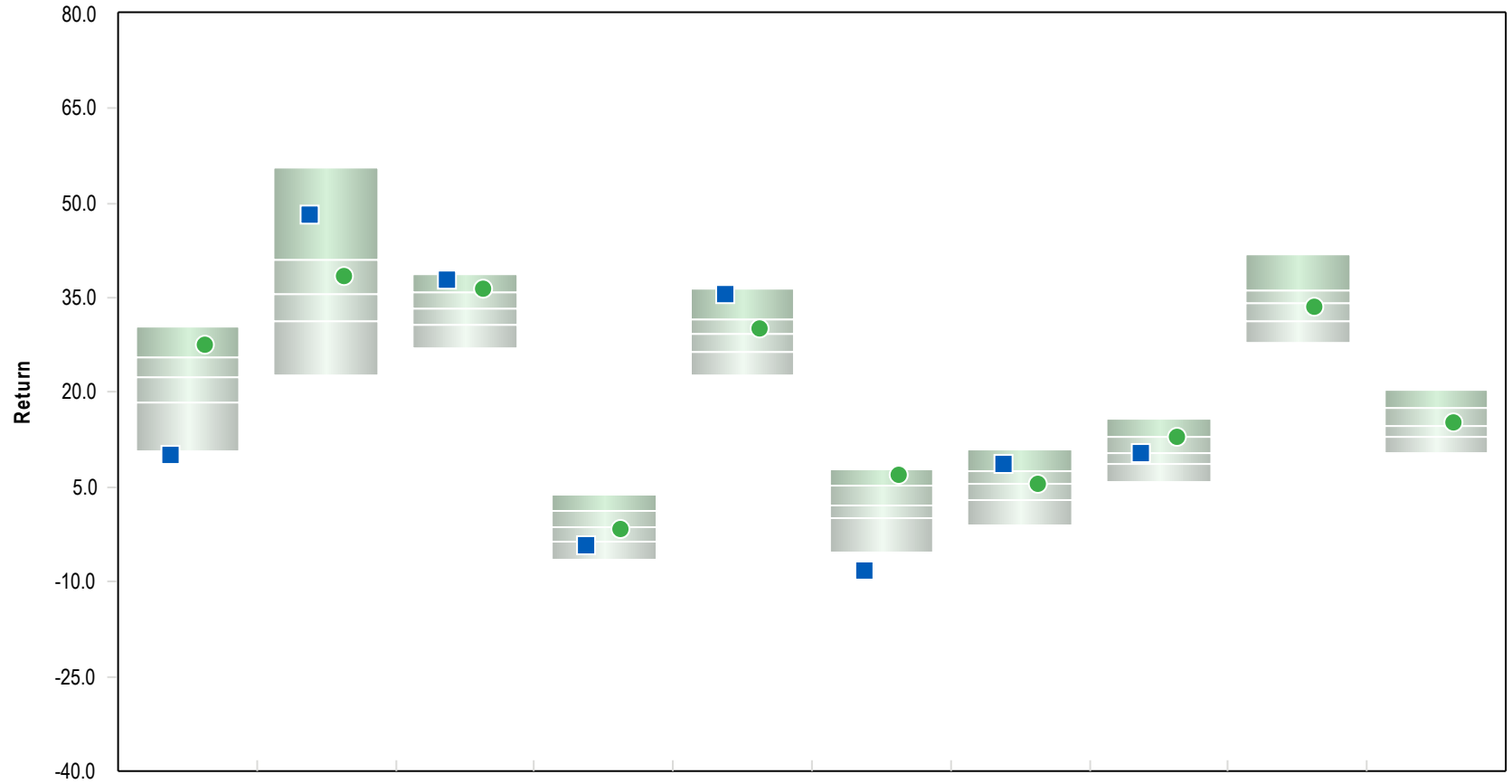




	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Columbia	-4.1 (42)	-37.2 (85)	-36.6 (92)	5.5 (70)	7.2 (85)	9.2 (88)	
● Russell 1000 Growth Index	-3.6 (26)	-30.7 (25)	-22.6 (20)	10.7 (8)	12.2 (8)	13.7 (7)	13.7 (7)

5th Percentile	-2.1	-27.0	-19.5	11.9	12.6	14.0	14.0
1st Quartile	-3.6	-30.7	-24.1	8.7	10.4	11.9	12.4
Median	-4.4	-33.1	-27.7	7.1	9.3	11.0	11.7
3rd Quartile	-5.4	-35.9	-31.8	5.1	8.0	10.1	10.8
95th Percentile	-6.9	-39.6	-38.5	2.2	5.6	7.5	9.1

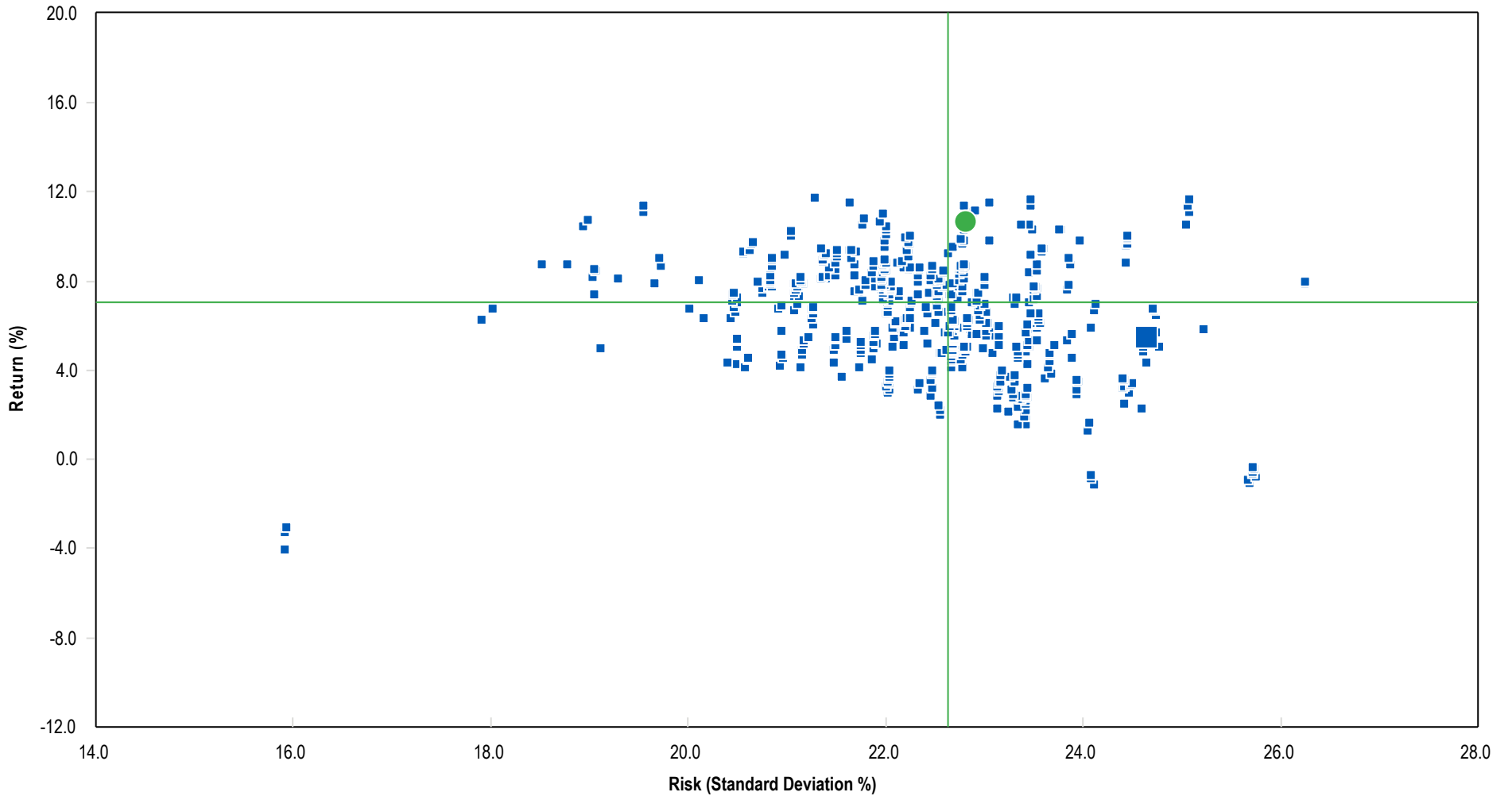
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Columbia	10.0 (96)	48.1 (11)	37.9 (9)	-4.3 (83)	35.6 (8)	-8.2 (98)	8.7 (17)	10.5 (51)	33.5 (57)	15.3 (46)
● Russell 1000 Growth Index	27.6 (17)	38.5 (34)	36.4 (19)	-1.5 (54)	30.2 (39)	7.1 (10)	5.7 (49)	13.1 (24)	33.5 (57)	15.3 (46)

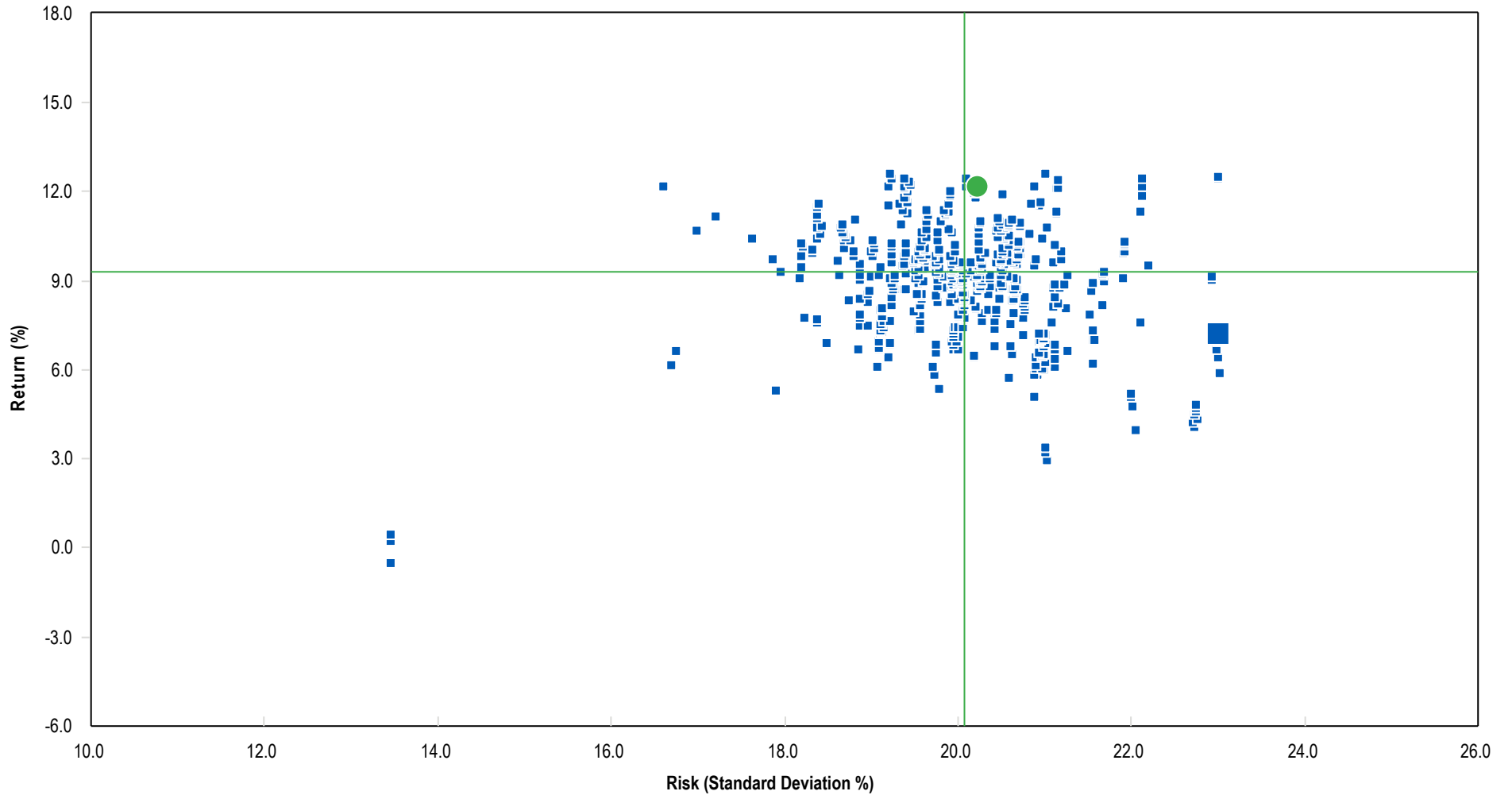
5th Percentile	30.5	55.6	38.7	4.0	36.3	7.9	10.9	15.7	41.9	20.4
1st Quartile	25.6	41.2	35.9	1.2	31.7	5.3	7.6	13.0	36.3	17.5
Median	22.4	35.6	33.3	-1.2	29.3	2.2	5.6	10.5	34.1	14.8
3rd Quartile	18.4	31.2	30.7	-3.6	26.4	0.0	3.1	8.6	31.4	13.0
95th Percentile	10.6	22.6	27.0	-6.6	22.7	-5.3	-1.0	5.8	27.9	10.5

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Columbia	5.5	24.6
● Russell 1000 Growth Index	10.7	22.8
— Median	7.1	22.6

Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Columbia	7.2	23.0
● Russell 1000 Growth Index	12.2	20.2
— Median	9.3	20.1

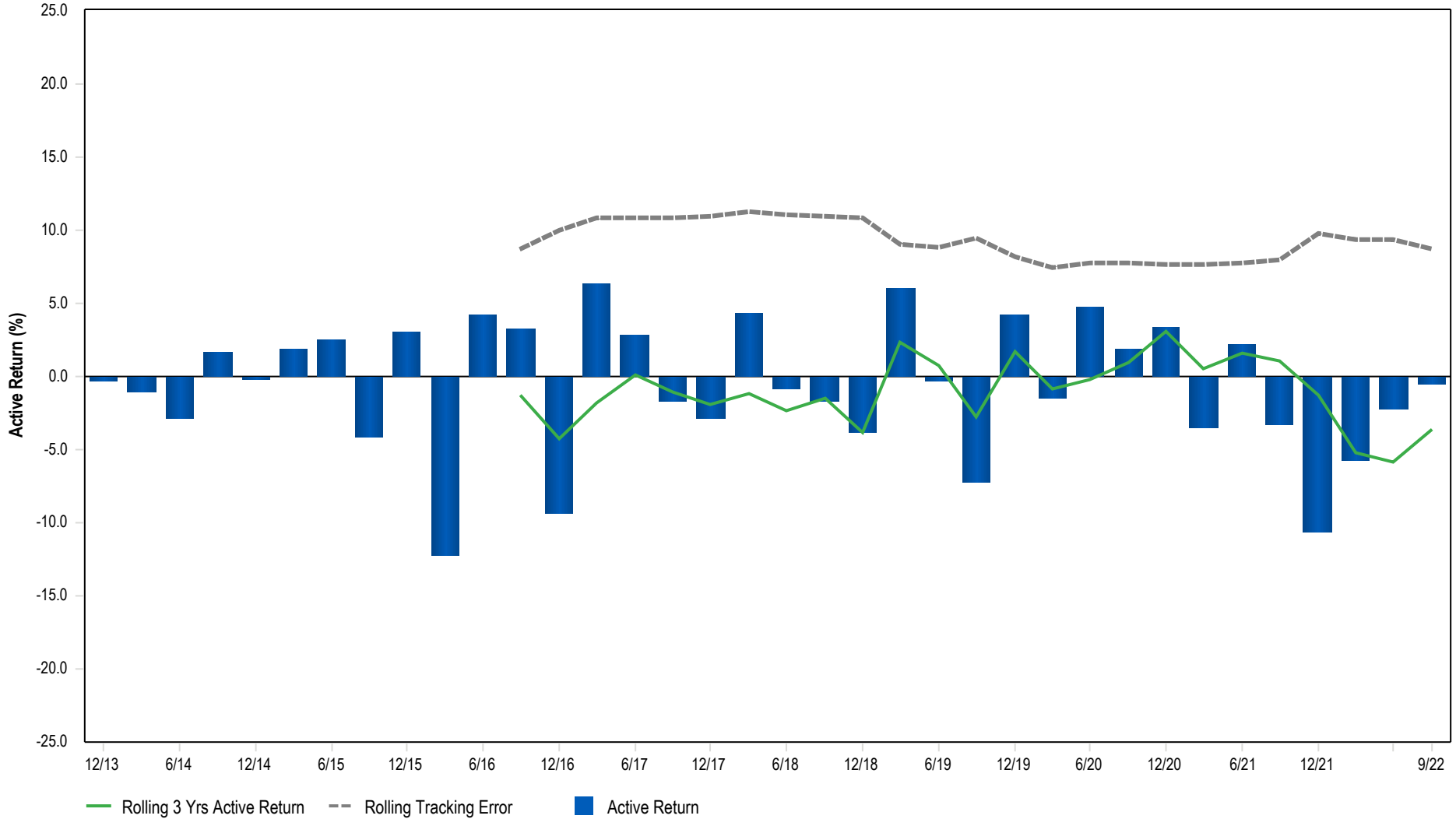
Calculation based on monthly periodicity.

# Bristol County Retirement System

## Comparative Performance & Rolling Return

As of September 30, 2022

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Columbia	-4.1	-37.2	-36.6	5.5	7.2	9.2		10.0	48.1	37.9	-4.3
Russell 1000 Growth Index	-3.6	-30.7	-22.6	10.7	12.2	13.7	13.7	27.6	38.5	36.4	-1.5
Difference	-0.5	-6.5	-14.0	-5.2	-5.0	-4.5		-17.6	9.6	1.5	-2.8



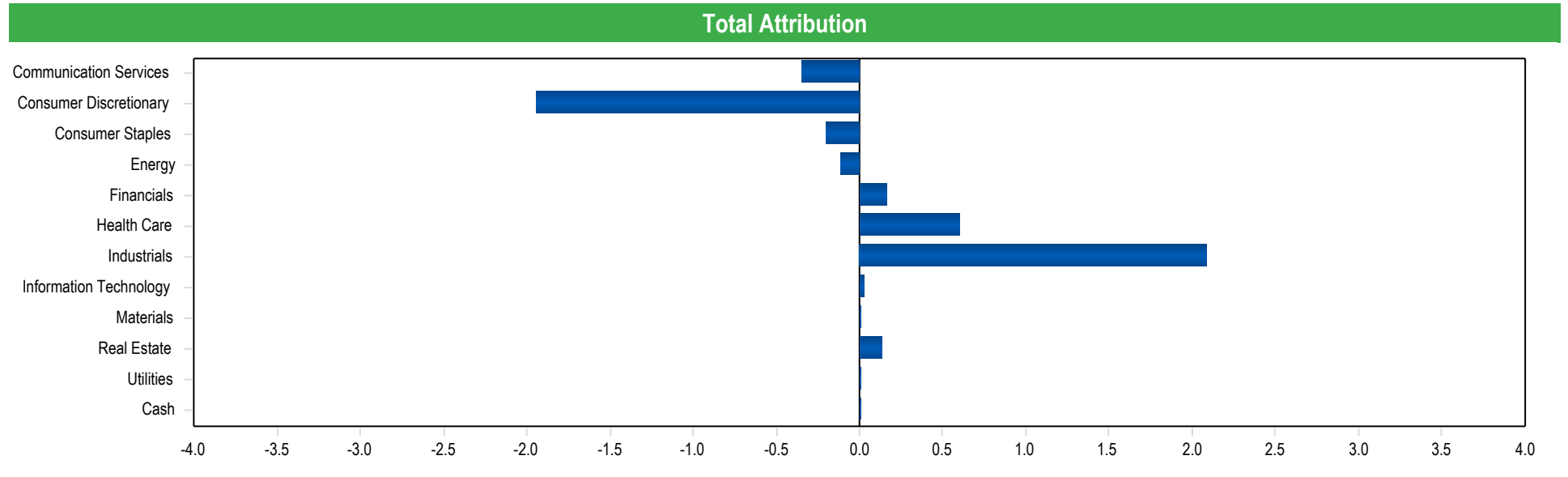
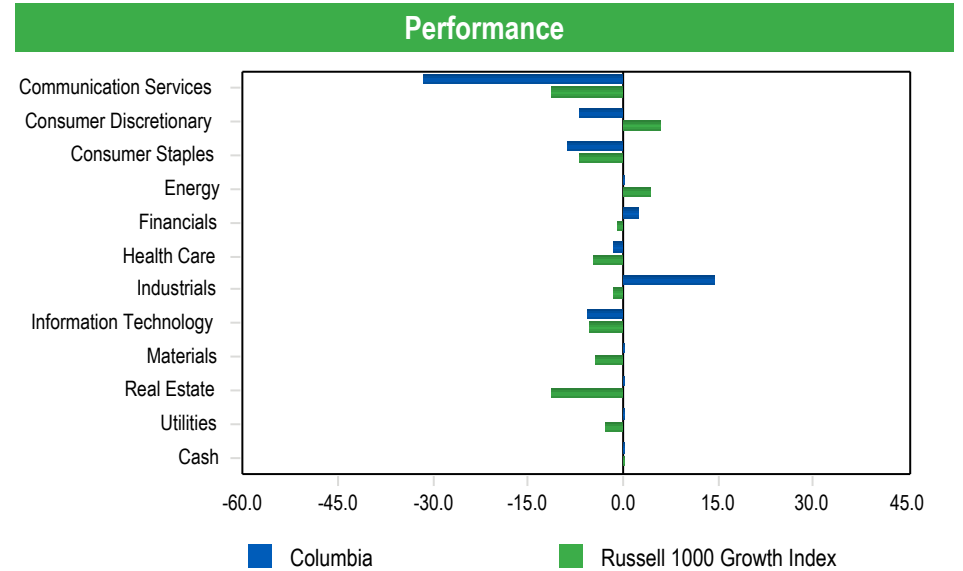
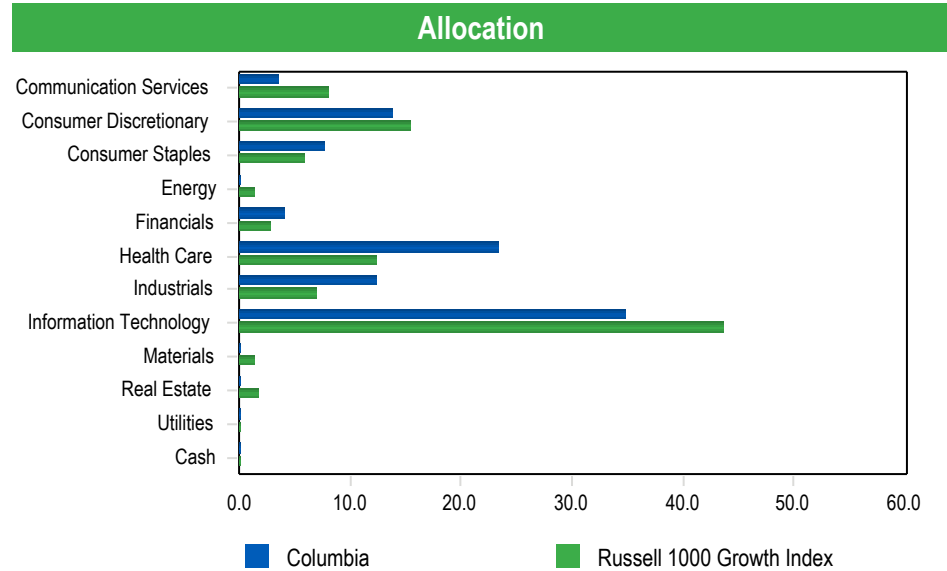
Buy-and-Hold Portfolio	-3.2
Portfolio Trading	-1.0
Actual Return	-4.1
Benchmark Return	-3.6
Actual Active Return	-0.6

Stock Selection	-2.3
Sector Selection	0.3
Interaction	2.4
Total Selection	0.4

Portfolio Trading	-1.0
Benchmark Trading	0.0
Active Trading Impact	-1.0

Buy & Hold Active Return -0.6

	Allocation — 07/01/2022		Performance — 1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction		
Communication Services	3.5	8.1	-31.5	-11.3	-1.6	0.4	0.9	-0.4	
Consumer Discretionary	13.8	15.5	-6.8	6.1	-2.0	-0.2	0.2	-1.9	
Consumer Staples	7.8	5.9	-8.7	-6.8	-0.1	-0.1	0.0	-0.2	
Energy	0.0	1.5	0.0	4.3	0.0	-0.1	0.0	-0.1	
Financials	4.0	3.0	2.6	-0.9	0.1	0.0	0.0	0.2	
Health Care	23.4	12.3	-1.7	-4.9	0.4	-0.1	0.4	0.6	
Industrials	12.4	7.1	14.4	-1.6	1.1	0.1	0.9	2.1	
Information Technology	34.9	43.6	-5.6	-5.2	-0.1	0.1	0.0	0.0	
Materials	0.0	1.4	0.0	-4.3	0.0	0.0	0.0	0.0	
Real Estate	0.0	1.8	0.0	-11.4	0.0	0.1	0.0	0.1	
Utilities	0.0	0.0	0.0	-2.7	0.0	0.0	0.0	0.0	
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	-3.2	-3.6	-2.3	0.3	2.4	0.4	

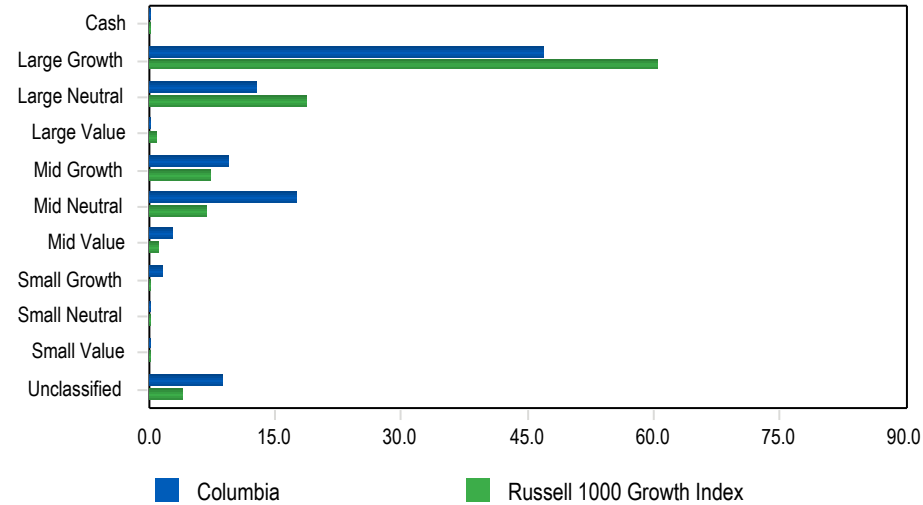




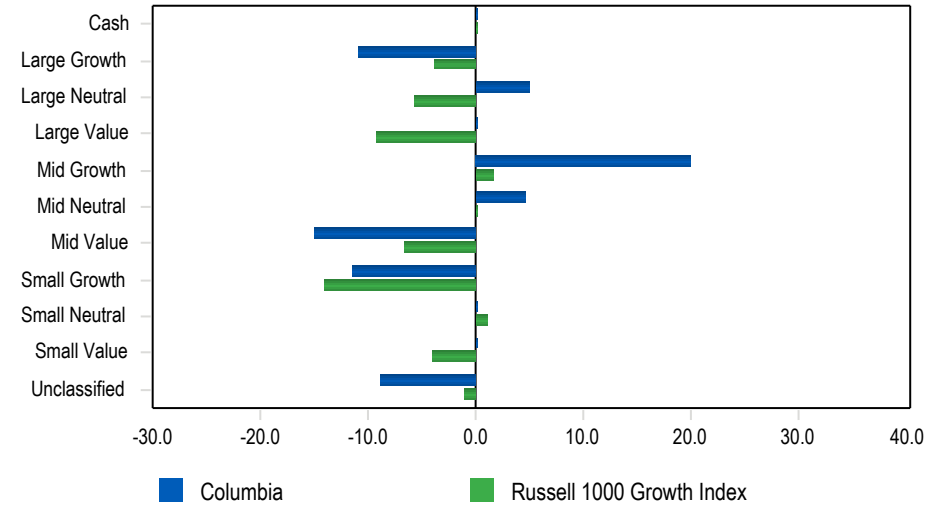
Buy-and-Hold Portfolio	-3.2
Portfolio Trading	-1.0
Actual Return	-4.1
Benchmark Return	-3.6
Actual Active Return	-0.6
Stock Selection	-0.9
Style Selection	0.6
Interaction	0.7
Total Selection	0.4
Portfolio Trading	-1.0
Benchmark Trading	0.0
Active Trading Impact	-1.0
Buy & Hold Active Return	-0.6

	Allocation-07/01/2022		Performance-1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction		
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Large Growth	47.1	60.5	-10.9	-4.0	-4.2	0.1	0.9	-3.2	
Large Neutral	12.7	18.8	4.9	-5.7	2.0	0.1	-0.6	1.5	
Large Value	0.0	1.1	0.0	-9.3	0.0	0.1	0.0	0.1	
Mid Growth	9.5	7.3	20.0	1.7	1.3	0.1	0.4	1.8	
Mid Neutral	17.5	6.8	4.6	0.0	0.3	0.4	0.5	1.2	
Mid Value	2.8	1.1	-14.9	-6.6	-0.1	-0.1	-0.1	-0.3	
Small Growth	1.6	0.2	-11.5	-14.0	0.0	-0.1	0.0	-0.1	
Small Neutral	0.0	0.2	0.0	1.1	0.0	0.0	0.0	0.0	
Small Value	0.0	0.0	0.0	-4.0	0.0	0.0	0.0	0.0	
Unclassified	8.7	4.1	-8.8	-1.2	-0.3	0.1	-0.3	-0.5	
Total	100.0	100.0	-3.2	-3.6	-0.9	0.6	0.7	0.4	

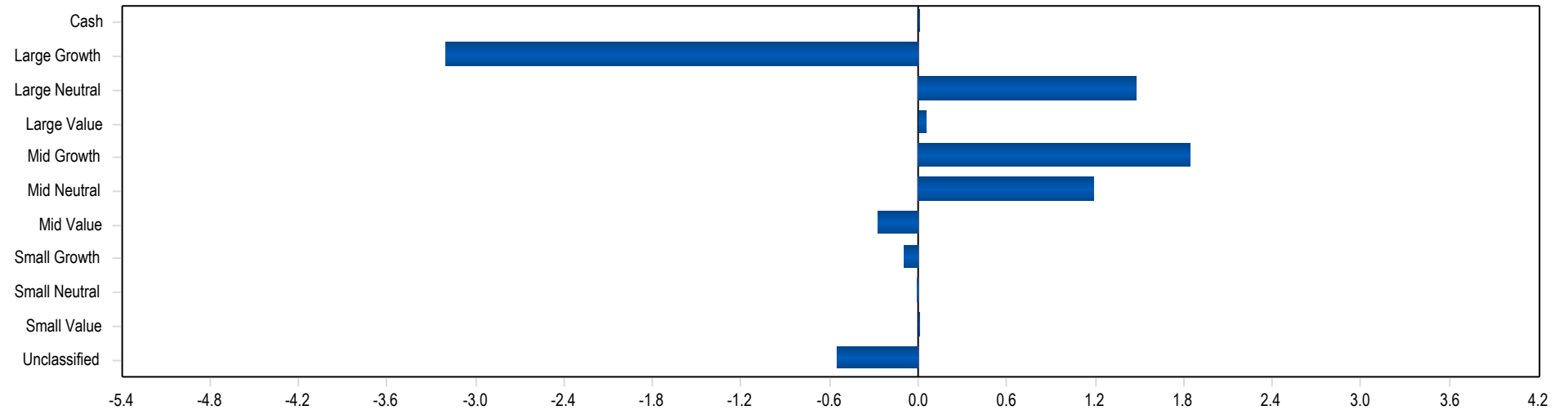
Allocation



Performance



Total Attribution



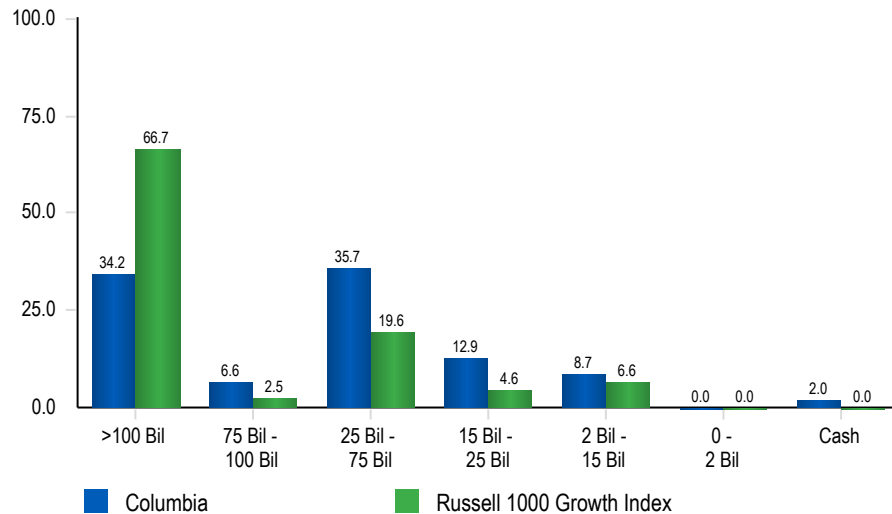
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Amazon.com Inc	4.7	5.9	-1.2	6.4
Visa Inc	4.5	1.7	2.8	-9.6
Biomarin Pharmaceutical Inc	4.5	0.0	4.5	2.3
MSCI Inc	4.4	0.1	4.3	2.6
Intuit Inc.	4.3	0.6	3.7	0.7
Eli Lilly and Co	4.0	1.3	2.7	0.0
ServiceNow Inc	4.0	0.4	3.6	-20.6
CoStar Group Inc	3.9	0.0	3.9	15.3
Booking Holdings Inc	3.9	0.4	3.5	-6.0
Estee Lauder Cos Inc (The)	3.8	0.3	3.5	-15.0
% of Portfolio	42.0	10.7	31.3	

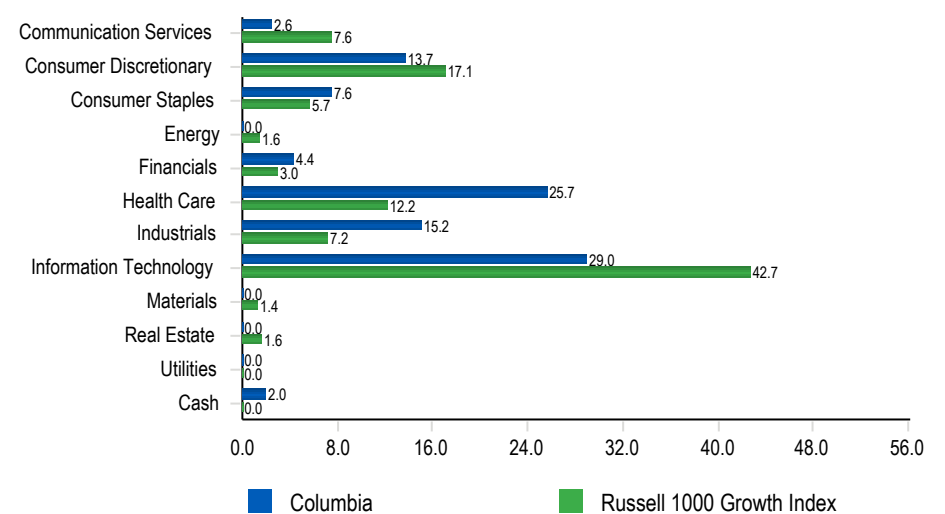
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	137,237,357,300	700,406,311,076
Median Mkt. Cap (\$)	49,479,658,430	13,379,319,520
Price/Earnings ratio	46.3	24.9
Price/Book ratio	6.7	9.1
5 Yr. EPS Growth Rate (%)	16.3	24.0
Current Yield (%)	0.4	1.1
Beta (5 Years, Monthly)	1.1	1.0
Number of Stocks	33	518

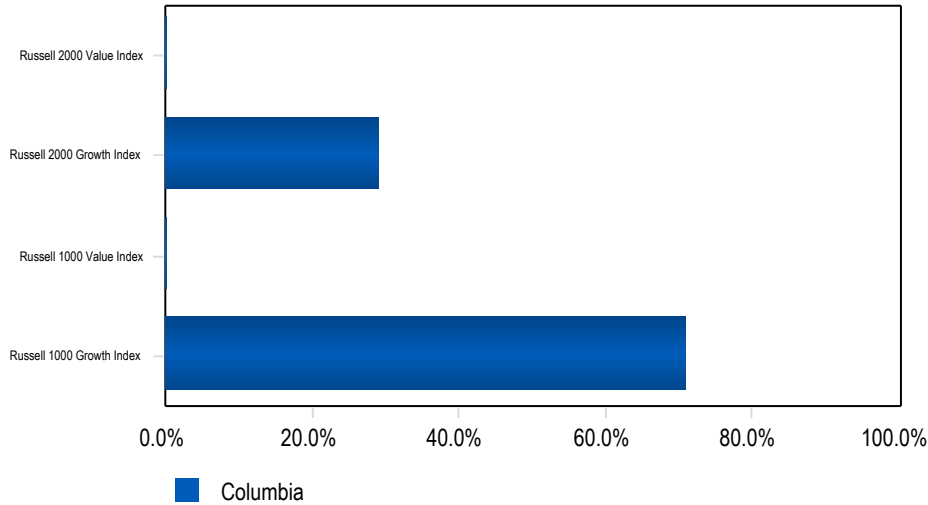
Distribution of Market Capitalization (%)



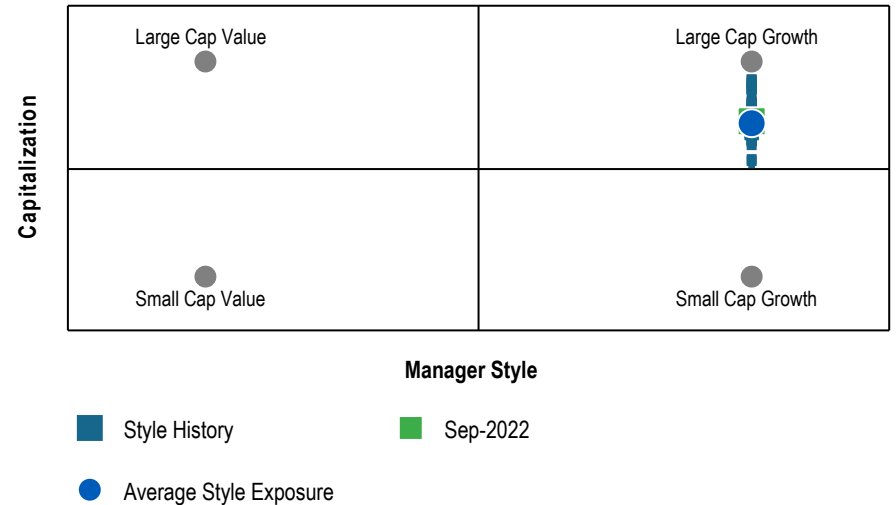
Sector Weights (%)



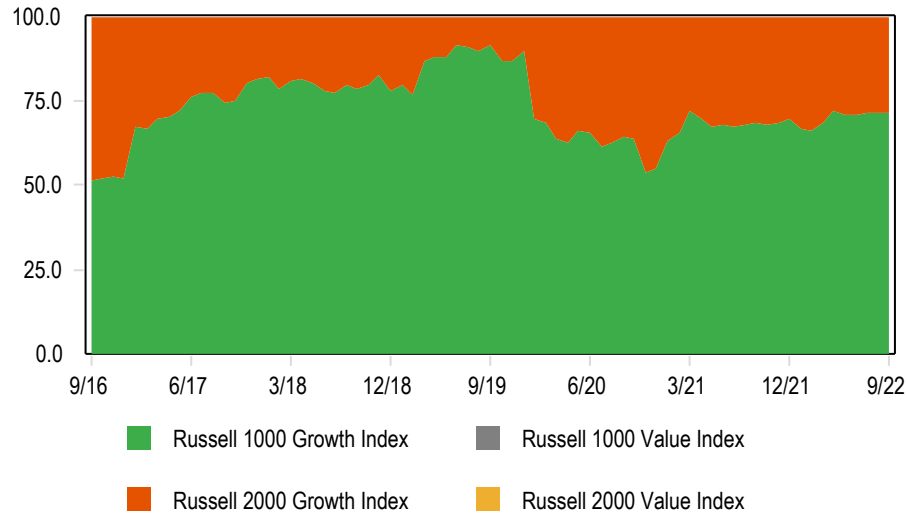
Investment Style Exposure



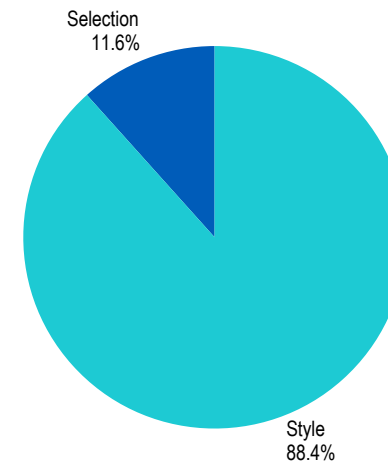
Style Map(36 Months)

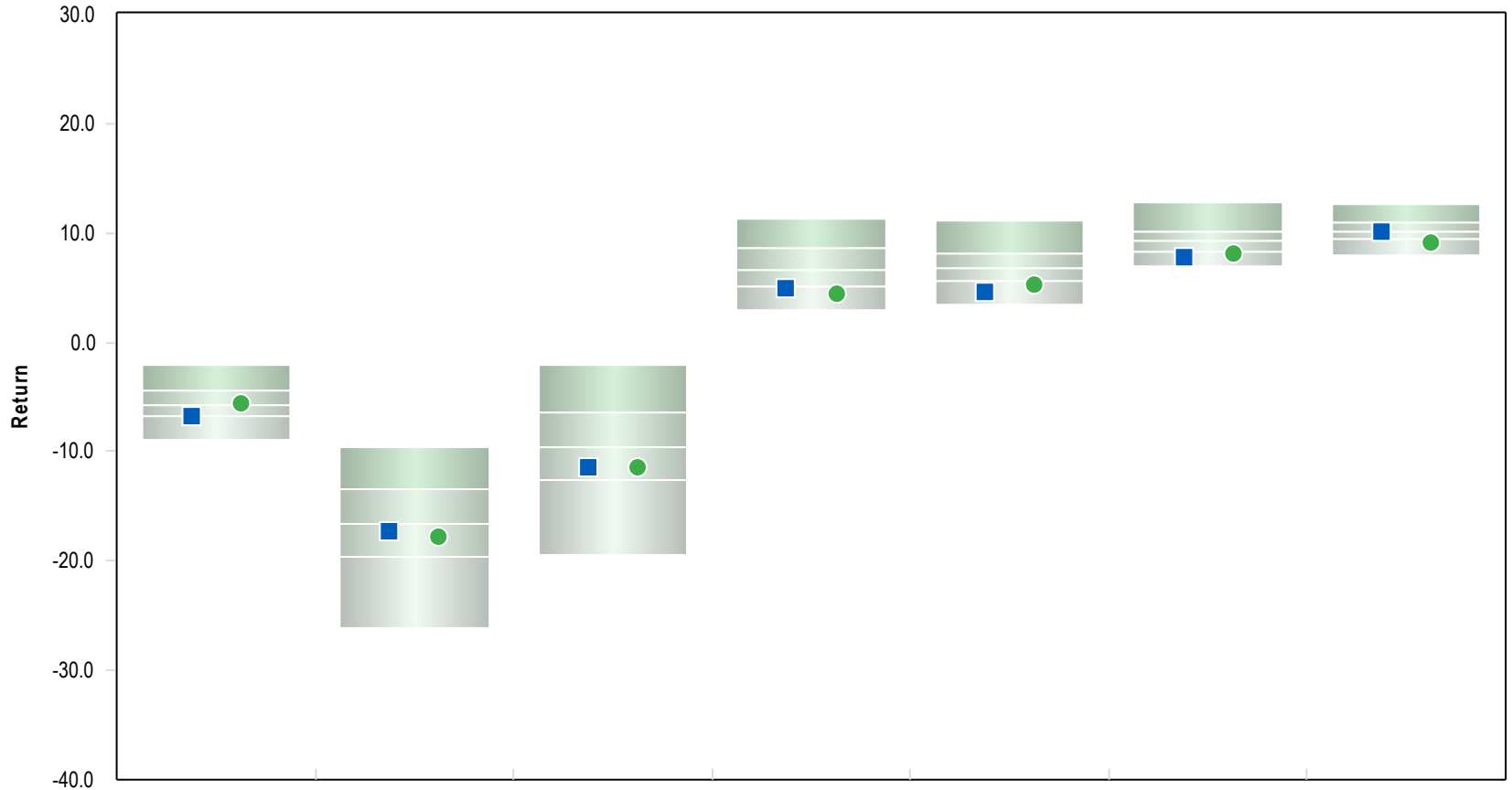


Style History(36 Months)



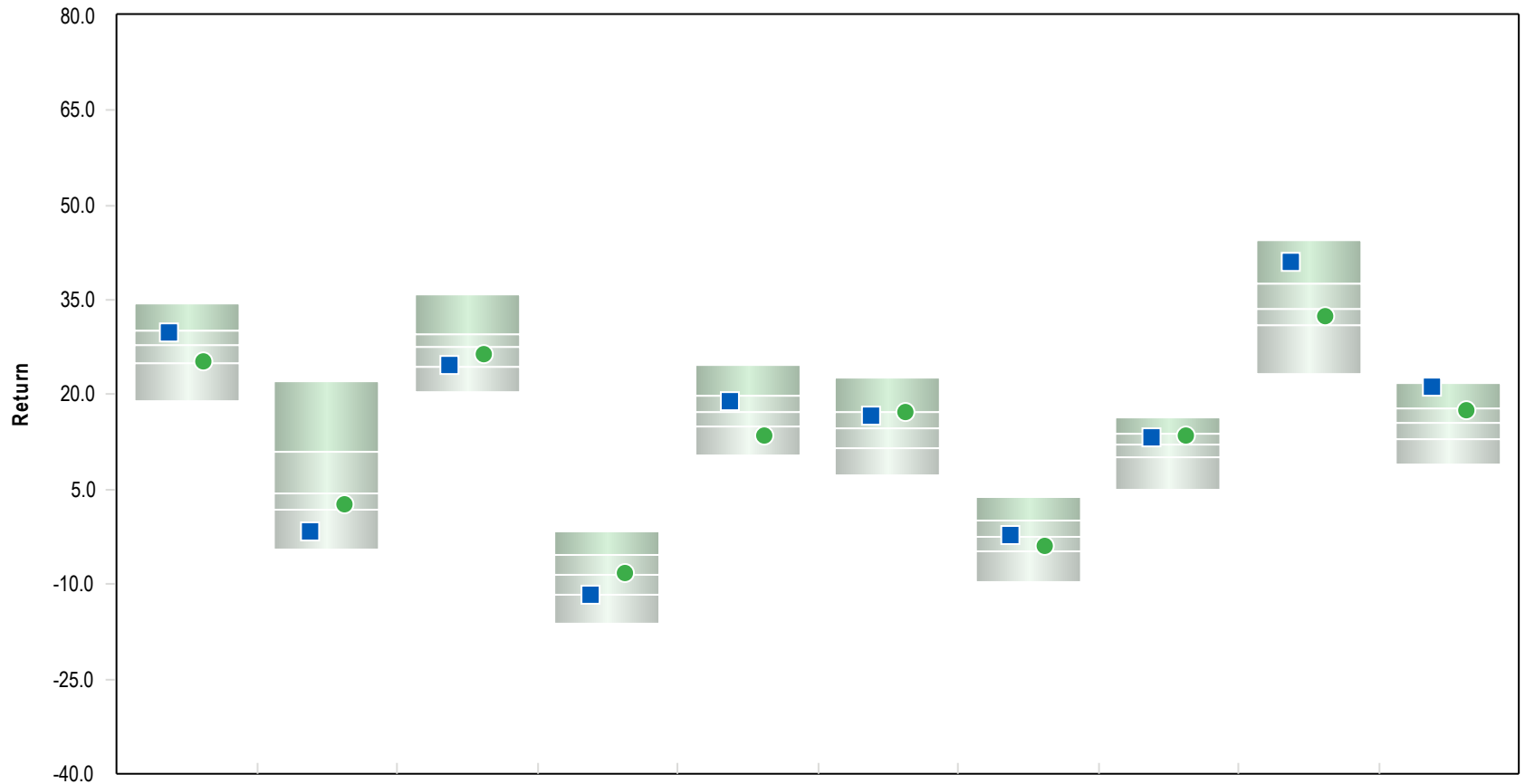
Return Variance





	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ LSV	-6.8 (74)	-17.2 (57)	-11.5 (66)	4.9 (78)	4.6 (86)	7.8 (85)	10.1 (52)
● Russell 1000 Value Index	-5.6 (48)	-17.8 (64)	-11.4 (65)	4.4 (84)	5.3 (79)	8.2 (78)	9.2 (81)
5th Percentile	-2.1	-9.5	-2.1	11.3	11.1	12.8	12.7
1st Quartile	-4.4	-13.4	-6.5	8.6	8.2	10.1	11.0
Median	-5.7	-16.6	-9.6	6.6	6.8	9.3	10.1
3rd Quartile	-6.8	-19.5	-12.6	5.1	5.6	8.3	9.4
95th Percentile	-8.9	-26.1	-19.5	2.9	3.5	6.9	8.0

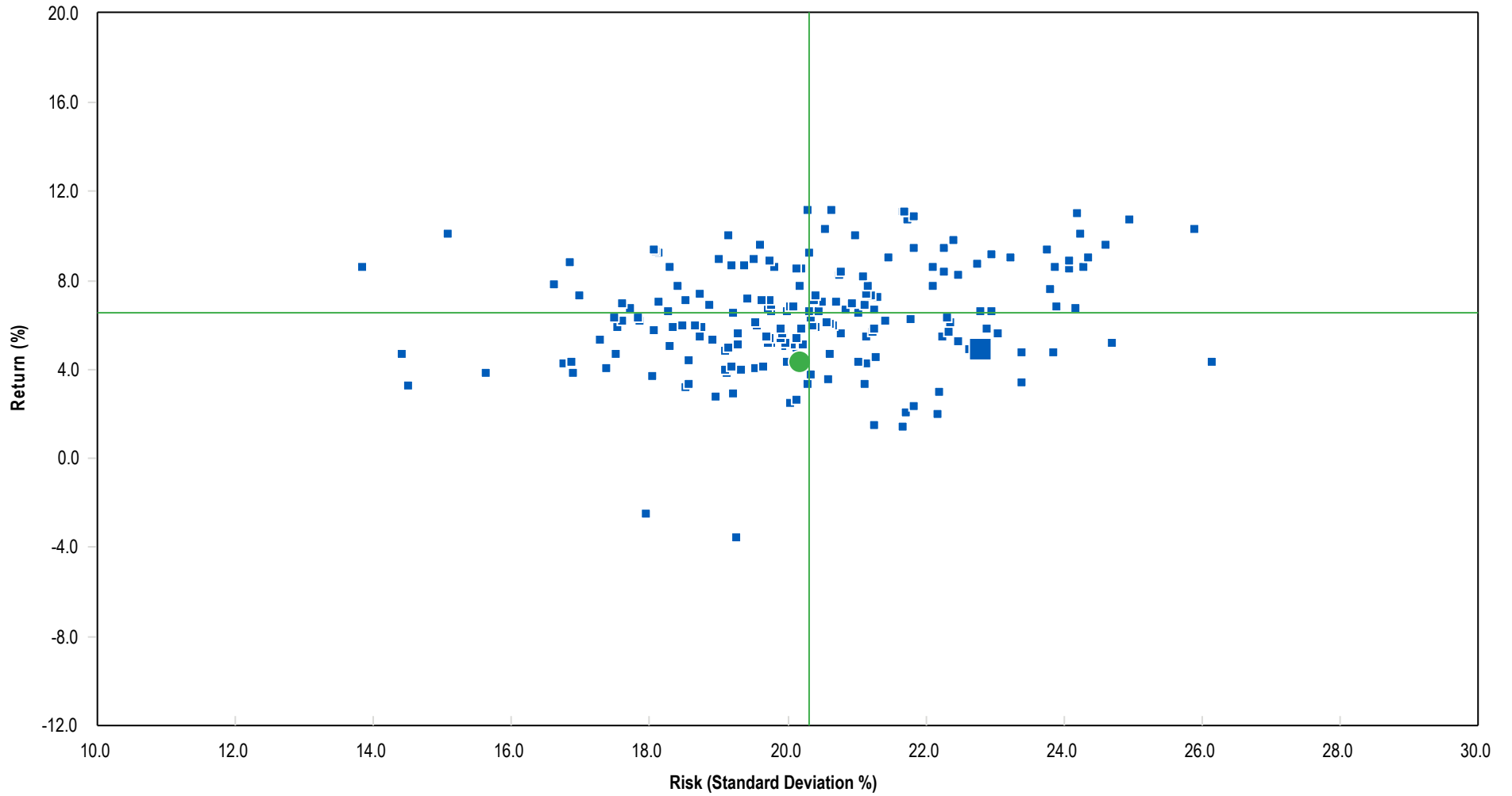
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ LSV	30.0 (28)	-1.6 (92)	24.7 (74)	-11.7 (77)	18.9 (33)	16.7 (30)	-2.1 (48)	13.3 (35)	40.9 (12)	21.2 (7)
● Russell 1000 Value Index	25.2 (75)	2.8 (67)	26.5 (58)	-8.3 (49)	13.7 (88)	17.3 (25)	-3.8 (68)	13.5 (32)	32.5 (60)	17.5 (28)

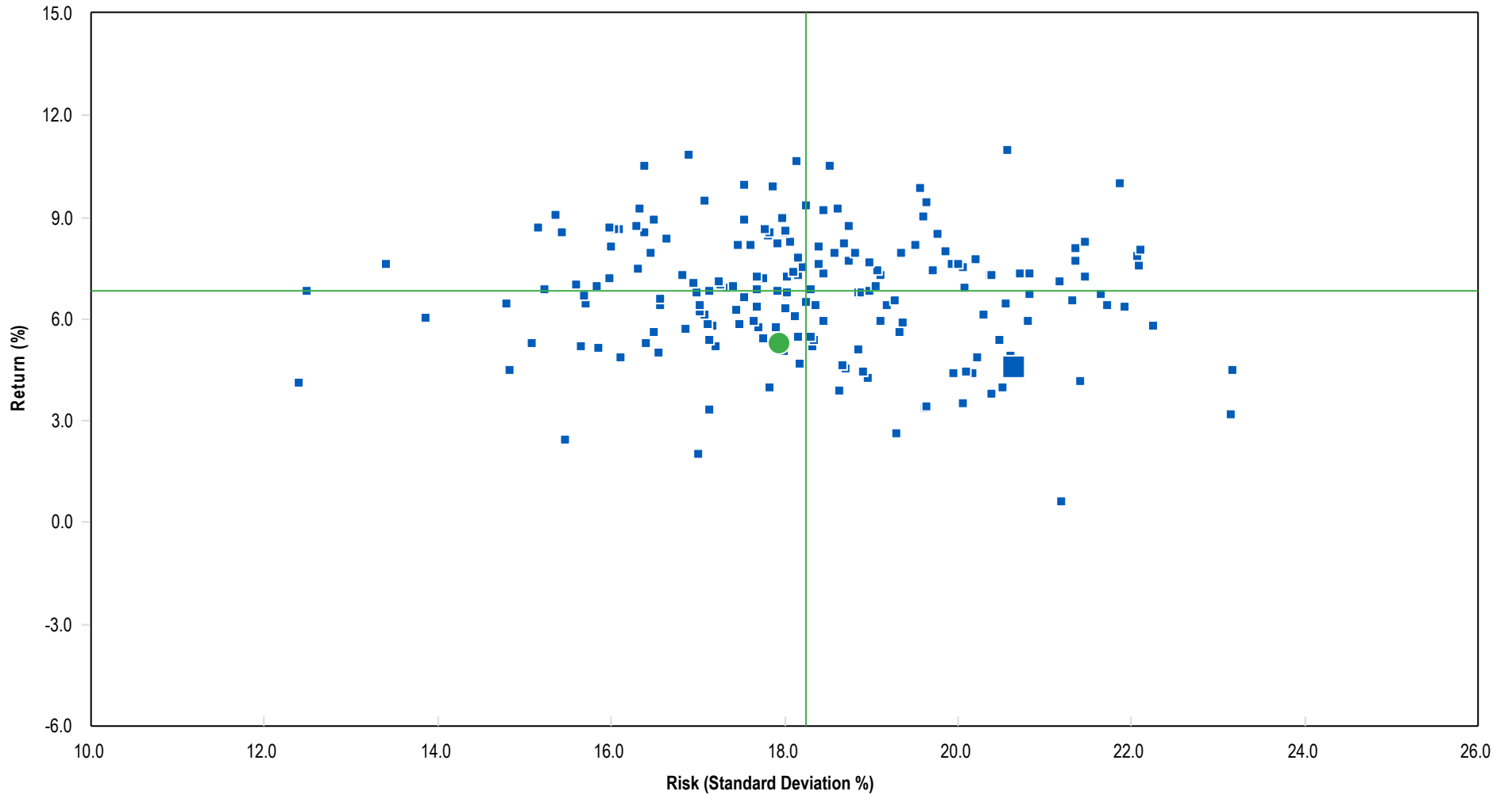
5th Percentile	34.3	22.1	36.0	-1.8	24.8	22.7	3.8	16.5	44.5	21.9
1st Quartile	30.2	10.9	29.6	-5.4	19.9	17.2	0.0	13.9	37.6	18.0
Median	27.8	4.4	27.5	-8.4	17.2	14.8	-2.4	12.0	33.7	15.7
3rd Quartile	25.1	1.7	24.6	-11.5	15.1	11.6	-4.8	10.3	30.9	13.1
95th Percentile	19.0	-4.4	20.5	-16.1	10.3	7.2	-9.5	5.0	23.2	8.9

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ LSV	4.9	22.8
● Russell 1000 Value Index	4.4	20.2
— Median	6.6	20.3

Calculation based on monthly periodicity.

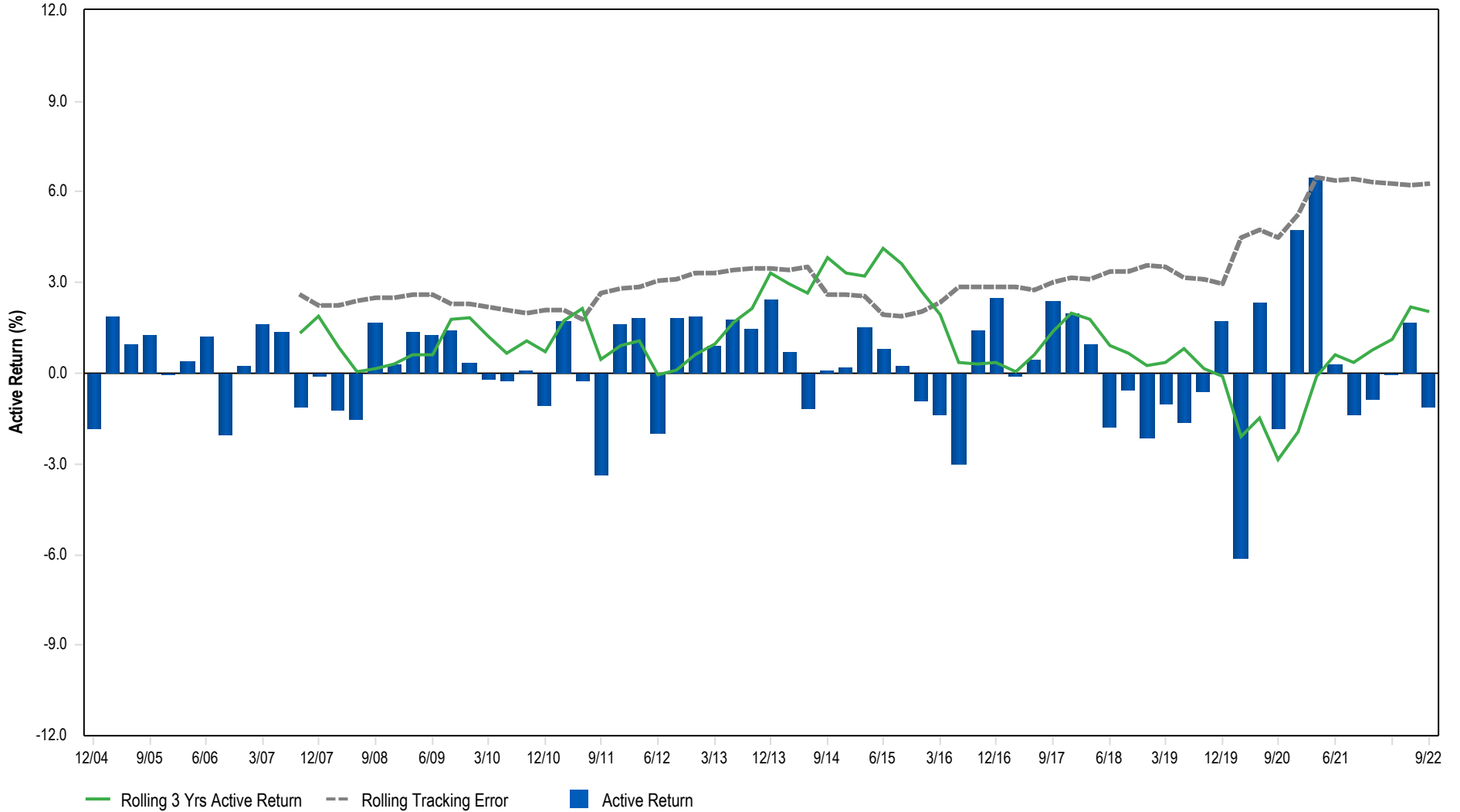


	Return	Standard Deviation
■ LSV	4.6	20.6
● Russell 1000 Value Index	5.3	17.9
— Median	6.8	18.2

Calculation based on monthly periodicity.



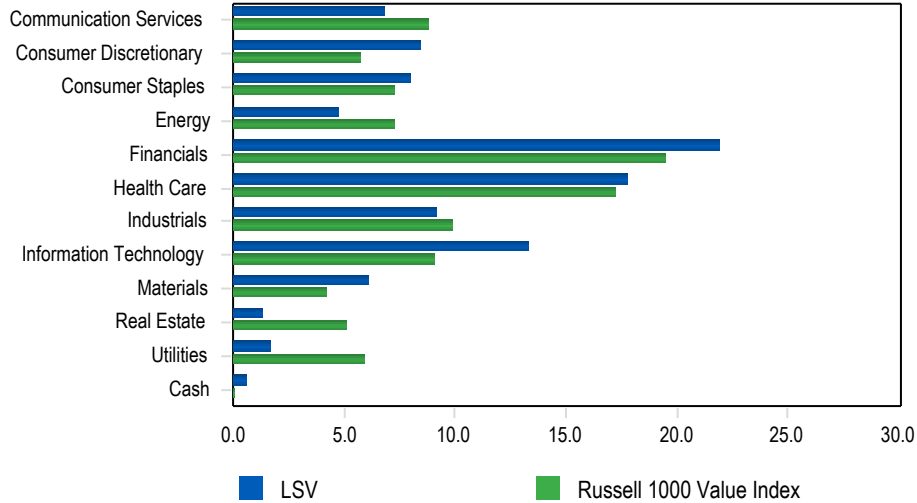
	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
LSV	-6.8	-17.2	-11.5	4.9	4.6	7.8	10.1	30.0	-1.6	24.7	-11.7
Russell 1000 Value Index	-5.6	-17.8	-11.4	4.4	5.3	8.2	9.2	25.2	2.8	26.5	-8.3
Difference	-1.2	0.6	-0.1	0.5	-0.7	-0.4	0.9	4.8	-4.4	-1.8	-3.4



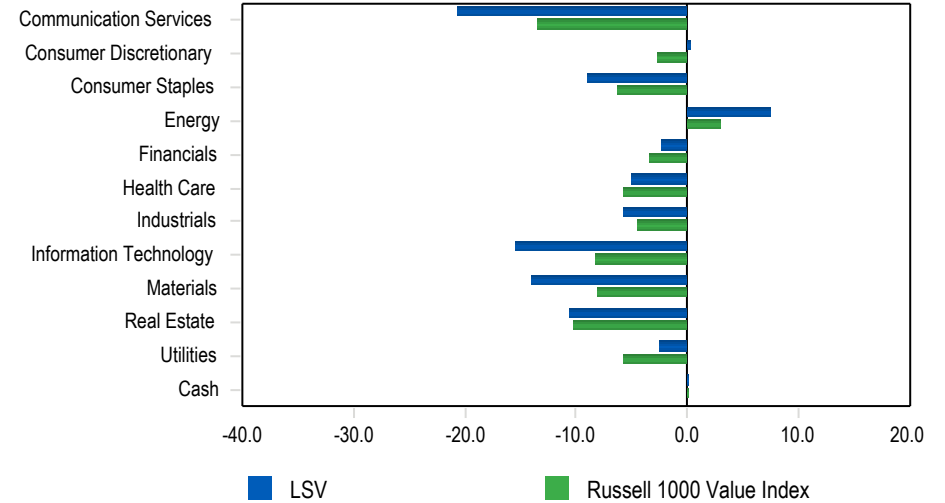
Buy-and-Hold Portfolio	-6.7
Portfolio Trading	0.0
Actual Return	-6.8
Benchmark Return	-5.6
Actual Active Return	-1.1
Stock Selection	-0.9
Sector Selection	0.1
Interaction	-0.4
Total Selection	-1.2
Portfolio Trading	0.0
Benchmark Trading	0.0
Active Trading Impact	0.0
Buy & Hold Active Return	-1.1

	Allocation — 07/01/2022		Performance — 1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction		
Communication Services	6.8	8.8	-20.6	-13.5	-0.6	0.2	0.1	-0.3	
Consumer Discretionary	8.5	5.7	0.4	-2.7	0.2	0.1	0.1	0.3	
Consumer Staples	8.0	7.3	-8.9	-6.3	-0.2	0.0	0.0	-0.2	
Energy	4.8	7.2	7.6	3.1	0.3	-0.2	-0.1	0.0	
Financials	21.9	19.5	-2.3	-3.4	0.2	0.1	0.0	0.3	
Health Care	17.8	17.2	-5.1	-5.7	0.1	0.0	0.0	0.1	
Industrials	9.1	9.9	-5.7	-4.5	-0.1	0.0	0.0	-0.1	
Information Technology	13.2	9.0	-15.5	-8.2	-0.7	-0.1	-0.3	-1.1	
Materials	6.1	4.2	-14.0	-8.0	-0.3	0.0	-0.1	-0.4	
Real Estate	1.4	5.1	-10.6	-10.3	0.0	0.2	0.0	0.2	
Utilities	1.7	6.0	-2.5	-5.7	0.2	0.0	-0.1	0.1	
Cash	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	-6.7	-5.6	-0.9	0.1	-0.4	-1.2	

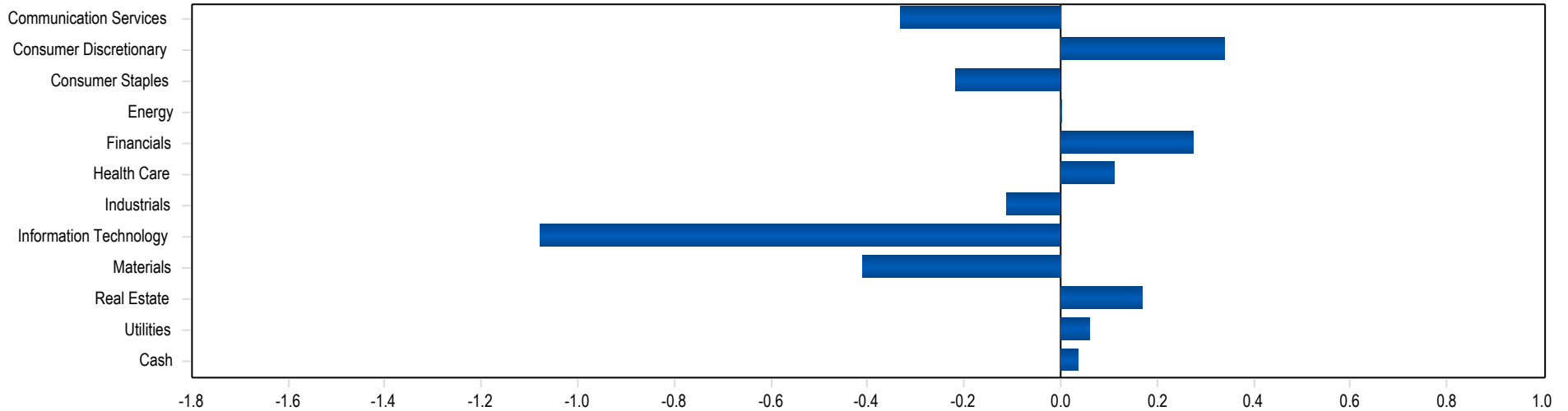
Allocation



Performance



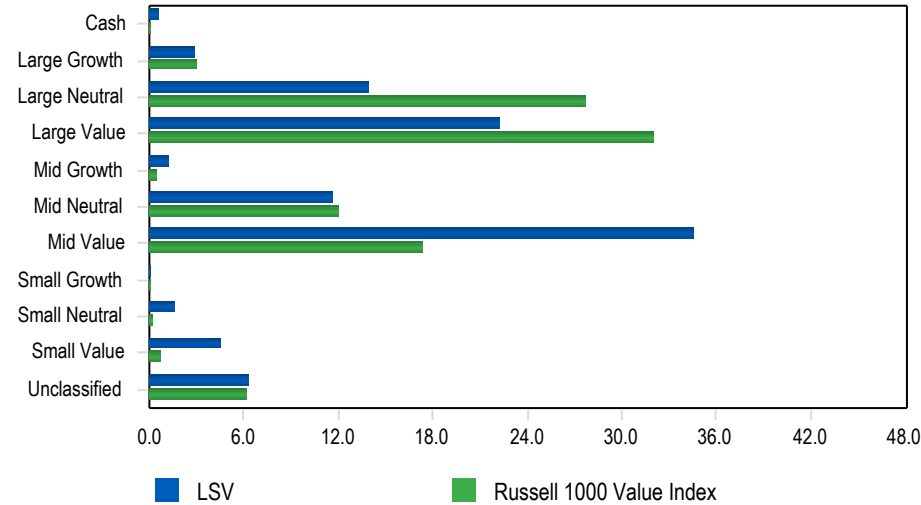
Total Attribution



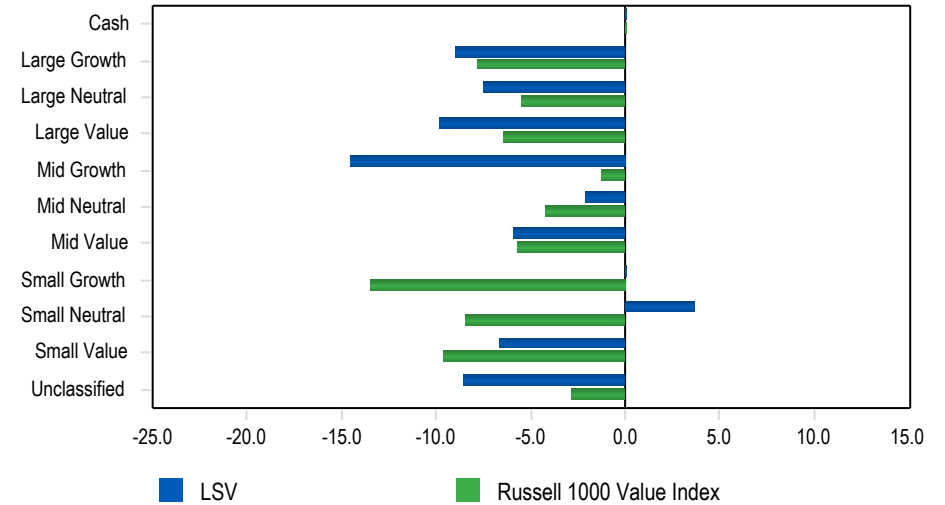
Buy-and-Hold Portfolio	-6.7
Portfolio Trading	0.0
Actual Return	-6.8
Benchmark Return	-5.6
Actual Active Return	-1.1
Stock Selection	-1.8
Style Selection	-0.1
Interaction	0.7
Total Selection	-1.2
Portfolio Trading	0.0
Benchmark Trading	0.0
Active Trading Impact	0.0
Buy & Hold Active Return	-1.1

	Allocation-07/01/2022		Performance-1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction		
Cash	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Large Growth	2.9	3.0	-9.0	-7.8	0.0	0.0	0.0	0.0	
Large Neutral	13.9	27.8	-7.5	-5.5	-0.6	0.0	0.3	-0.3	
Large Value	22.3	32.1	-9.8	-6.4	-1.1	0.1	0.3	-0.7	
Mid Growth	1.3	0.5	-14.5	-1.2	-0.1	0.0	-0.1	-0.1	
Mid Neutral	11.6	12.0	-2.1	-4.2	0.3	0.0	0.0	0.2	
Mid Value	34.6	17.3	-5.9	-5.7	0.0	0.0	0.0	-0.1	
Small Growth	0.0	0.0	0.0	-13.5	0.0	0.0	0.0	0.0	
Small Neutral	1.7	0.2	3.7	-8.4	0.0	0.0	0.2	0.2	
Small Value	4.6	0.8	-6.7	-9.6	0.0	-0.2	0.1	0.0	
Unclassified	6.3	6.2	-8.6	-2.9	-0.4	0.0	0.0	-0.4	
Total	100.0	100.0	-6.7	-5.6	-1.8	-0.1	0.7	-1.2	

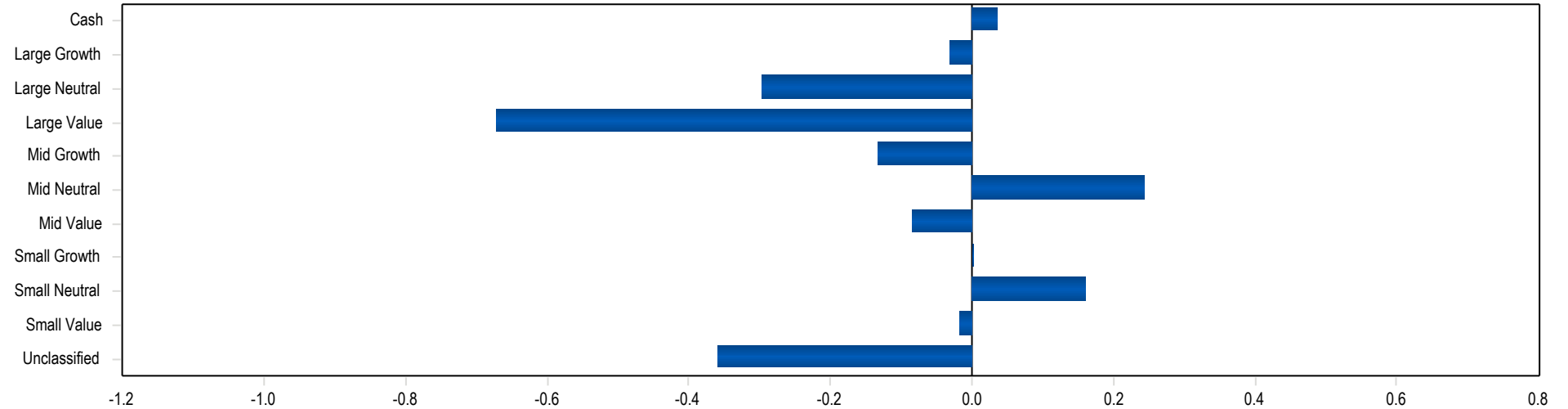
Allocation



Performance



Total Attribution



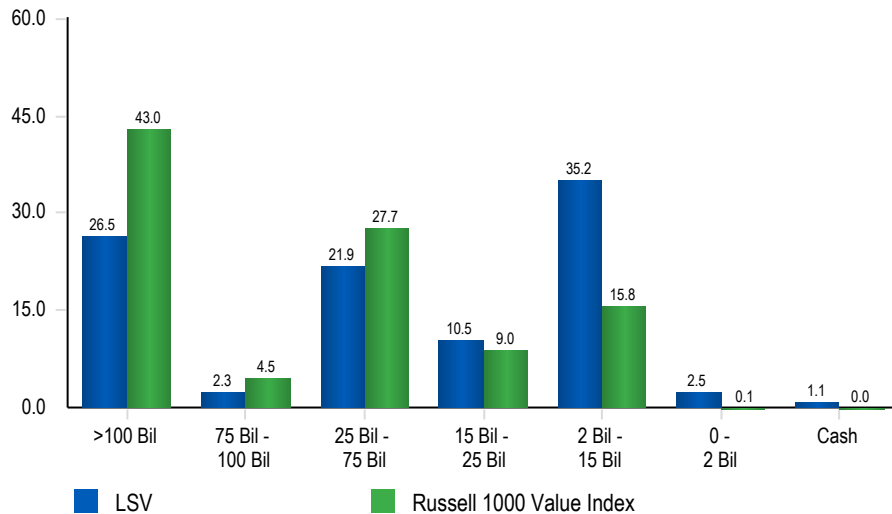
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Merck & Co Inc	2.8	0.8	2.0	-4.8
Exxon Mobil Corp	2.6	2.2	0.4	2.9
Pfizer Inc	2.5	1.5	1.0	-15.9
Bristol-Myers Squibb Co	2.5	0.9	1.6	-7.7
Verizon Communications Inc	2.0	1.0	1.0	-24.2
Amgen Inc	1.5	0.1	1.4	-6.6
Intel Corp	1.5	0.6	0.9	-30.4
CVS Health Corp	1.5	0.8	0.7	3.5
McKesson Corp	1.5	0.2	1.3	4.3
Ameriprise Financial Inc	1.4	0.1	1.3	6.5
% of Portfolio	19.8	8.2	11.6	

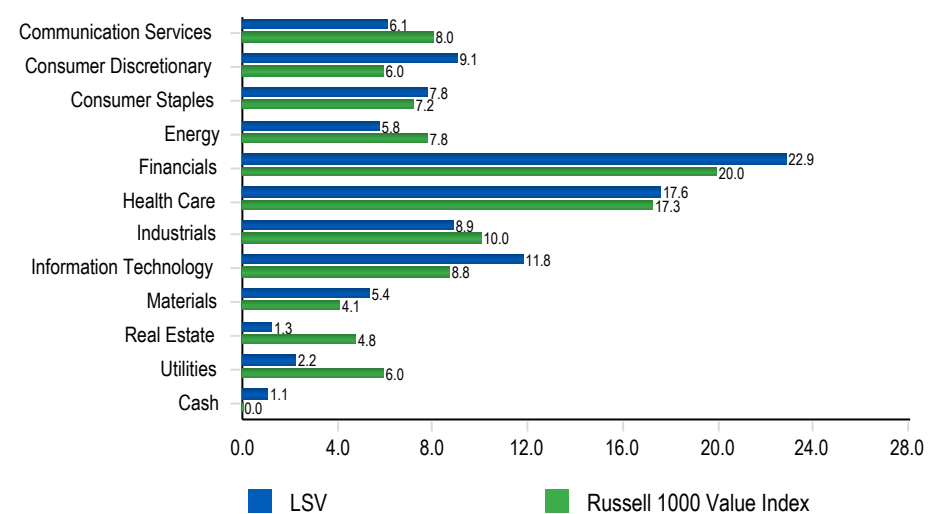
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	65,333,431,721	133,920,973,084
Median Mkt. Cap (\$)	11,232,537,205	10,526,064,600
Price/Earnings ratio	8.5	13.7
Price/Book ratio	2.1	2.3
5 Yr. EPS Growth Rate (%)	14.7	12.7
Current Yield (%)	3.3	2.5
Beta (5 Years, Monthly)	1.1	1.0
Number of Stocks	147	855

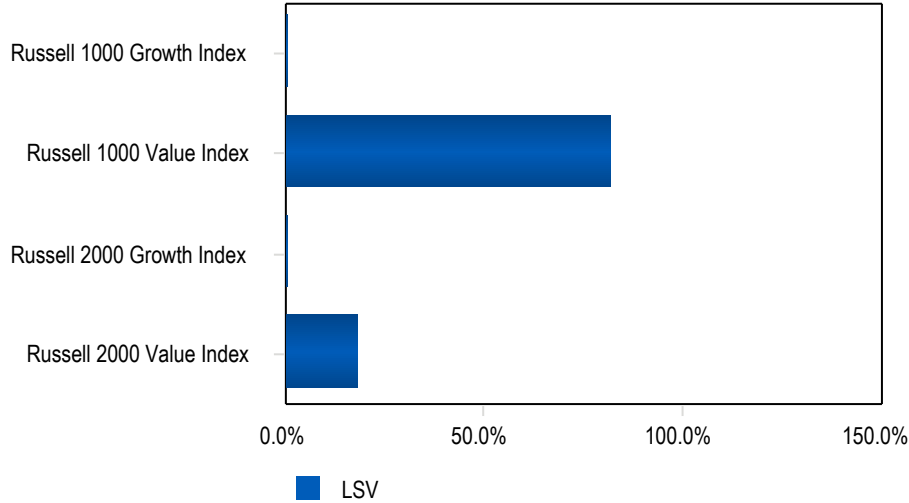
Distribution of Market Capitalization (%)



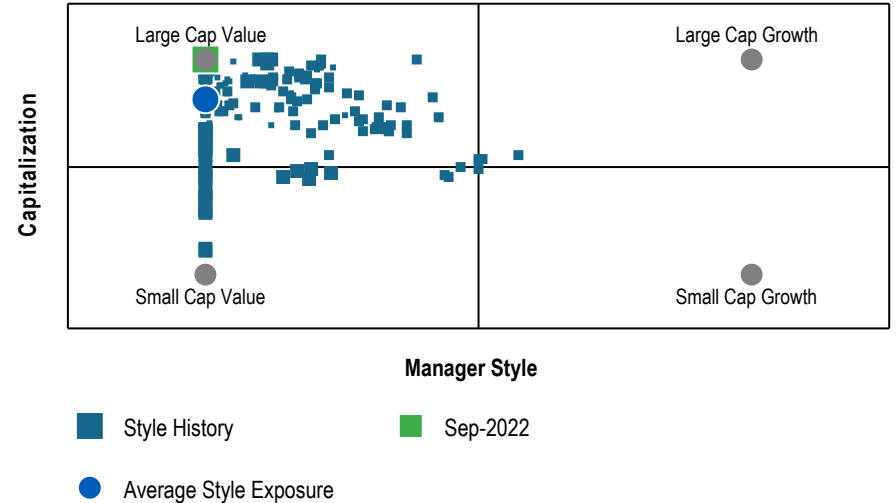
Sector Weights (%)



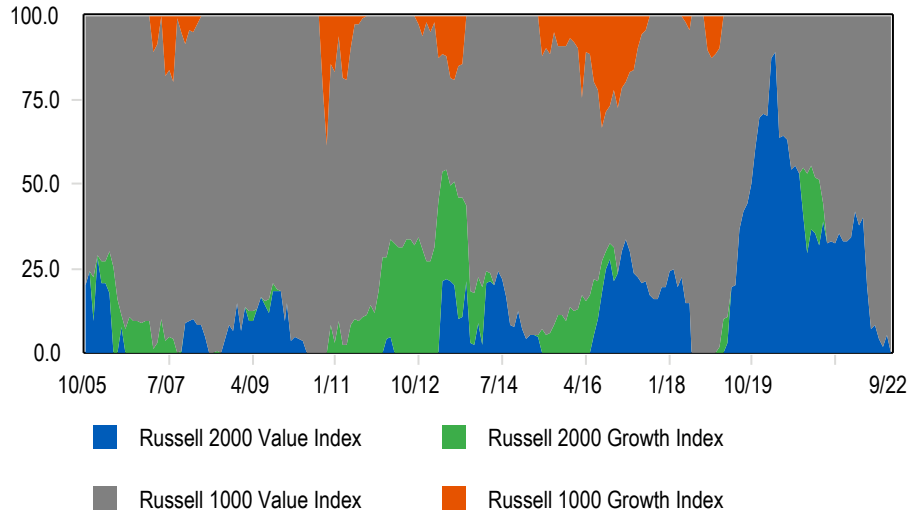
Investment Style Exposure



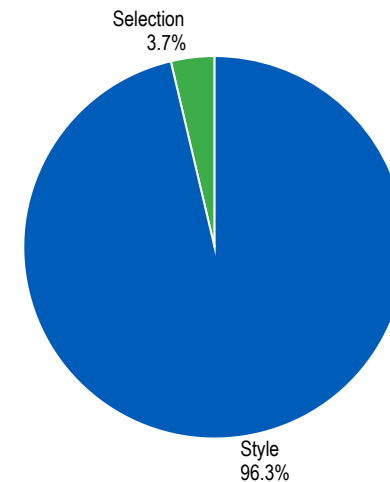
Style Map(12 Months)

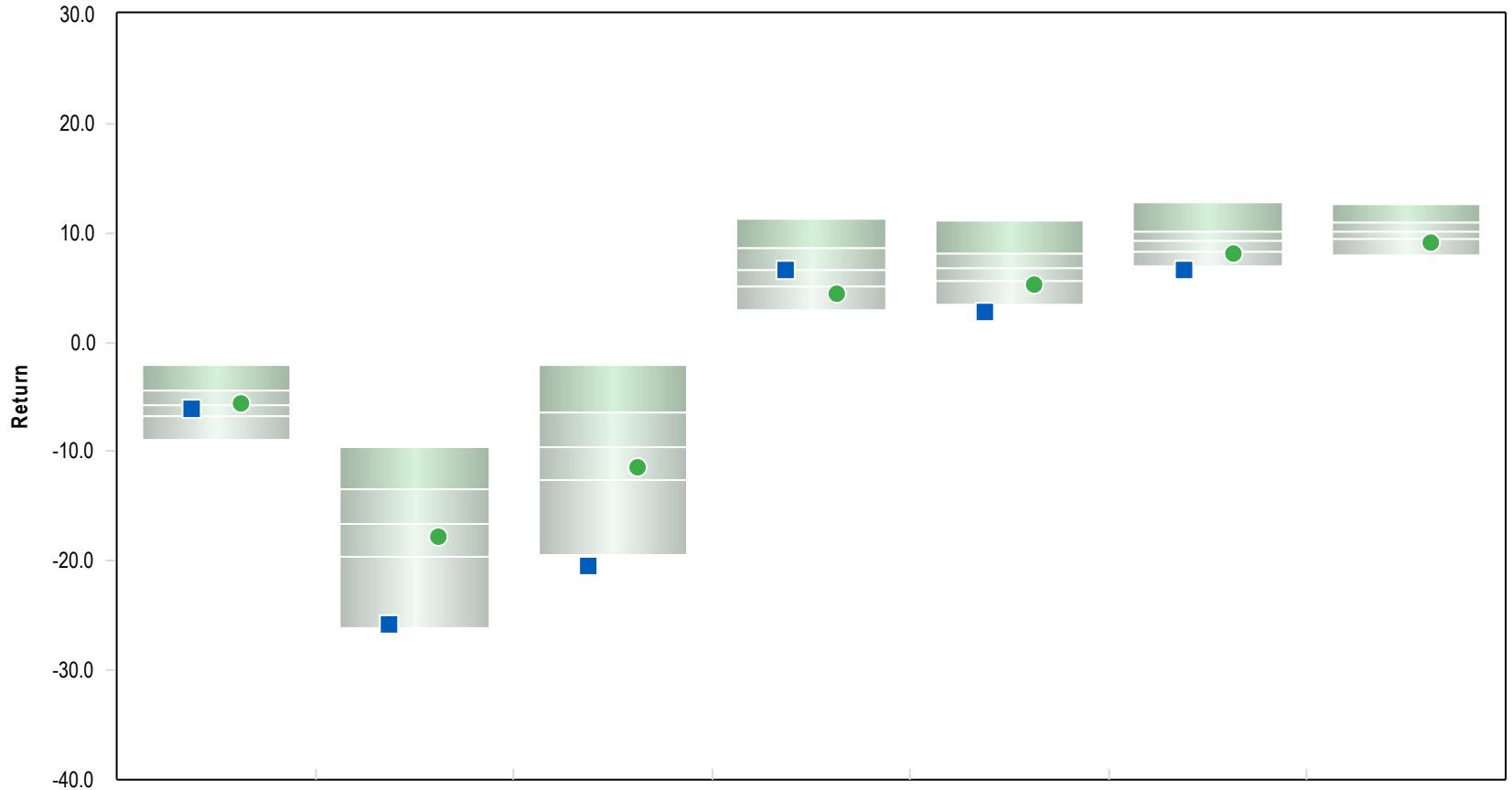


Style History(12 Months)



Return Variance

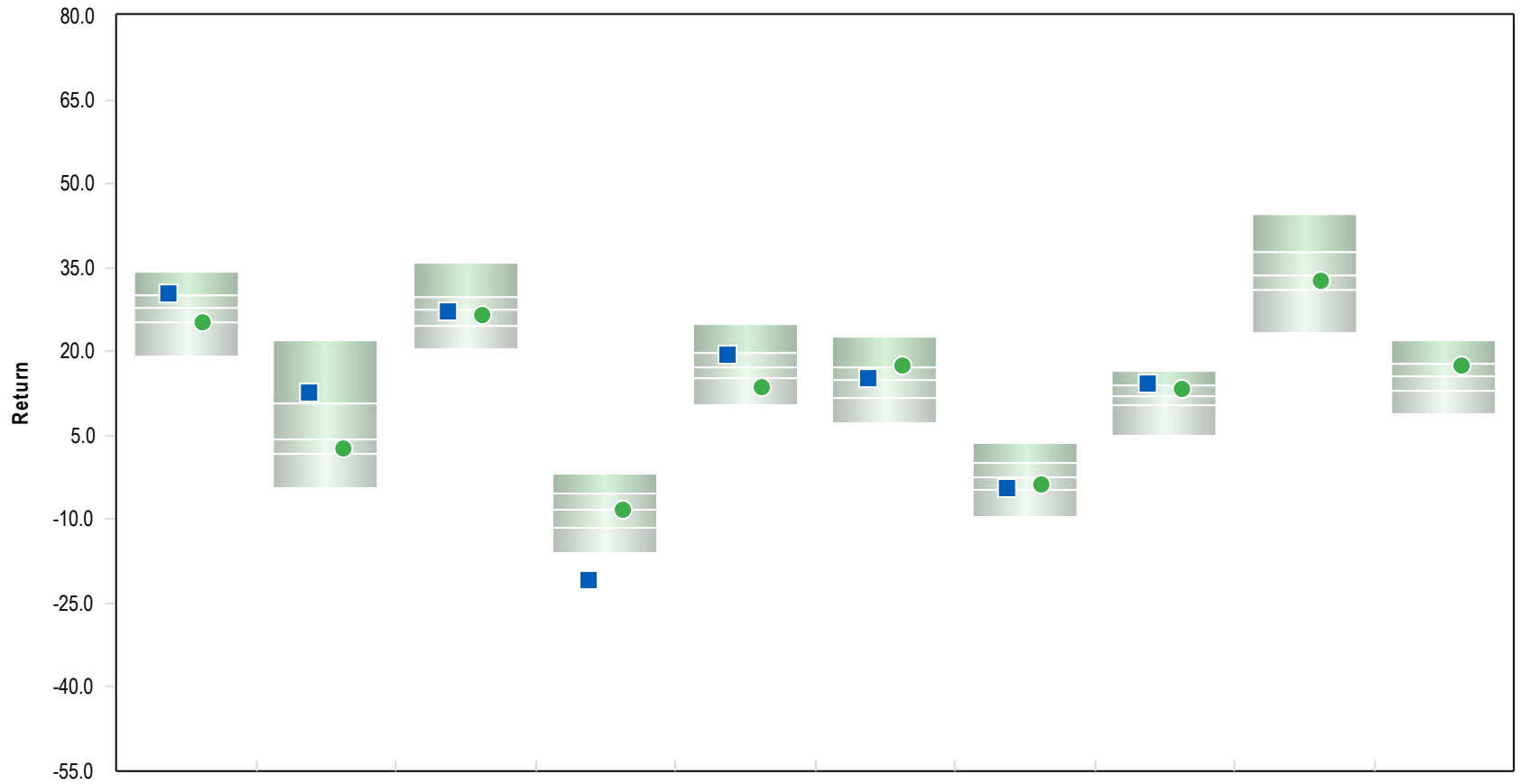




	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Lyrical	-6.1 (59)	-25.9 (95)	-20.4 (96)	6.6 (51)	2.8 (97)	6.6 (96)	
● Russell 1000 Value Index	-5.6 (48)	-17.8 (64)	-11.4 (65)	4.4 (84)	5.3 (79)	8.2 (78)	9.2 (81)
5th Percentile	-2.1	-9.5	-2.1	11.3	11.1	12.8	12.7
1st Quartile	-4.4	-13.4	-6.5	8.6	8.2	10.1	11.0
Median	-5.7	-16.6	-9.6	6.6	6.8	9.3	10.1
3rd Quartile	-6.8	-19.5	-12.6	5.1	5.6	8.3	9.4
95th Percentile	-8.9	-26.1	-19.5	2.9	3.5	6.9	8.0

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

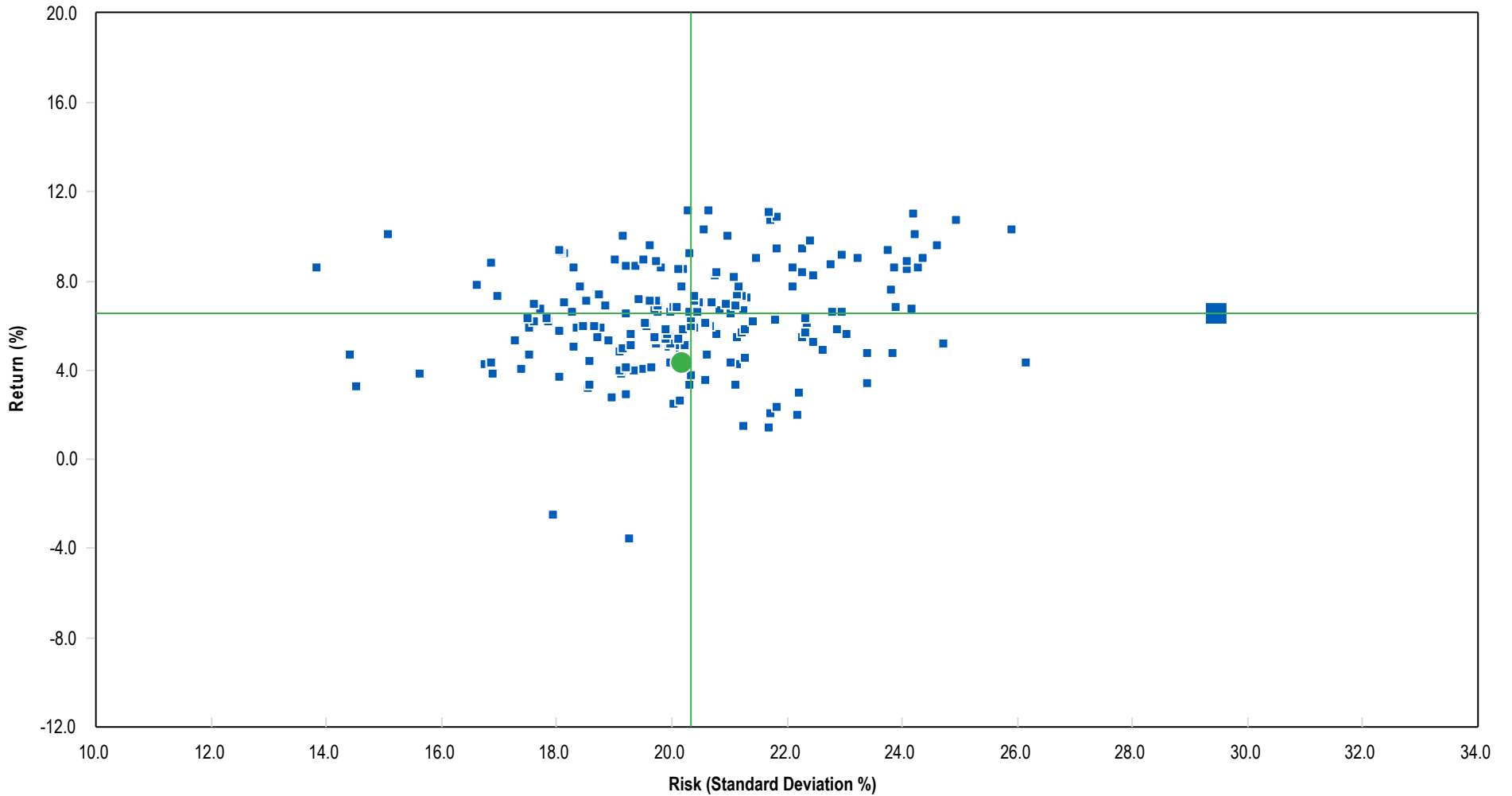




	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Lyrical	30.4 (25)	12.8 (19)	27.3 (52)	-20.8 (100)	19.3 (29)	15.3 (44)	-4.3 (71)	14.3 (20)	32.5 (60)	17.5 (28)
● Russell 1000 Value Index	25.2 (75)	2.8 (67)	26.5 (58)	-8.3 (49)	13.7 (88)	17.3 (25)	-3.8 (68)	13.5 (32)	32.5 (60)	17.5 (28)

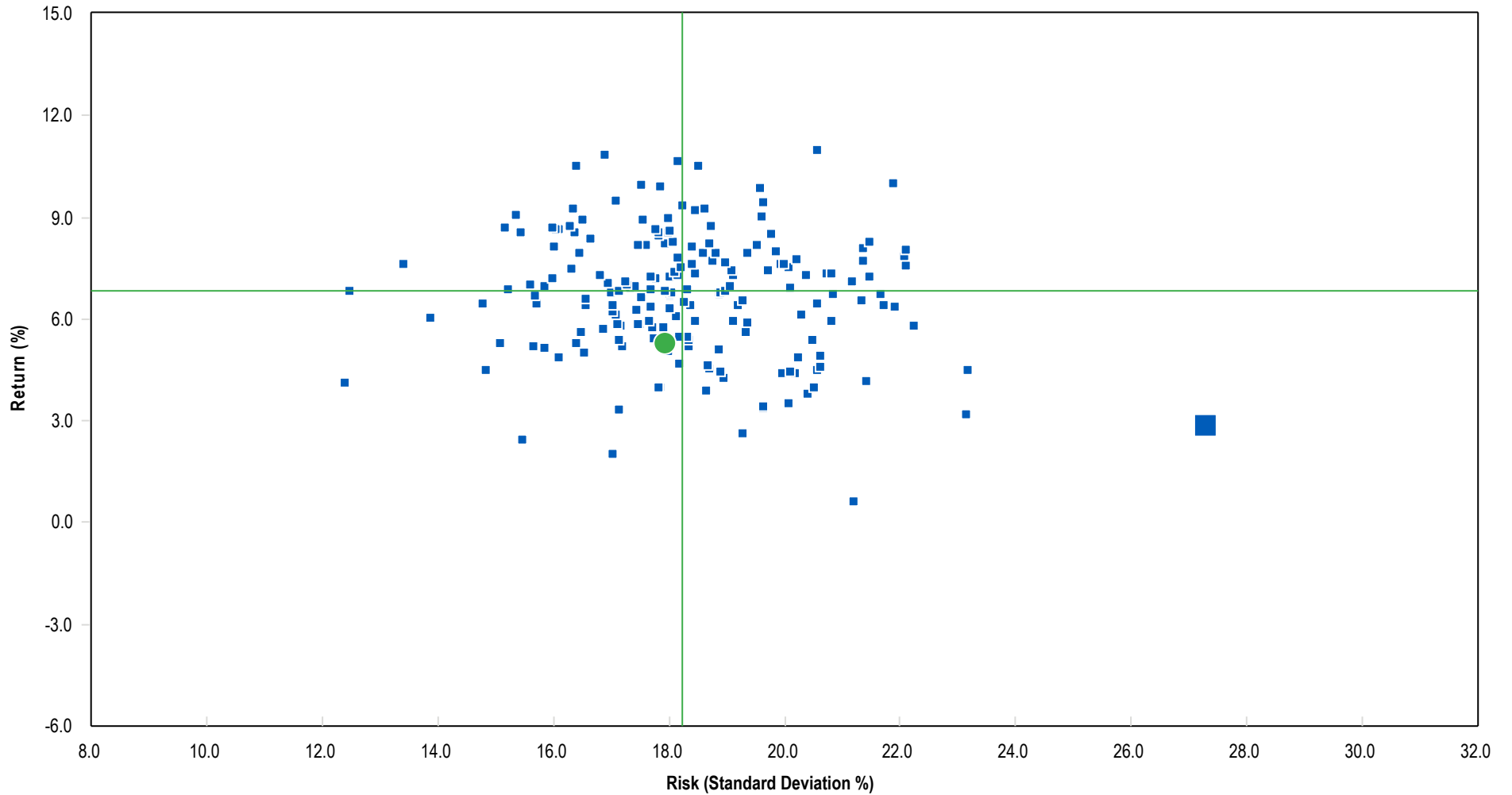
5th Percentile	34.3	22.1	36.0	-1.8	24.8	22.7	3.8	16.5	44.5	21.9
1st Quartile	30.2	10.9	29.6	-5.4	19.9	17.2	0.0	13.9	37.6	18.0
Median	27.8	4.4	27.5	-8.4	17.2	14.8	-2.4	12.0	33.7	15.7
3rd Quartile	25.1	1.7	24.6	-11.5	15.1	11.6	-4.8	10.3	30.9	13.1
95th Percentile	19.0	-4.4	20.5	-16.1	10.3	7.2	-9.5	5.0	23.2	8.9

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Lyrical	6.6	29.5
● Russell 1000 Value Index	4.4	20.2
— Median	6.6	20.3

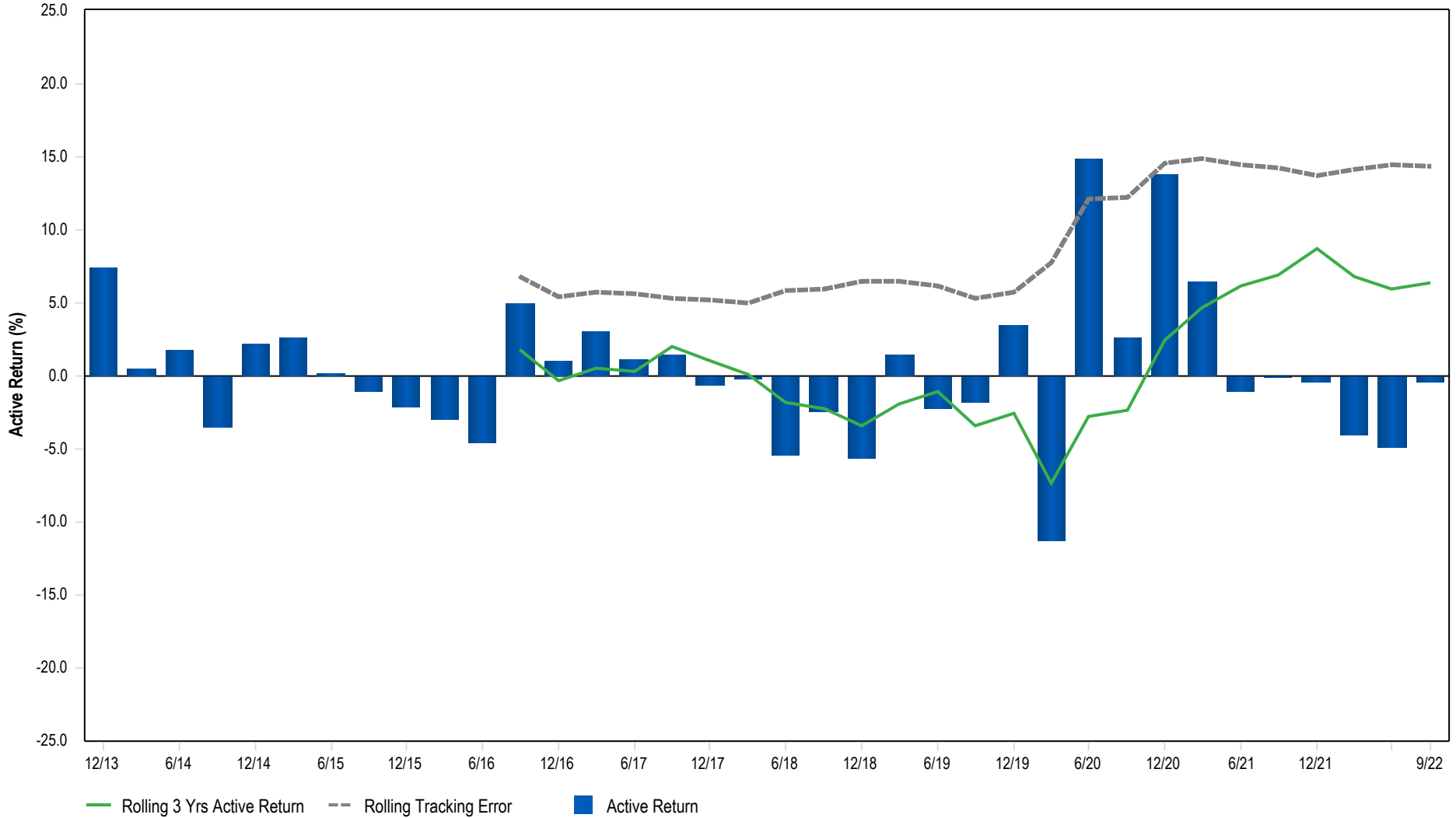
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Lyrical	2.8	27.3
● Russell 1000 Value Index	5.3	17.9
— Median	6.8	18.2

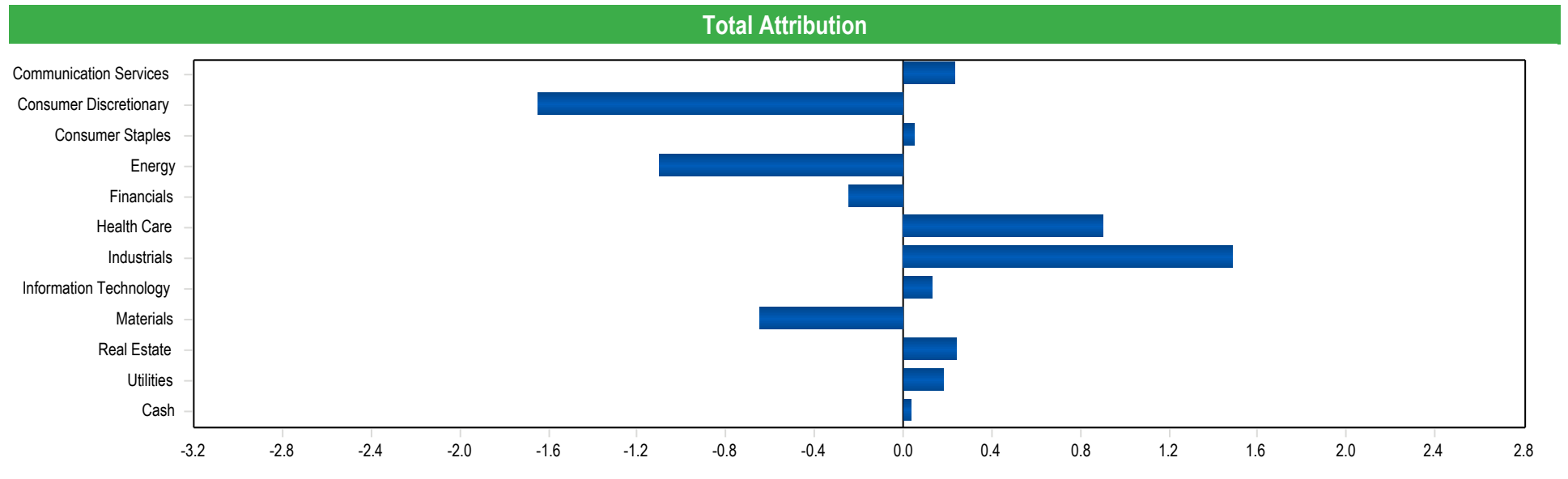
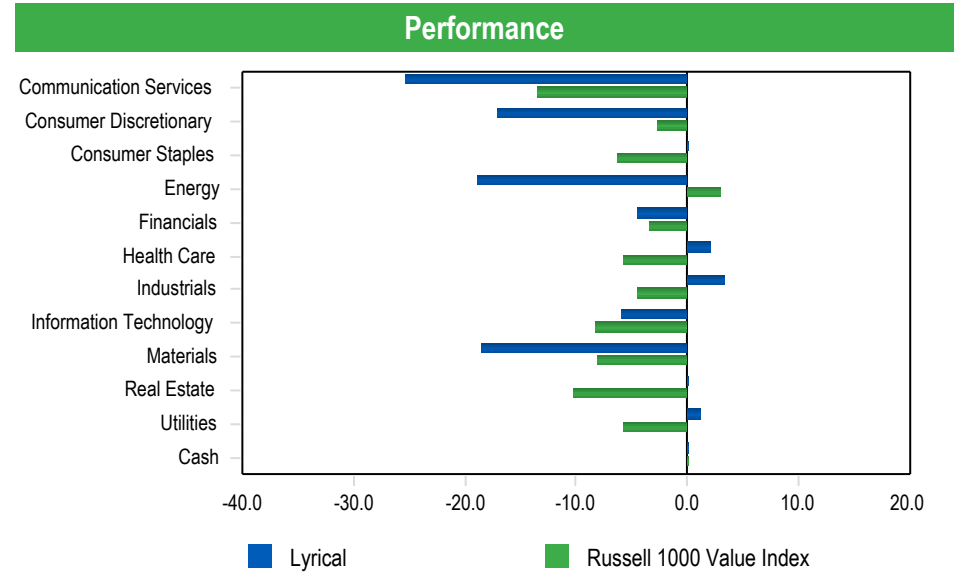
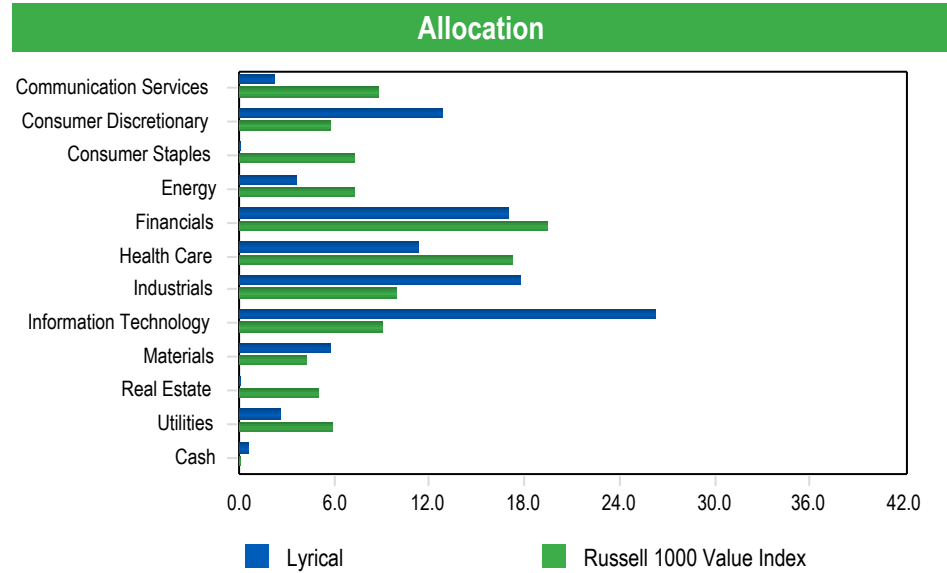
Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Lyrical	-6.1	-25.9	-20.4	6.6	2.8	6.6		30.4	12.8	27.3	-20.8
Russell 1000 Value Index	-5.6	-17.8	-11.4	4.4	5.3	8.2	9.2	25.2	2.8	26.5	-8.3
Difference	-0.5	-8.1	-9.0	2.2	-2.5	-1.6		5.2	10.0	0.8	-12.5



Buy-and-Hold Portfolio	-6.0
Portfolio Trading	-0.1
Actual Return	-6.1
Benchmark Return	-5.6
Actual Active Return	-0.4
Stock Selection	-1.3
Sector Selection	0.3
Interaction	0.7
Total Selection	-0.4
Portfolio Trading	-0.1
Benchmark Trading	0.0
Active Trading Impact	-0.1
Buy & Hold Active Return	-0.4

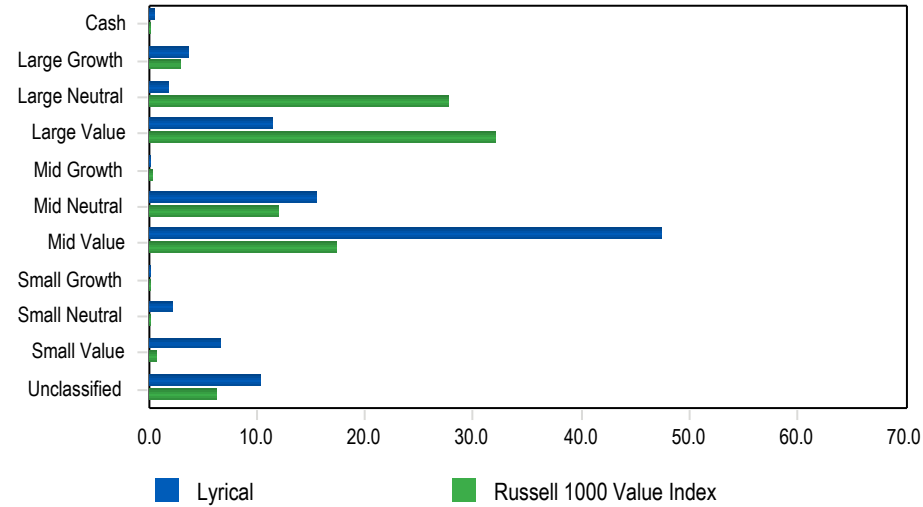
	Allocation — 07/01/2022		Performance — 1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction		
Communication Services	2.3	8.8	-25.3	-13.5	-1.0	0.5	0.8	0.2	
Consumer Discretionary	12.9	5.7	-17.1	-2.7	-0.8	0.2	-1.0	-1.7	
Consumer Staples	0.0	7.3	0.0	-6.3	0.0	0.0	0.0	0.0	
Energy	3.6	7.2	-18.8	3.1	-1.6	-0.3	0.8	-1.1	
Financials	16.9	19.5	-4.5	-3.4	-0.2	-0.1	0.0	-0.2	
Health Care	11.3	17.2	2.2	-5.7	1.4	0.0	-0.5	0.9	
Industrials	17.7	9.9	3.4	-4.5	0.8	0.1	0.6	1.5	
Information Technology	26.2	9.0	-6.0	-8.2	0.2	-0.4	0.4	0.1	
Materials	5.8	4.2	-18.5	-8.0	-0.4	0.0	-0.2	-0.6	
Real Estate	0.0	5.1	0.0	-10.3	0.0	0.2	0.0	0.2	
Utilities	2.6	6.0	1.2	-5.7	0.4	0.0	-0.2	0.2	
Cash	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	-6.0	-5.6	-1.3	0.3	0.7	-0.4	



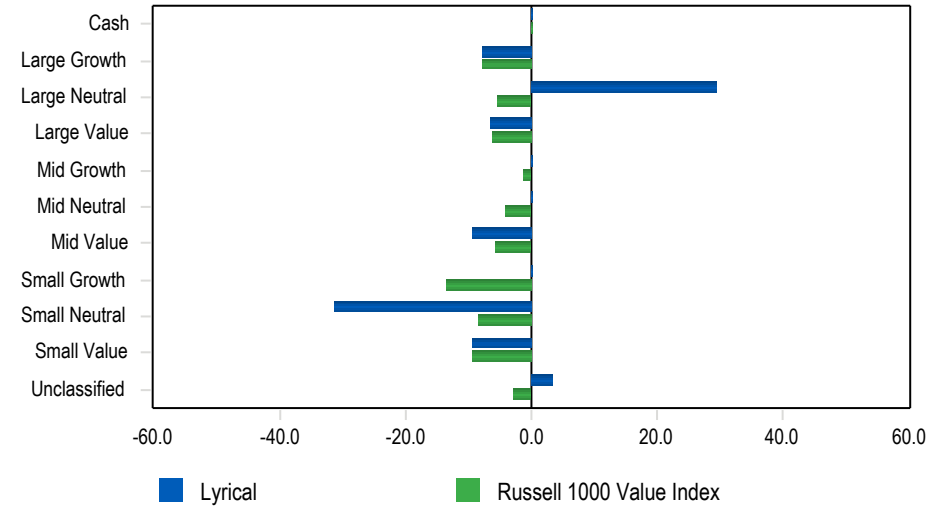
Buy-and-Hold Portfolio	-6.0
Portfolio Trading	-0.1
Actual Return	-6.1
Benchmark Return	-5.6
Actual Active Return	-0.4
Stock Selection	9.9
Style Selection	0.0
Interaction	-10.2
Total Selection	-0.4
Portfolio Trading	-0.1
Benchmark Trading	0.0
Active Trading Impact	-0.1
Buy & Hold Active Return	-0.4

	Allocation-07/01/2022		Performance-1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction		
Cash	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Large Growth	3.7	3.0	-7.8	-7.8	0.0	0.0	0.0	0.0	
Large Neutral	1.8	27.8	29.5	-5.5	9.7	0.0	-9.1	0.6	
Large Value	11.5	32.1	-6.6	-6.4	-0.1	0.2	0.0	0.1	
Mid Growth	0.0	0.5	0.0	-1.2	0.0	0.0	0.0	0.0	
Mid Neutral	15.6	12.0	0.3	-4.2	0.5	0.0	0.2	0.7	
Mid Value	47.5	17.3	-9.6	-5.7	-0.7	0.0	-1.2	-1.9	
Small Growth	0.0	0.0	0.0	-13.5	0.0	0.0	0.0	0.0	
Small Neutral	2.2	0.2	-31.3	-8.4	-0.1	-0.1	-0.4	-0.6	
Small Value	6.7	0.8	-9.6	-9.6	0.0	-0.2	0.0	-0.2	
Unclassified	10.4	6.2	3.5	-2.9	0.4	0.1	0.3	0.8	
Total	100.0	100.0	-6.0	-5.6	9.9	0.0	-10.2	-0.4	

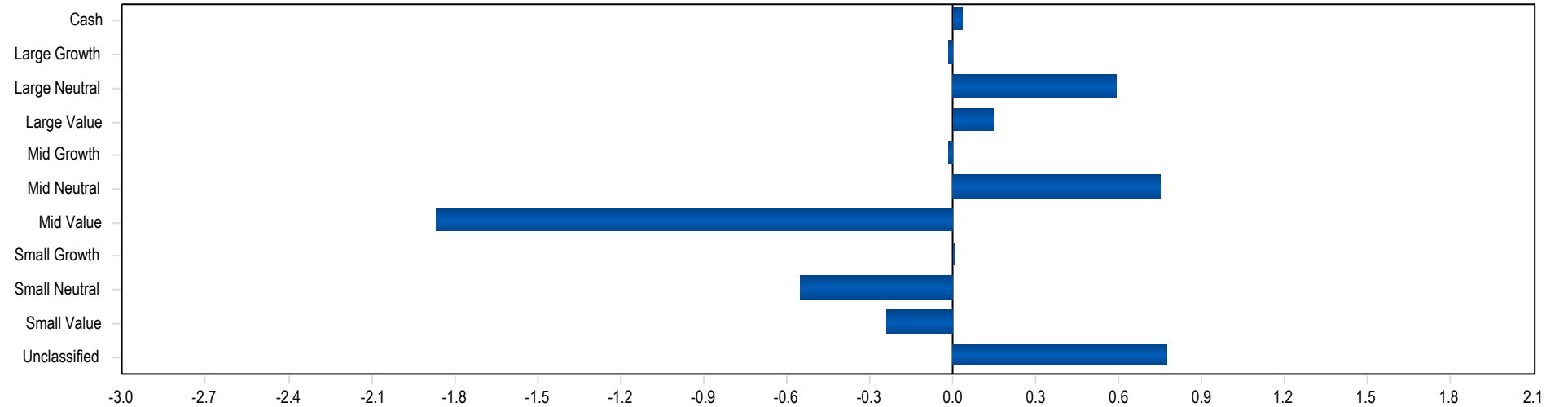
Allocation



Performance



Total Attribution





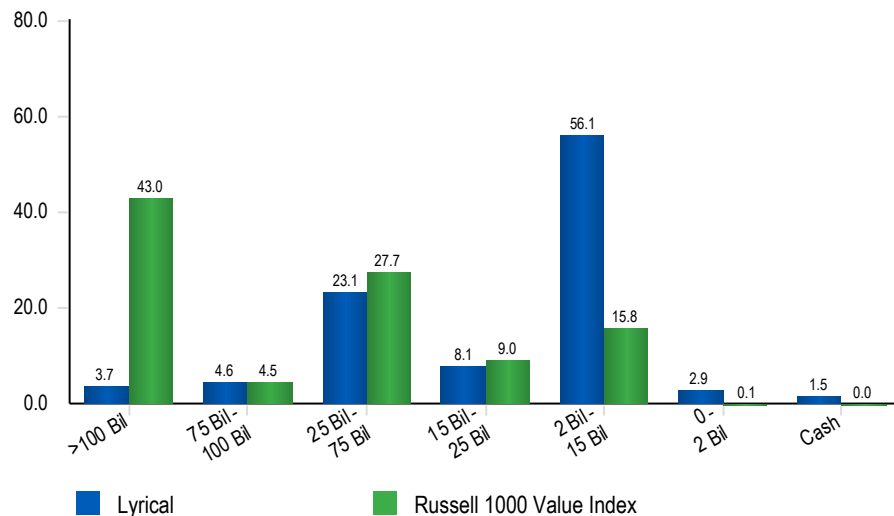
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Ameriprise Financial Inc	6.4	0.1	6.3	6.5
United Rentals Inc.	5.8	0.1	5.7	11.2
Assurant Inc.	4.9	0.0	4.9	-15.6
Univar Solutions Inc	4.6	0.0	4.6	-8.6
Cigna Corp	4.6	0.4	4.2	5.7
HCA Healthcare Inc	4.0	0.2	3.8	9.7
AerCap Holdings NV	3.9	0.0	3.9	3.4
Centene Corp	3.8	0.3	3.5	-8.0
Arrow Electronics Inc	3.8	0.0	3.8	-17.8
Flex Ltd	3.7	0.0	3.7	15.1
% of Portfolio	45.5	1.1	44.4	

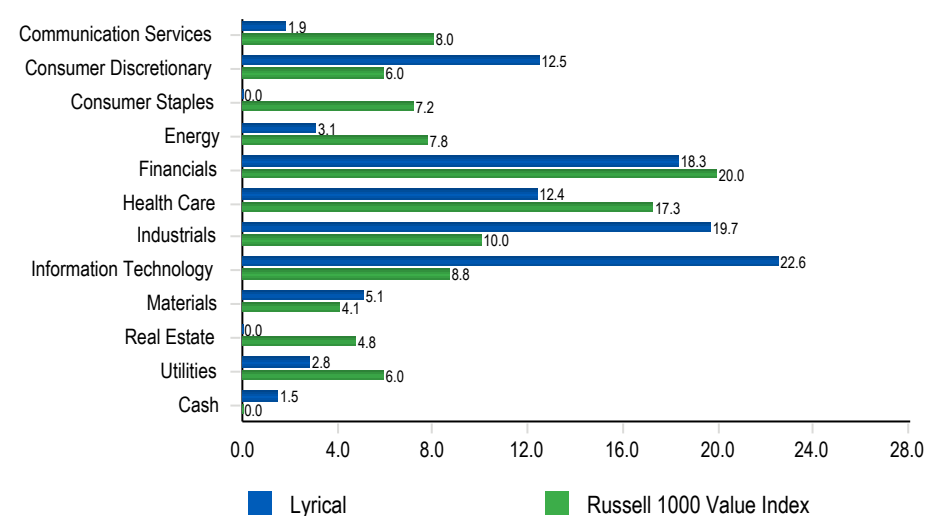
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	25,524,328,496	133,920,973,084
Median Mkt. Cap (\$)	7,781,899,120	10,526,064,600
Price/Earnings ratio	8.0	13.7
Price/Book ratio	2.0	2.3
5 Yr. EPS Growth Rate (%)	17.2	12.7
Current Yield (%)	1.6	2.5
Beta (5 Years, Monthly)	1.5	1.0
Number of Stocks	34	855

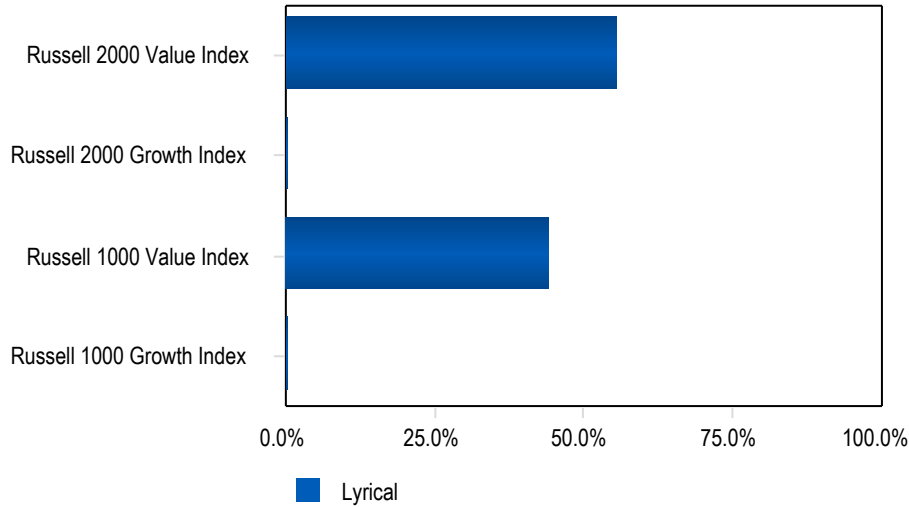
Distribution of Market Capitalization (%)



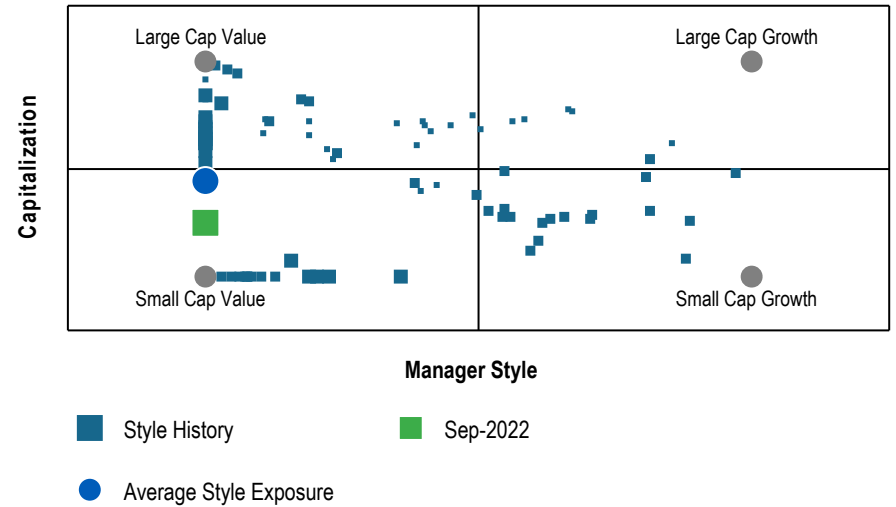
Sector Weights (%)



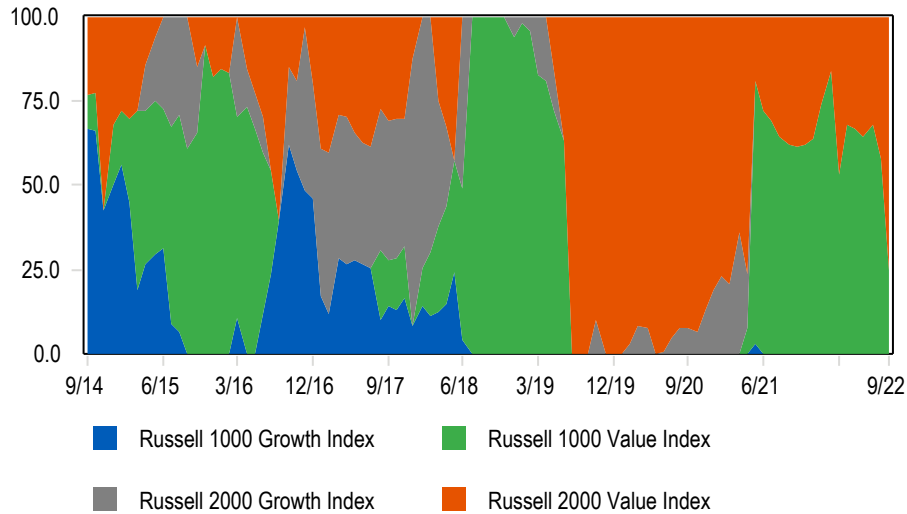
Investment Style Exposure



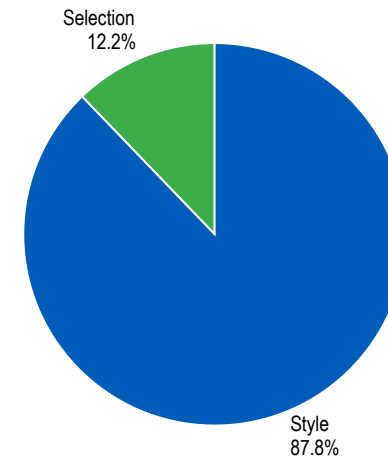
Style Map(12 Months)

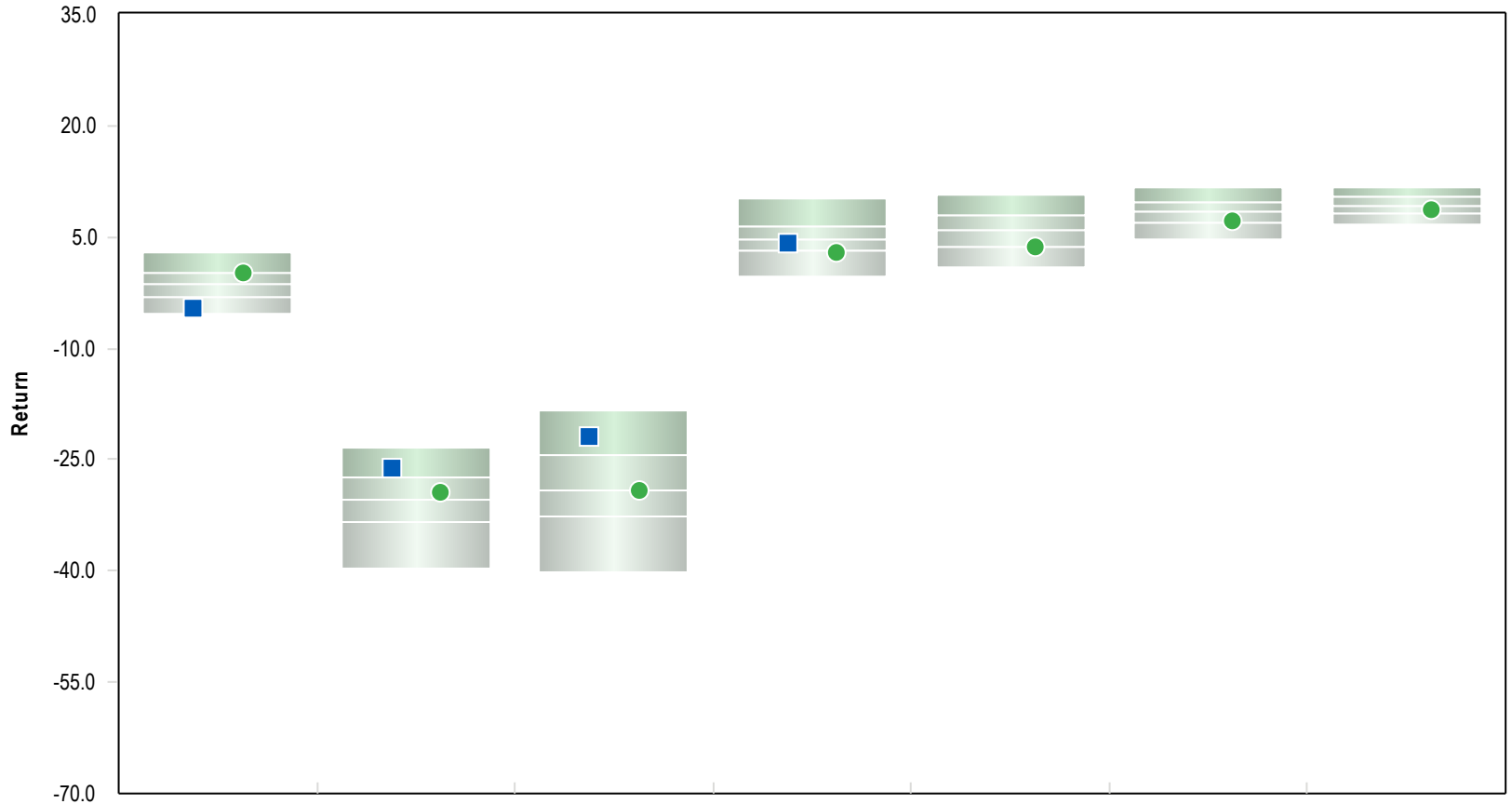


Style History(12 Months)



Return Variance

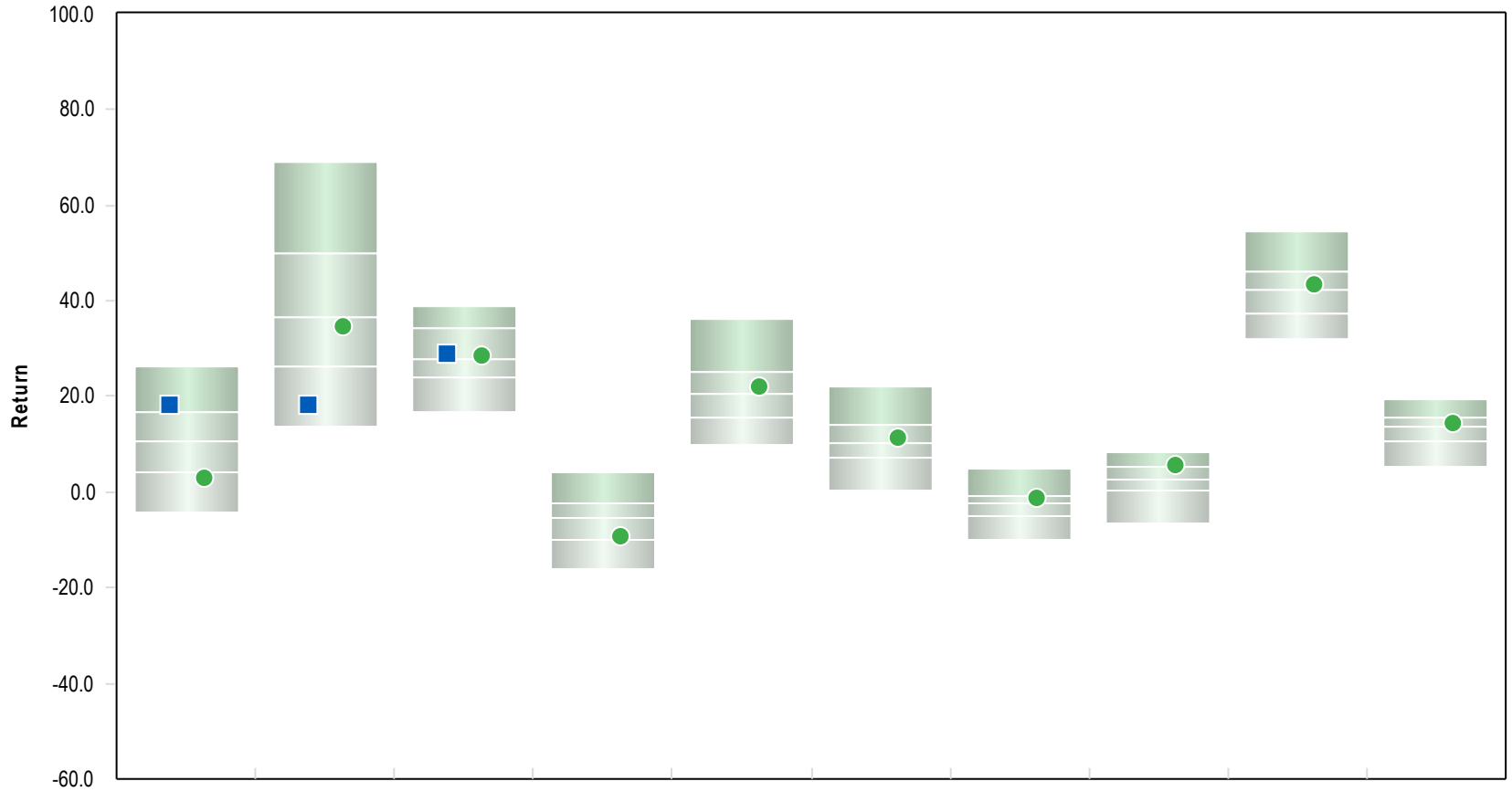




	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Frontier Capital Appreciation	-4.6 (91)	-26.2 (14)	-21.9 (14)	4.2 (57)			
● Russell 2000 Growth Index	0.2 (24)	-29.3 (40)	-29.3 (54)	2.9 (78)	3.6 (79)	7.1 (71)	8.8 (65)

5th Percentile	3.0	-23.5	-18.4	10.1	10.6	11.8	11.7
1st Quartile	0.2	-27.5	-24.3	6.5	7.9	9.7	10.3
Median	-1.4	-30.4	-29.1	4.7	5.9	8.5	9.3
3rd Quartile	-3.2	-33.4	-32.6	3.1	3.7	6.9	8.2
95th Percentile	-5.4	-39.8	-40.3	-0.3	1.0	4.7	6.7

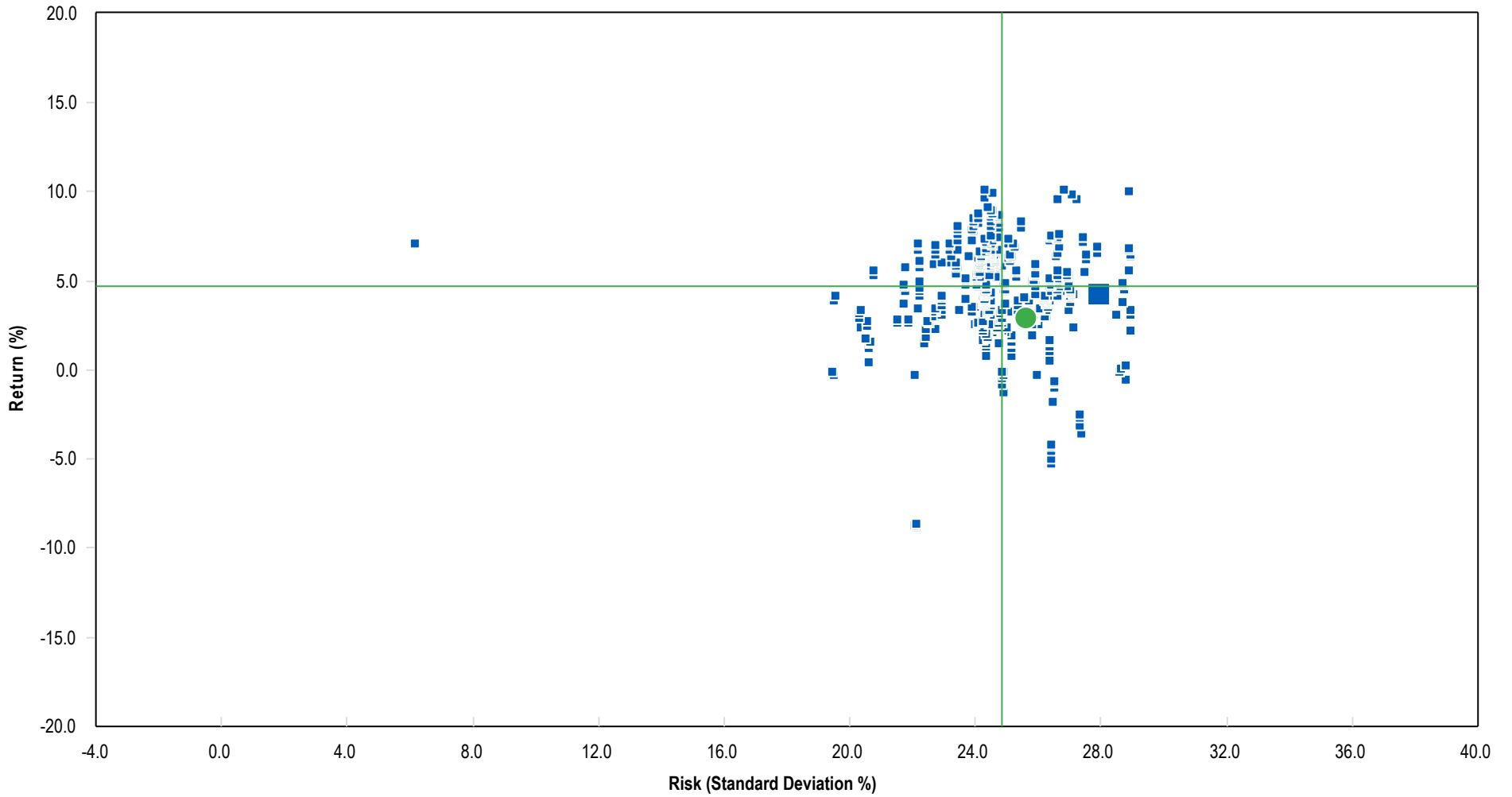
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Frontier Capital Appreciation	18.2 (22)	18.1 (89)	28.9 (44)							
● Russell 2000 Growth Index	2.8 (82)	34.6 (56)	28.5 (47)	-9.3 (73)	22.2 (43)	11.3 (43)	-1.4 (34)	5.6 (22)	43.3 (45)	14.6 (36)

5th Percentile	26.2	68.9	38.8	4.2	36.1	22.1	4.8	8.2	54.4	19.4
1st Quartile	16.9	49.9	34.1	-2.4	25.3	14.0	-0.6	5.2	46.1	15.6
Median	10.5	36.5	27.7	-5.6	20.7	10.1	-2.4	2.8	42.5	13.6
3rd Quartile	4.0	26.4	23.9	-9.9	15.6	7.3	-4.9	0.2	37.5	10.7
95th Percentile	-4.4	13.7	16.8	-16.1	9.7	0.3	-9.9	-6.5	32.1	5.4

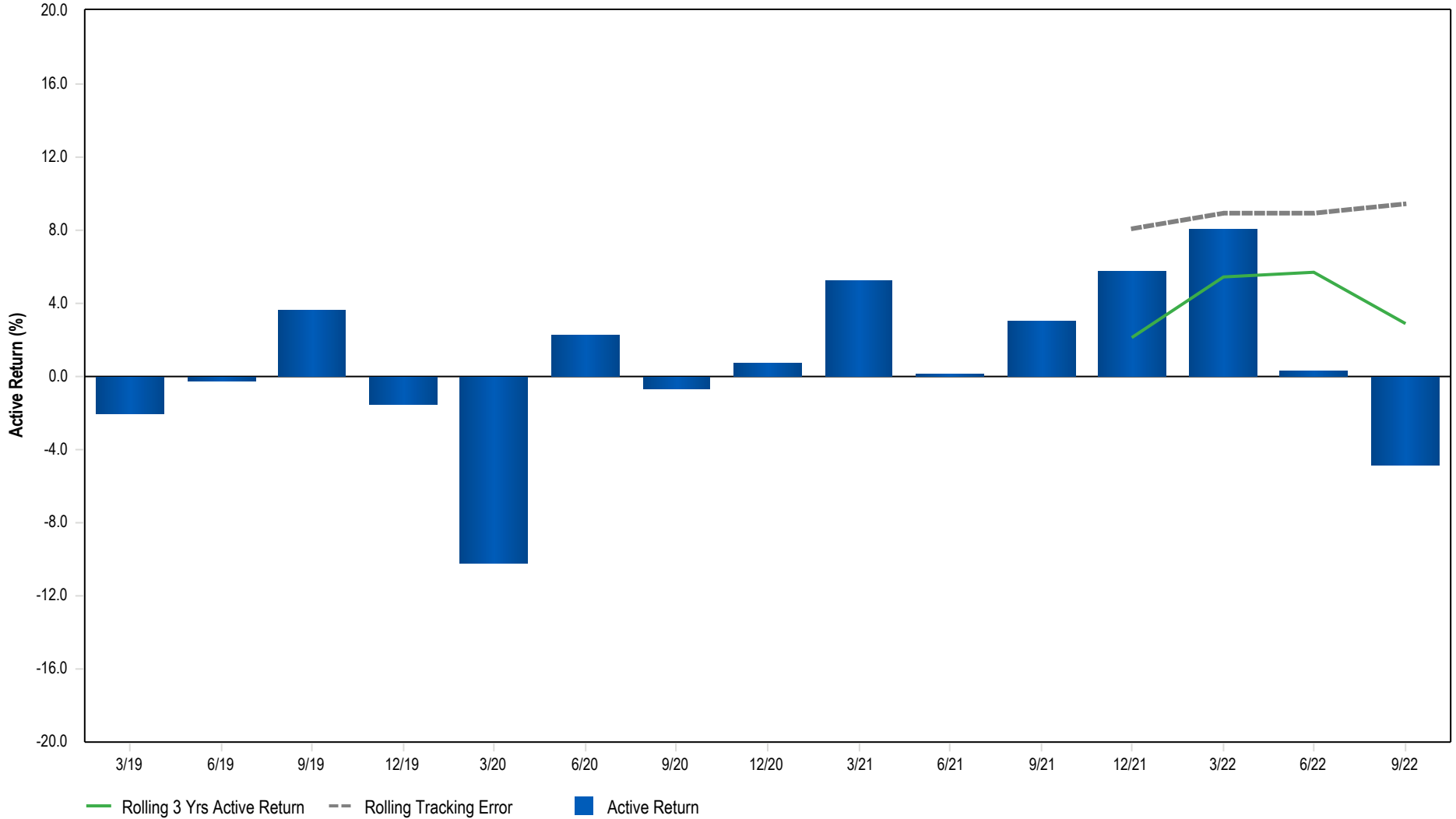
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Frontier Capital Appreciation	4.2	27.9
● Russell 2000 Growth Index	2.9	25.6
— Median	4.7	24.8

Calculation based on monthly periodicity.

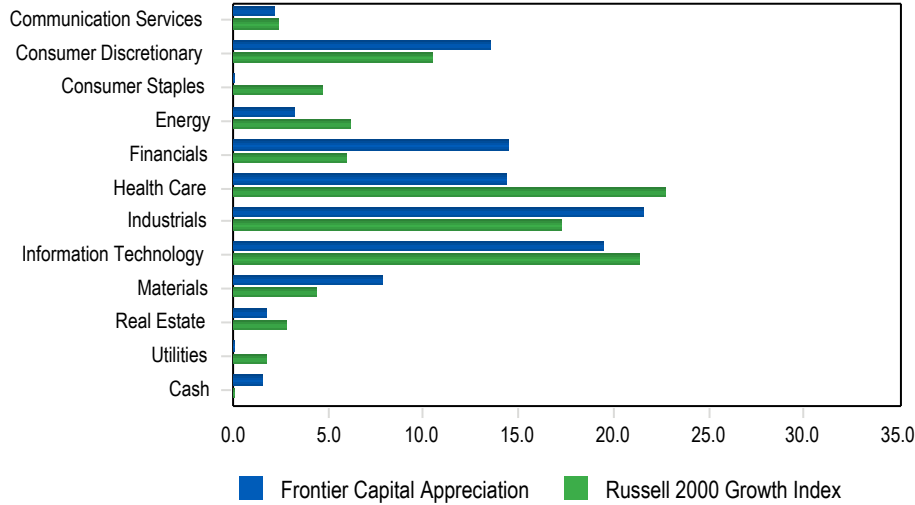
	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Frontier Capital Appreciation	-4.6	-26.2	-21.9	4.2				18.2	18.1	28.9	
Russell 2000 Growth Index	0.2	-29.3	-29.3	2.9	3.6	7.1	8.8	2.8	34.6	28.5	-9.3
Difference	-4.8	3.1	7.4	1.3				15.4	-16.5	0.4	



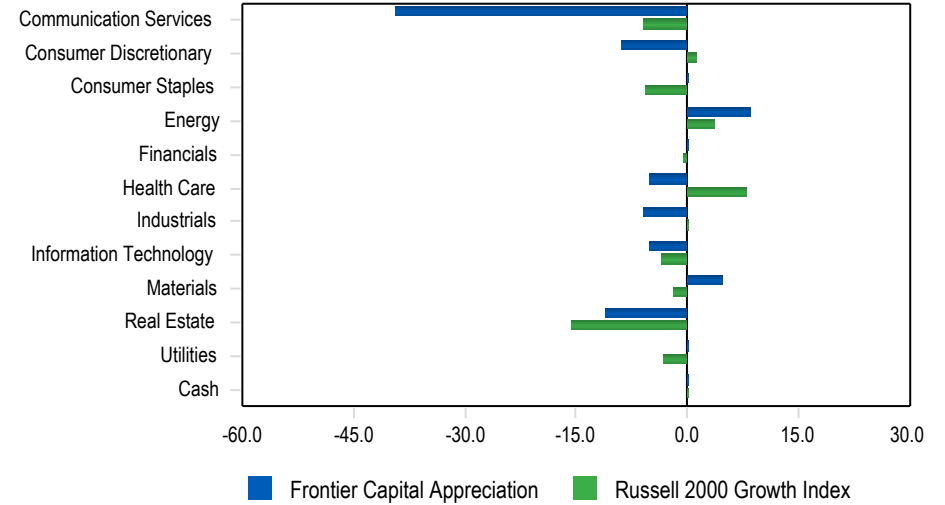
Buy-and-Hold Portfolio	-4.6
Portfolio Trading	-0.1
Actual Return	-4.6
Benchmark Return	0.2
Actual Active Return	-4.9
Stock Selection	-5.5
Sector Selection	-0.3
Interaction	0.8
Total Selection	-5.0
Portfolio Trading	-0.1
Benchmark Trading	-0.2
Active Trading Impact	0.1
Buy & Hold Active Return	-4.9

	Allocation — 07/01/2022		Performance — 1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction		
Communication Services	2.2	2.4	-39.3	-5.9	-0.8	0.0	0.1	-0.7	
Consumer Discretionary	13.5	10.4	-8.9	1.4	-1.1	0.0	-0.3	-1.4	
Consumer Staples	0.0	4.7	0.0	-5.6	0.0	0.3	0.0	0.3	
Energy	3.2	6.1	8.5	3.8	0.3	-0.1	-0.1	0.0	
Financials	14.5	5.9	0.4	-0.7	0.1	-0.1	0.1	0.1	
Health Care	14.4	22.7	-5.2	8.1	-3.0	-0.6	1.1	-2.6	
Industrials	21.6	17.3	-5.8	0.1	-1.0	0.0	-0.3	-1.3	
Information Technology	19.5	21.4	-5.1	-3.6	-0.3	0.1	0.0	-0.2	
Materials	7.8	4.4	4.9	-2.0	0.3	-0.1	0.2	0.5	
Real Estate	1.7	2.9	-11.1	-15.6	0.1	0.2	-0.1	0.3	
Utilities	0.0	1.8	0.0	-3.1	0.0	0.1	0.0	0.1	
Cash	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	-4.6	0.4	-5.5	-0.3	0.8	-5.0	

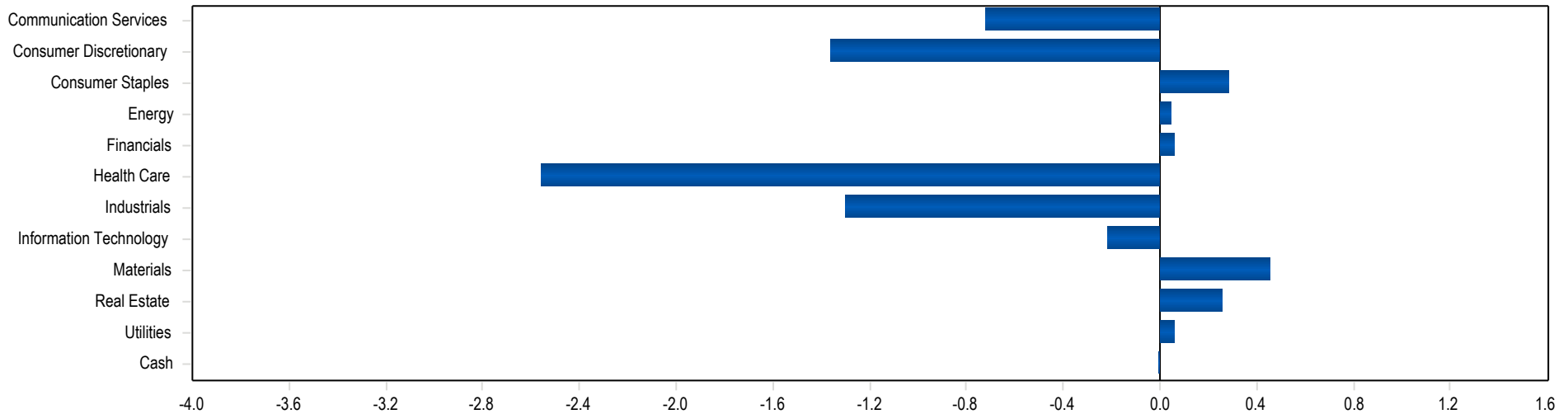
**Allocation**



**Performance**



**Total Attribution**

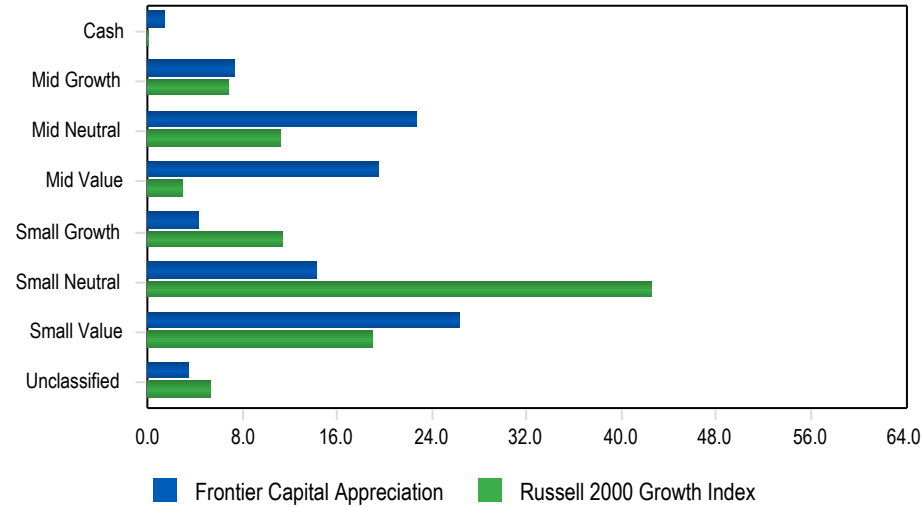




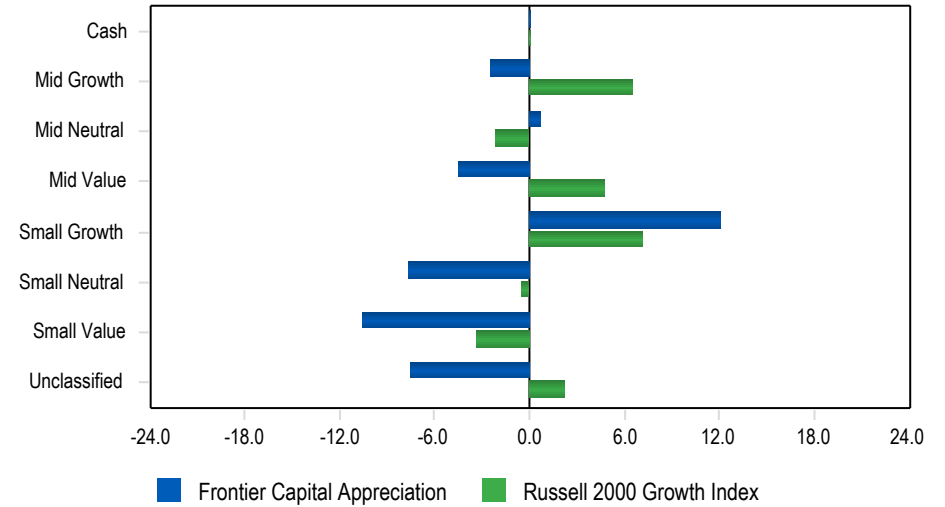
Buy-and-Hold Portfolio	-4.6
Portfolio Trading	-0.1
Actual Return	-4.6
Benchmark Return	0.2
Actual Active Return	-4.9
Stock Selection	-5.0
Style Selection	-0.1
Interaction	0.1
Total Selection	-5.0
Portfolio Trading	-0.1
Benchmark Trading	-0.2
Active Trading Impact	0.1
Buy & Hold Active Return	-4.9

	Allocation-07/01/2022		Performance-1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction		
Cash	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Mid Growth	7.4	7.0	-2.5	6.6	-0.6	0.0	0.0	-0.6	
Mid Neutral	22.7	11.3	0.7	-2.2	0.3	-0.3	0.3	0.4	
Mid Value	19.5	3.0	-4.5	4.8	-0.3	0.7	-1.5	-1.1	
Small Growth	4.4	11.5	12.1	7.2	0.6	-0.5	-0.3	-0.3	
Small Neutral	14.4	42.7	-7.7	-0.5	-3.1	0.3	2.0	-0.8	
Small Value	26.4	19.1	-10.6	-3.5	-1.4	-0.3	-0.5	-2.2	
Unclassified	3.6	5.4	-7.6	2.3	-0.5	0.0	0.2	-0.4	
Total	100.0	100.0	-4.6	0.4	-5.0	-0.1	0.1	-5.0	

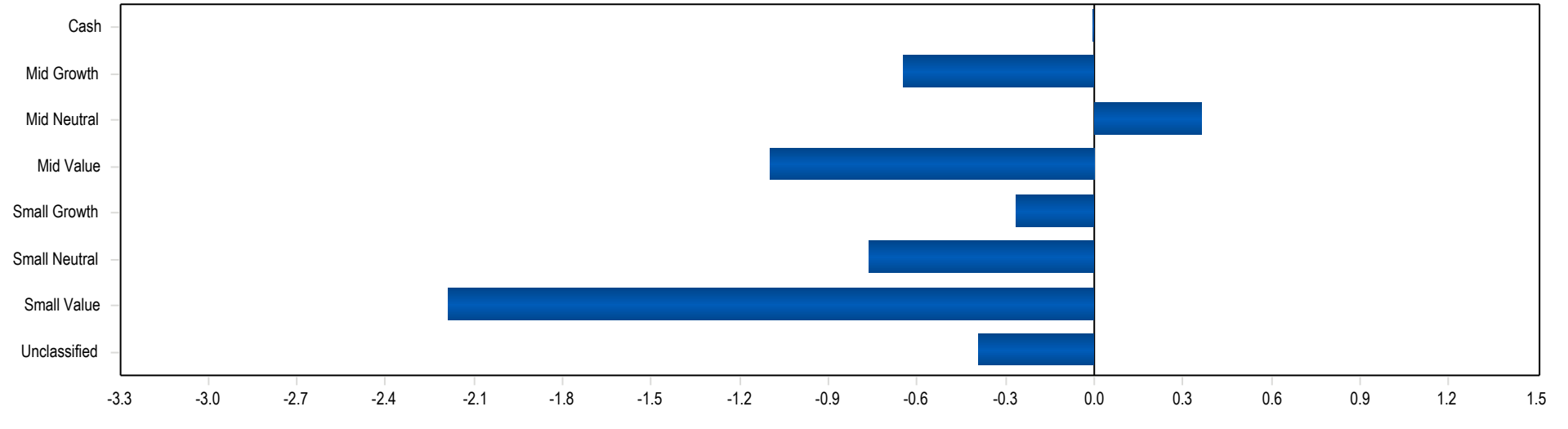
Allocation



Performance



Total Attribution



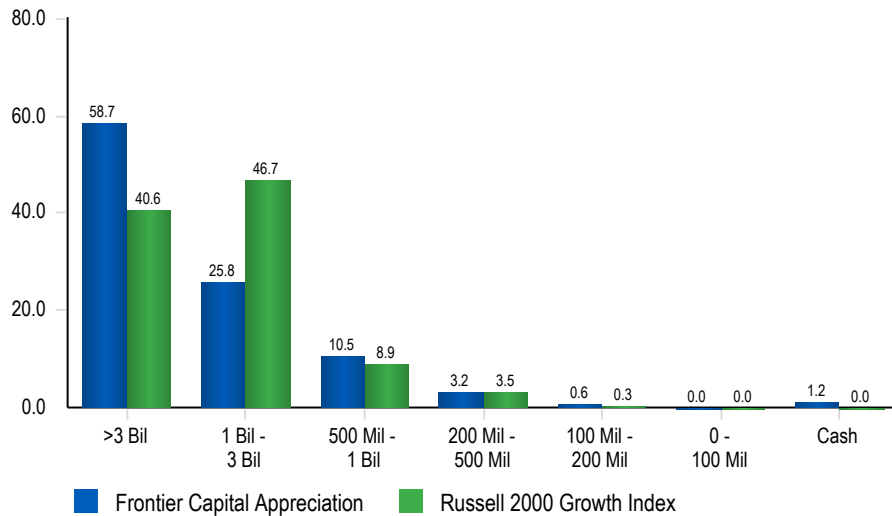
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Builders FirstSource Inc	2.4	0.0	2.4	9.7
Wolfspeed Inc	2.4	0.0	2.4	62.9
MACOM Technology Solutions Holdings Inc	2.1	0.2	1.9	12.3
LPL Financial Holdings Inc	2.0	0.0	2.0	18.6
Array Technologies Inc	1.9	0.2	1.7	50.6
KBR Inc	1.8	0.0	1.8	-10.5
Insulet Corporation	1.8	0.0	1.8	5.3
ATI Inc	1.7	0.3	1.4	17.2
Jabil Inc	1.5	0.0	1.5	12.8
MRC Global Inc	1.4	0.1	1.3	-27.8
% of Portfolio	19.0	0.8	18.2	

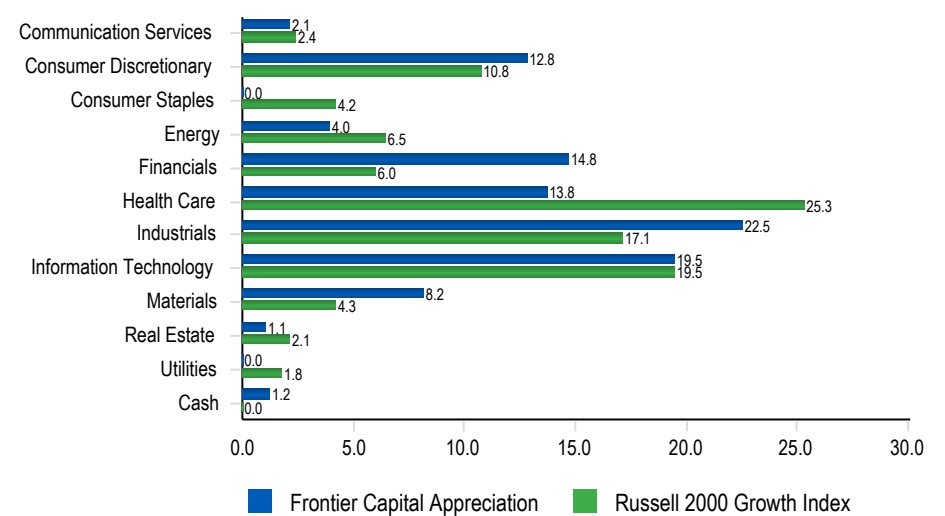
Portfolio Characteristics

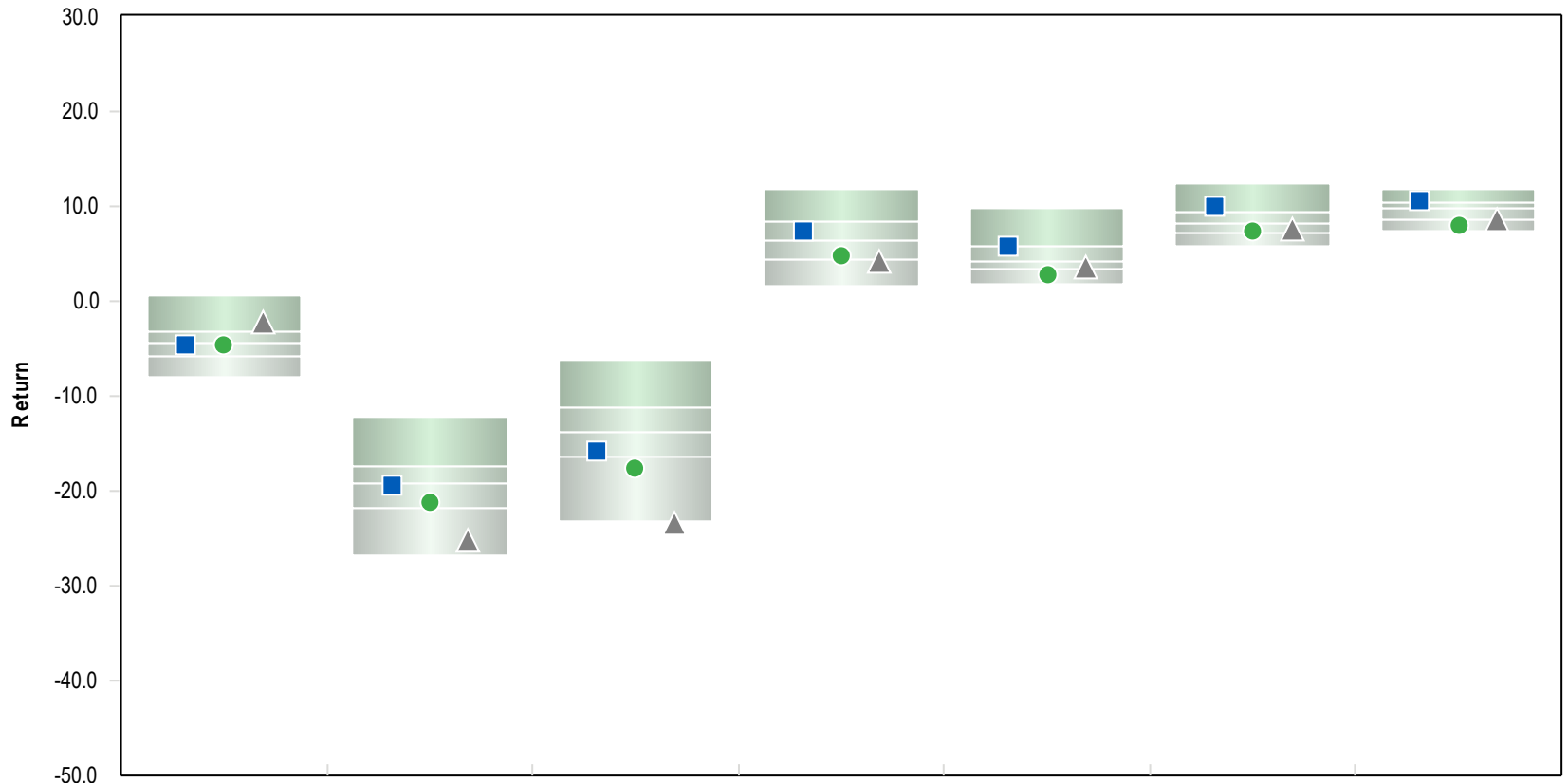
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	6,027,792,178	2,912,363,855
Median Mkt. Cap (\$)	2,763,404,940	1,084,613,470
Price/Earnings ratio	13.2	14.9
Price/Book ratio	2.4	3.5
5 Yr. EPS Growth Rate (%)	20.5	21.1
Current Yield (%)	0.8	0.8
Beta (3 Years, Monthly)	1.0	1.0
Number of Stocks	136	1,121

Distribution of Market Capitalization (%)



Sector Weights (%)

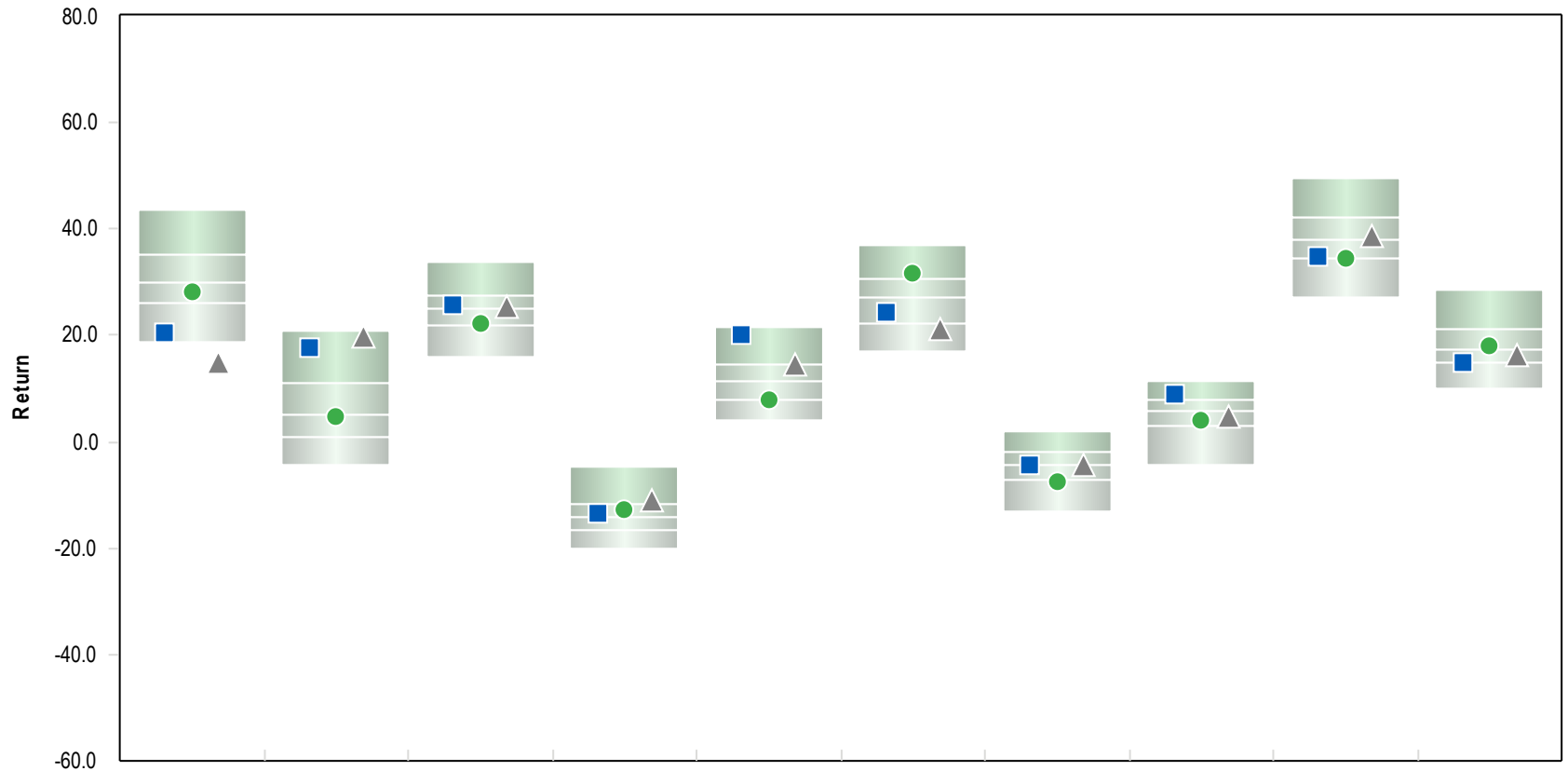




	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Earnest Partners	-4.6 (51)	-19.4 (51)	-15.9 (72)	7.4 (36)	5.9 (25)	10.0 (15)	10.7 (22)
● Russell 2000 Value Index	-4.6 (51)	-21.1 (69)	-17.7 (81)	4.7 (72)	2.9 (84)	7.4 (70)	7.9 (91)
▲ Russell 2000 Index	-2.2 (14)	-25.1 (90)	-23.5 (97)	4.3 (76)	3.6 (68)	7.5 (68)	8.6 (78)

5th Percentile	0.6	-12.2	-6.2	11.7	9.9	12.3	11.8
1st Quartile	-3.1	-17.3	-11.3	8.4	5.9	9.5	10.5
Median	-4.5	-19.3	-13.9	6.3	4.2	8.2	9.7
3rd Quartile	-5.7	-21.9	-16.5	4.3	3.3	7.3	8.6
95th Percentile	-8.0	-26.9	-23.3	1.7	1.8	5.7	7.3

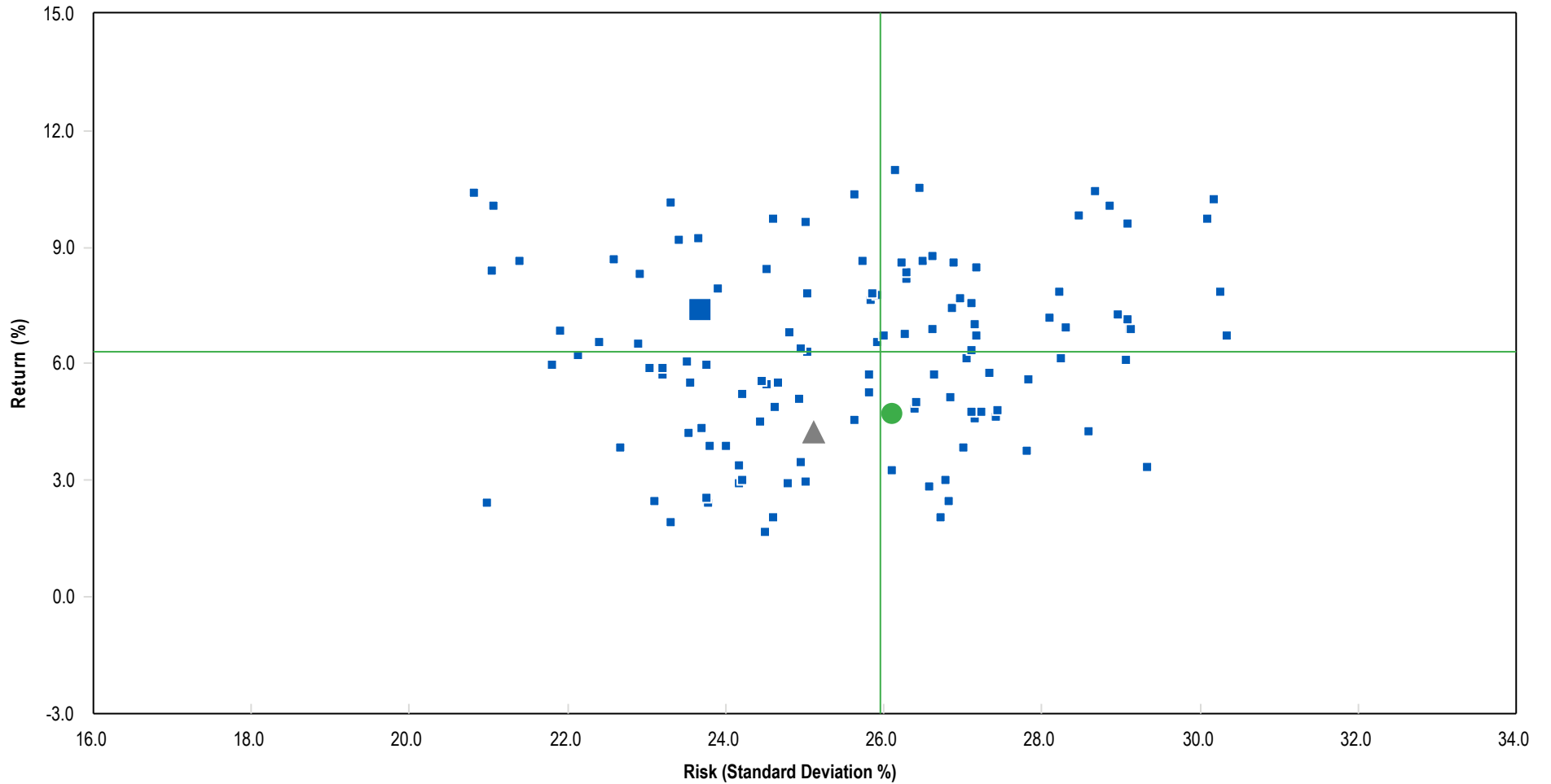
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Earnest Partners	20.6 (92)	17.8 (10)	25.8 (42)	-13.4 (40)	20.0 (7)	24.4 (66)	-4.5 (53)	8.9 (15)	34.9 (74)	14.9 (74)
● Russell 2000 Value Index	28.3 (58)	4.6 (51)	22.4 (73)	-12.9 (37)	7.8 (75)	31.7 (18)	-7.5 (78)	4.2 (67)	34.5 (75)	18.1 (46)
▲ Russell 2000 Index	14.8 (99)	20.0 (7)	25.5 (45)	-11.0 (23)	14.6 (24)	21.3 (81)	-4.4 (52)	4.9 (60)	38.8 (45)	16.3 (60)

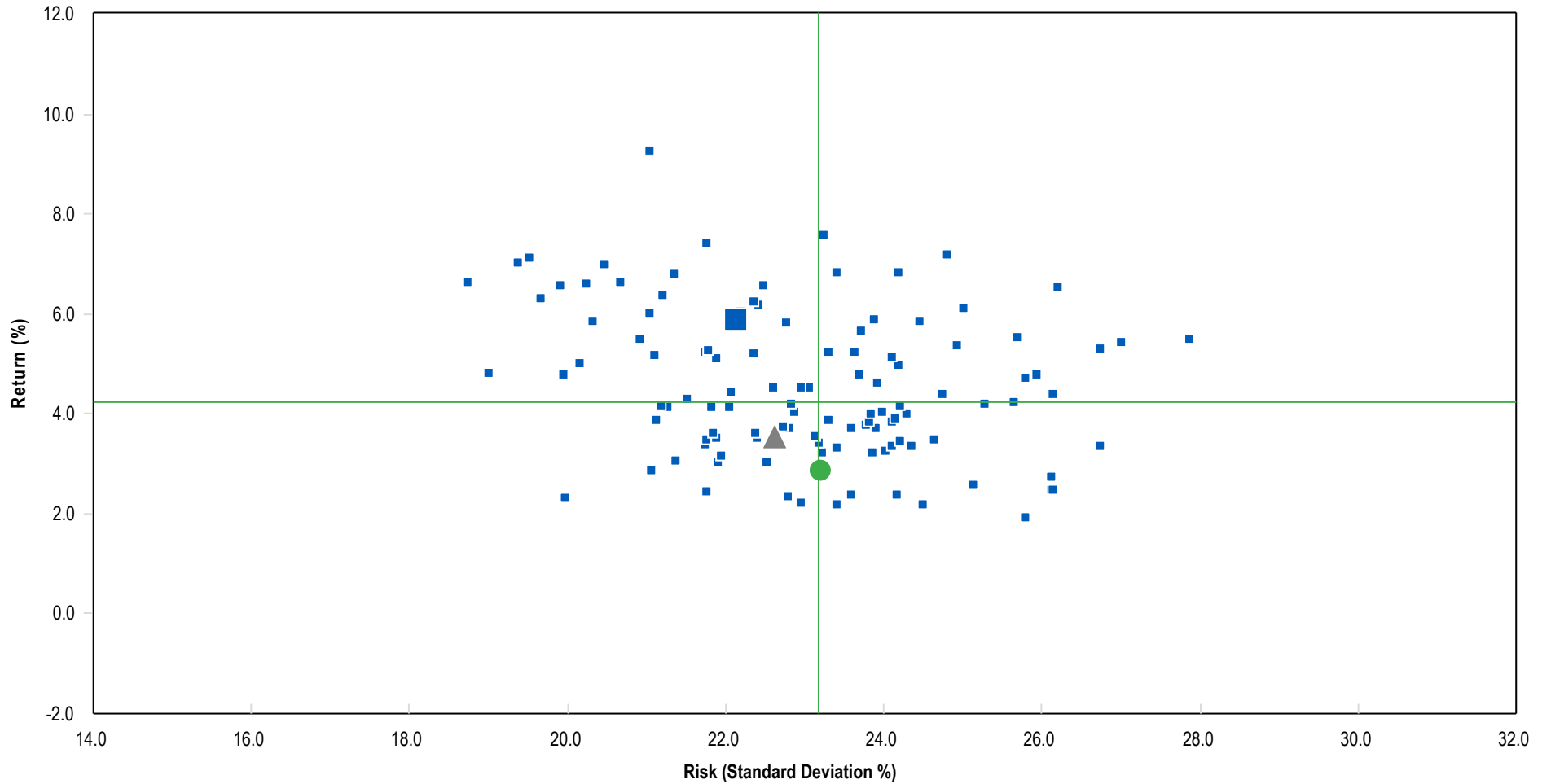
5th Percentile	43.5	21.0	33.8	-4.8	21.4	36.8	1.9	11.5	49.6	28.6
1st Quartile	35.4	11.2	27.4	-11.6	14.4	30.7	-1.9	7.9	42.2	21.1
Median	30.1	5.0	25.1	-14.1	11.6	27.2	-4.3	5.7	38.0	17.4
3rd Quartile	26.2	0.8	21.9	-16.7	7.8	22.3	-7.0	2.9	34.4	14.7
95th Percentile	18.6	-4.3	16.0	-20.0	3.9	16.9	-13.3	-4.4	27.3	10.0

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Earnest Partners	7.4	23.7
● Russell 2000 Value Index	4.7	26.1
▲ Russell 2000 Index	4.3	25.1
— Median	6.3	26.0

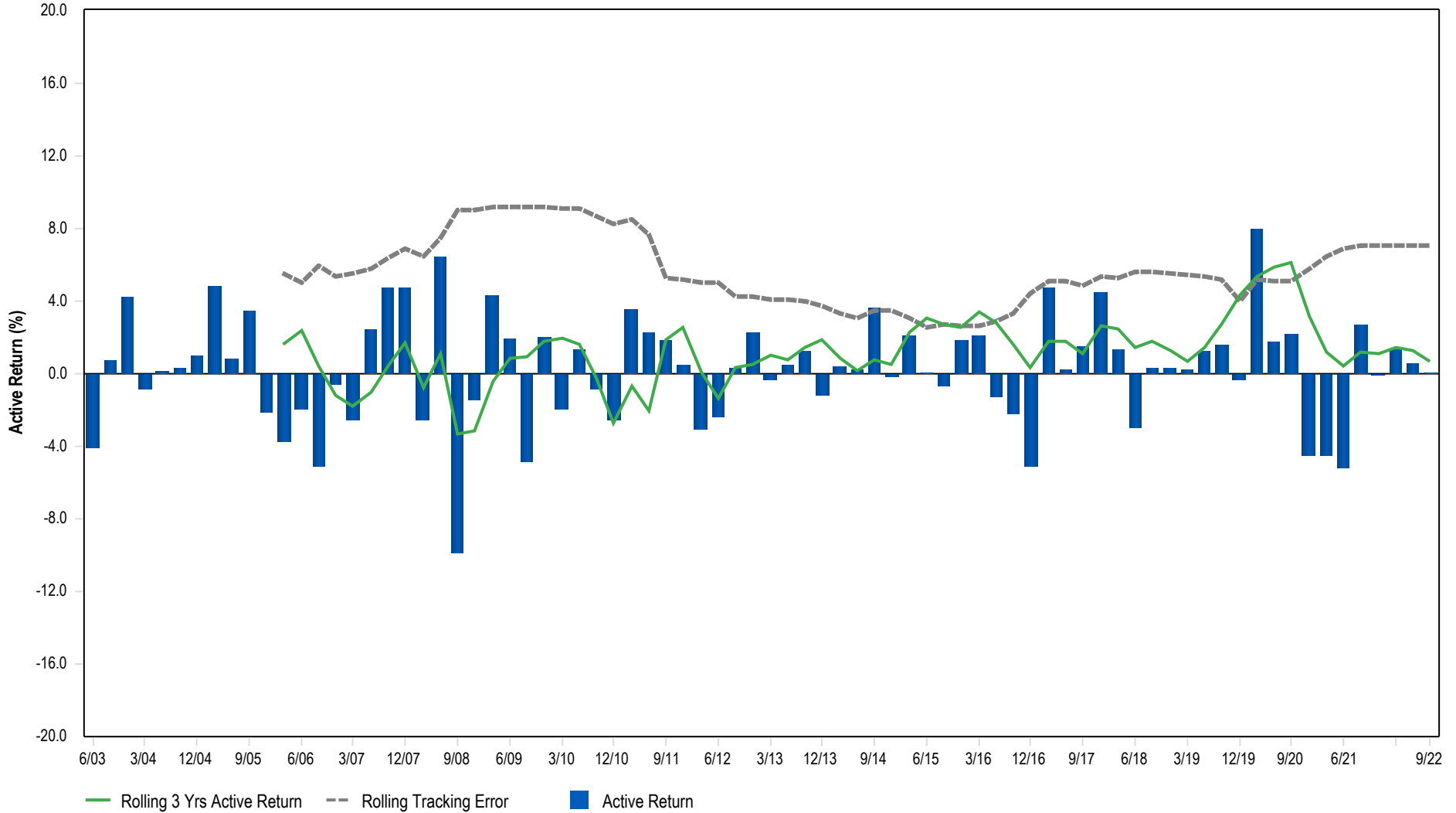
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Earnest Partners	5.9	22.1
● Russell 2000 Value Index	2.9	23.2
▲ Russell 2000 Index	3.6	22.6
— Median	4.2	23.2

Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Earnest Partners	-4.6	-19.4	-15.9	7.4	5.9	10.0	10.7	20.6	17.8	25.8	-13.4
Russell 2000 Value Index	-4.6	-21.1	-17.7	4.7	2.9	7.4	7.9	28.3	4.6	22.4	-12.9
Difference	0.0	1.7	1.8	2.7	3.0	2.6	2.8	-7.7	13.2	3.4	-0.5

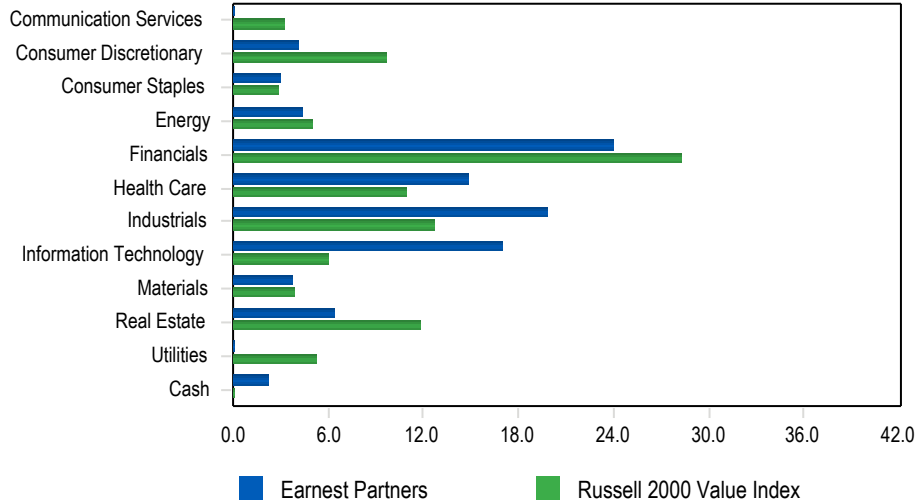




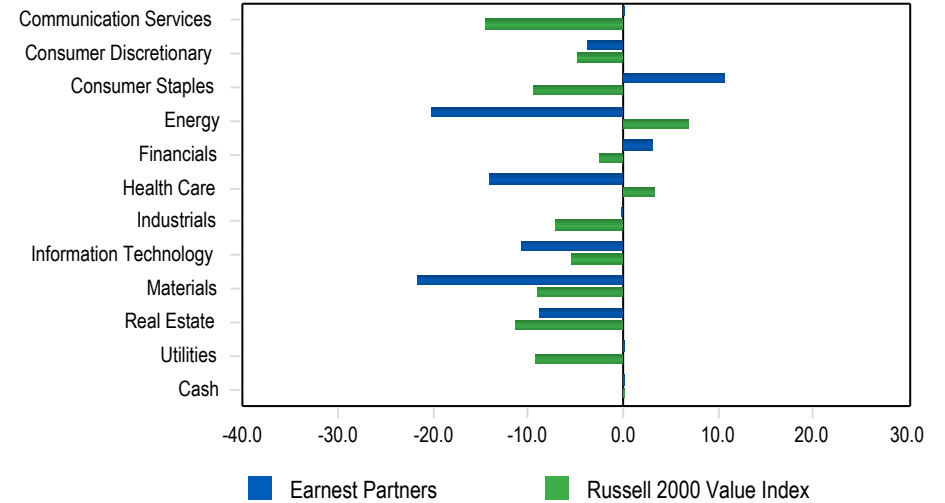
Buy-and-Hold Portfolio	-5.3
Portfolio Trading	0.7
Actual Return	-4.6
Benchmark Return	-4.6
Actual Active Return	0.0
Stock Selection	-0.6
Sector Selection	0.9
Interaction	-1.0
Total Selection	-0.7
Portfolio Trading	0.7
Benchmark Trading	0.0
Active Trading Impact	0.7
Buy & Hold Active Return	0.0

	Allocation — 07/01/2022		Performance — 1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction		
Communication Services	0.0	3.3	0.0	-14.6	0.0	0.3	0.0	0.3	
Consumer Discretionary	4.2	9.6	-3.7	-4.8	0.1	0.0	-0.1	0.1	
Consumer Staples	3.1	2.9	10.6	-9.4	0.6	0.0	0.0	0.6	
Energy	4.5	5.0	-20.2	6.9	-1.4	-0.1	0.1	-1.3	
Financials	24.1	28.4	3.2	-2.4	1.6	-0.1	-0.2	1.3	
Health Care	14.8	11.0	-14.1	3.4	-1.9	0.3	-0.7	-2.3	
Industrials	19.9	12.7	-0.1	-7.1	0.9	-0.2	0.5	1.2	
Information Technology	17.0	6.1	-10.8	-5.4	-0.3	-0.1	-0.6	-1.0	
Materials	3.8	3.9	-21.5	-8.9	-0.5	0.0	0.0	-0.5	
Real Estate	6.4	11.9	-8.8	-11.3	0.3	0.4	-0.1	0.5	
Utilities	0.0	5.3	0.0	-9.2	0.0	0.2	0.0	0.2	
Cash	2.3	0.0	0.0	0.0	0.0	0.1	0.0	0.1	
Total	100.0	100.0	-5.3	-4.6	-0.6	0.9	-1.0	-0.7	

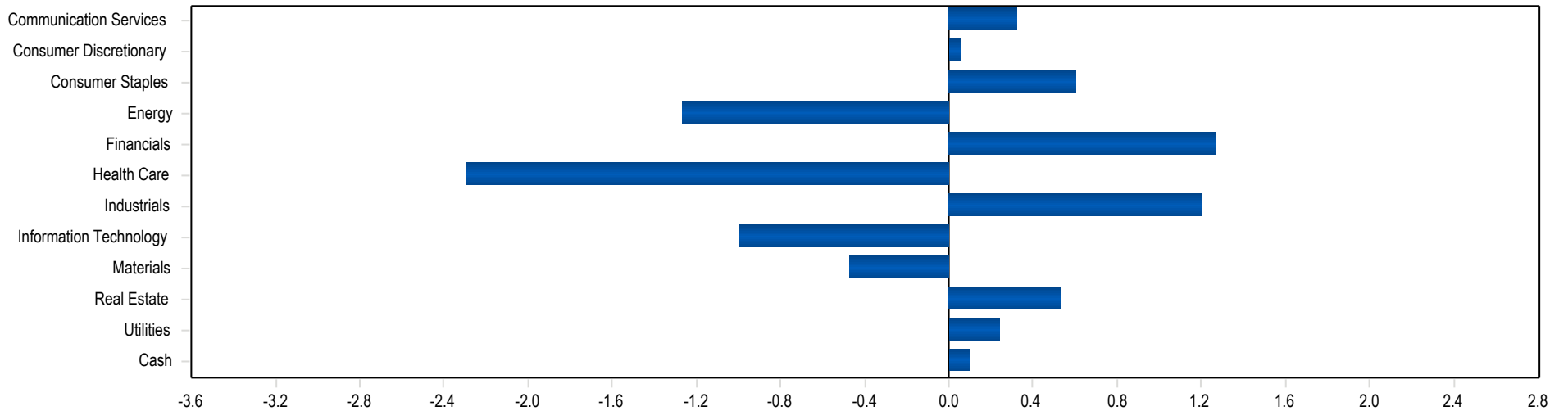
Allocation



Performance



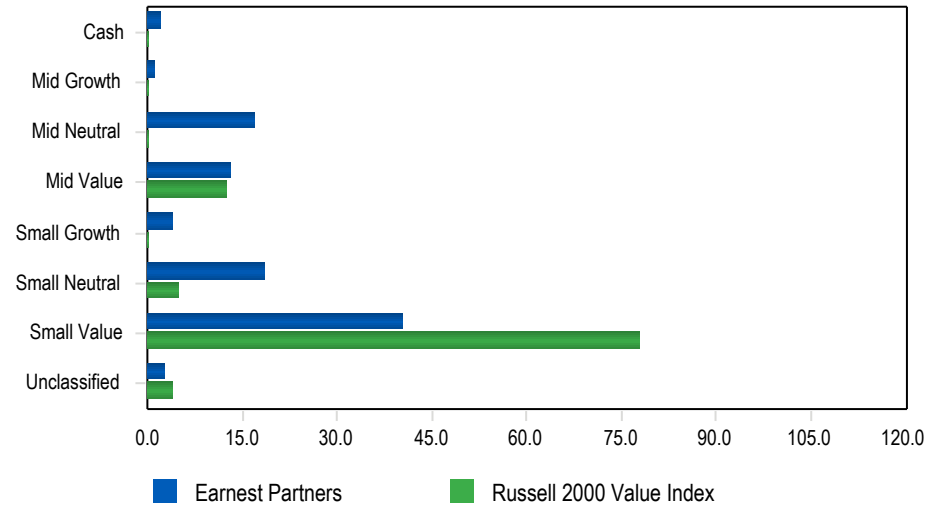
Total Attribution



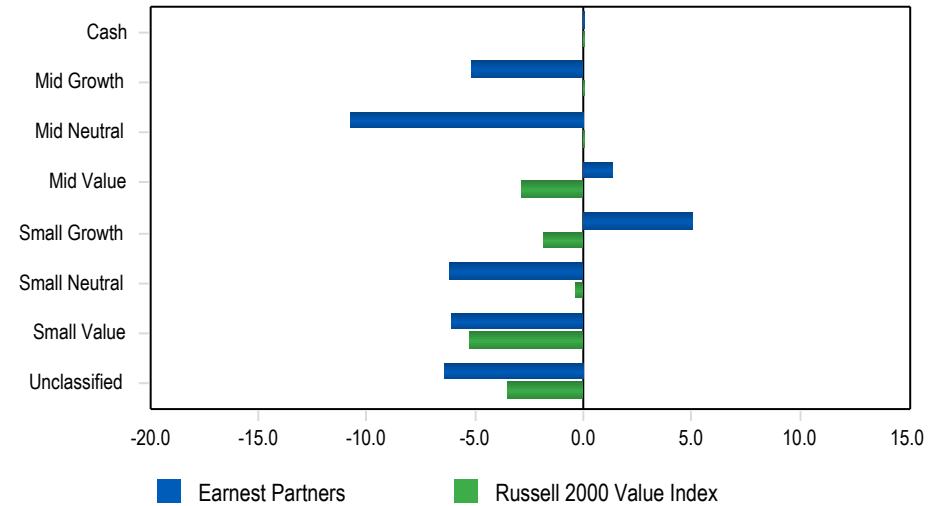
Buy-and-Hold Portfolio	-5.3
Portfolio Trading	0.7
Actual Return	-4.6
Benchmark Return	-4.6
Actual Active Return	0.0
Stock Selection	-0.5
Style Selection	0.0
Interaction	-0.2
Total Selection	-0.7
Portfolio Trading	0.7
Benchmark Trading	0.0
Active Trading Impact	0.7
Buy & Hold Active Return	0.0

	Allocation-07/01/2022		Performance-1 Quarter Ending September 30, 2022				Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction		
Cash	2.3	0.0	0.0	0.0	0.0	0.1	0.0	0.1	
Mid Growth	1.3	0.0	-5.2	0.0	0.0	0.0	0.0	0.0	
Mid Neutral	17.0	0.0	-10.7	0.0	0.0	-1.0	0.0	-1.0	
Mid Value	13.4	12.7	1.4	-2.8	0.5	0.0	0.0	0.6	
Small Growth	4.1	0.3	5.1	-1.8	0.0	0.1	0.3	0.4	
Small Neutral	18.6	4.9	-6.2	-0.4	-0.3	0.6	-0.8	-0.5	
Small Value	40.5	77.9	-6.0	-5.2	-0.6	0.2	0.3	-0.1	
Unclassified	2.9	4.3	-6.4	-3.5	-0.1	0.0	0.0	-0.1	
Total	100.0	100.0	-5.3	-4.6	-0.5	0.0	-0.2	-0.7	

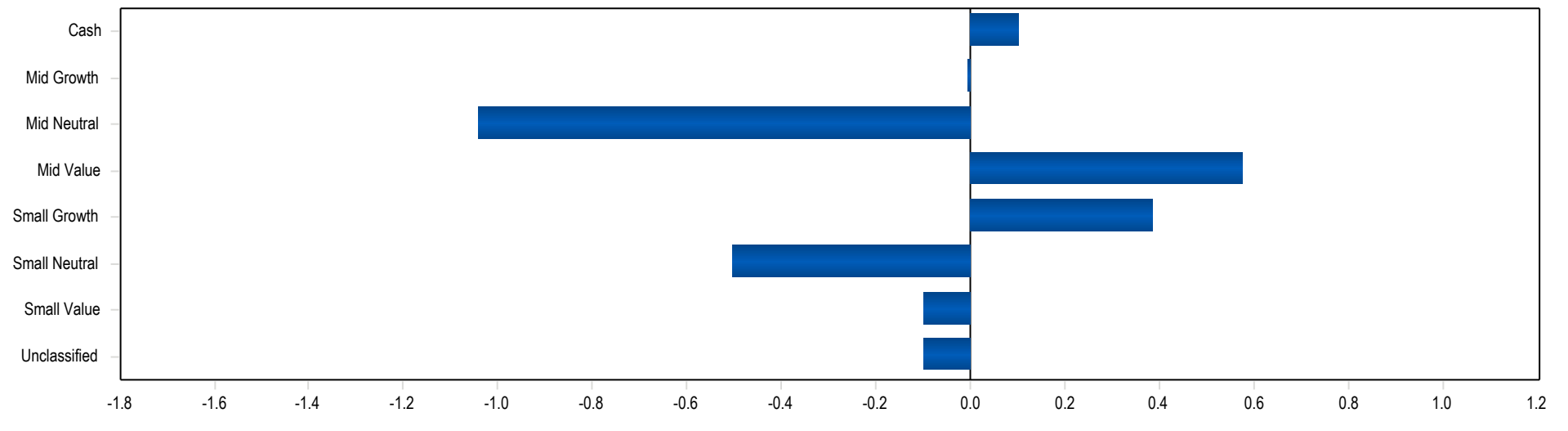
Allocation



Performance



Total Attribution



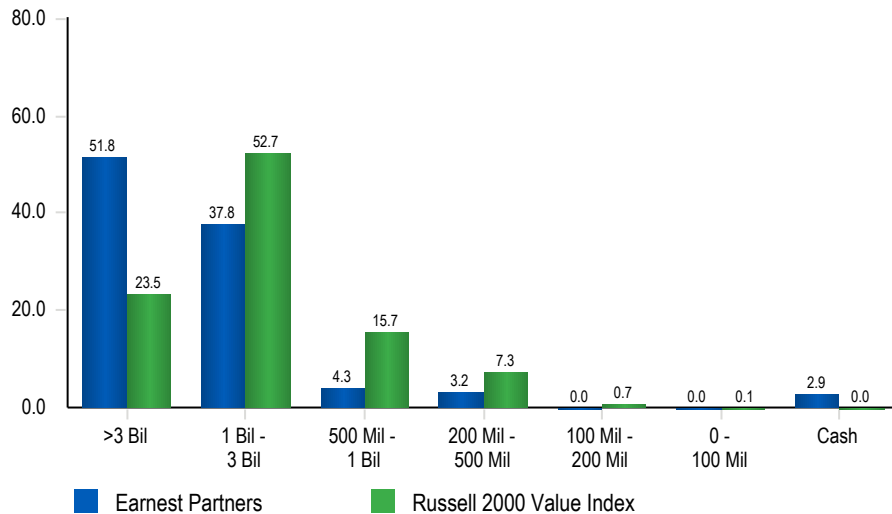
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Casella Waste Systems Inc	4.4	0.0	4.4	5.1
GATX Corp.	3.7	0.3	3.4	-9.1
Franklin Electric Co Inc	3.7	0.0	3.7	11.8
STAG Industrial Inc	3.6	0.5	3.1	-6.8
Darling Ingredients Inc	3.1	0.0	3.1	10.6
Houlihan Lokey Inc	2.8	0.0	2.8	-3.8
Hexcel Corp	2.8	0.0	2.8	-1.0
Molina Healthcare Inc.	2.7	0.0	2.7	18.0
SouthState Corporation	2.7	0.6	2.1	3.2
Archrock Inc	2.6	0.1	2.5	-20.9
% of Portfolio	32.1	1.5	30.6	

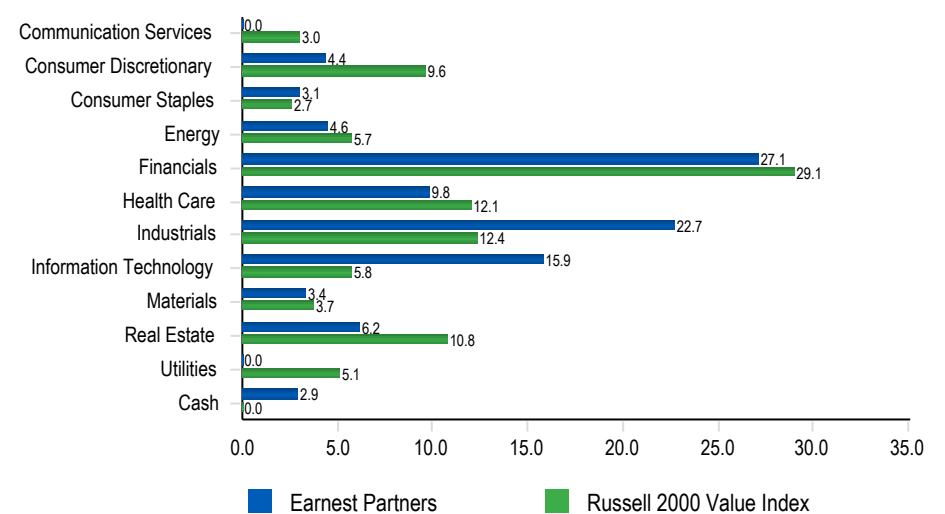
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	4,361,441,497	2,147,826,661
Median Mkt. Cap (\$)	2,590,574,690	782,351,315
Price/Earnings ratio	15.1	9.2
Price/Book ratio	1.9	1.5
5 Yr. EPS Growth Rate (%)	14.4	12.4
Current Yield (%)	1.9	2.4
Beta (5 Years, Monthly)	0.9	1.0
Number of Stocks	55	1,394

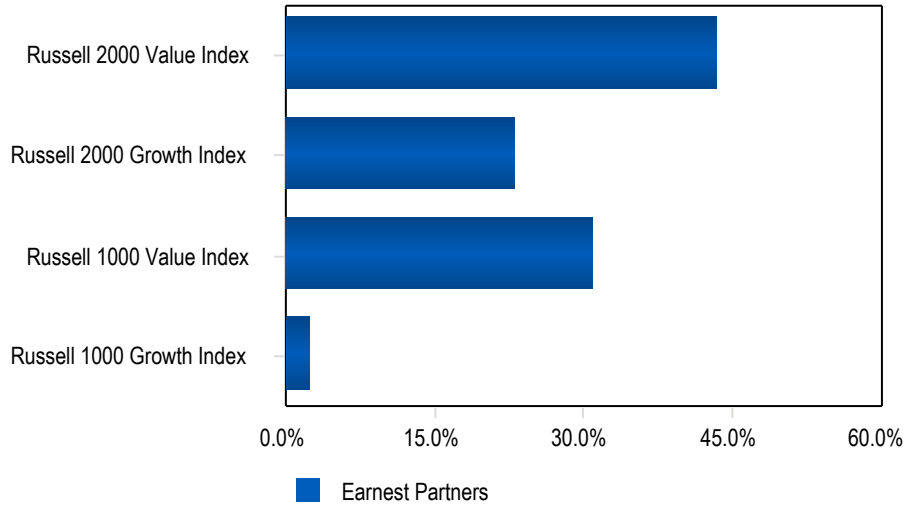
Distribution of Market Capitalization (%)



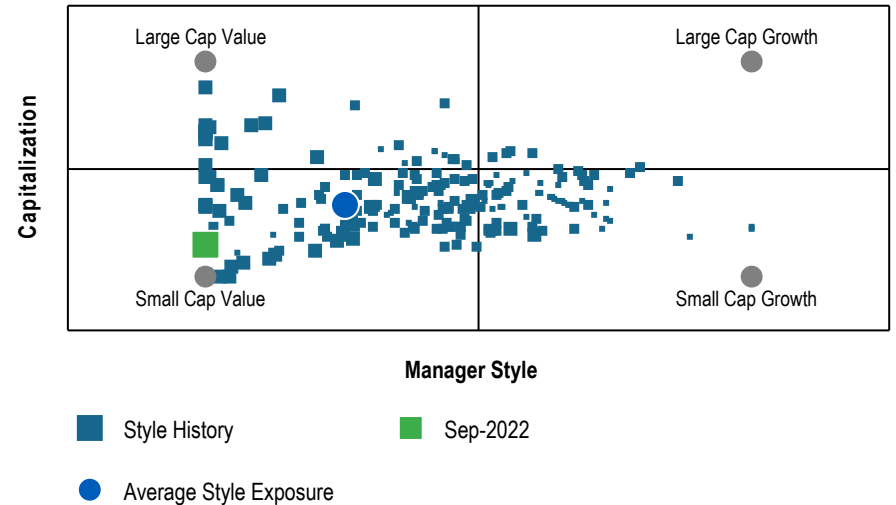
Sector Weights (%)



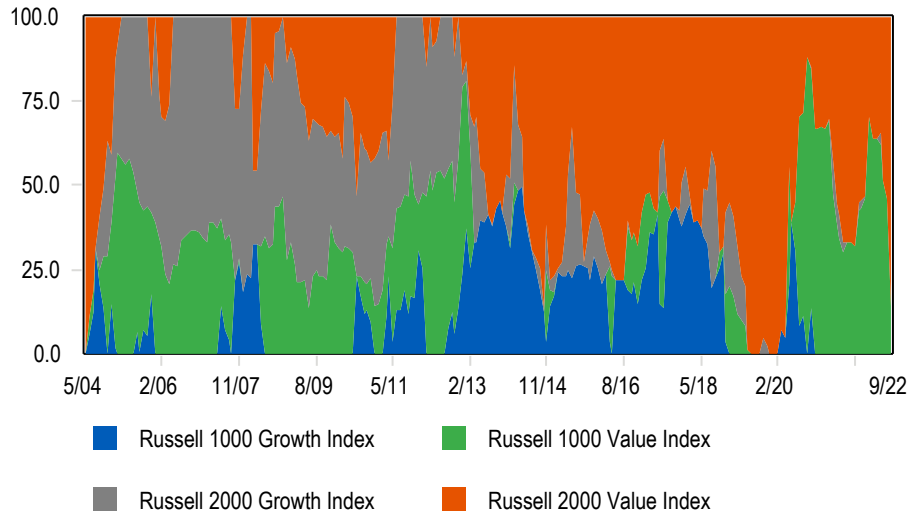
Investment Style Exposure



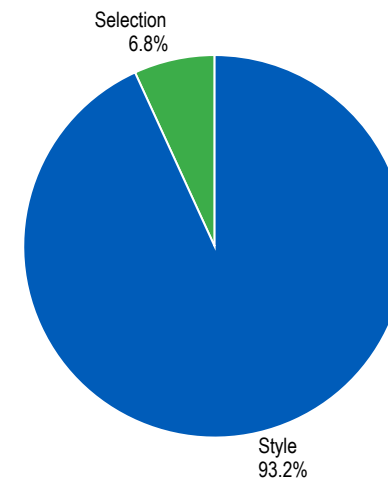
Style Map(12 Months)



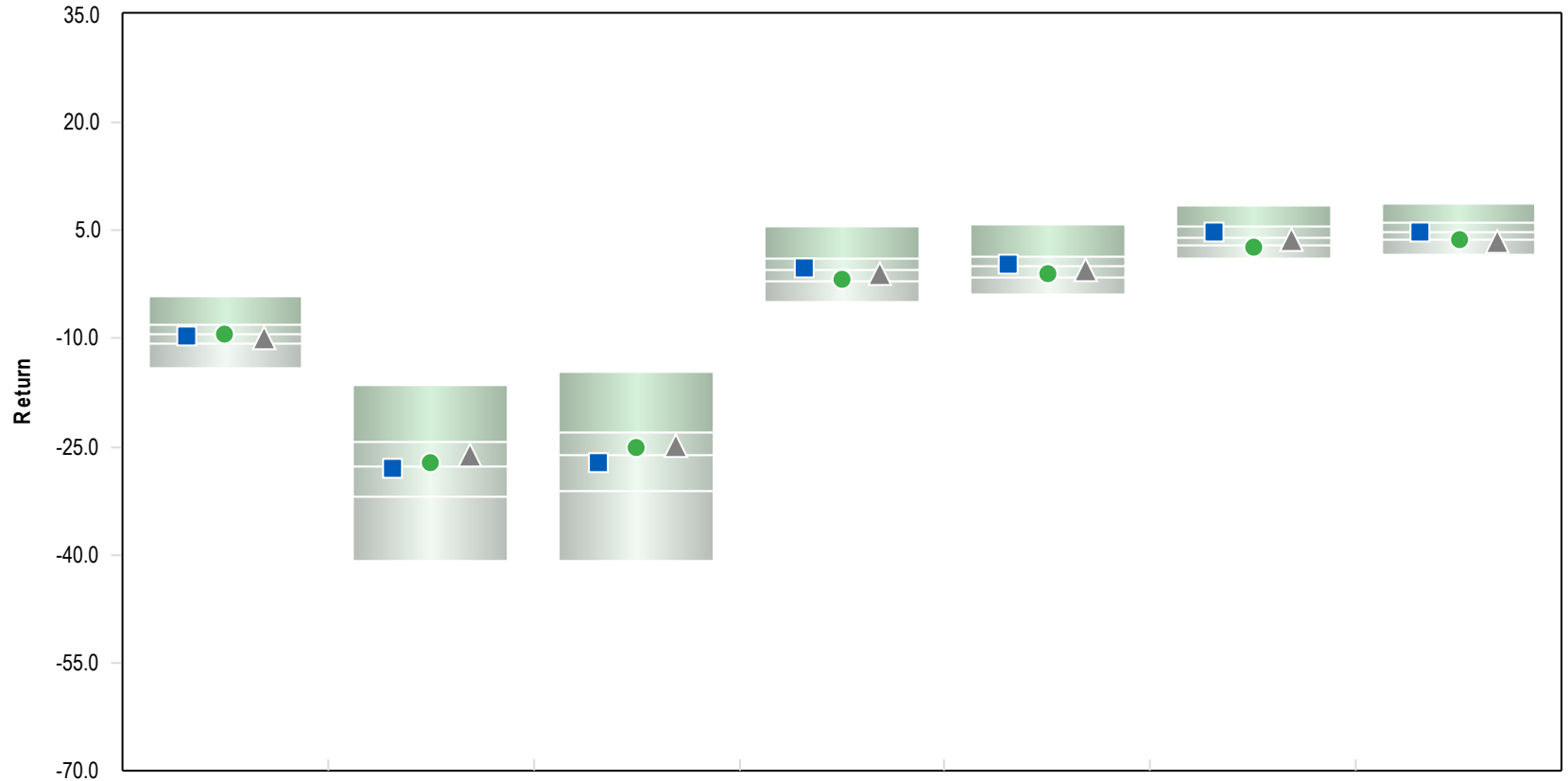
Style History(12 Months)



Return Variance



# International Equity

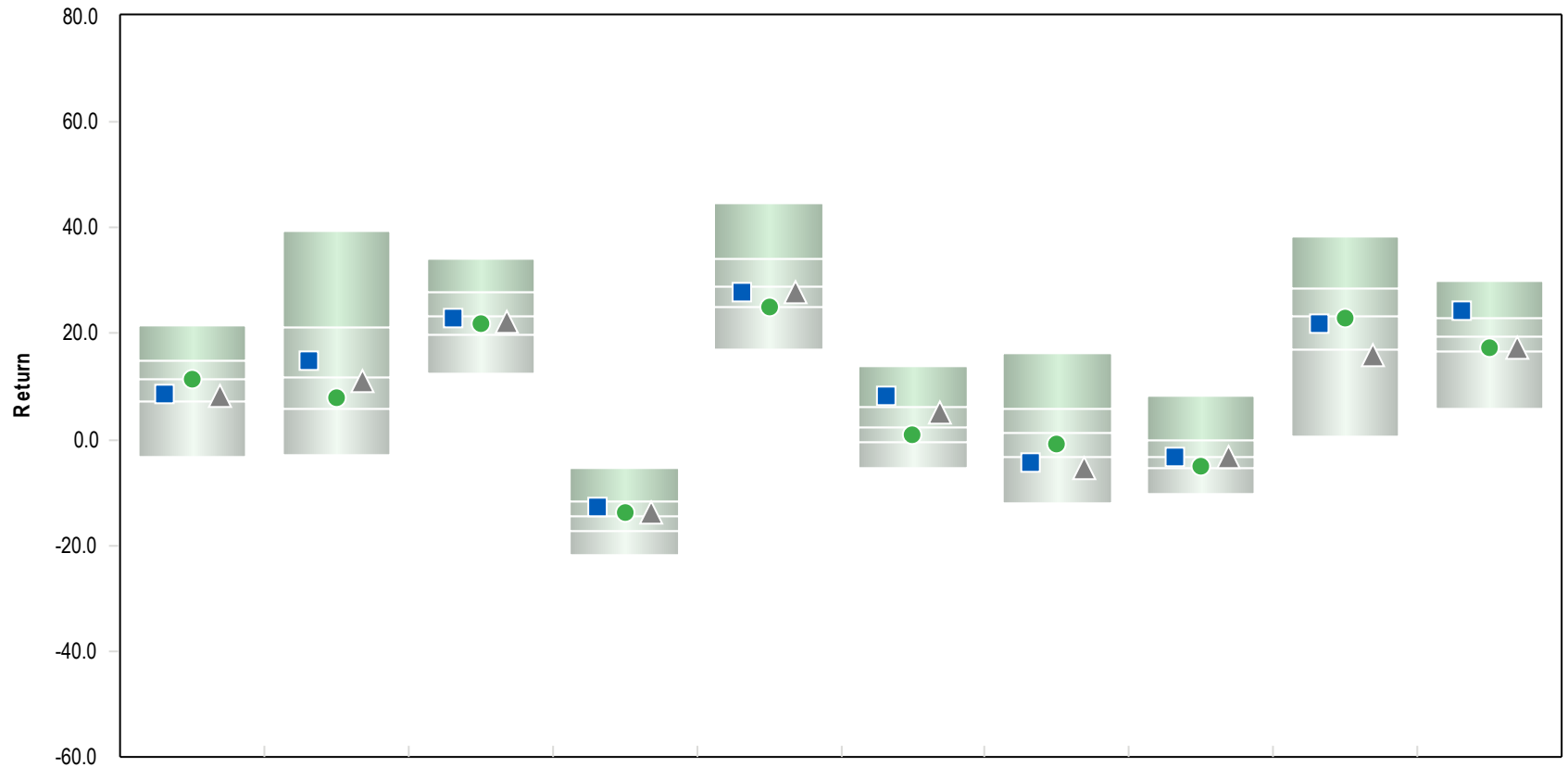


	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total International Equity	-9.5 (52)	-27.9 (52)	-27.2 (59)	-0.2 (47)	0.3 (45)	4.8 (36)	4.9 (49)
● MSCI EAFE (net)	-9.4 (48)	-27.1 (45)	-25.1 (43)	-1.8 (73)	-0.8 (67)	2.8 (76)	3.7 (80)
▲ MSCI AC World ex USA	-9.8 (57)	-26.2 (36)	-24.8 (38)	-1.1 (60)	-0.3 (56)	3.8 (54)	3.5 (82)

5th Percentile	-4.0	-16.5	-14.7	5.7	5.8	8.6	8.8
1st Quartile	-8.1	-24.3	-22.9	1.3	1.5	5.7	6.0
Median	-9.5	-27.6	-26.2	-0.5	0.0	3.9	4.8
3rd Quartile	-10.6	-31.9	-31.2	-2.1	-1.5	2.9	3.9
95th Percentile	-14.2	-40.9	-40.9	-4.9	-4.0	1.1	1.8

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

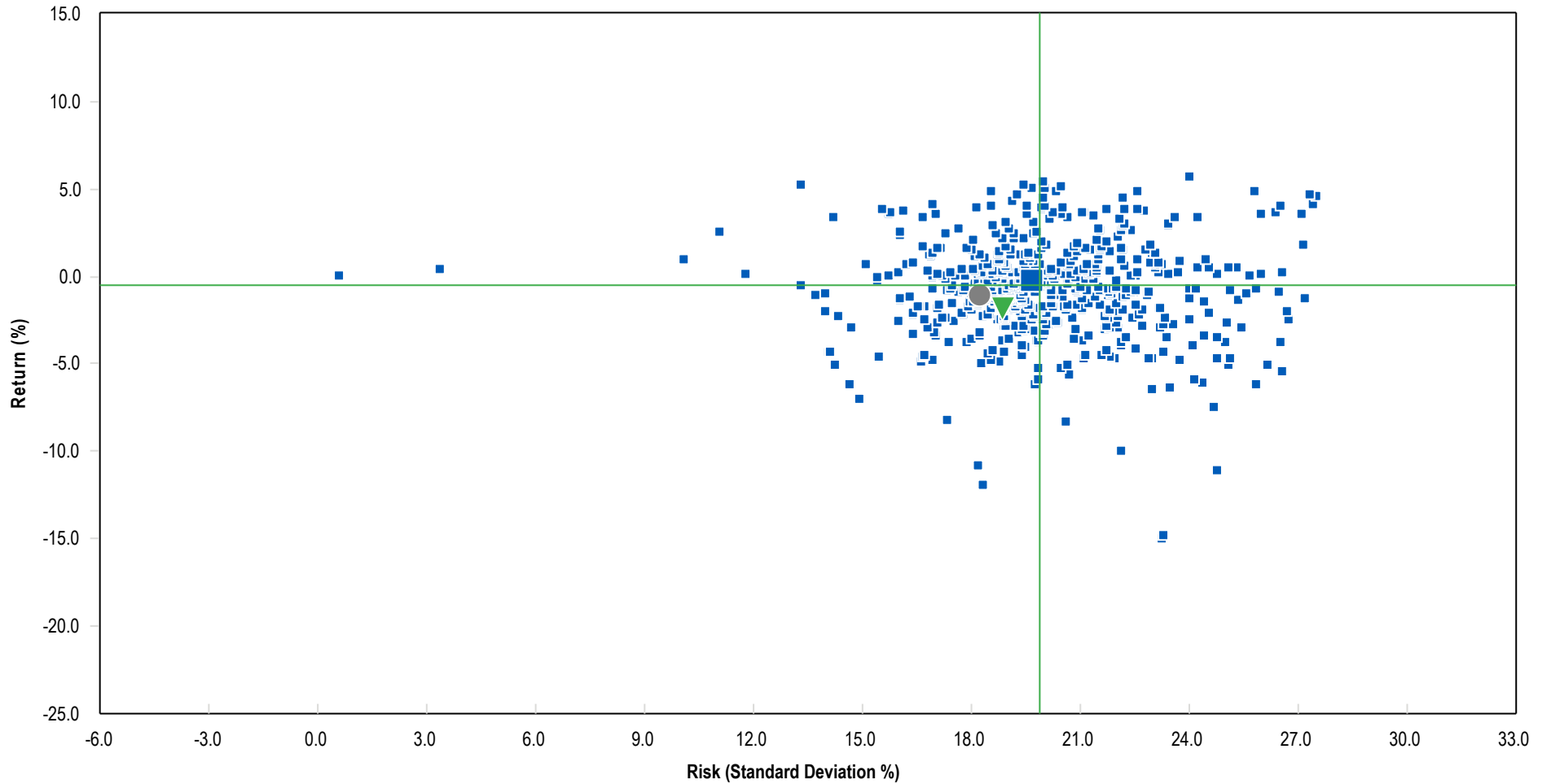




	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Total International Equity	8.8 (67)	14.7 (42)	22.8 (55)	-12.7 (31)	27.7 (57)	8.4 (16)	-4.3 (80)	-3.2 (49)	21.8 (58)	24.4 (17)
● MSCI EAFE (net)	11.3 (52)	7.8 (68)	22.0 (62)	-13.8 (41)	25.0 (74)	1.0 (64)	-0.8 (63)	-4.9 (70)	22.8 (54)	17.3 (69)
▲ MSCI AC World ex USA	8.3 (70)	11.1 (53)	22.1 (60)	-13.8 (41)	27.8 (57)	5.0 (32)	-5.3 (84)	-3.4 (51)	15.8 (79)	17.4 (68)

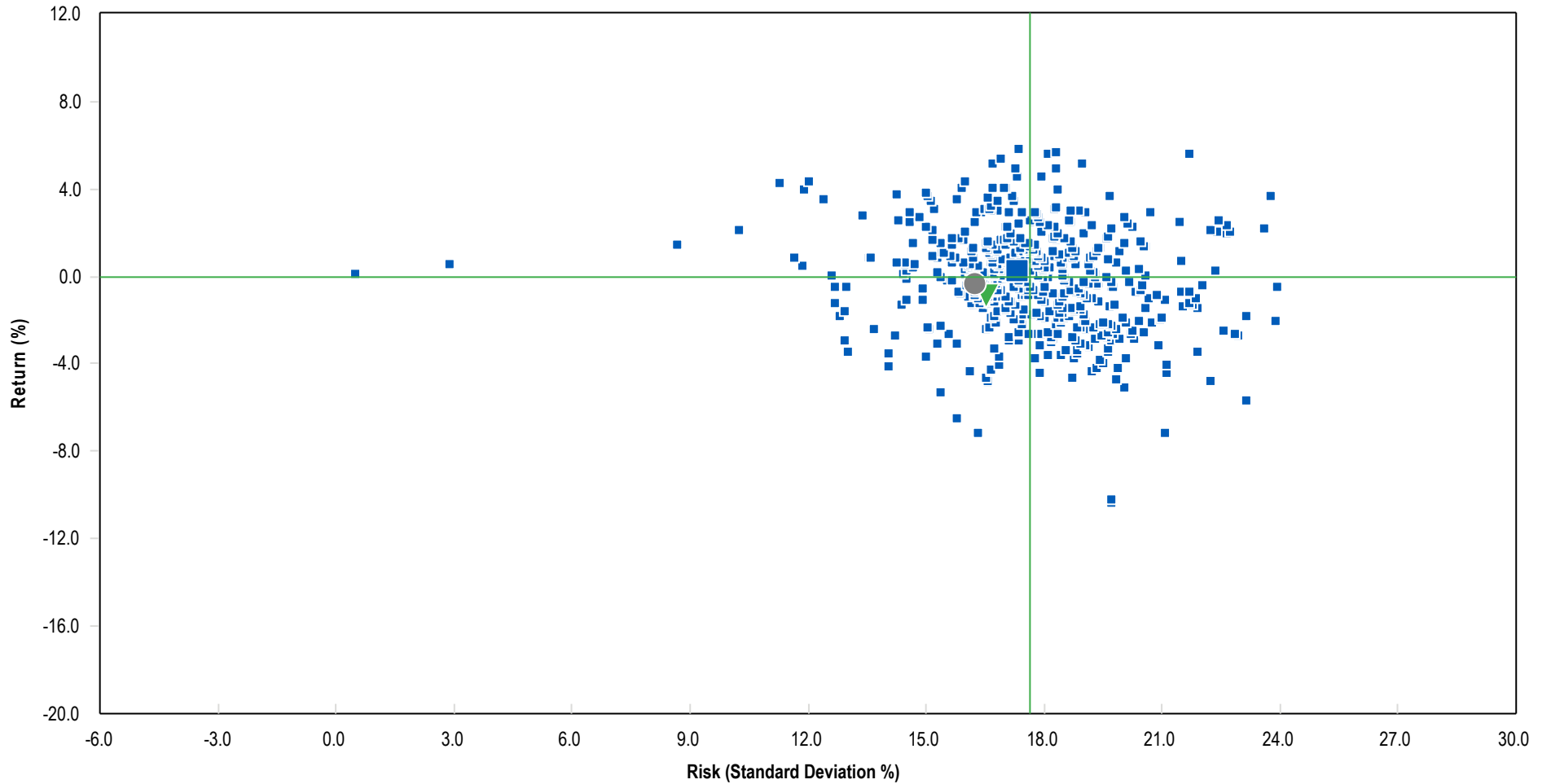
5th Percentile	21.6	39.5	34.3	-5.4	44.7	13.7	16.1	8.3	38.5	30.0
1st Quartile	14.7	21.1	28.0	-11.8	34.1	6.2	5.8	-0.3	28.5	22.9
Median	11.5	11.8	23.4	-14.6	28.8	2.4	1.1	-3.4	23.3	19.6
3rd Quartile	7.2	6.0	19.8	-17.4	24.9	-0.4	-3.2	-5.5	17.1	16.6
95th Percentile	-3.2	-3.1	12.5	-21.7	16.8	-5.3	-11.9	-10.4	0.6	5.9

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total International Equity	-0.2	19.7
▼ MSCI EAFE (net)	-1.8	18.9
● MSCI AC World ex USA	-1.1	18.2
— Median	-0.5	19.9

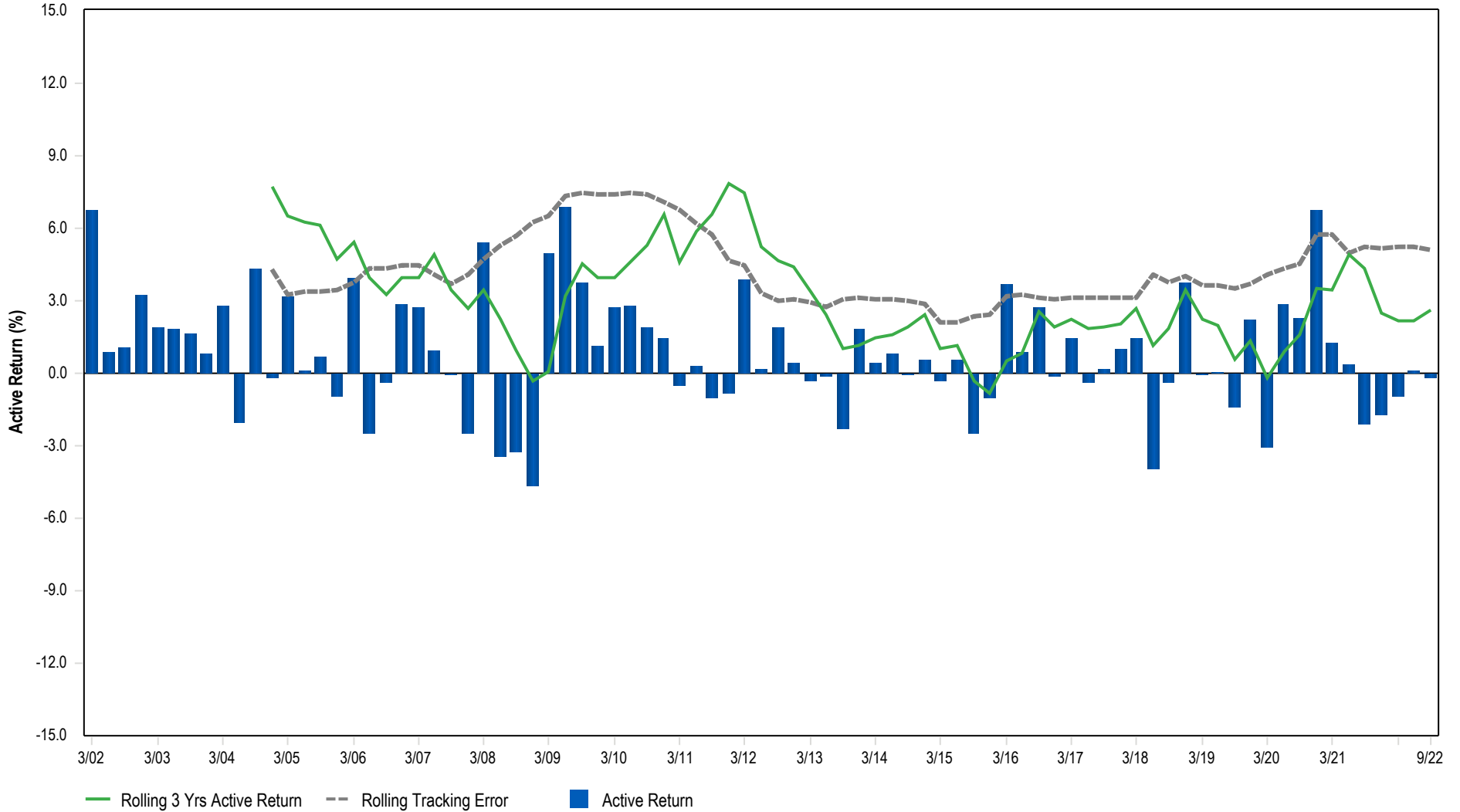
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total International Equity	0.3	17.3
▼ MSCI EAFE (net)	-0.8	16.5
● MSCI AC World ex USA	-0.3	16.2
— Median	0.0	17.6

Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Total International Equity	-9.5	-27.9	-27.2	-0.2	0.3	4.8	4.9	8.8	14.7	22.8	-12.7
MSCI EAFE (net)	-9.4	-27.1	-25.1	-1.8	-0.8	2.8	3.7	11.3	7.8	22.0	-13.8
Difference	-0.1	-0.8	-2.1	1.6	1.1	2.0	1.2	-2.5	6.9	0.8	1.1



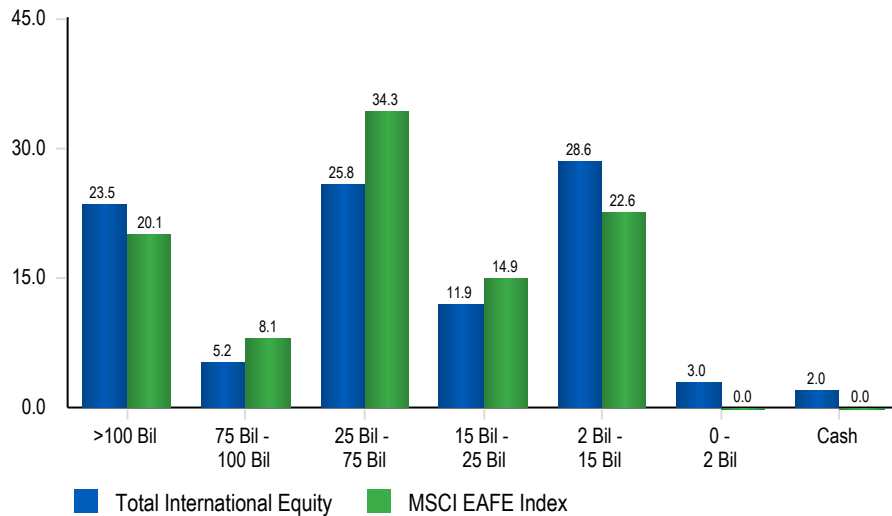
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Taiwan Semiconductor	2.5	0.0	2.5	-15.7
Taiwan Semiconductor Manuf	1.8	0.0	1.8	-16.5
Novo Nordisk A/S	1.6	1.4	0.2	-8.8
Nestle SA, Cham Und Vevey	1.4	2.5	-1.1	-6.5
Roche Holding AG	1.4	1.9	-0.5	-1.2
Tencent Holdings LTD	1.3	0.0	1.3	-24.9
PT Bank Central Asia TBK	1.3	0.0	1.3	15.4
Samsung Electronics Co Ltd	1.2	0.0	1.2	-15.5
Samsung Electronics Co Ltd	1.2	0.0	1.2	-18.1
Alibaba Group Holding Ltd	1.2	0.0	1.2	-30.4
<b>% of Portfolio</b>	<b>14.9</b>	<b>5.8</b>	<b>9.1</b>	

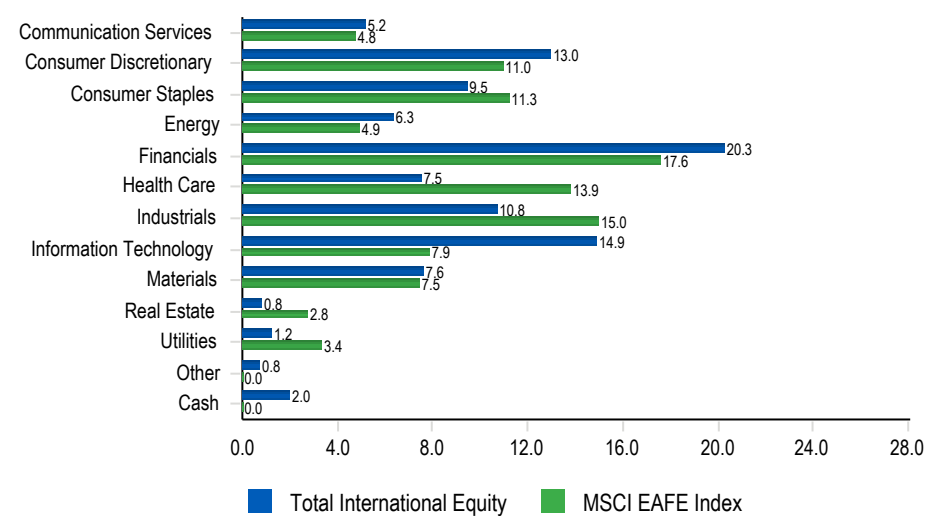
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	68,200,897,703	63,523,926,143
Median Mkt. Cap (\$)	6,900,128,714	10,385,193,489
Price/Earnings ratio	11.9	11.3
Price/Book ratio	2.5	2.4
5 Yr. EPS Growth Rate (%)	13.6	12.2
Current Yield (%)	3.3	3.7
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	919	799

Distribution of Market Capitalization (%)



Sector Weights (%)



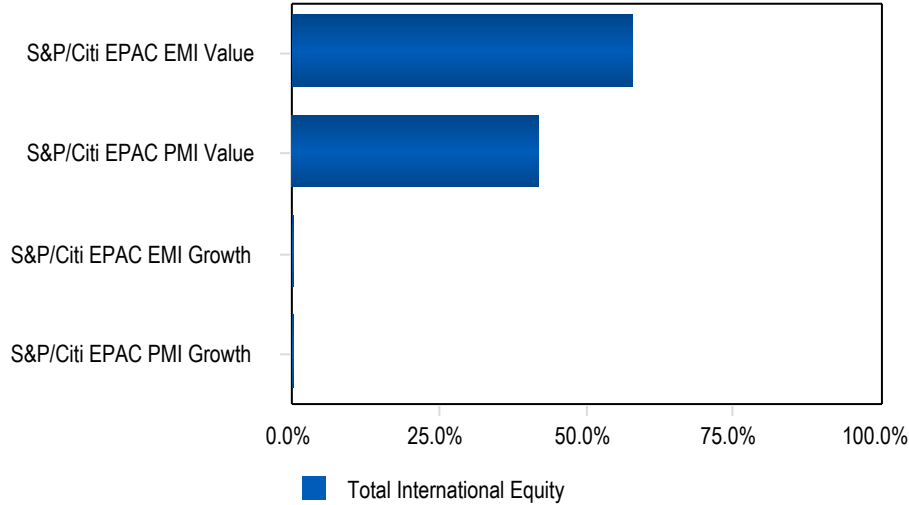
## Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Turkiye Vakiflar Bankasi T.A.O.	0.0	0.0	0.0	74.3
Golden Energy and Resources Ltd	0.0	0.0	0.0	71.3
Thungela Resources Limited	0.0	0.0	0.0	55.7
Turkiye Is Bankasi AS	0.0	0.0	0.0	54.6
Tube Investments of India Ltd	0.1	0.0	0.1	44.8
Aydem Yenilenebilir Enerji A.S.	0.0	0.0	0.0	44.6
EDF	0.0	0.1	-0.1	42.7
Fine Organic Industries Limited	0.1	0.0	0.1	41.4
Gujarat Fluorochemicals Ltd	0.1	0.0	0.1	38.1
Tofas Turk Otomobil Fabrikasi AS	0.0	0.0	0.0	37.3
% of Portfolio	0.3	0.1	0.2	

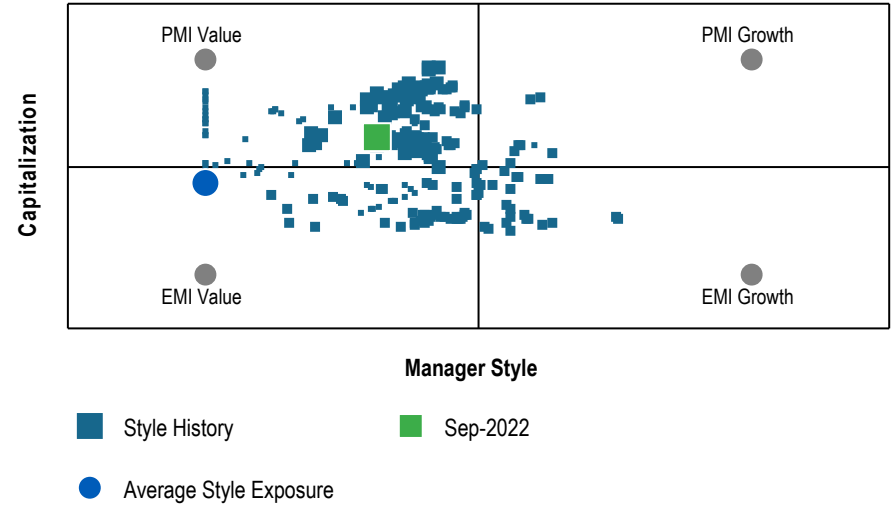
## Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
LUFAX HOLDING LTD	0.0	0.0	0.0	-57.7
Jastrzebska Spolka Weglowa SA	0.0	0.0	0.0	-52.8
Polska Grupa Energetyczna SA	0.0	0.0	0.0	-46.4
ZIM Integrated Shipping Services Ltd	0.0	0.0	0.0	-44.5
Zhongsheng Group Holdings Ltd	0.2	0.0	0.2	-43.4
Fresenius Medical Care AG &Co KGAA	0.0	0.0	0.0	-42.9
Weichai Power Co Ltd	0.3	0.0	0.3	-38.3
Jiumaojiu International Holdings Ltd	0.1	0.0	0.1	-38.2
Continental AG	0.0	0.0	0.0	-35.3
Telefonica SA	0.1	0.1	0.0	-34.9
% of Portfolio	0.7	0.1	0.6	

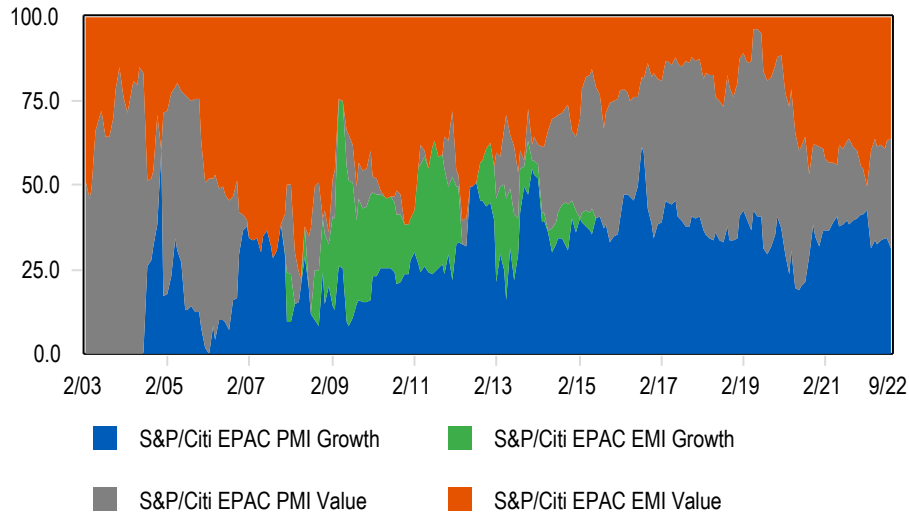
Investment Style Exposure



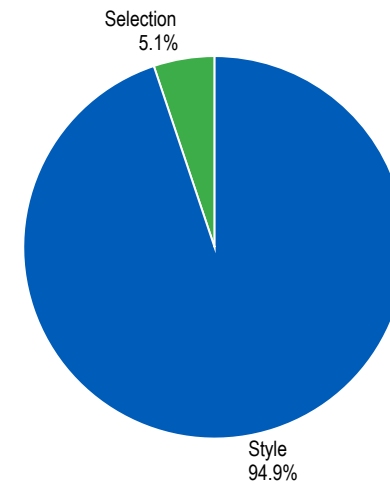
Style Map(36 Months)

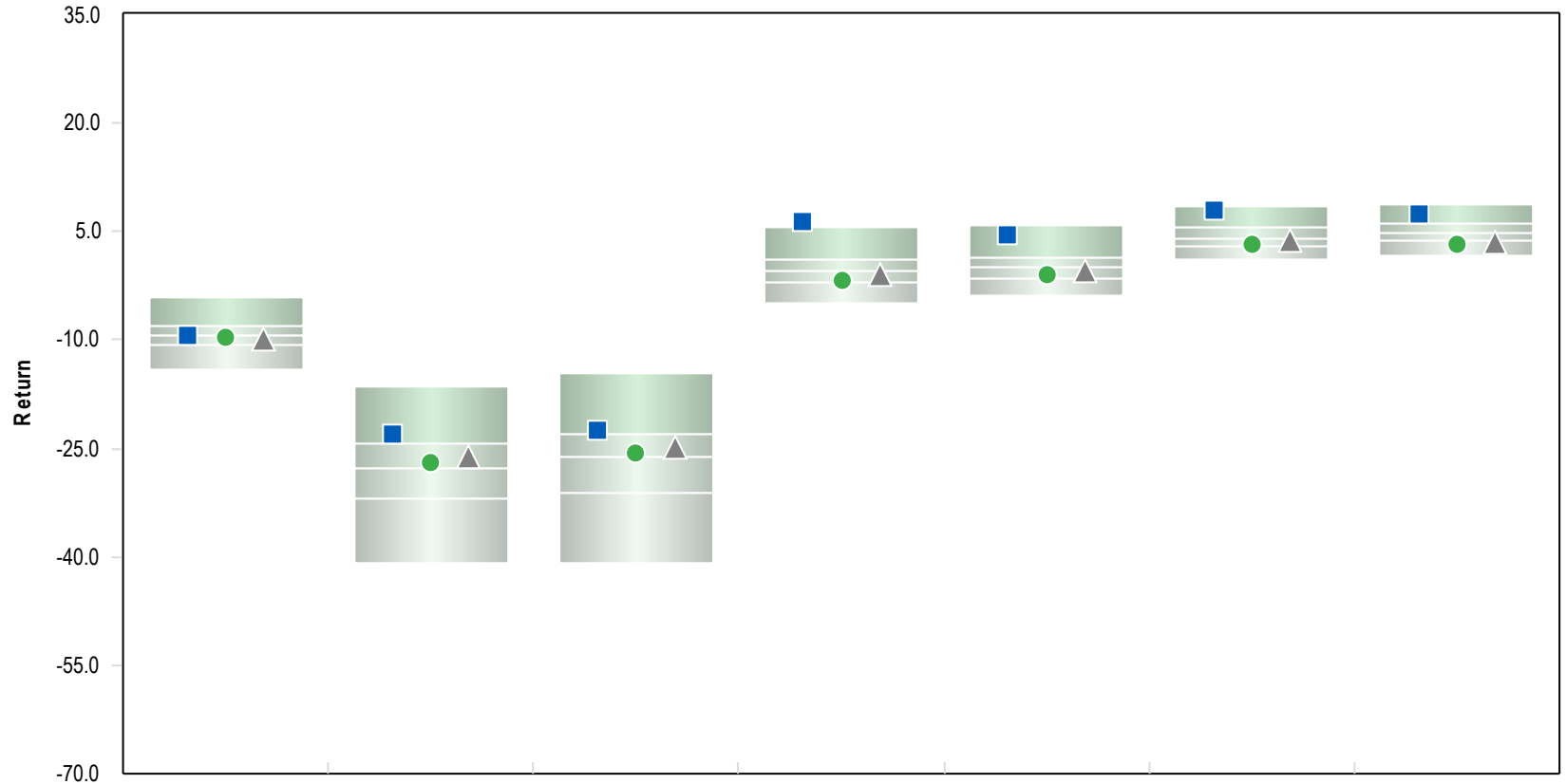


Style History(36 Months)



Return Variance



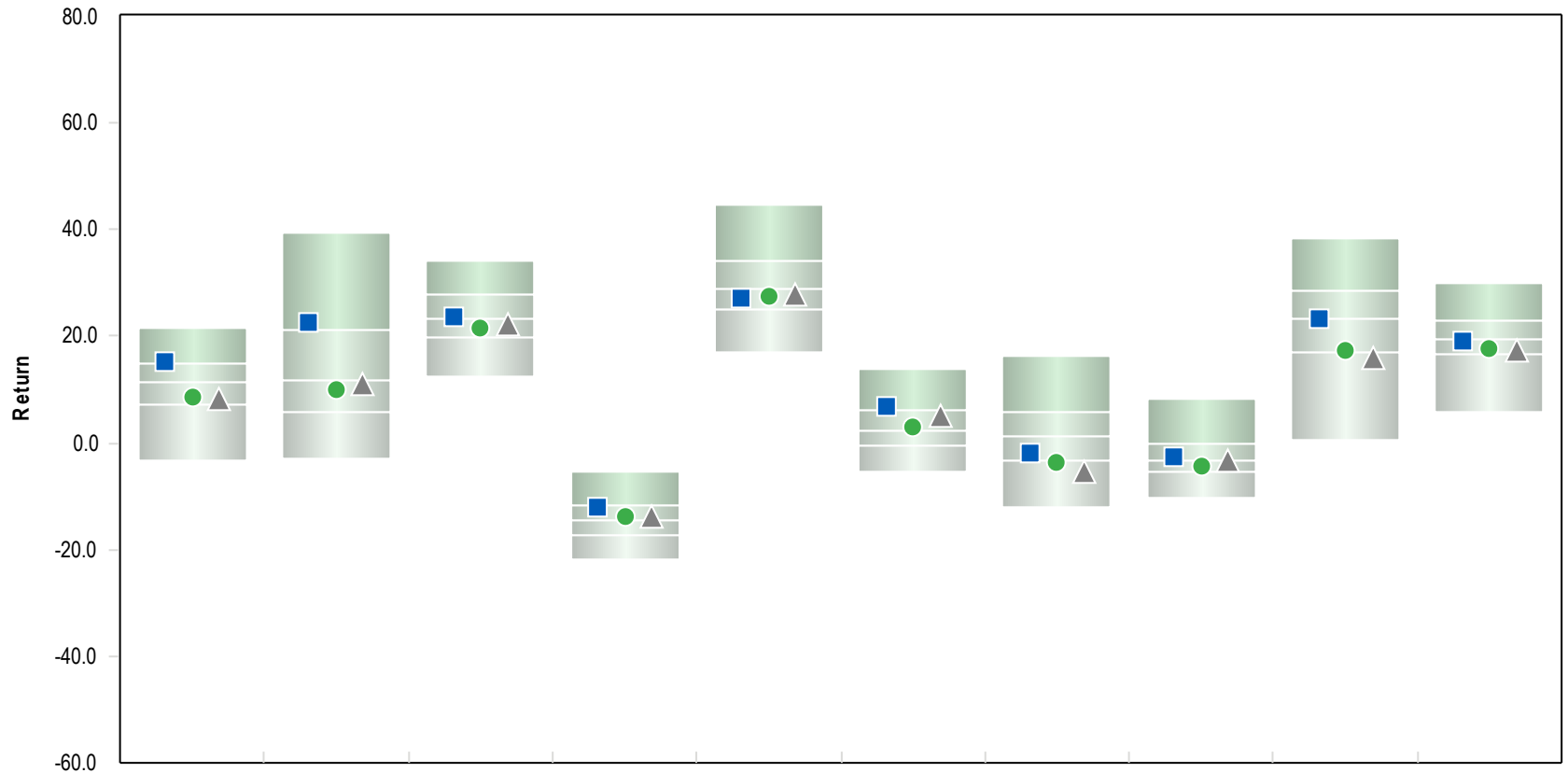


	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Arrowstreet Capital	-9.5 (50)	-22.9 (20)	-22.4 (23)	6.3 (5)	4.5 (8)	7.9 (8)	7.4 (12)
● Arrowstreet Capital Index*	-9.7 (55)	-27.0 (44)	-25.6 (46)	-1.7 (70)	-0.9 (68)	3.2 (69)	3.3 (86)
▲ MSCI AC World ex USA	-9.8 (57)	-26.2 (36)	-24.8 (38)	-1.1 (60)	-0.3 (56)	3.8 (54)	3.5 (82)

5th Percentile	-4.0	-16.5	-14.7	5.7	5.8	8.6	8.8
1st Quartile	-8.1	-24.3	-22.9	1.3	1.5	5.7	6.0
Median	-9.5	-27.6	-26.2	-0.5	0.0	3.9	4.8
3rd Quartile	-10.6	-31.9	-31.2	-2.1	-1.5	2.9	3.9
95th Percentile	-14.2	-40.9	-40.9	-4.9	-4.0	1.1	1.8

\*80% MSCI EAFE/20% MSCI EME

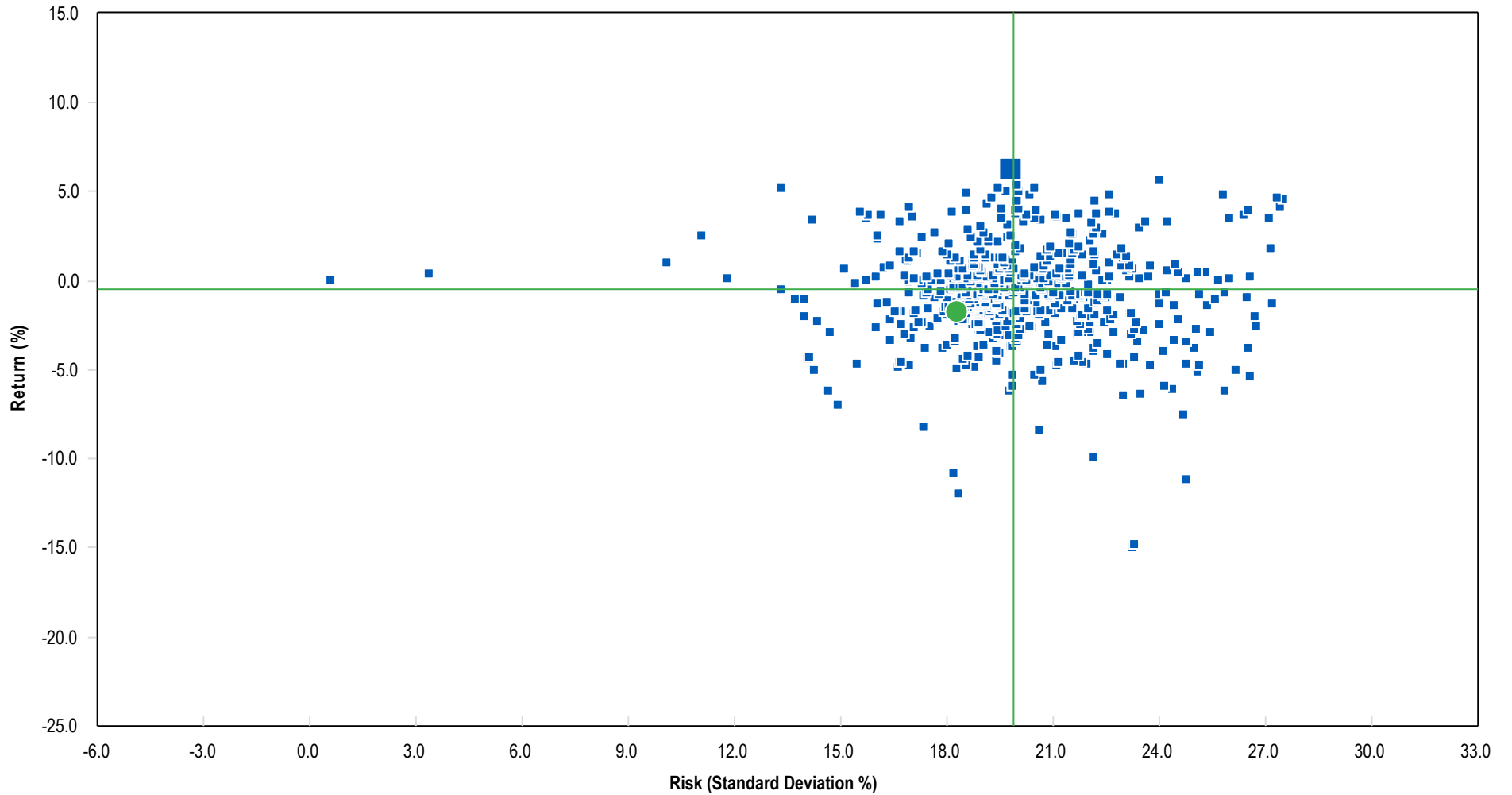




	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Arrowstreet Capital	15.2 (24)	22.8 (22)	23.6 (50)	-12.0 (26)	27.3 (60)	6.9 (22)	-1.9 (69)	-2.7 (43)	23.4 (50)	19.1 (55)
● Arrowstreet Capital Index*	8.5 (69)	10.1 (58)	21.4 (67)	-13.8 (42)	27.5 (59)	3.2 (44)	-3.6 (78)	-4.2 (61)	17.4 (74)	17.6 (67)
▲ MSCI AC World ex USA	8.3 (70)	11.1 (53)	22.1 (60)	-13.8 (41)	27.8 (57)	5.0 (32)	-5.3 (84)	-3.4 (51)	15.8 (79)	17.4 (68)

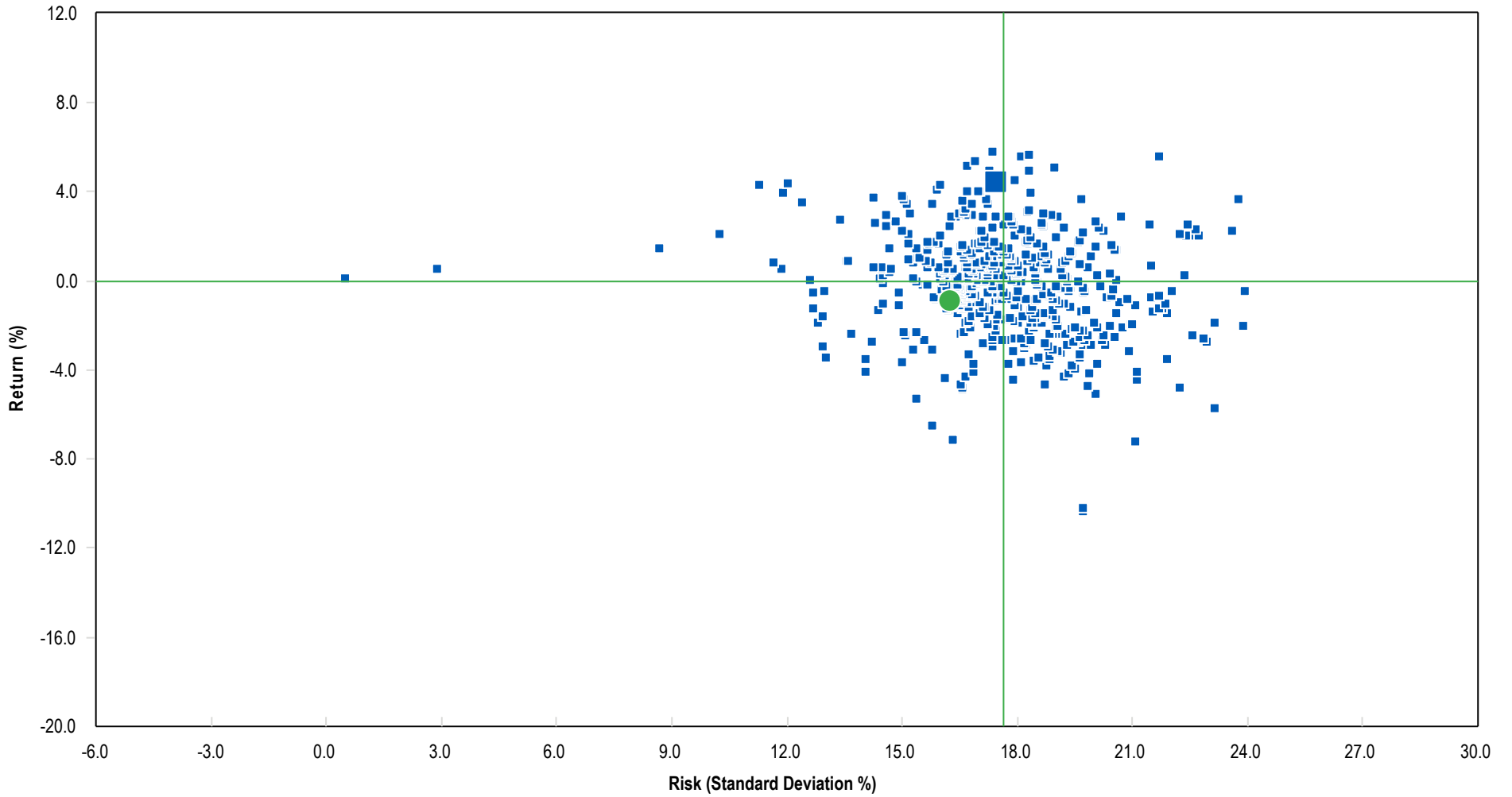
5th Percentile	21.6	39.5	34.3	-5.4	44.7	13.7	16.1	8.3	38.5	30.0
1st Quartile	14.7	21.1	28.0	-11.8	34.1	6.2	5.8	-0.3	28.5	22.9
Median	11.5	11.8	23.4	-14.6	28.8	2.4	1.1	-3.4	23.3	19.6
3rd Quartile	7.2	6.0	19.8	-17.4	24.9	-0.4	-3.2	-5.5	17.1	16.6
95th Percentile	-3.2	-3.1	12.5	-21.7	16.8	-5.3	-11.9	-10.4	0.6	5.9

\*80% MSCI EAFE/20% MSCI EME



	Return	Standard Deviation
■ Arrowstreet Capital	6.3	19.8
● Arrowstreet Capital Index*	-1.7	18.3
— Median	-0.5	19.9

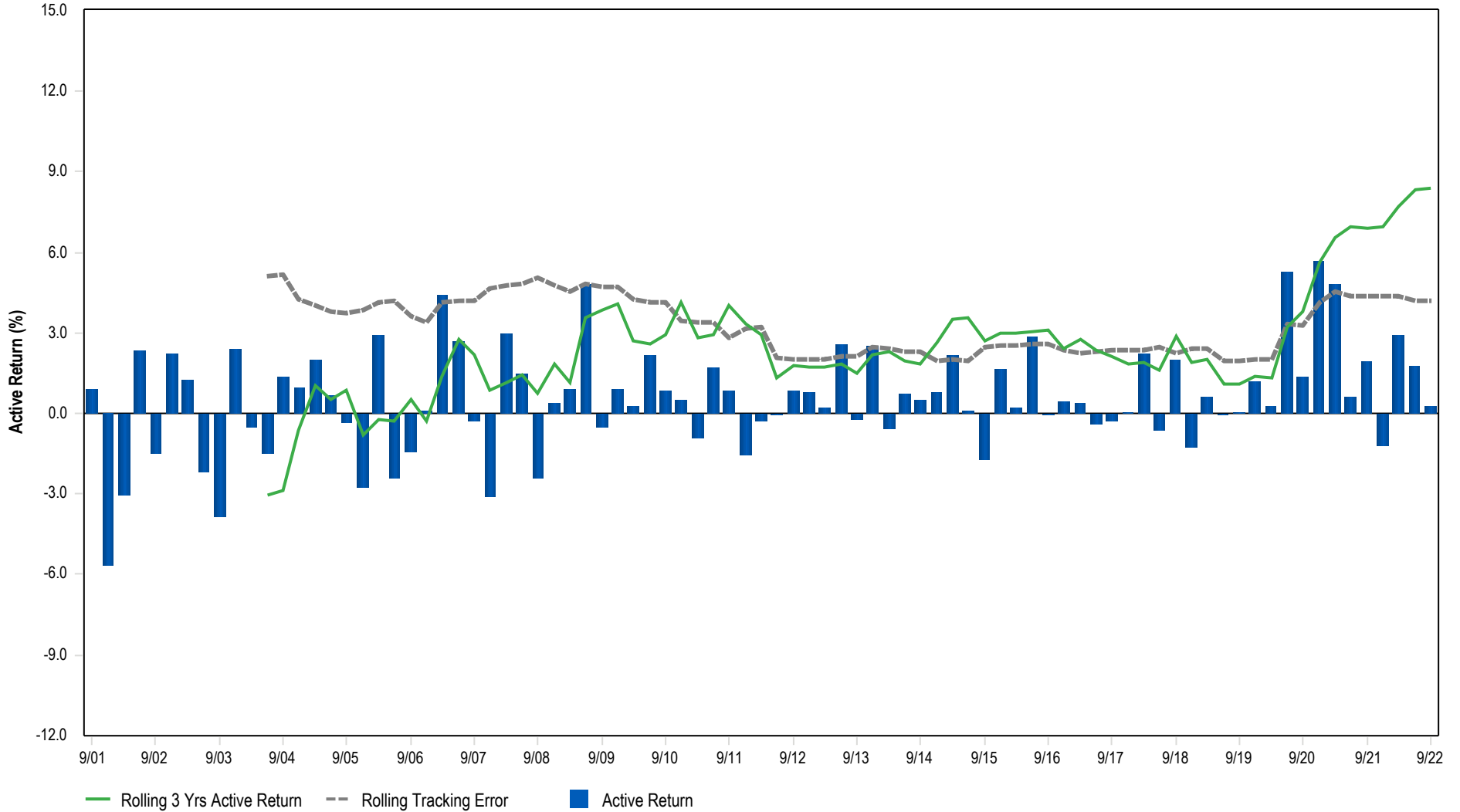
\*80% MSCI EAFE/20% MSCI EME.



	Return	Standard Deviation
■ Arrowstreet Capital	4.5	17.4
● Arrowstreet Capital Index*	-0.9	16.2
— Median	0.0	17.6

\*80% MSCI EAFE/20% MSCI EME.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Arrowstreet Capital	-9.5	-22.9	-22.4	6.3	4.5	7.9	7.4	15.2	22.8	23.6	-12.0
Arrowstreet Capital Index*	-9.7	-27.0	-25.6	-1.7	-0.9	3.2	3.3	8.5	10.1	21.4	-13.8
Difference	0.2	4.1	3.2	8.0	5.4	4.7	4.1	6.7	12.7	2.2	1.8



\*80% MSCI EAFE (Net)/20% MSCI EMF.  
Gross of Fees

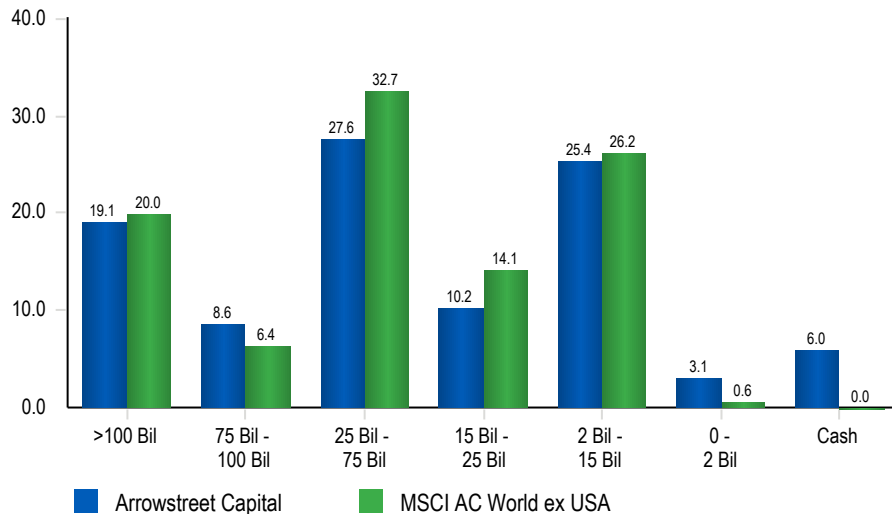
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
ishare Inc - iShares MSCI Taiwan ETF	3.8	0.0	3.8	-14.5
Roche Holding AG	2.4	1.2	1.2	-1.2
Samsung Electronics Co Ltd	2.3	0.9	1.4	-15.5
TotalEnergies SE	2.1	0.6	1.5	-8.9
Novo Nordisk A/S	1.8	0.8	1.0	-8.8
Shell Plc	1.7	1.0	0.7	-2.3
Deutsche Telekom AG	1.5	0.3	1.2	-13.5
Eni SpA	1.4	0.1	1.3	-8.0
ASML Holding NV	1.3	0.9	0.4	-10.7
Taiwan Semiconductor	1.3	1.7	-0.4	-15.7
% of Portfolio	19.6	7.5	12.1	

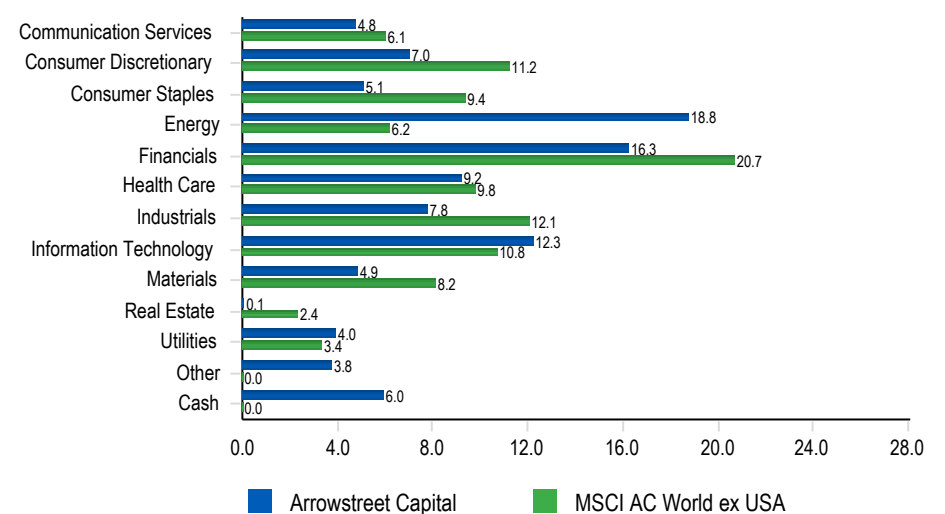
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	55,538,481,107	66,774,798,807
Median Mkt. Cap (\$)	6,251,591,864	7,554,347,538
Price/Earnings ratio	6.8	10.9
Price/Book ratio	1.9	2.4
5 Yr. EPS Growth Rate (%)	15.2	13.4
Current Yield (%)	5.9	3.7
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	675	2,274

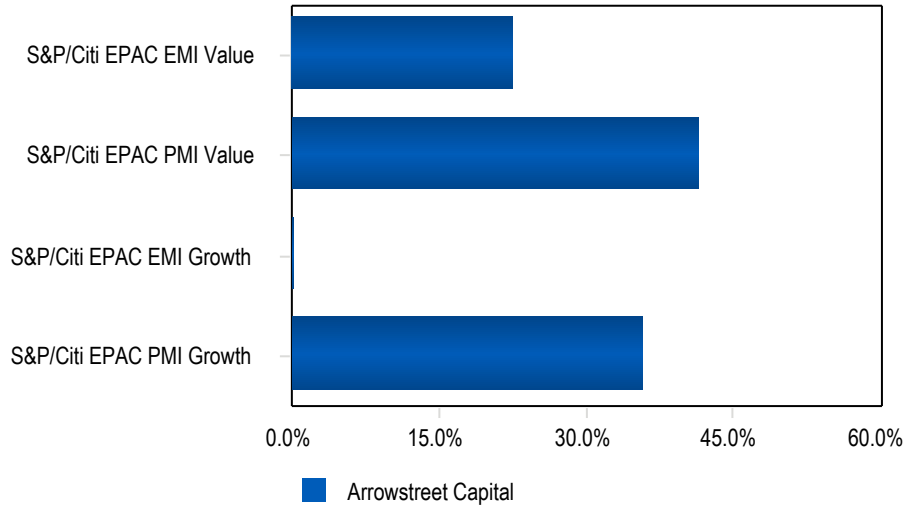
Distribution of Market Capitalization (%)



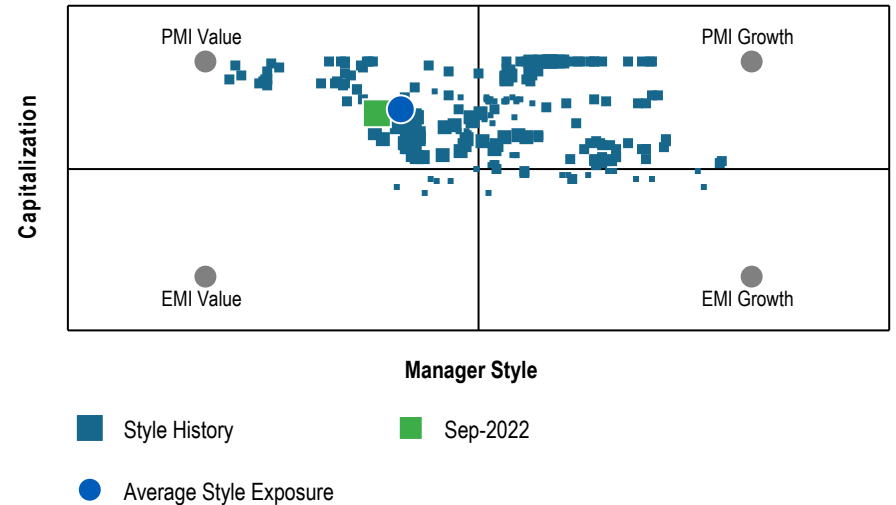
Sector Weights (%)



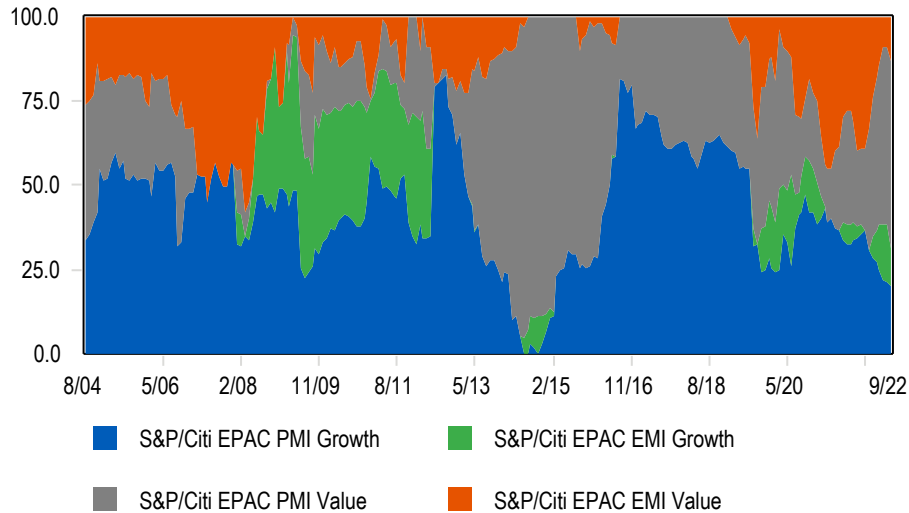
Investment Style Exposure



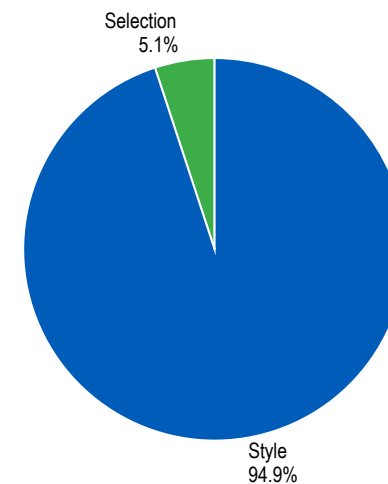
Style Map(36 Months)

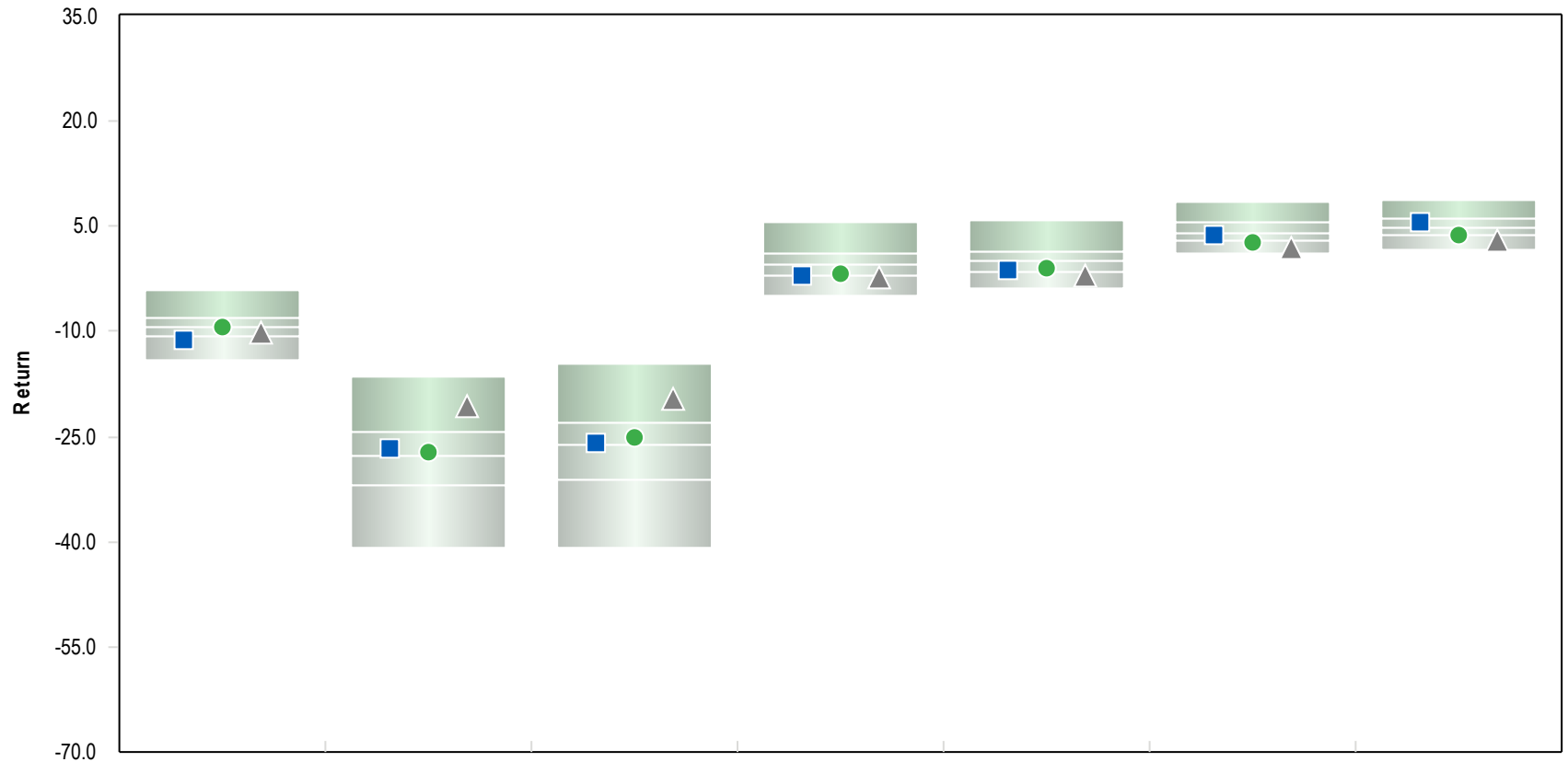


Style History(36 Months)



Return Variance

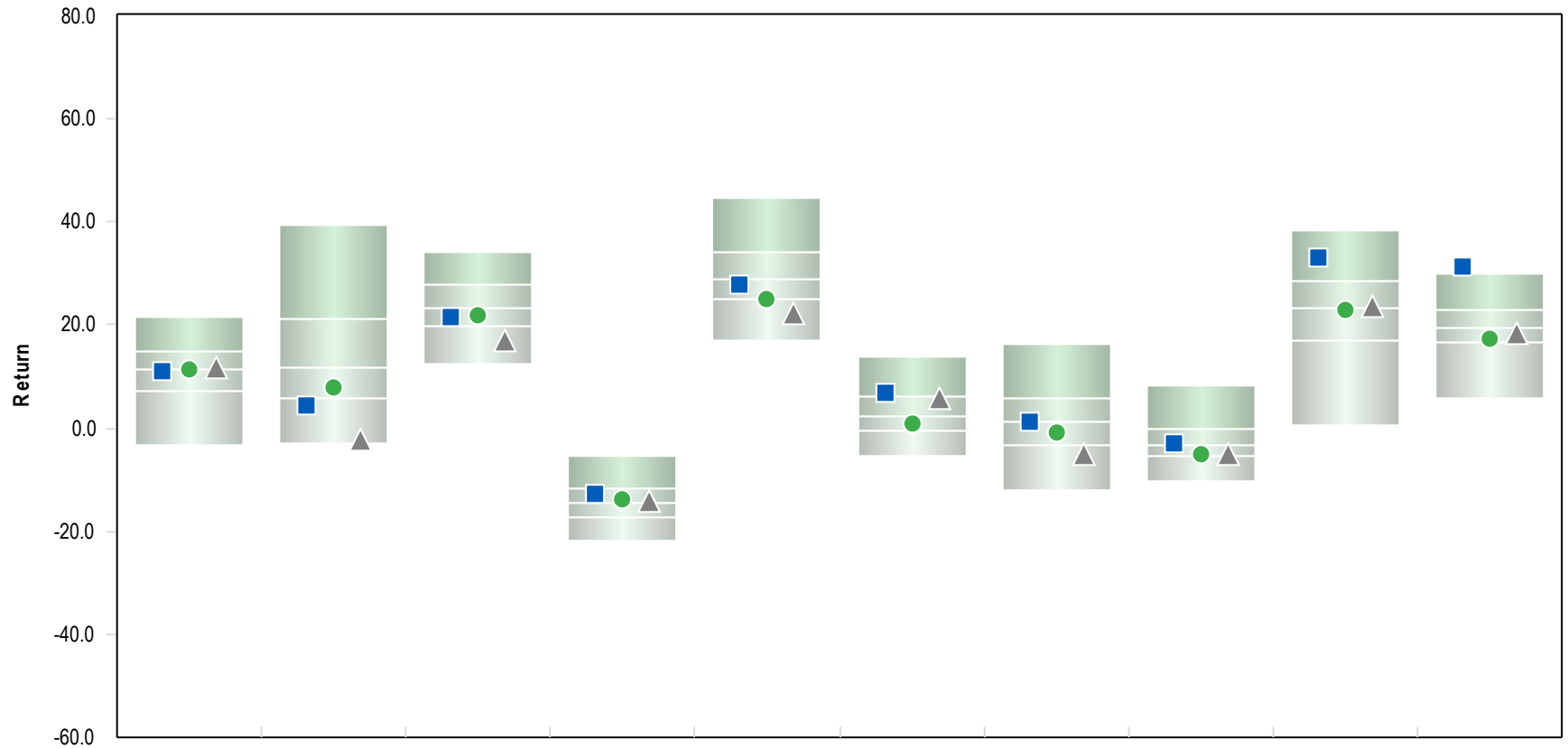




	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Freedom Capital Intl	-11.1 (81)	-26.6 (39)	-25.8 (47)	-2.1 (76)	-1.1 (71)	3.6 (58)	5.6 (33)
● MSCI EAFE (net)	-9.4 (48)	-27.1 (45)	-25.1 (43)	-1.8 (73)	-0.8 (67)	2.8 (76)	3.7 (80)
▲ MSCI EAFE Value	-10.1 (66)	-20.6 (13)	-19.6 (12)	-2.2 (77)	-2.1 (82)	2.0 (87)	3.0 (90)

5th Percentile	-4.0	-16.5	-14.7	5.7	5.8	8.6	8.8
1st Quartile	-8.1	-24.3	-22.9	1.3	1.5	5.7	6.0
Median	-9.5	-27.6	-26.2	-0.5	0.0	3.9	4.8
3rd Quartile	-10.6	-31.9	-31.2	-2.1	-1.5	2.9	3.9
95th Percentile	-14.2	-40.9	-40.9	-4.9	-4.0	1.1	1.8

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

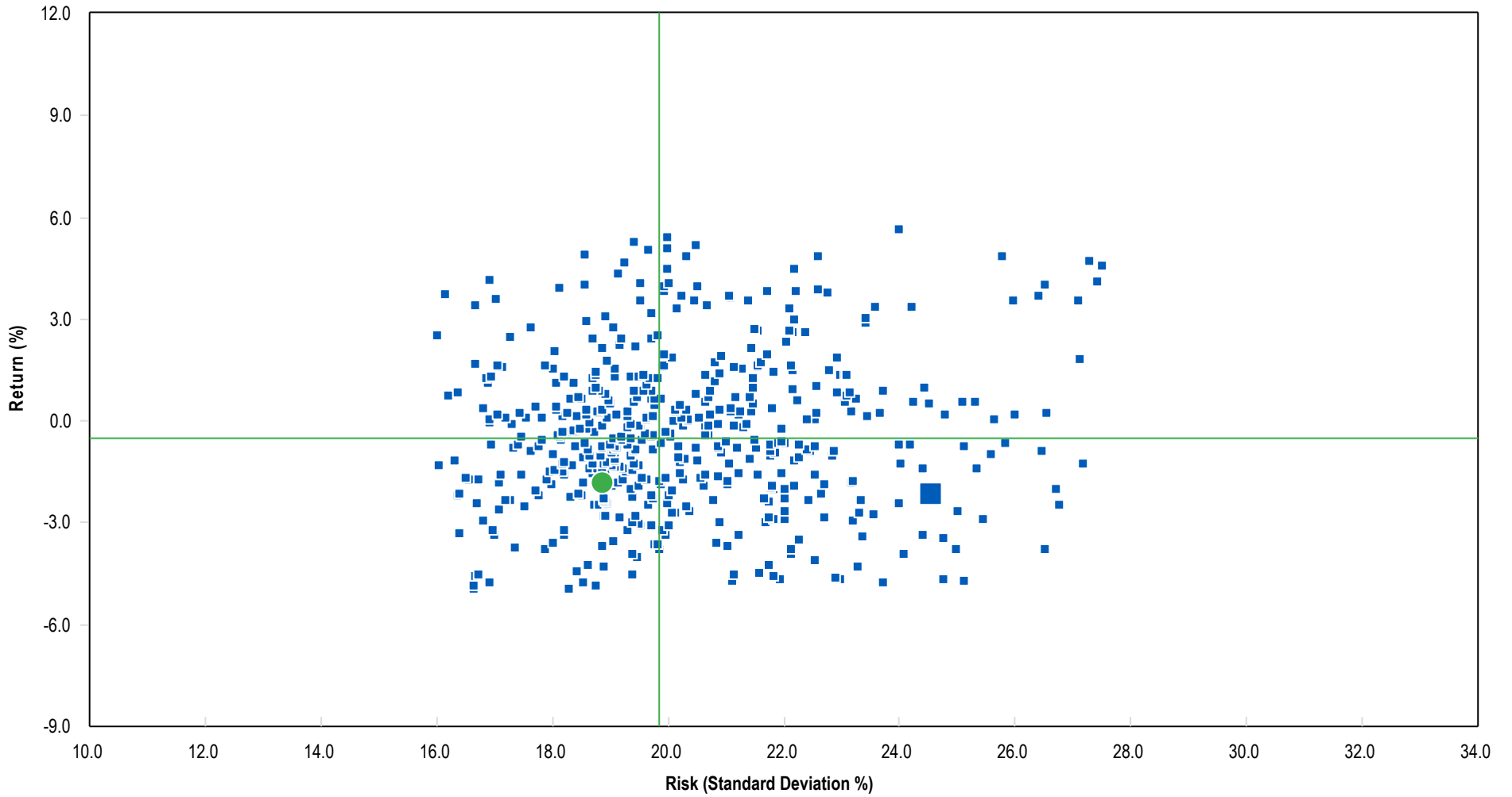


	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Freedom Capital Intl	11.0 (55)	4.4 (80)	21.4 (68)	-12.9 (32)	28.0 (55)	6.8 (22)	1.4 (48)	-2.9 (45)	33.2 (11)	31.5 (4)
● MSCI EAFE (net)	11.3 (52)	7.8 (68)	22.0 (62)	-13.8 (41)	25.0 (74)	1.0 (64)	-0.8 (63)	-4.9 (70)	22.8 (54)	17.3 (69)
▲ MSCI EAFE Value	11.6 (50)	-2.1 (93)	16.8 (89)	-14.3 (48)	22.1 (88)	5.7 (28)	-5.2 (84)	-4.9 (70)	23.6 (49)	18.4 (60)

5th Percentile	21.6	39.5	34.3	-5.4	44.7	13.7	16.1	8.3	38.5	30.0
1st Quartile	14.7	21.1	28.0	-11.8	34.1	6.2	5.8	-0.3	28.5	22.9
Median	11.5	11.8	23.4	-14.6	28.8	2.4	1.1	-3.4	23.3	19.6
3rd Quartile	7.2	6.0	19.8	-17.4	24.9	-0.4	-3.2	-5.5	17.1	16.6
95th Percentile	-3.2	-3.1	12.5	-21.7	16.8	-5.3	-11.9	-10.4	0.6	5.9

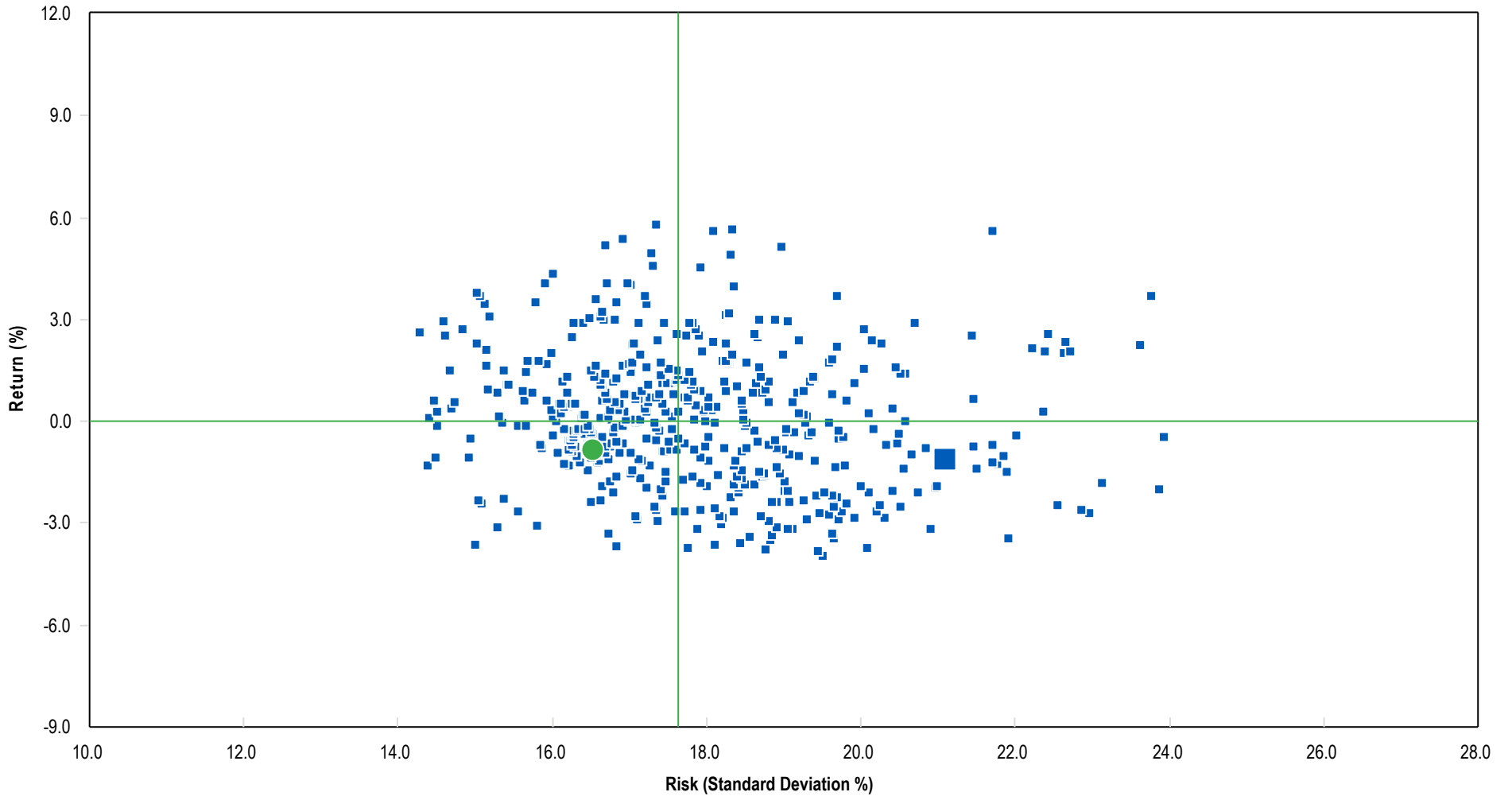
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.





	Return	Standard Deviation
■ Freedom Capital Intl	-2.1	24.5
● MSCI EAFE (net)	-1.8	18.9
— Median	-0.5	19.9

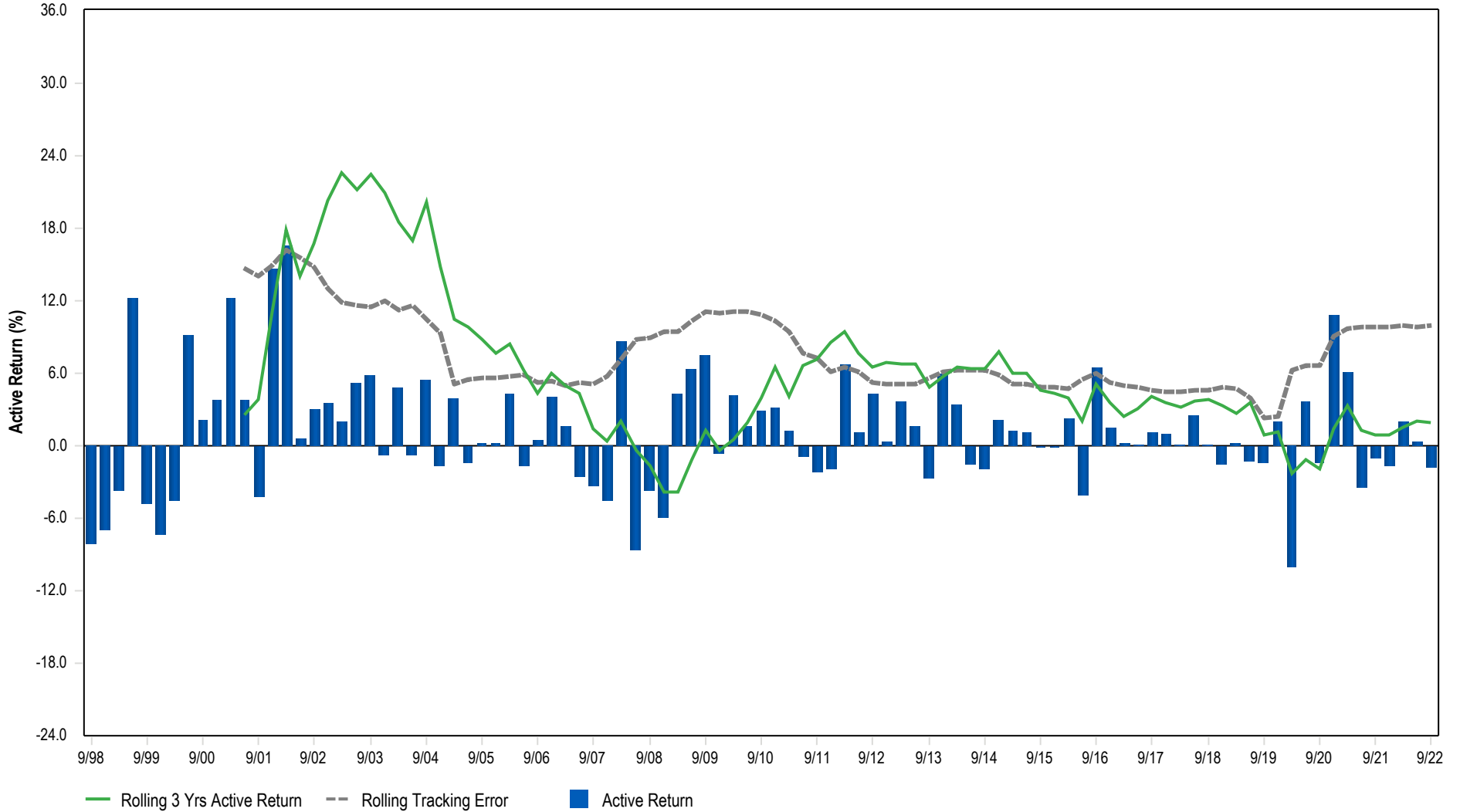
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Freedom Capital Intl	-1.1	21.1
● MSCI EAFE (net)	-0.8	16.5
— Median	0.0	17.6

Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Freedom Capital Intl	-11.1	-26.6	-25.8	-2.1	-1.1	3.6	5.6	11.0	4.4	21.4	-12.9
MSCI EAFE (net)	-9.4	-27.1	-25.1	-1.8	-0.8	2.8	3.7	11.3	7.8	22.0	-13.8
Difference	-1.7	0.5	-0.7	-0.3	-0.3	0.8	1.9	-0.3	-3.4	-0.6	0.9



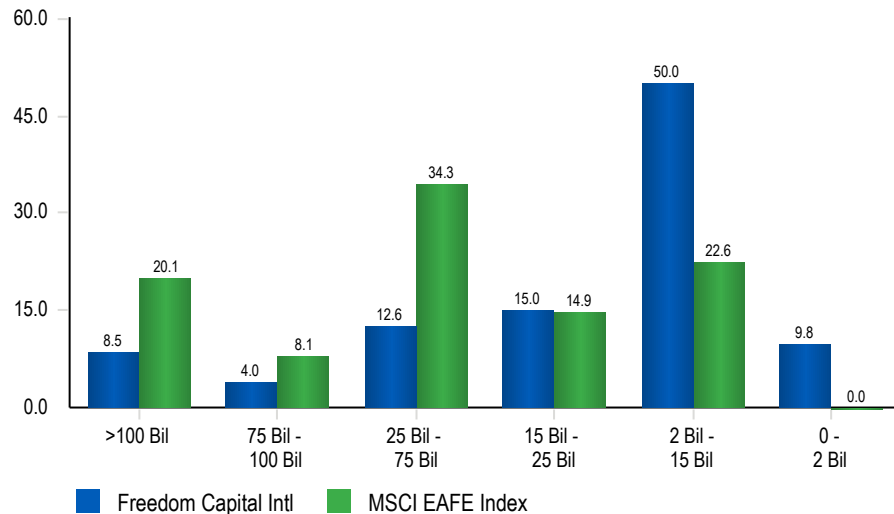
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Popular Inc	3.4	0.0	3.4	-5.6
Toronto-Dominion Bank (The)	2.6	0.0	2.6	-4.8
Publicis Groupe SA	2.6	0.1	2.5	3.6
Marubeni Corp	2.4	0.1	2.3	-0.5
Methanex Corp	2.3	0.0	2.3	-15.6
DNB Bank ASA	2.2	0.1	2.1	-11.2
Jazz Pharmaceuticals plc	2.2	0.0	2.2	-14.6
Deutsche Telekom AG	2.2	0.5	1.7	-13.5
Hannover Rueck SE	2.2	0.1	2.1	4.3
Catcher Co Ltd	2.2	0.0	2.2	3.5
% of Portfolio	24.3	0.9	23.4	

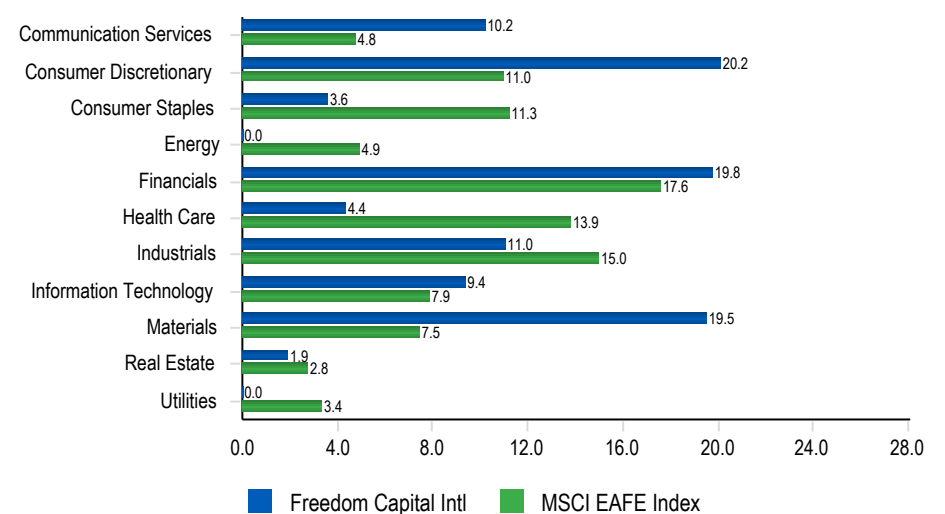
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	28,916,978,585	63,523,926,143
Median Mkt. Cap (\$)	8,066,175,563	10,385,193,489
Price/Earnings ratio	8.8	11.3
Price/Book ratio	1.6	2.4
5 Yr. EPS Growth Rate (%)	10.5	12.2
Current Yield (%)	4.2	3.7
Beta (5 Years, Monthly)	1.2	1.0
Number of Stocks	61	799

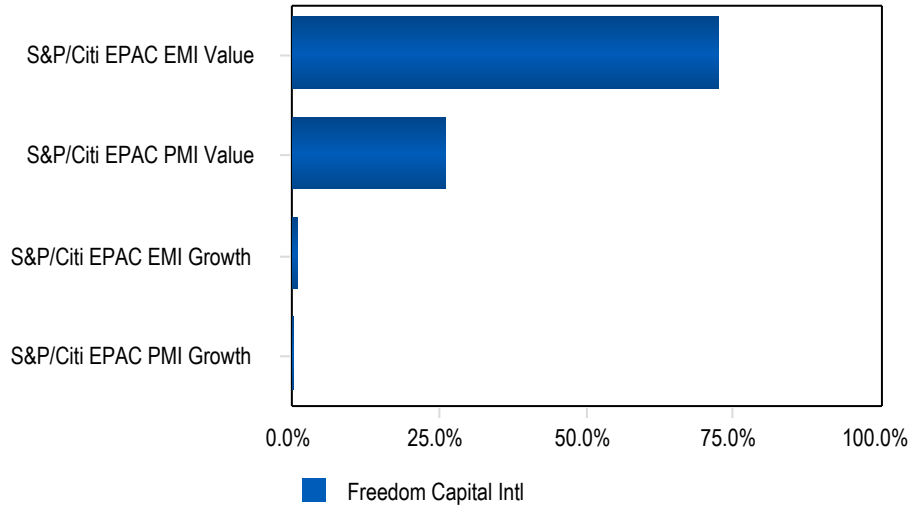
Distribution of Market Capitalization (%)



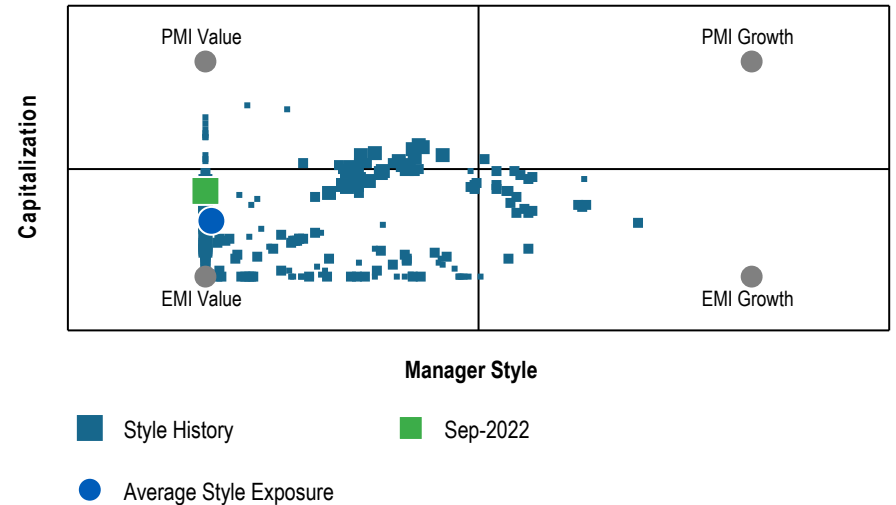
Sector Weights (%)



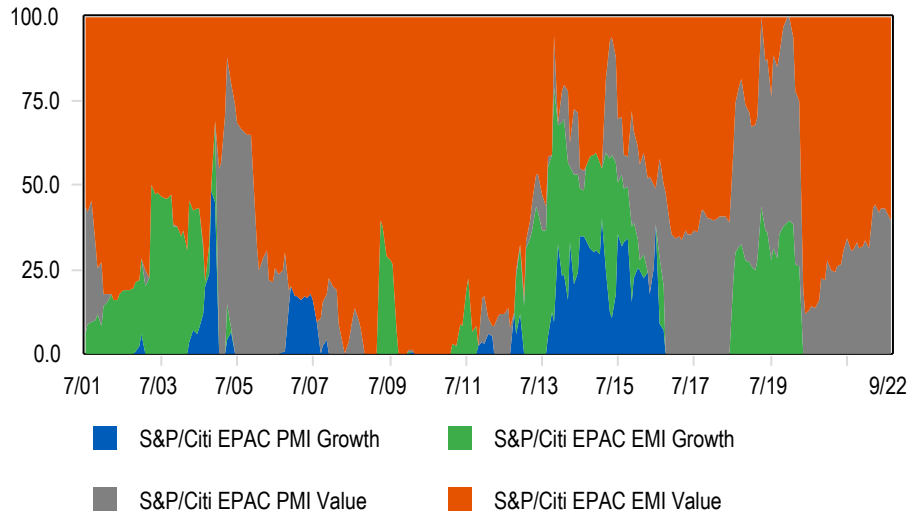
Investment Style Exposure



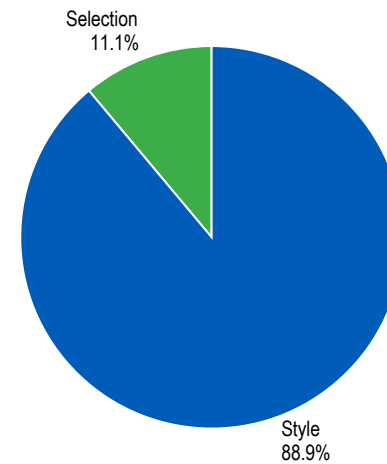
Style Map(36 Months)

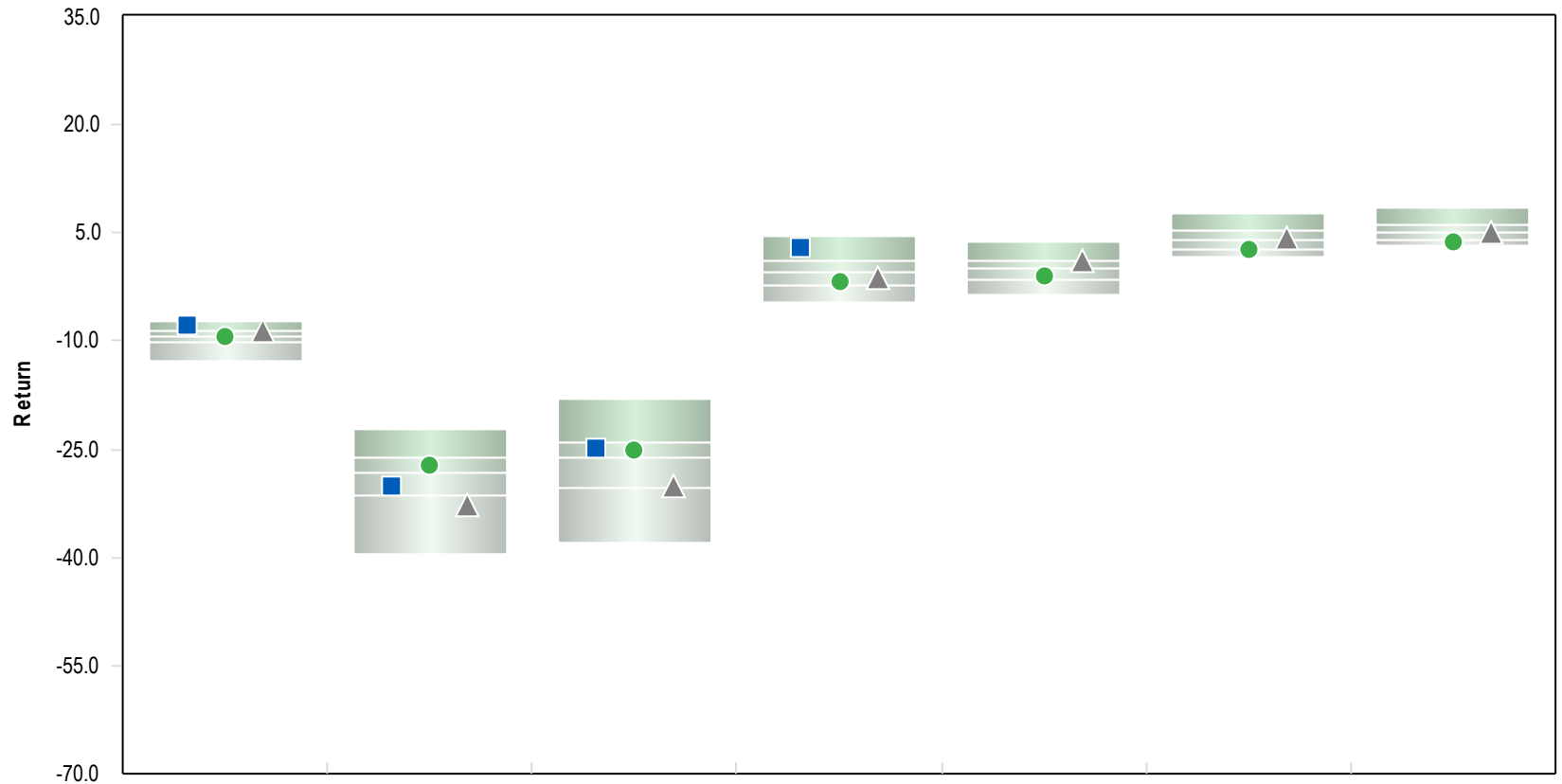


Style History(36 Months)



Return Variance

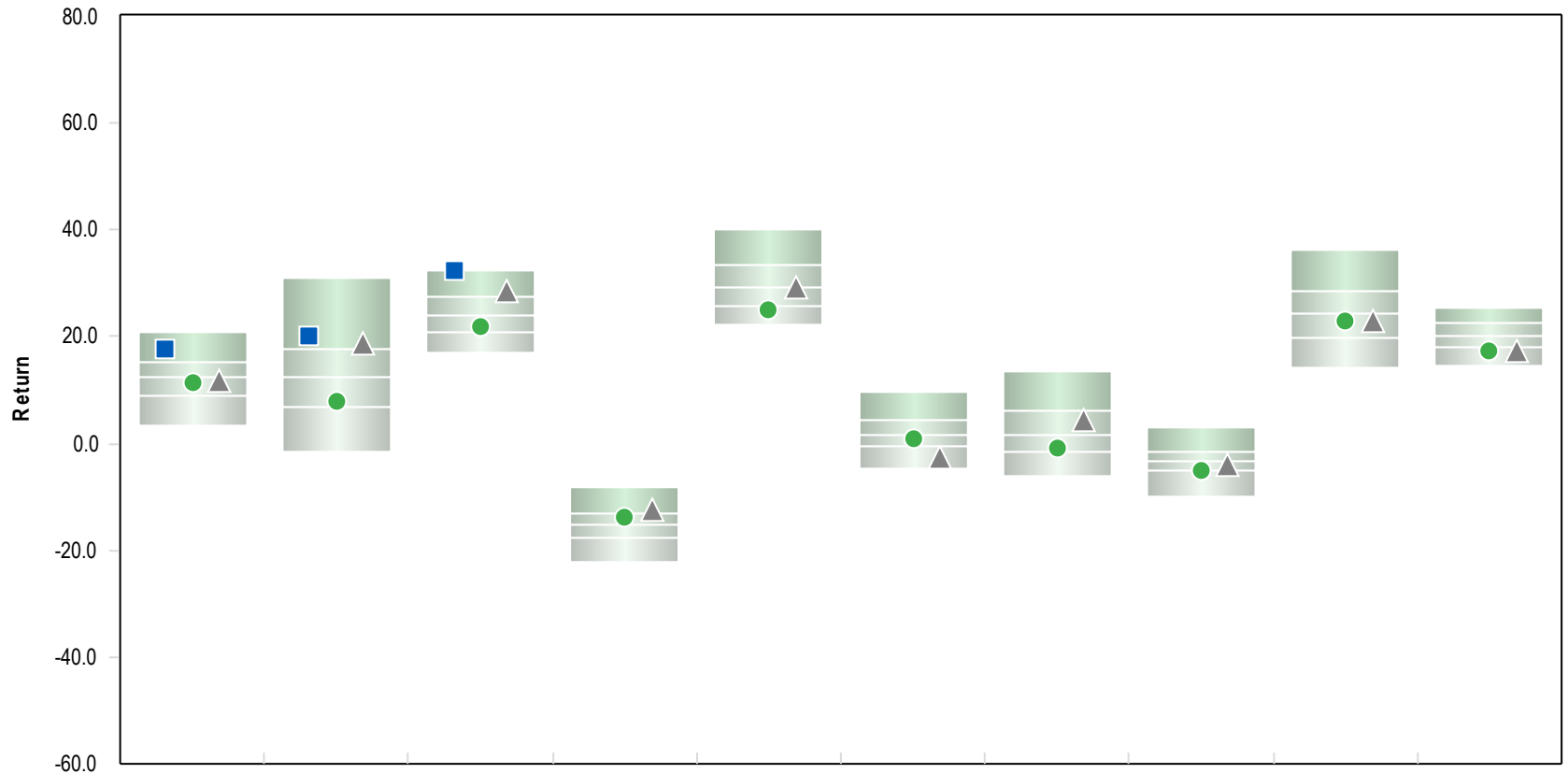




	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Fiera International Equity	-7.8 (13)	-30.0 (67)	-24.9 (34)	3.1 (11)	-0.8 (67)	2.8 (73)	3.7 (88)
● MSCI EAFE (Net)	-9.4 (50)	-27.1 (37)	-25.1 (38)	-1.8 (71)	-0.8 (67)	2.8 (73)	3.7 (88)
▲ MSCI EAFE Growth Index	-8.4 (26)	-32.8 (81)	-30.1 (74)	-1.2 (62)	1.0 (25)	4.3 (40)	5.1 (45)

5th Percentile	-7.1	-22.2	-18.0	4.5	3.8	7.6	8.6
1st Quartile	-8.4	-26.1	-24.2	1.1	1.0	5.3	6.0
Median	-9.4	-28.2	-26.2	-0.6	0.0	3.9	5.0
3rd Quartile	-10.1	-31.4	-30.2	-2.2	-1.4	2.7	4.1
95th Percentile	-12.7	-39.5	-37.9	-4.7	-3.7	1.6	3.3

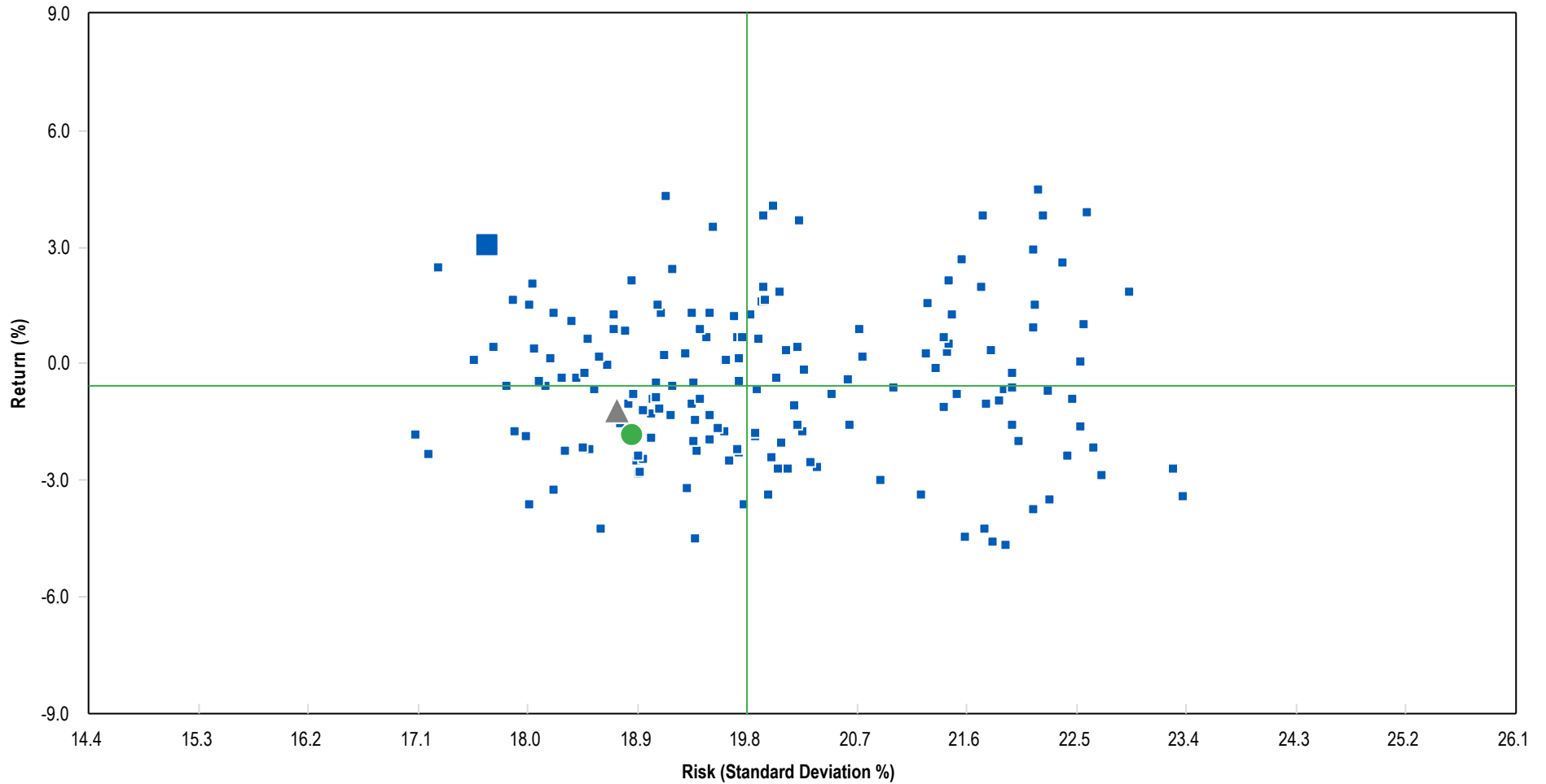
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Fiera International Equity	17.7 (12)	20.2 (18)	32.3 (6)							
● MSCI EAFE (Net)	11.3 (60)	7.8 (72)	22.0 (68)	-13.8 (35)	25.0 (81)	1.0 (59)	-0.8 (72)	-4.9 (71)	22.8 (61)	17.3 (80)
▲ MSCI EAFE Growth Index	11.6 (59)	18.7 (22)	28.4 (17)	-12.5 (22)	29.3 (51)	-2.7 (89)	4.5 (28)	-4.1 (60)	22.9 (61)	17.3 (80)

5th Percentile	20.8	31.0	32.4	-8.4	40.1	9.5	13.4	3.0	36.3	25.4
1st Quartile	15.4	17.7	27.5	-13.0	33.5	4.5	6.0	-1.5	28.6	22.5
Median	12.4	12.3	24.0	-15.1	29.4	1.7	1.6	-3.4	24.4	20.0
3rd Quartile	9.0	7.0	20.9	-17.6	25.8	-0.6	-1.6	-5.2	19.9	17.9
95th Percentile	3.2	-1.5	17.1	-22.1	22.2	-4.7	-6.3	-10.0	14.2	14.7

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

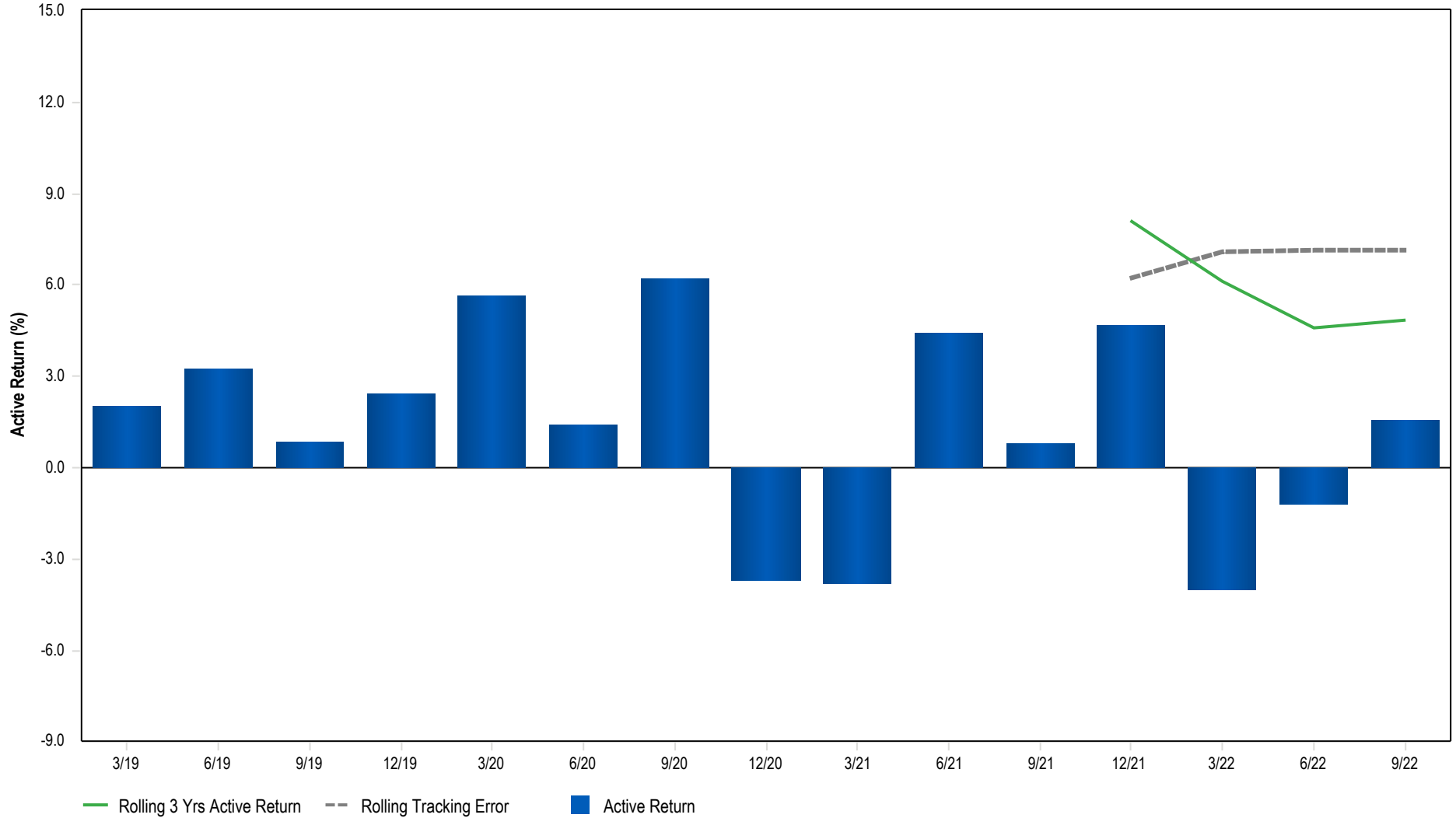


	Return	Standard Deviation
■ Fiera International Equity	3.1	17.7
● MSCI EAFE (Net)	-1.8	18.9
▲ MSCI EAFE Growth Index	-1.2	18.7
— Median	-0.6	19.8

Calculation based on monthly periodicity.



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Fiera International Equity	-7.8	-30.0	-24.9	3.1				17.7	20.2	32.3	
MSCI EAFE (Net)	-9.4	-27.1	-25.1	-1.8	-0.8	2.8	3.7	11.3	7.8	22.0	-13.8
Difference	1.6	-2.9	0.2	4.9				6.4	12.4	10.3	



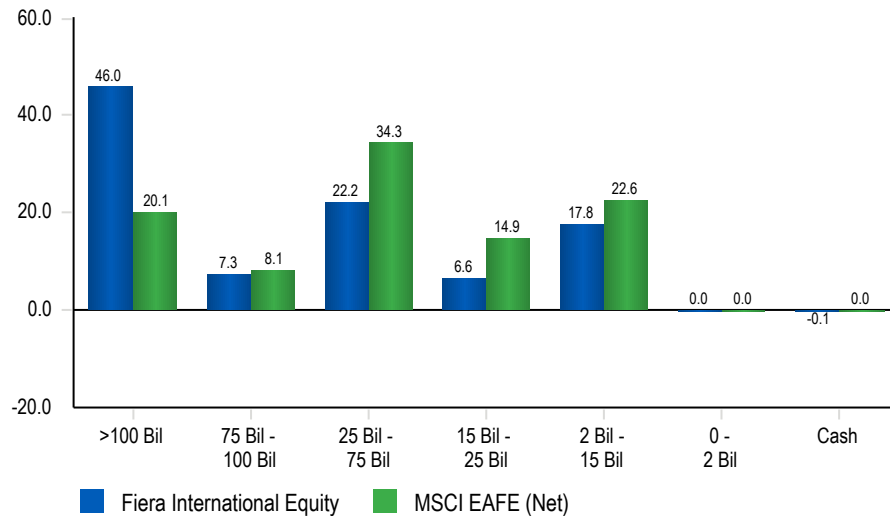
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Nestle SA, Cham Und Vevey	7.7	2.5	5.2	-6.5
Novo Nordisk A/S	6.9	1.4	5.5	-8.8
Taiwan Semiconductor	6.1	0.0	6.1	-15.7
LVMH Moet Hennessy Louis Vuitton SE	5.2	1.4	3.8	-1.6
Roche Holding AG	4.9	1.9	3.0	-1.2
L'Oreal SA	4.7	0.6	4.1	-6.0
London Stock Exchange Group PLC	4.6	0.2	4.4	-7.8
Canadian National Railway Co	4.5	0.0	4.5	-3.5
Keyence Corp	4.4	0.5	3.9	-2.9
SAP AG Systeme Anwendungen	4.2	0.7	3.5	-9.3
% of Portfolio	53.2	9.2	44.0	

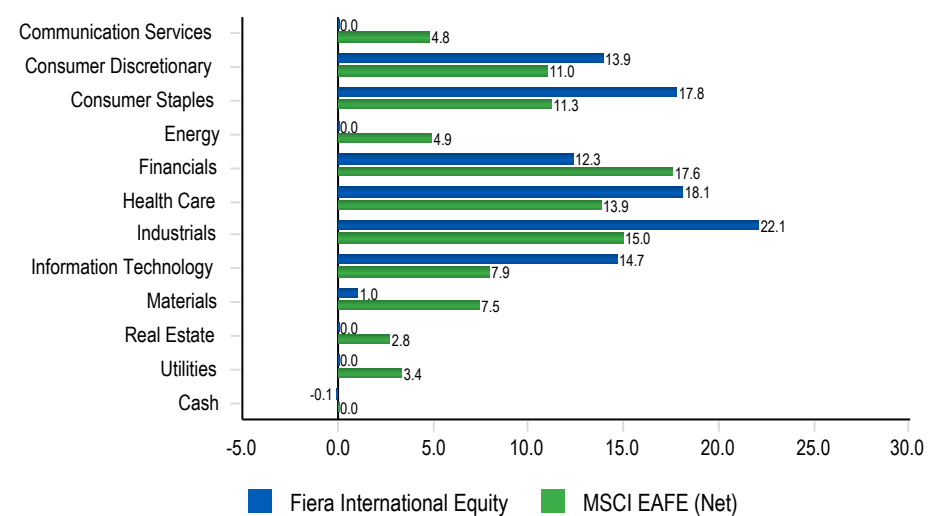
Portfolio Characteristics

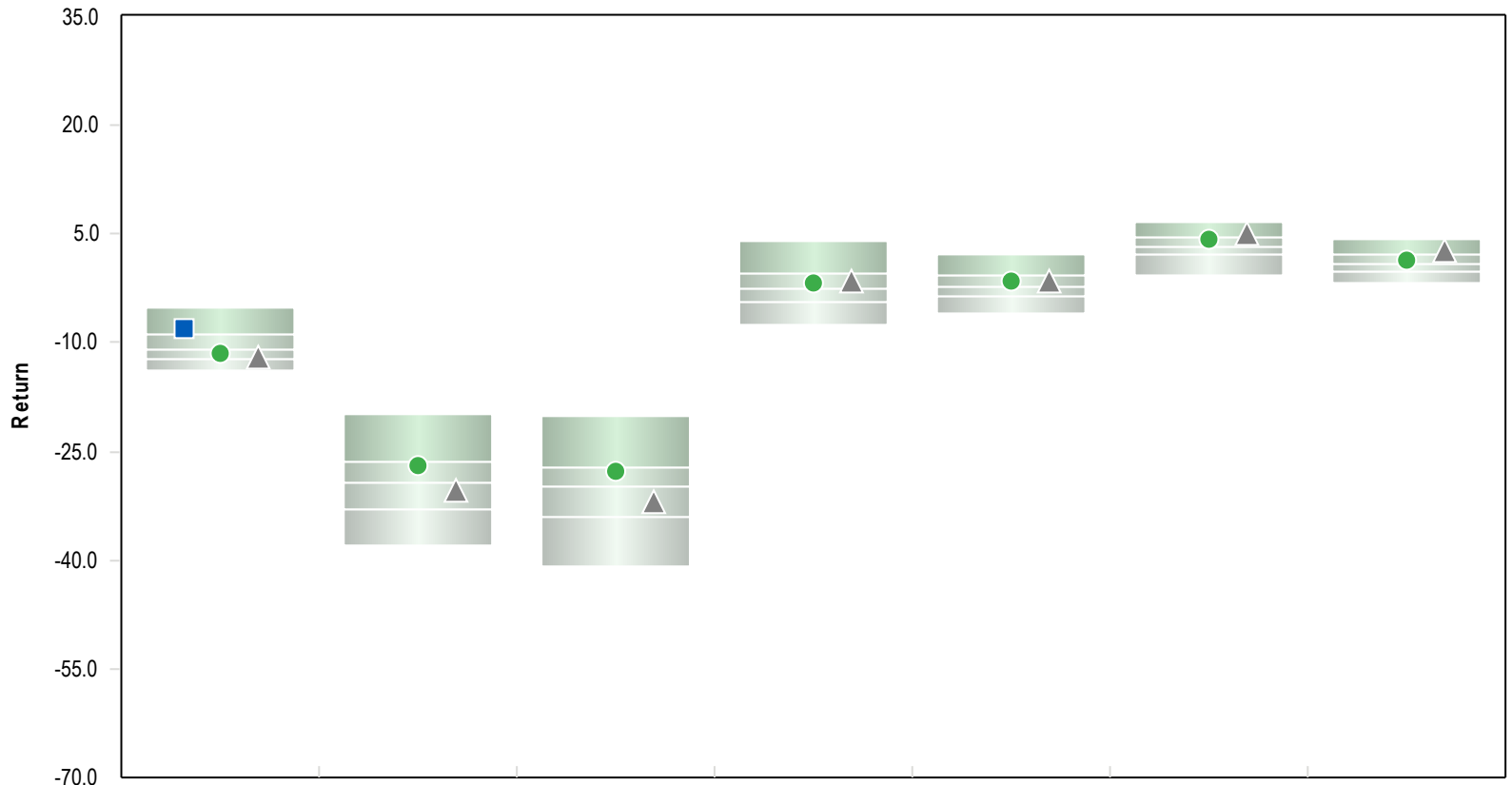
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	106,277,635,959	63,523,926,143
Median Mkt. Cap (\$)	31,643,950,623	10,385,193,489
Price/Earnings ratio	23.7	11.3
Price/Book ratio	3.5	2.4
5 Yr. EPS Growth Rate (%)	9.6	12.2
Current Yield (%)	2.1	3.7
Beta (3 Years, Monthly)	0.9	1.0
Number of Stocks	32	799

Distribution of Market Capitalization (%)



Sector Weights (%)



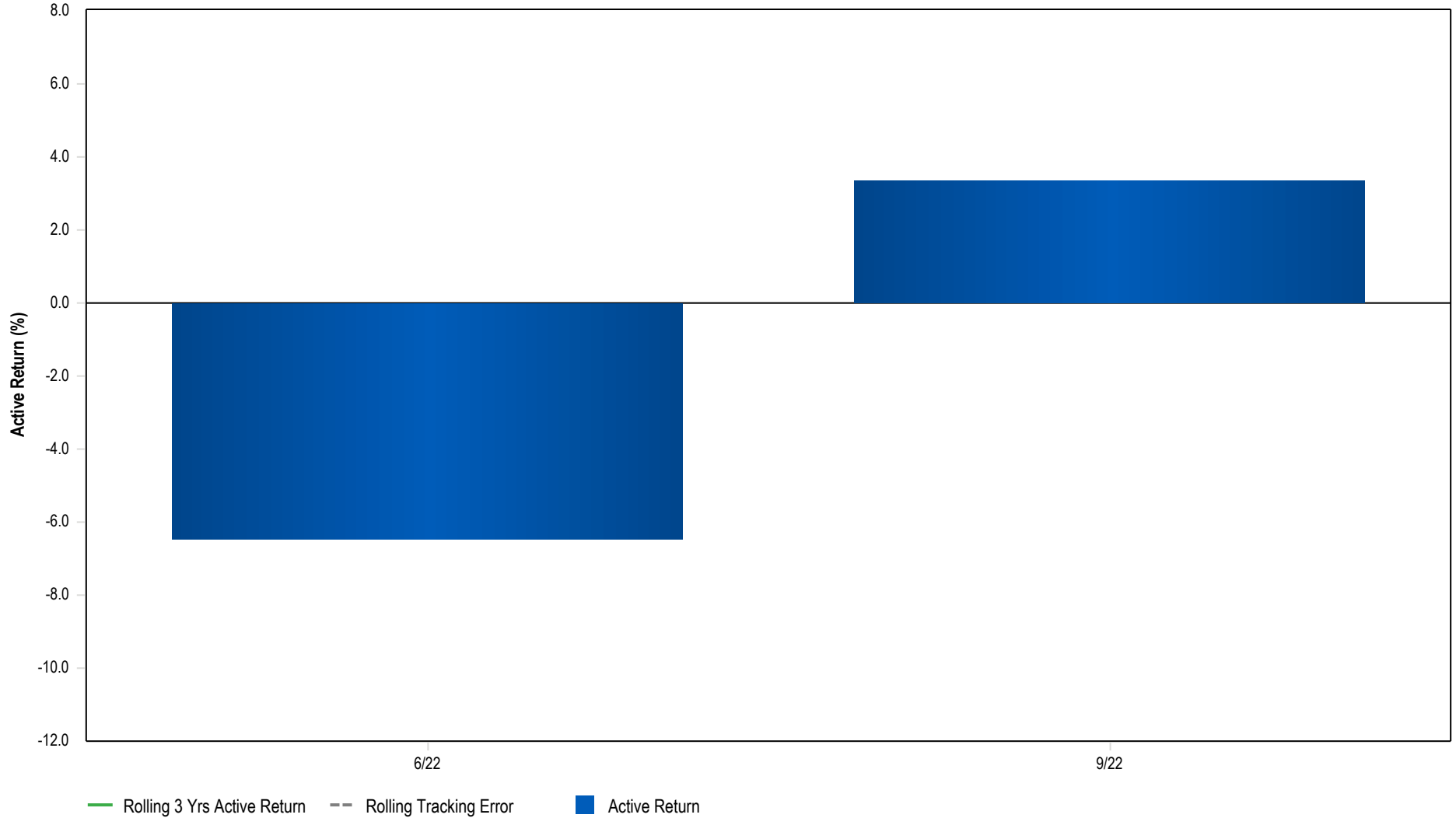


	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ William Blair Emerging Markets	-8.1 (21)						
● MSCI Emerging Markets Index	-11.4 (58)	-26.9 (29)	-27.8 (30)	-1.7 (40)	-1.4 (33)	4.3 (31)	1.4 (38)
▲ MSCI Emerging Markets Growth	-12.1 (70)	-30.5 (60)	-31.9 (62)	-1.5 (37)	-1.4 (32)	5.0 (20)	2.6 (18)

5th Percentile	-5.3	-19.8	-20.2	4.1	2.3	6.8	4.3
1st Quartile	-8.8	-26.4	-27.1	-0.5	-0.8	4.6	2.1
Median	-11.0	-29.3	-29.9	-2.5	-2.4	3.3	0.9
3rd Quartile	-12.3	-32.9	-34.1	-4.5	-3.6	2.2	0.0
95th Percentile	-13.9	-38.1	-40.9	-7.6	-5.9	-0.7	-1.6

Parenteses contain percentile rankings.  
Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
William Blair Emerging Markets	-8.1										
MSCI Emerging Markets Index	-11.4	-26.9	-27.8	-1.7	-1.4	4.3	1.4	-2.2	18.7	18.9	-14.2
Difference	3.3										



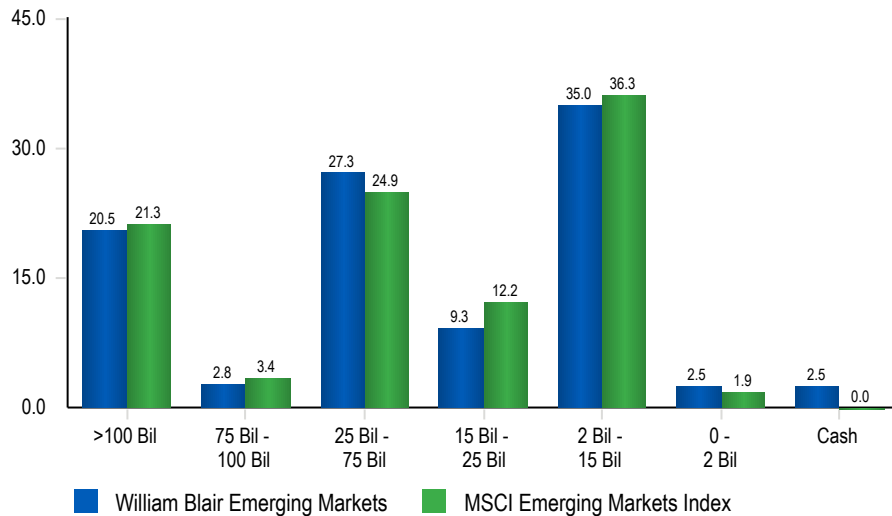
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Taiwan Semiconductor	5.3	5.7	-0.4	-15.7
Reliance Industries Ltd	4.9	1.6	3.3	-10.8
PT Bank Central Asia TBK	3.4	0.5	2.9	15.4
Wal-Mart De Mexico SA De Cv, Mexico	2.4	0.3	2.1	2.5
PT Bank Rakyat Indonesia TBK	2.2	0.4	1.8	5.8
Netease Inc	2.1	0.5	1.6	-17.5
Itau Unibanco Holding SA	2.0	0.4	1.6	22.5
Samsung Electronics Co Ltd	2.0	3.1	-1.1	-15.5
JD.com Inc	1.9	1.0	0.9	-21.5
Kweichow Moutai Co Ltd	1.9	0.3	1.6	-13.6
% of Portfolio	28.1	13.8	14.3	

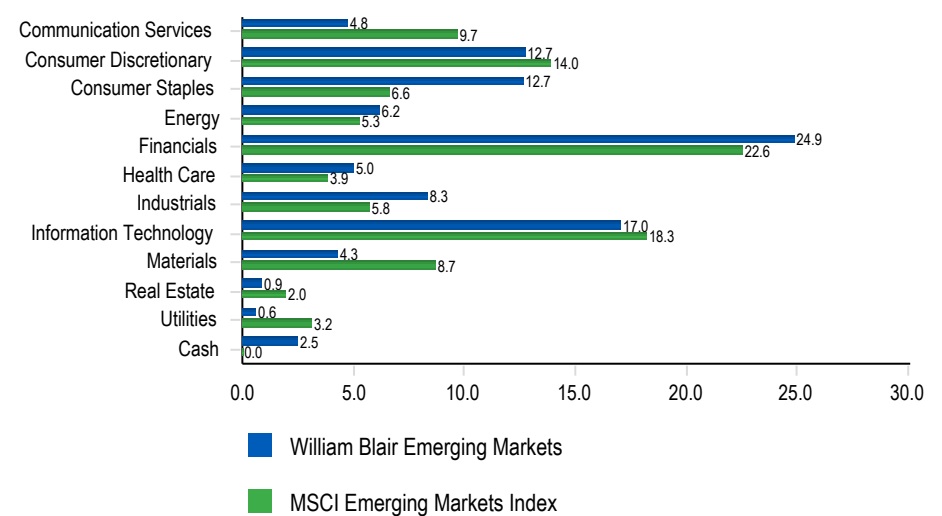
Portfolio Characteristics

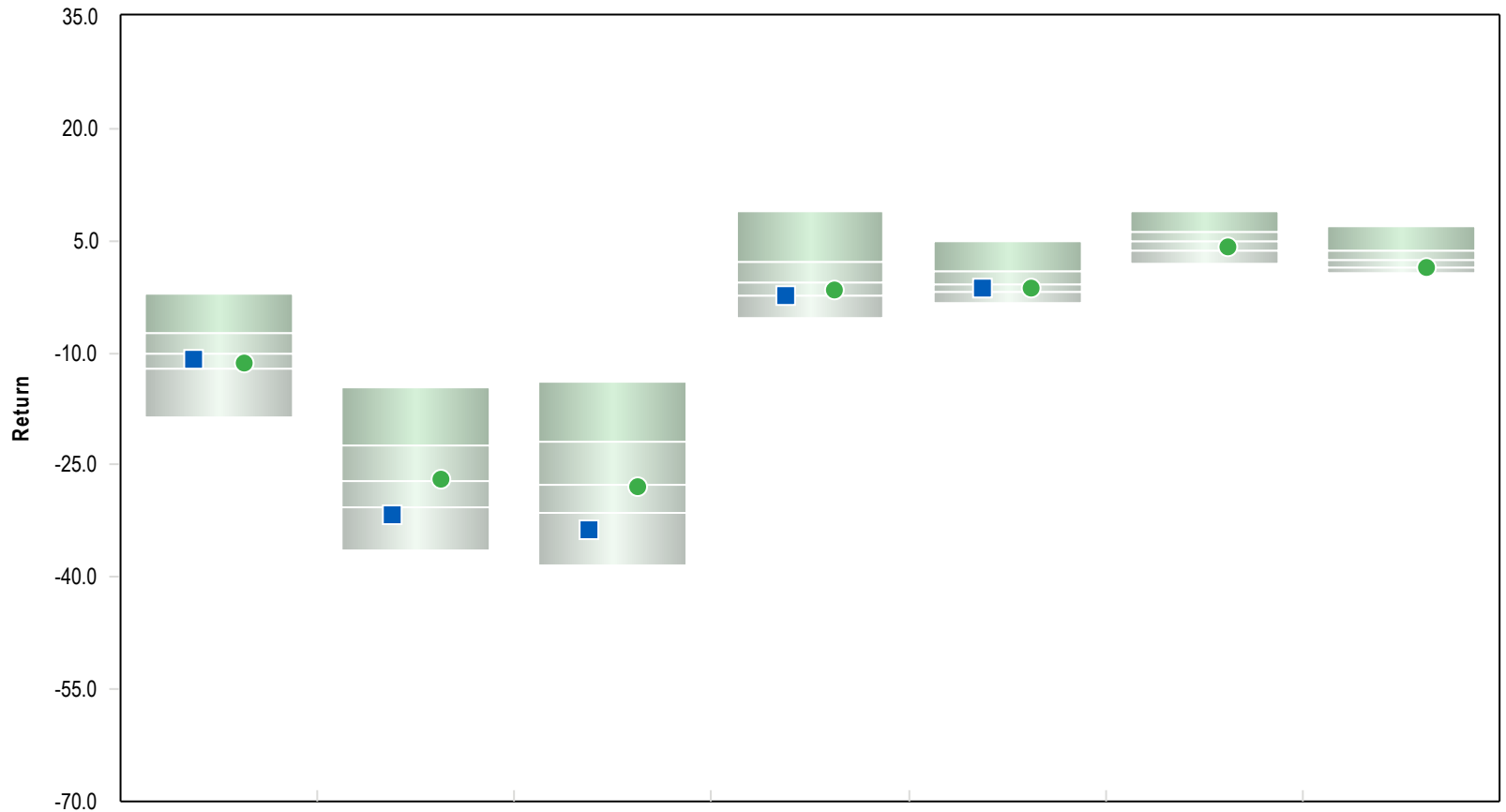
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	68,465,977,138	78,619,285,901
Median Mkt. Cap (\$)	7,158,260,930	5,332,643,717
Price/Earnings ratio	19.6	9.8
Price/Book ratio	3.5	2.5
5 Yr. EPS Growth Rate (%)	16.6	15.9
Current Yield (%)	1.7	3.6
Beta		1.0
Number of Stocks	146	1,387

Distribution of Market Capitalization (%)



Sector Weights (%)

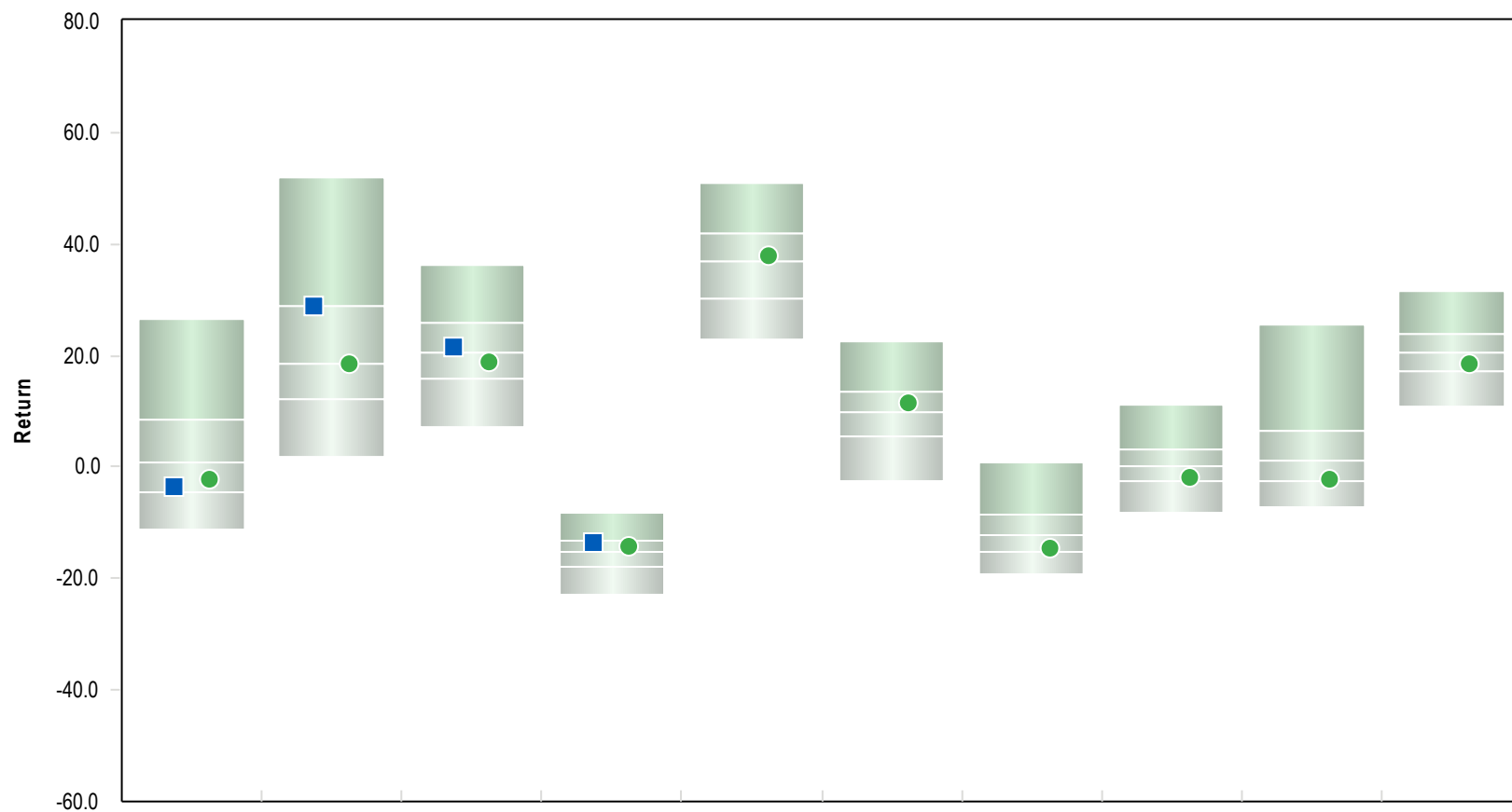




	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Aberdeen Emerging Markets	-10.9 (60)	-31.7 (80)	-33.8 (84)	-2.4 (77)	-1.3 (61)	4.3 (62)	1.4 (79)
● MSCI Emerging Markets Index	-11.4 (67)	-26.9 (49)	-27.8 (54)	-1.7 (68)	-1.4 (63)	4.3 (62)	1.4 (79)

5th Percentile	-2.2	-14.6	-14.0	8.9	5.0	8.9	6.8
1st Quartile	-7.4	-22.3	-22.0	2.2	0.9	6.1	3.6
Median	-10.2	-27.1	-27.6	-0.7	-0.9	4.8	2.4
3rd Quartile	-12.1	-30.7	-31.5	-2.2	-2.0	3.7	1.5
95th Percentile	-18.6	-36.5	-38.5	-5.4	-3.3	1.8	0.5

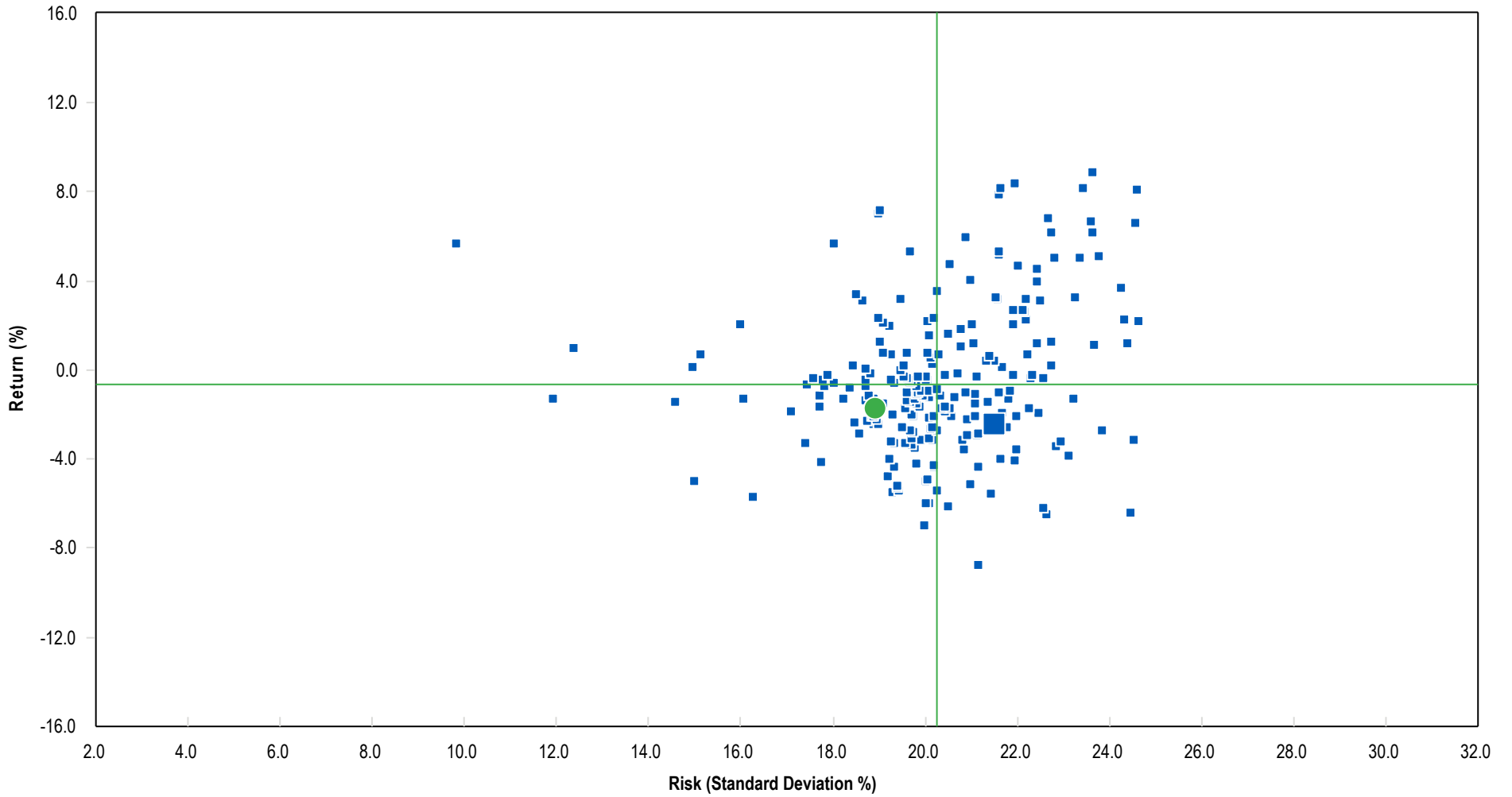
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Aberdeen Emerging Markets	-3.7 (70)	28.7 (26)	21.5 (47)	-13.7 (31)	37.8 (43)	11.6 (38)	-14.6 (69)	-1.8 (69)	-2.3 (75)	18.6 (66)
● MSCI Emerging Markets Index	-2.2 (63)	18.7 (50)	18.9 (60)	-14.2 (37)	37.8 (43)	11.6 (38)	-14.6 (69)	-1.8 (69)	-2.3 (75)	18.6 (66)

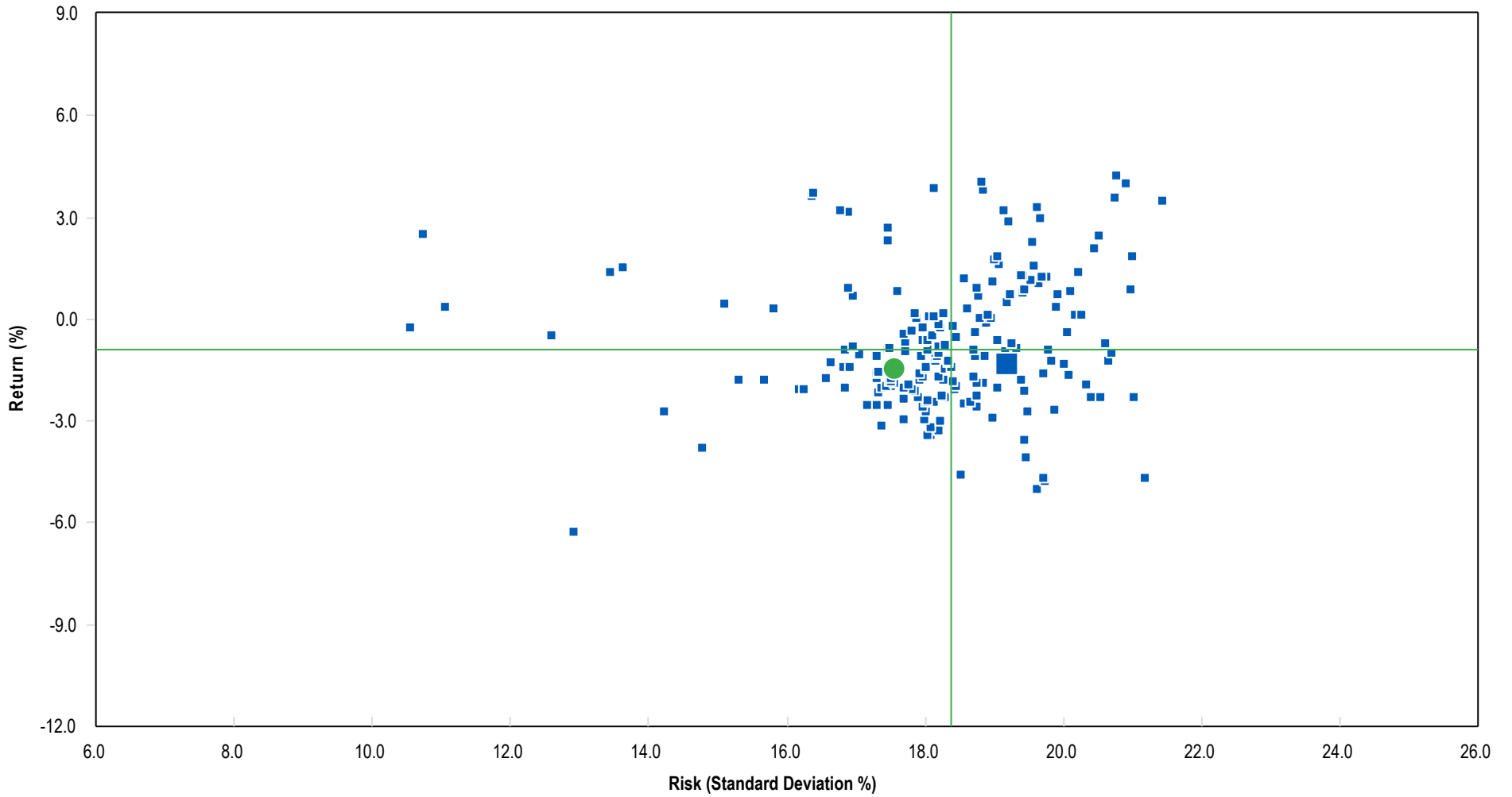
5th Percentile	26.6	51.8	36.4	-8.1	51.1	22.5	0.8	11.2	25.6	31.5
1st Quartile	8.6	28.8	25.9	-13.3	42.0	13.5	-8.6	3.3	6.4	23.8
Median	0.9	18.6	20.7	-15.2	36.8	9.8	-12.2	0.0	1.2	20.5
3rd Quartile	-4.6	12.3	16.0	-17.9	30.3	5.6	-15.3	-2.5	-2.6	17.1
95th Percentile	-11.2	1.8	7.3	-22.9	22.9	-2.5	-19.3	-8.1	-7.2	10.7

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



Calculation based on monthly periodicity.





	Return	Standard Deviation
■ Aberdeen Emerging Markets	-1.3	19.2
● MSCI Emerging Markets Index	-1.4	17.5
— Median	-0.9	18.4

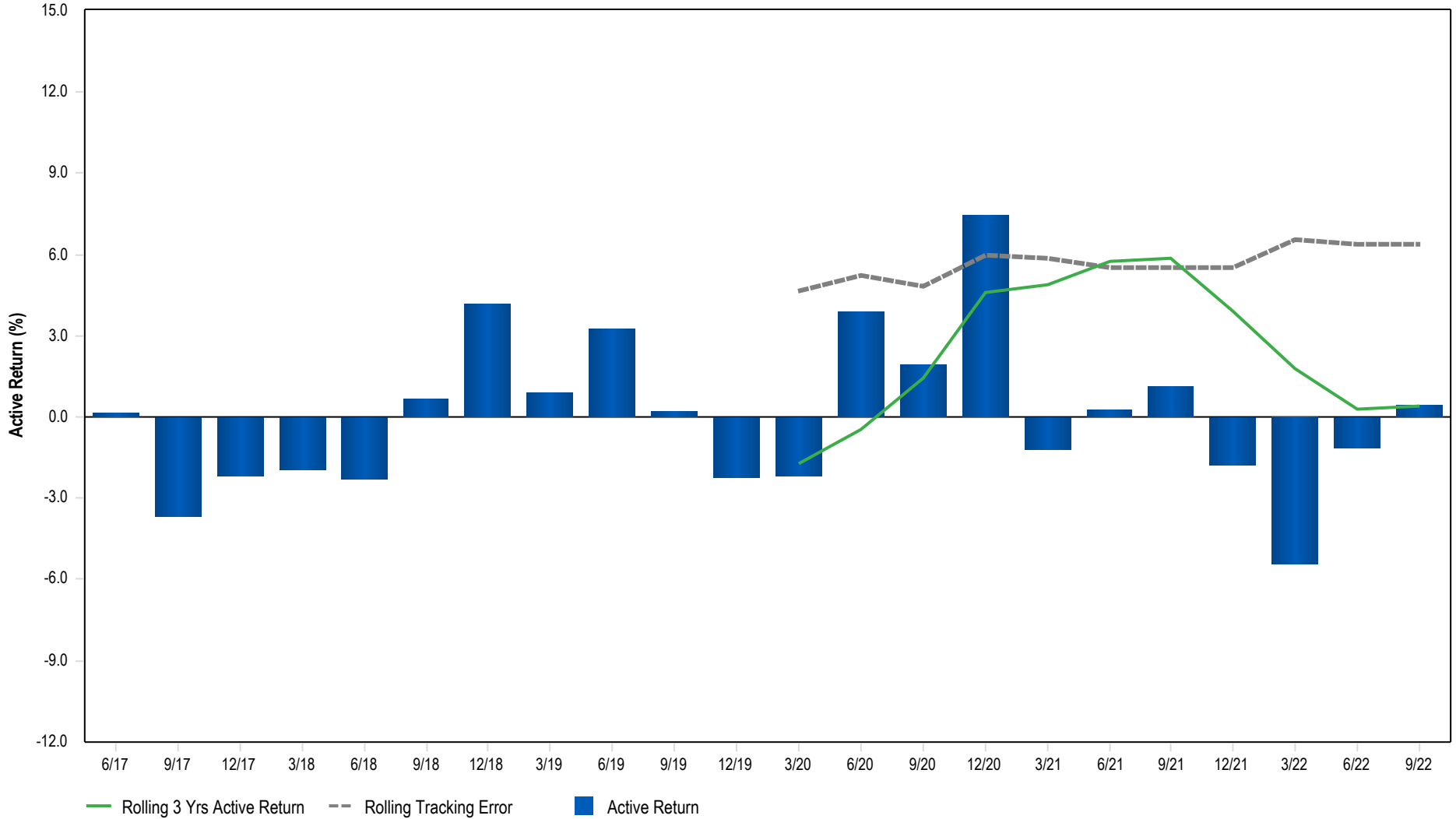
Calculation based on monthly periodicity.

# Bristol County Retirement System

## Comparative Performance & Rolling Return

As of September 30, 2022

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Aberdeen Emerging Markets	-10.9	-31.7	-33.8	-2.4	-1.3			-3.7	28.7	21.5	-13.7
MSCI Emerging Markets Index	-11.4	-26.9	-27.8	-1.7	-1.4	4.3	1.4	-2.2	18.7	18.9	-14.2
Difference	0.5	-4.8	-6.0	-0.7	0.1			-1.5	10.0	2.6	0.5



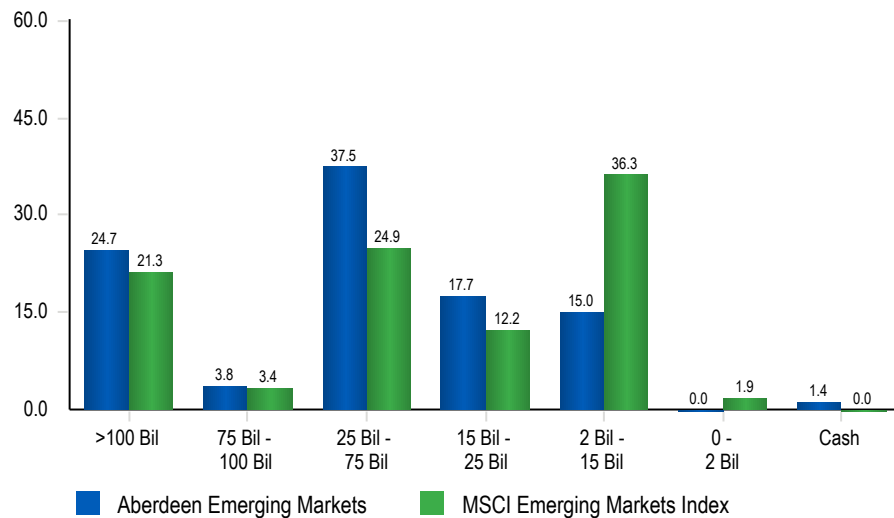
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Taiwan Semiconductor Manuf	6.9	5.7	1.2	-16.5
Samsung Electronics Co Ltd	5.2	0.5	4.7	-18.1
Tencent Holdings LTD	4.6	3.7	0.9	-24.9
Alibaba Group Holding Ltd	4.1	2.6	1.5	-30.4
Housing Development Finance Corp Ltd	3.5	0.8	2.7	2.3
SBI Life Insurance Company Limited	2.5	0.1	2.4	12.2
PT Bank Central Asia TBK	2.5	0.5	2.0	15.4
Grupo Financiero Banorte SA De CV Gfnorte	2.4	0.3	2.1	15.7
JD.com Inc	2.3	1.0	1.3	-21.5
Banco Bradesco Sa Brad	2.1	0.1	2.0	13.2
<b>% of Portfolio</b>	<b>36.1</b>	<b>15.3</b>	<b>20.8</b>	

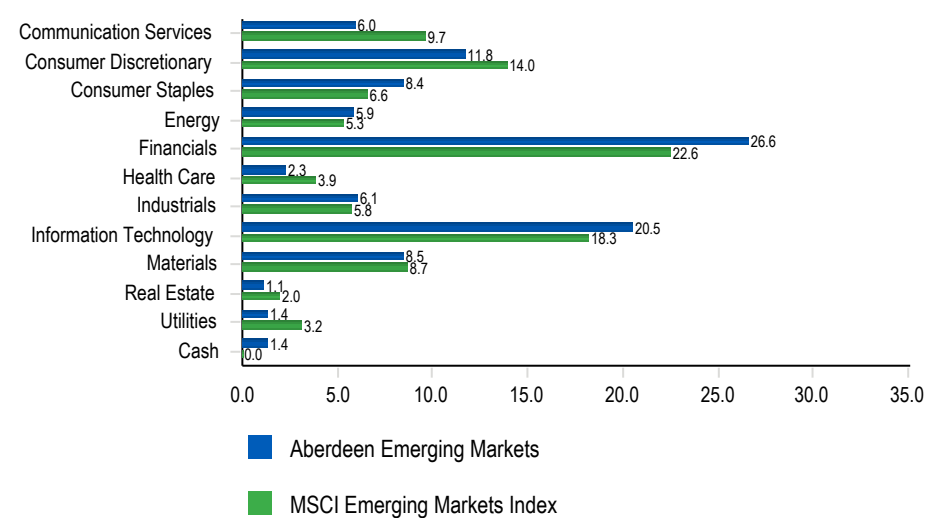
Portfolio Characteristics

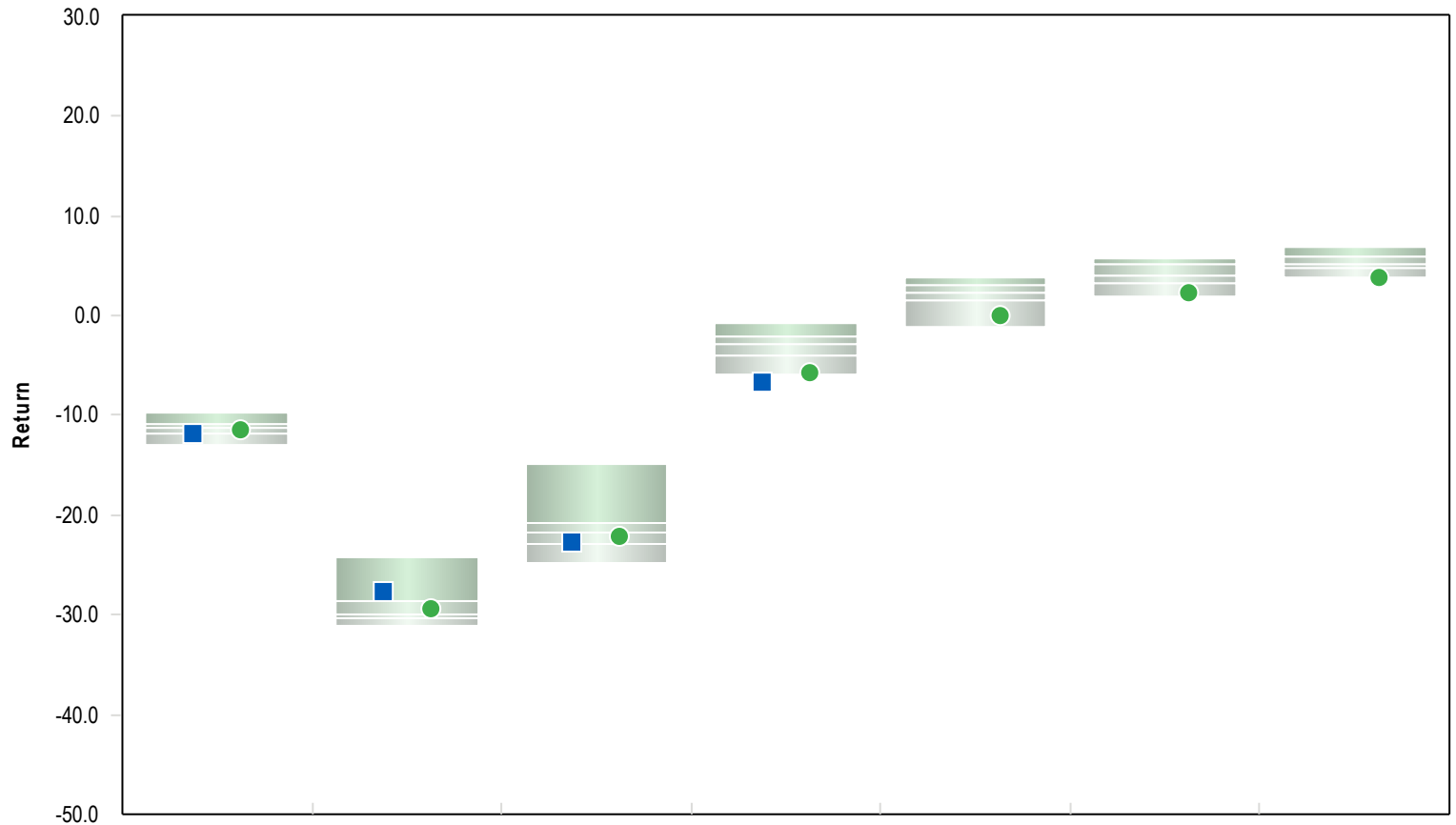
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	82,749,184,463	78,619,285,901
Median Mkt. Cap (\$)	26,410,395,659	5,332,643,717
Price/Earnings ratio	15.2	9.8
Price/Book ratio	2.7	2.5
5 Yr. EPS Growth Rate (%)	18.0	15.9
Current Yield (%)	2.8	3.6
Beta (5 Years, Monthly)	1.1	1.0
Number of Stocks	65	1,387

Distribution of Market Capitalization (%)



Sector Weights (%)

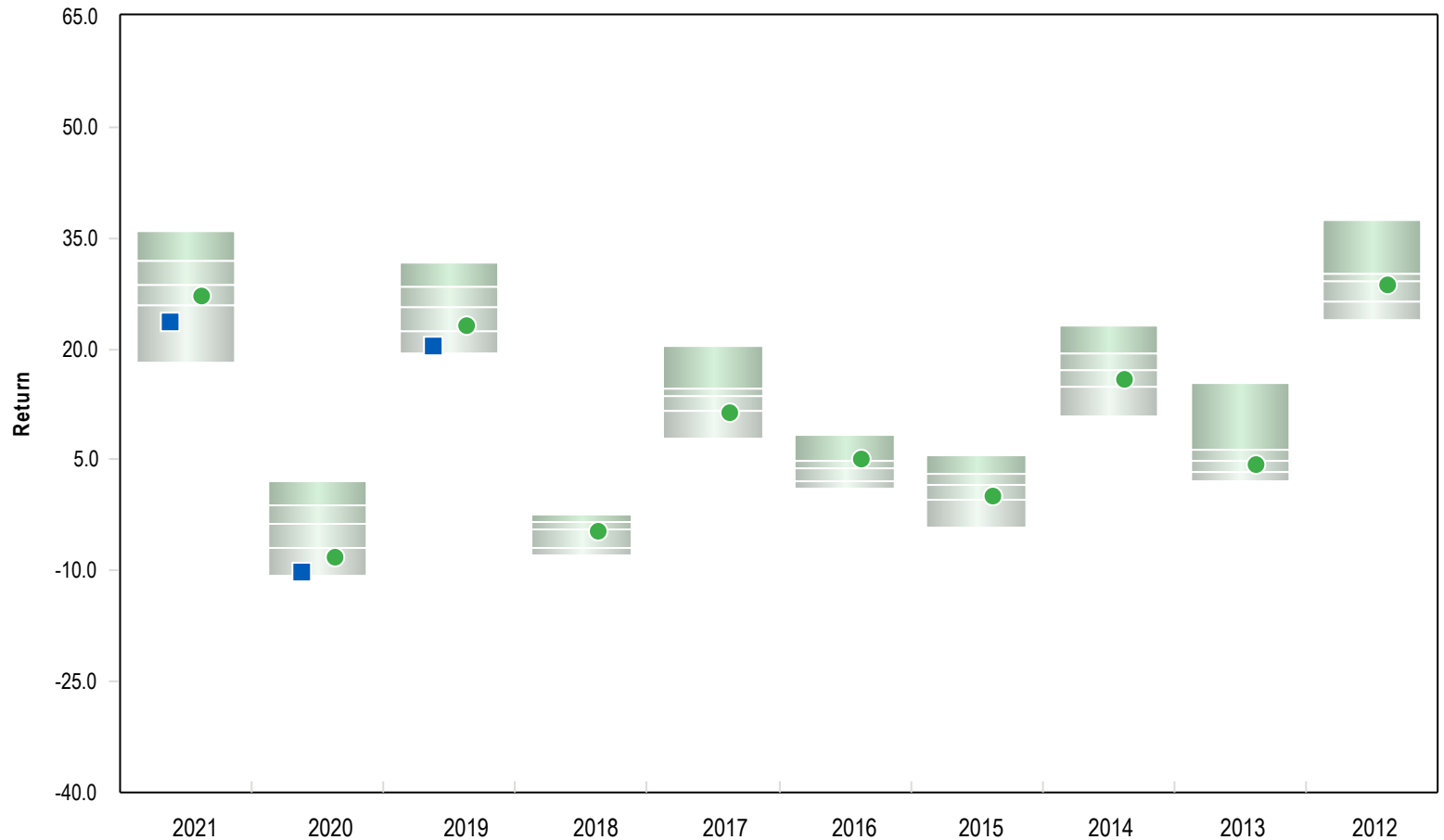




	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Brookfield Global Real Estate	-11.8 (80)	-27.6 (13)	-22.6 (65)	-6.6 (98)			
● FTSE EPRA/NAREIT Developed Index	-11.4 (57)	-29.4 (39)	-22.1 (61)	-5.6 (91)	0.1 (89)	2.4 (86)	3.8 (96)

5th Percentile	-9.7	-24.2	-14.8	-0.7	3.9	5.7	6.8
1st Quartile	-10.8	-28.7	-20.8	-2.1	3.1	5.1	6.0
Median	-11.3	-30.0	-21.8	-2.9	2.3	4.0	5.2
3rd Quartile	-11.7	-30.3	-23.0	-3.9	1.6	3.3	4.8
95th Percentile	-13.0	-31.1	-24.7	-5.9	-1.2	2.0	3.9

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



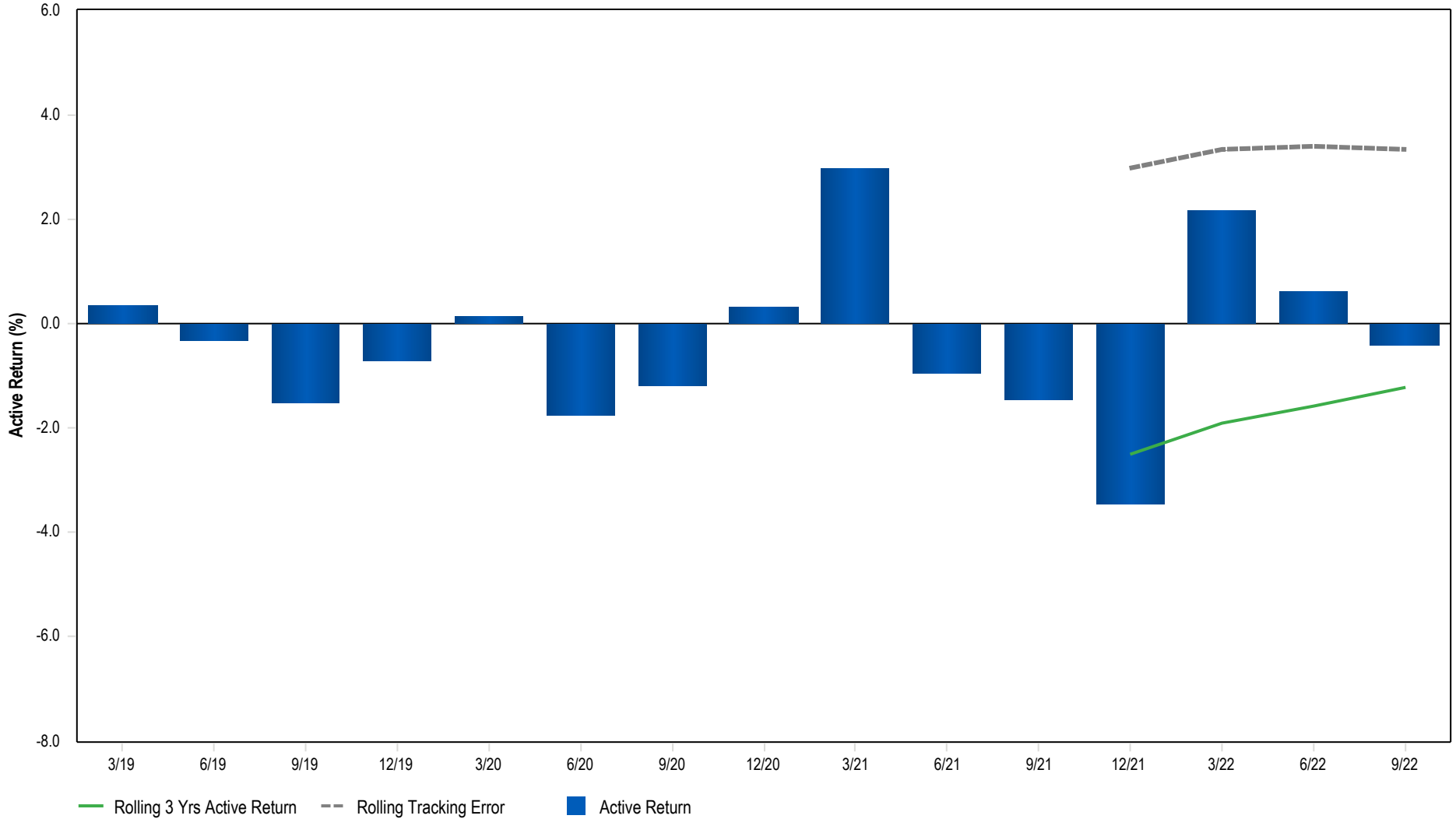
■ Brookfield Global Real Estate  
● FTSE EPRA/NAREIT Developed Index

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Brookfield Global Real Estate	23.8 (84)	-10.3 (92)	20.4 (92)							
FTSE EPRA/NAREIT Developed Index	27.2 (66)	-8.2 (85)	23.1 (69)	-4.7 (53)	11.4 (77)	5.0 (22)	0.1 (70)	15.9 (66)	4.4 (63)	28.7 (56)

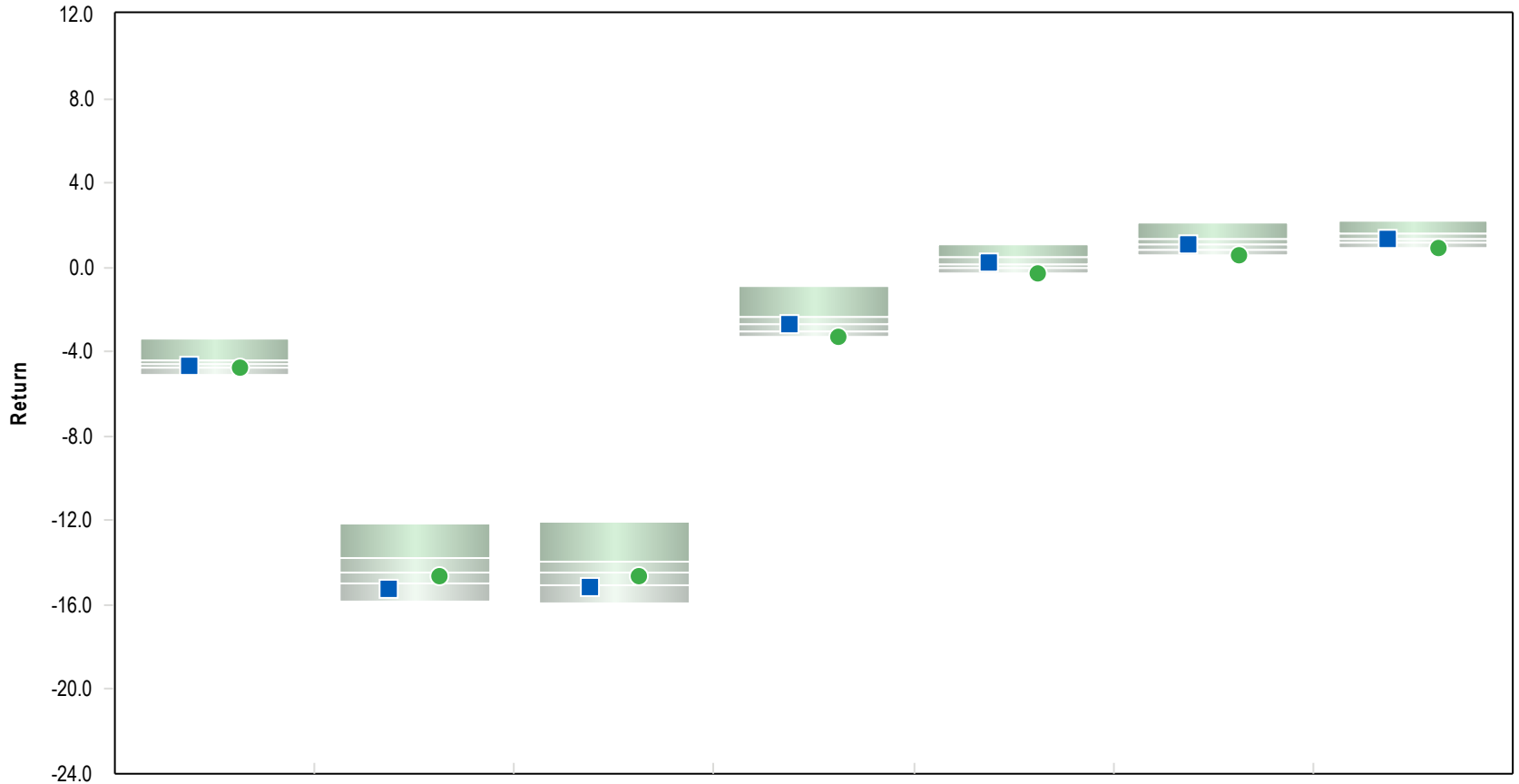
5th Percentile	36.0	2.2	31.6	-2.5	20.4	8.3	5.7	23.3	15.3	37.5
1st Quartile	32.0	-1.3	28.3	-3.3	14.5	4.8	3.1	19.3	6.3	30.1
Median	28.7	-3.7	25.8	-4.5	13.5	3.8	1.6	17.0	4.9	29.1
3rd Quartile	25.8	-6.9	22.5	-6.9	11.6	2.0	-0.3	14.9	3.2	26.4
95th Percentile	18.2	-10.7	19.3	-7.9	8.0	1.0	-4.1	10.8	2.2	23.9

Parenteses contain percentile rankings.  
Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Brookfield Global Real Estate	-11.8	-27.6	-22.6	-6.6				23.8	-10.3	20.4	
FTSE EPRA/NAREIT Developed Index	-11.4	-29.4	-22.1	-5.6	0.1	2.4	3.8	27.2	-8.2	23.1	-4.7
Difference	-0.4	1.8	-0.5	-1.0				-3.4	-2.1	-2.7	



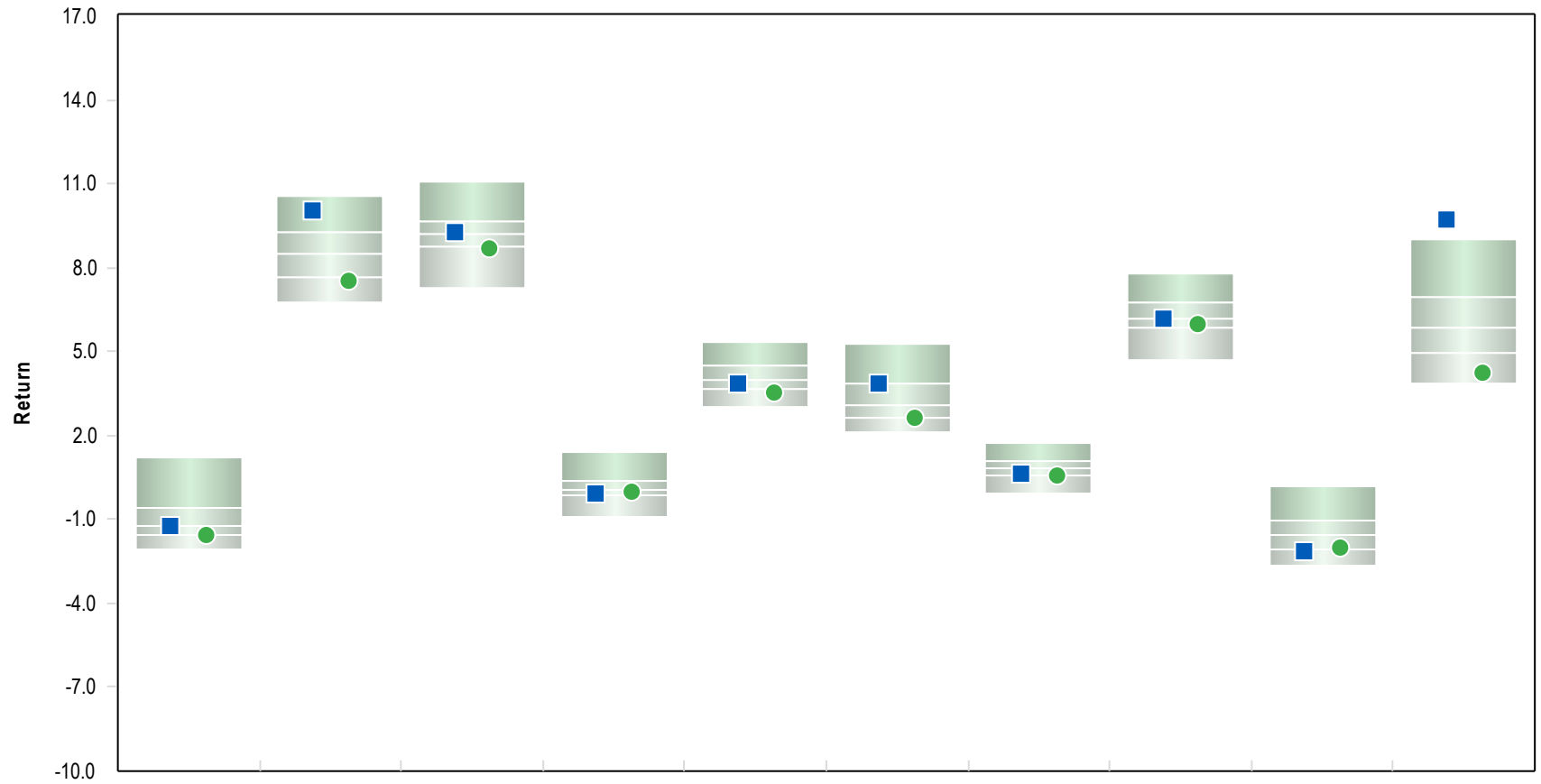
# Domestic Fixed Income



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Domestic Fixed	-4.7 (63)	-15.2 (82)	-15.2 (78)	-2.7 (44)	0.3 (41)	1.1 (48)	1.4 (53)
● Blmbg. U.S. Aggregate	-4.8 (76)	-14.6 (63)	-14.6 (61)	-3.3 (94)	-0.3 (97)	0.5 (97)	0.9 (99)
5th Percentile	-3.4	-12.1	-12.1	-0.9	1.1	2.1	2.2
1st Quartile	-4.4	-13.8	-14.0	-2.3	0.5	1.3	1.6
Median	-4.5	-14.4	-14.5	-2.7	0.2	1.1	1.4
3rd Quartile	-4.8	-15.0	-15.1	-3.0	0.0	0.8	1.2
95th Percentile	-5.1	-15.8	-15.9	-3.3	-0.3	0.6	0.9

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

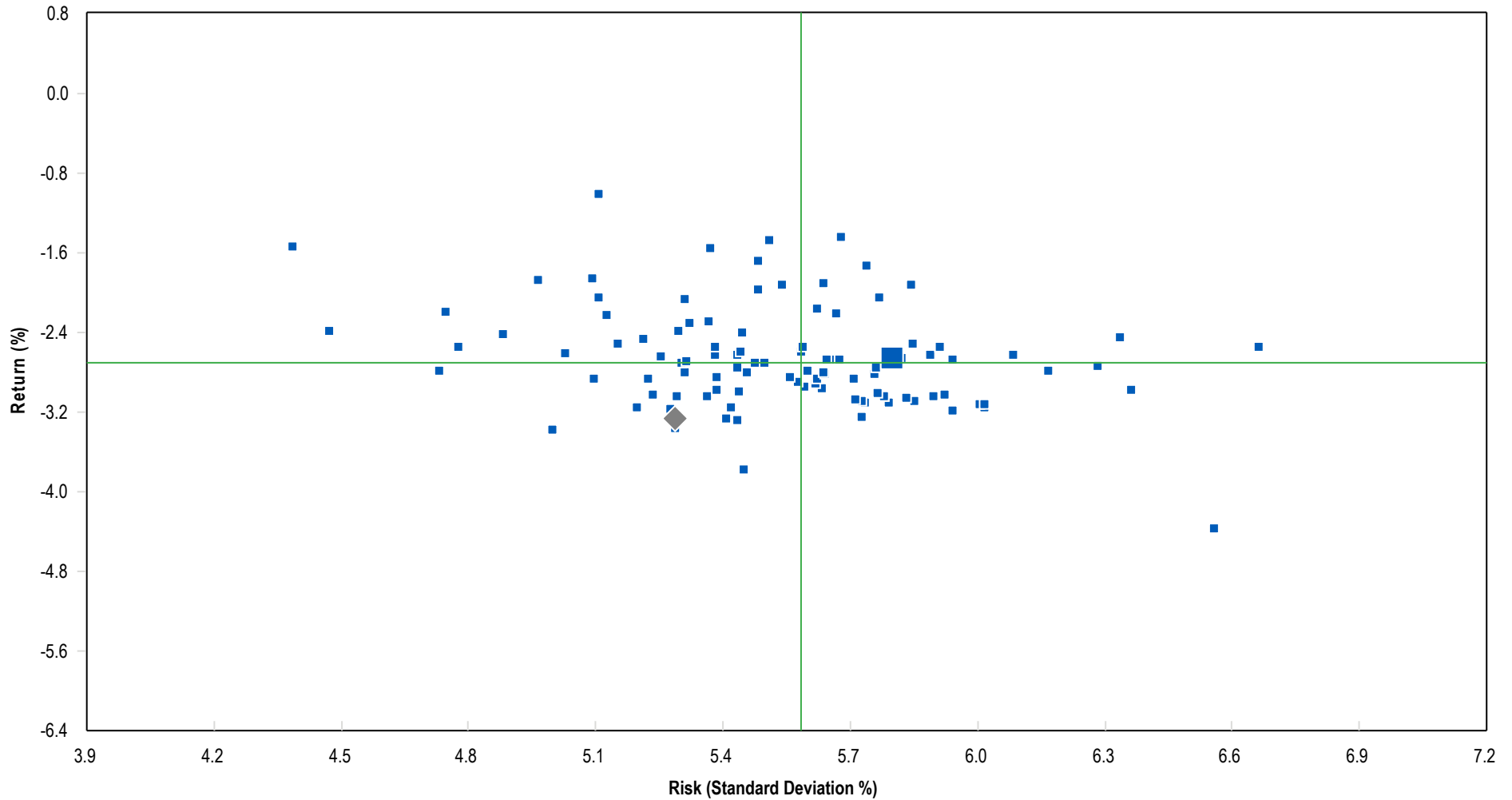




	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Total Domestic Fixed	-1.2 (52)	10.0 (11)	9.3 (47)	-0.1 (71)	3.8 (62)	3.9 (25)	0.7 (64)	6.1 (50)	-2.1 (82)	9.7 (5)
● Blmbg. U.S. Aggregate	-1.5 (69)	7.5 (86)	8.7 (78)	0.0 (61)	3.5 (83)	2.6 (76)	0.5 (76)	6.0 (67)	-2.0 (73)	4.2 (89)

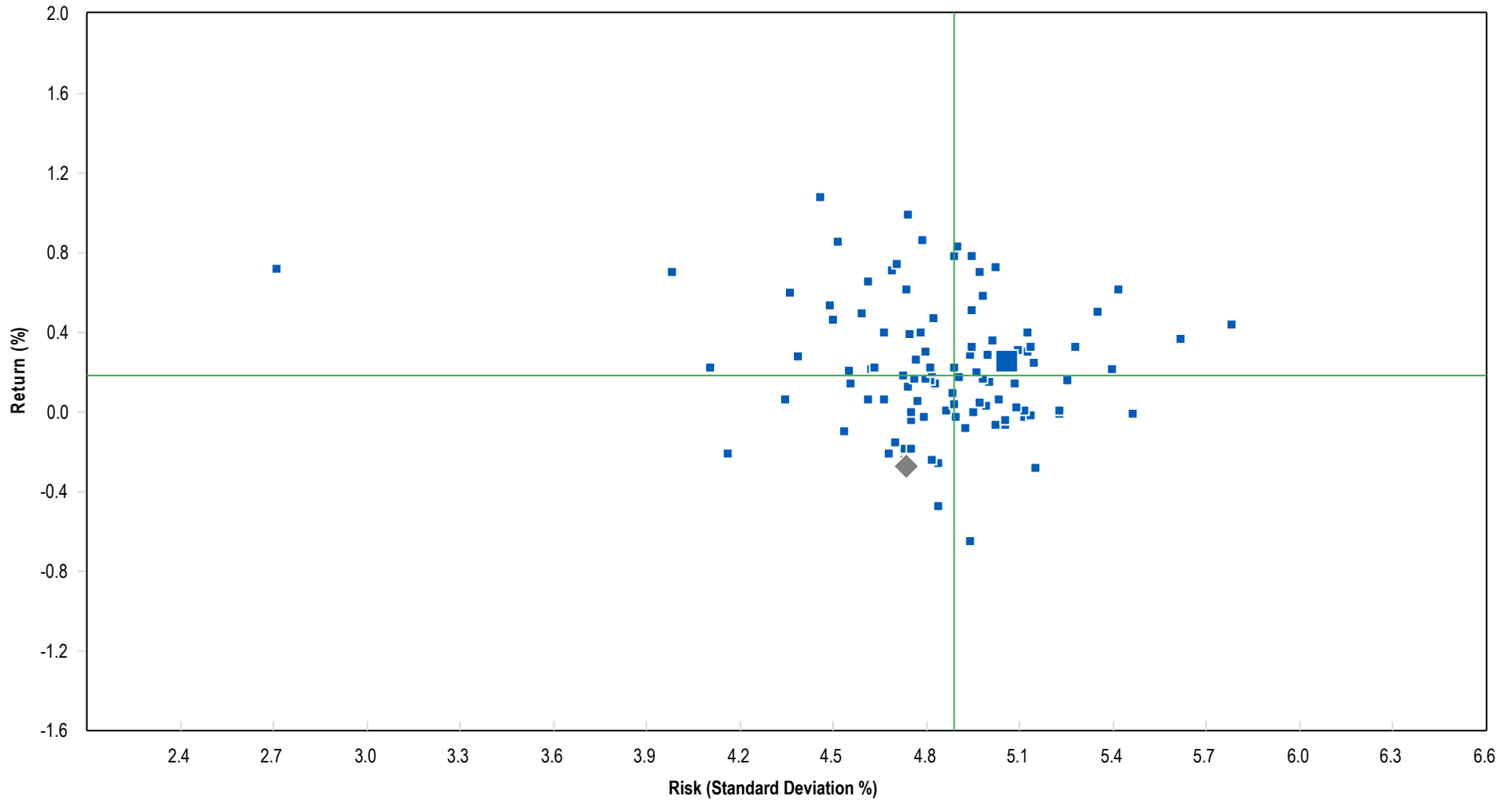
5th Percentile	1.2	10.5	11.1	1.4	5.3	5.3	1.7	7.8	0.2	9.0
1st Quartile	-0.6	9.3	9.7	0.4	4.5	3.8	1.1	6.7	-1.0	7.0
Median	-1.2	8.5	9.2	0.1	4.0	3.1	0.8	6.1	-1.6	5.8
3rd Quartile	-1.6	7.7	8.7	-0.1	3.6	2.6	0.6	5.8	-2.0	5.0
95th Percentile	-2.1	6.7	7.2	-0.9	3.0	2.1	-0.1	4.7	-2.6	3.8

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total Domestic Fixed	-2.7	5.8
◆ Barclays Aggregate	-3.3	5.3
— Median	-2.7	5.6

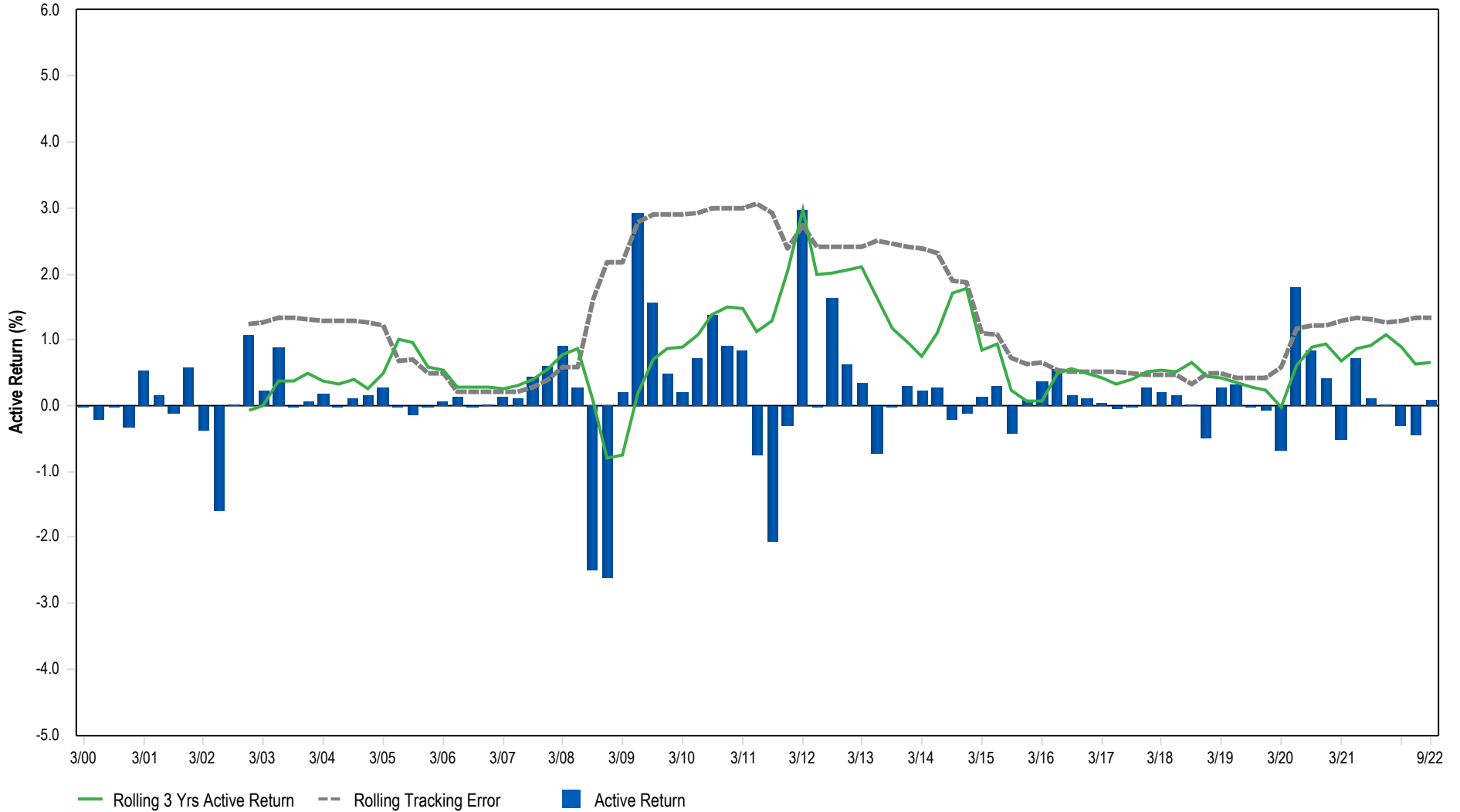
Calculation based on monthly periodicity.



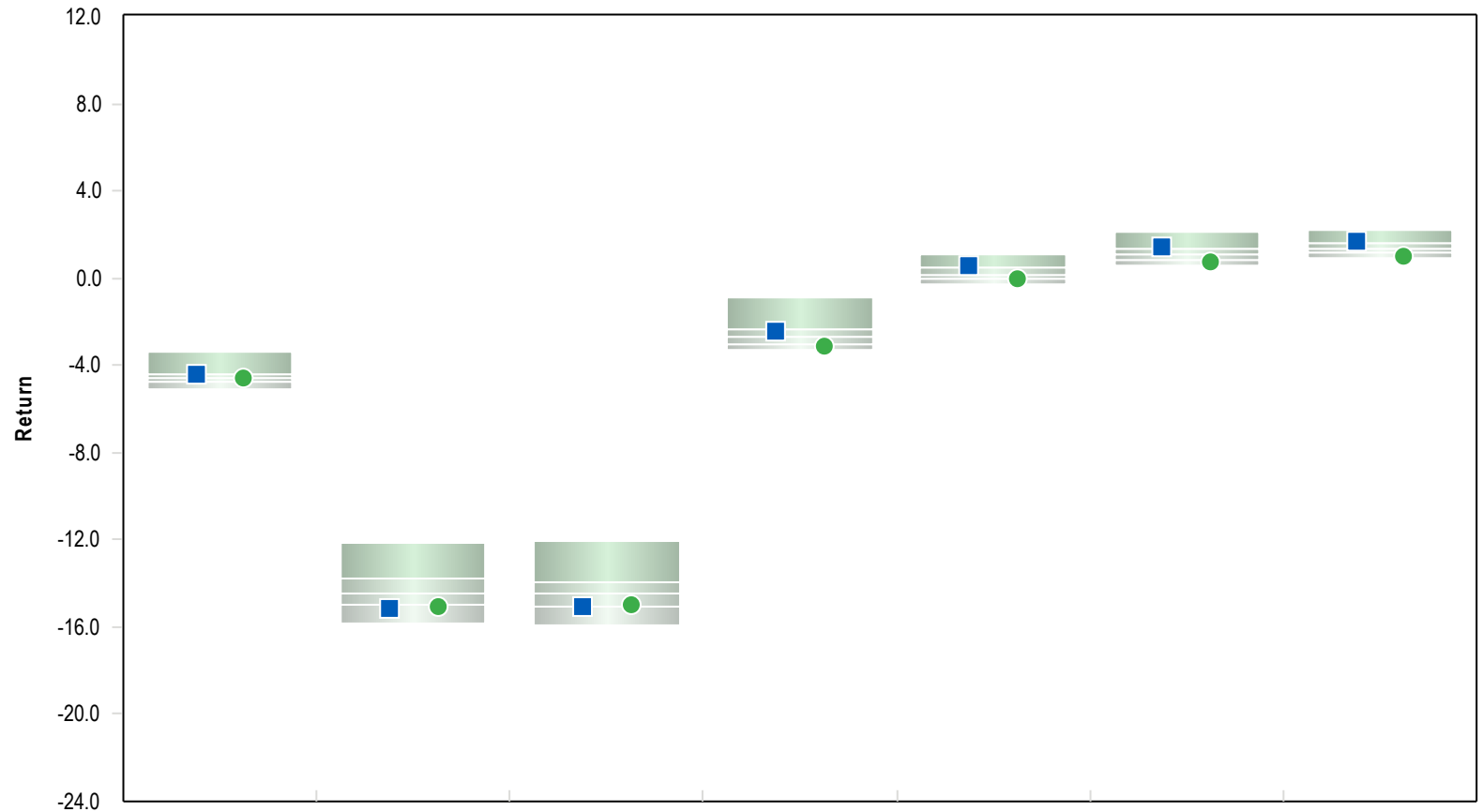
	Return	Standard Deviation
■ Total Domestic Fixed	0.3	5.1
◆ Barclays Aggregate	-0.3	4.7
— Median	0.2	4.9

Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Total Domestic Fixed	-4.7	-15.2	-15.2	-2.7	0.3	1.1	1.4	-1.2	10.0	9.3	-0.1
Barclays Aggregate	-4.8	-14.6	-14.6	-3.3	-0.3	0.5	0.9	-1.5	7.5	8.7	0.0
Difference	0.1	-0.6	-0.6	0.6	0.6	0.6	0.5	0.3	2.5	0.6	-0.1



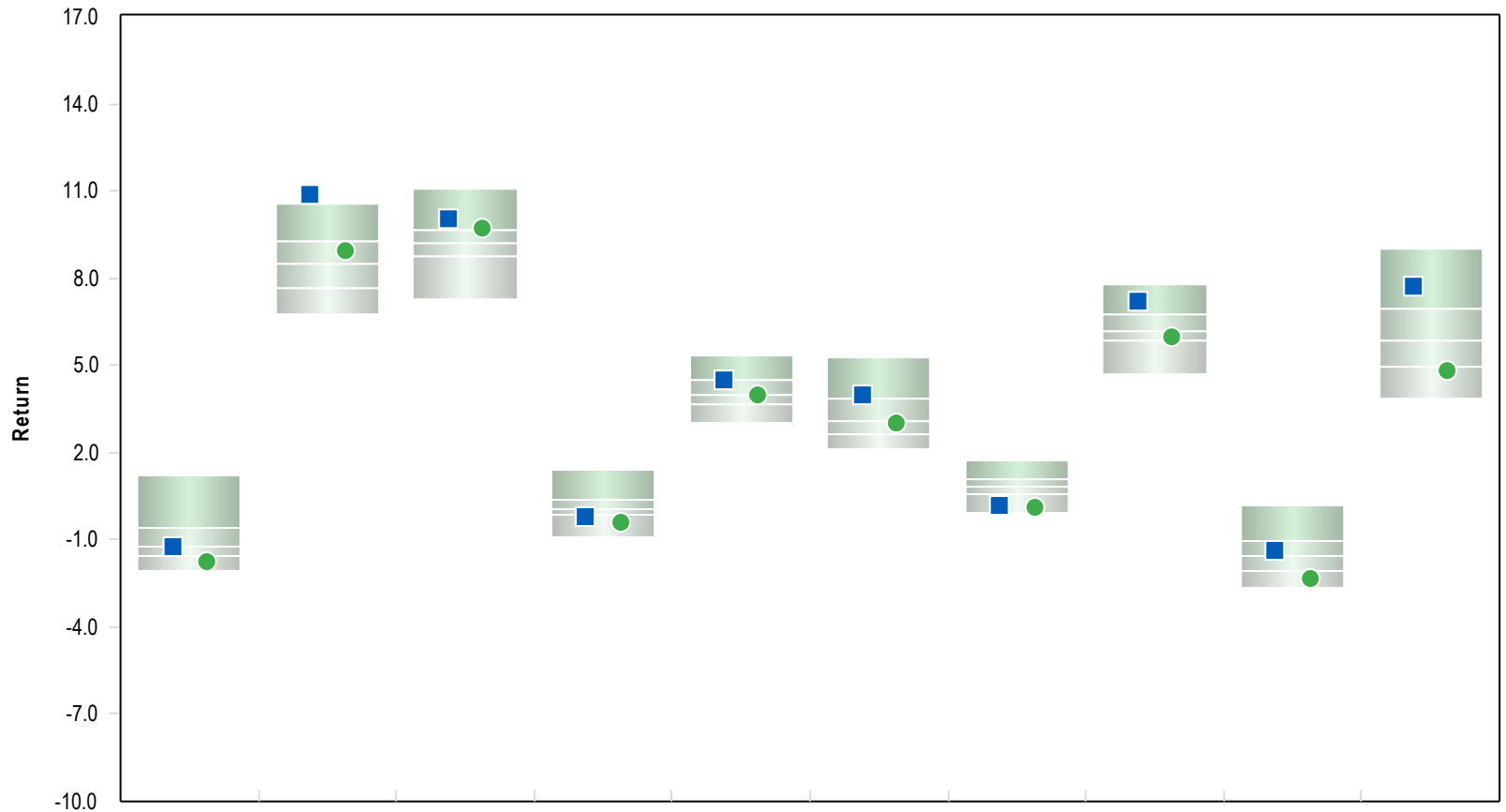
Gross of Fees



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Income Research & Management	-4.4 (35)	-15.2 (81)	-15.1 (76)	-2.4 (29)	0.5 (22)	1.4 (18)	1.7 (17)
● Blmbg. U.S. Gov't/Credit	-4.6 (53)	-15.1 (80)	-14.9 (70)	-3.1 (87)	-0.1 (83)	0.8 (83)	1.0 (86)

5th Percentile	-3.4	-12.1	-12.1	-0.9	1.1	2.1	2.2
1st Quartile	-4.4	-13.8	-14.0	-2.3	0.5	1.3	1.6
Median	-4.5	-14.4	-14.5	-2.7	0.2	1.1	1.4
3rd Quartile	-4.8	-15.0	-15.1	-3.0	0.0	0.8	1.2
95th Percentile	-5.1	-15.8	-15.9	-3.3	-0.3	0.6	0.9

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

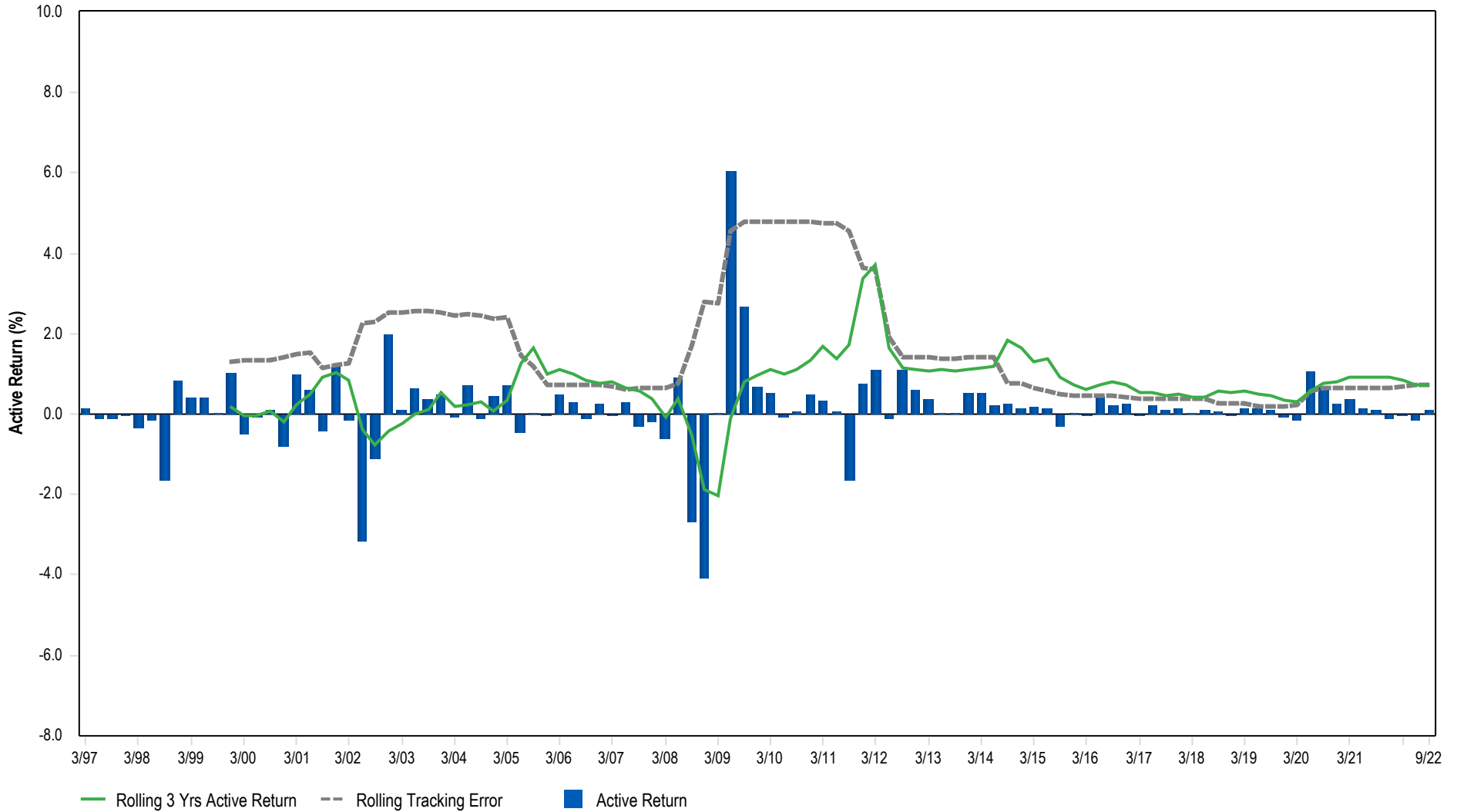


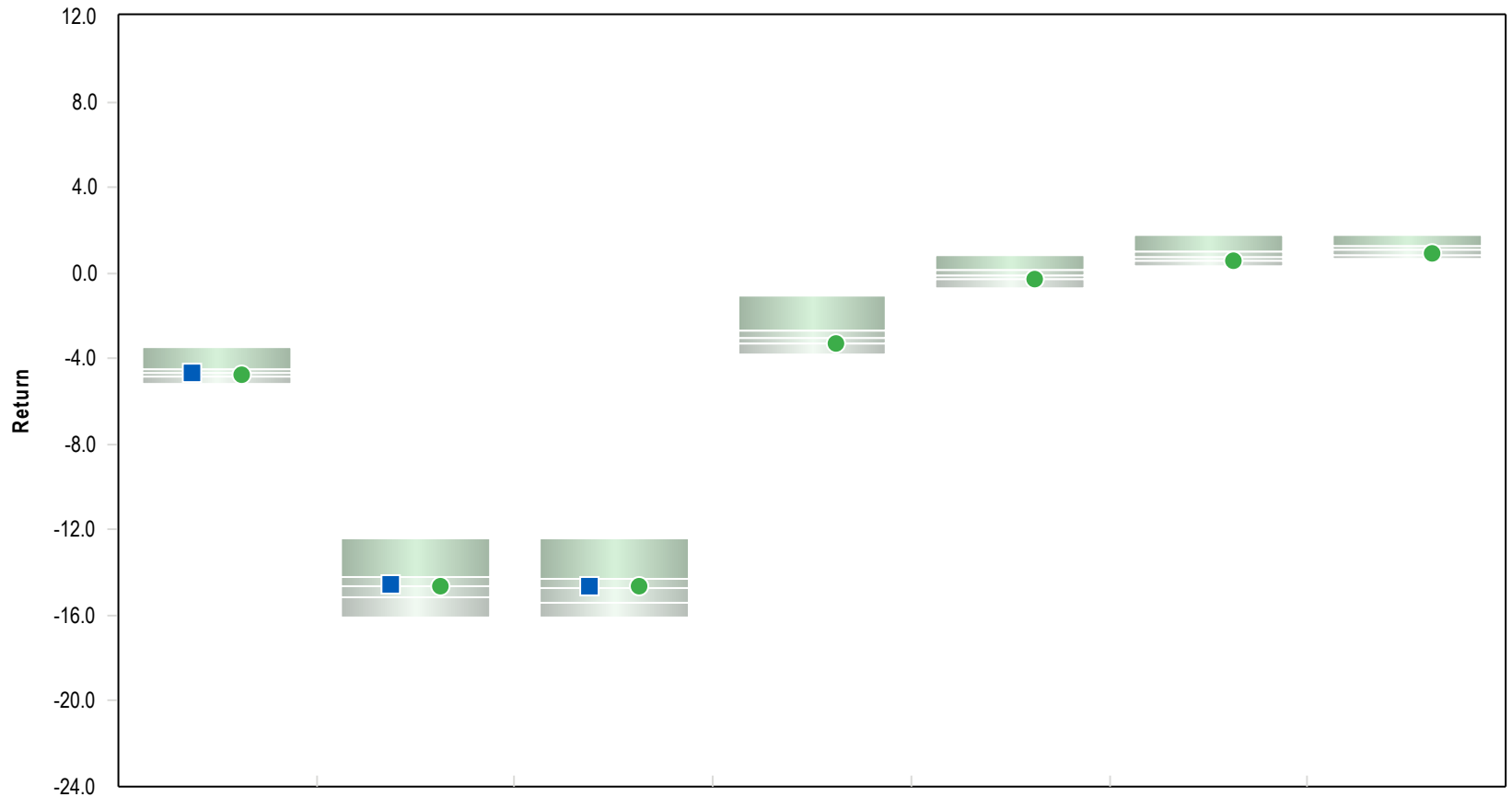
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Income Research & Management	-1.2 (50)	10.9 (2)	10.1 (9)	-0.2 (78)	4.5 (27)	4.0 (21)	0.2 (87)	7.2 (10)	-1.4 (39)	7.7 (12)
● Blmbg. U.S. Gov't/Credit	-1.7 (89)	8.9 (34)	9.7 (24)	-0.4 (91)	4.0 (52)	3.0 (52)	0.1 (90)	6.0 (63)	-2.4 (91)	4.8 (78)

5th Percentile	1.2	10.5	11.1	1.4	5.3	5.3	1.7	7.8	0.2	9.0
1st Quartile	-0.6	9.3	9.7	0.4	4.5	3.8	1.1	6.7	-1.0	7.0
Median	-1.2	8.5	9.2	0.1	4.0	3.1	0.8	6.1	-1.6	5.8
3rd Quartile	-1.6	7.7	8.7	-0.1	3.6	2.6	0.6	5.8	-2.0	5.0
95th Percentile	-2.1	6.7	7.2	-0.9	3.0	2.1	-0.1	4.7	-2.6	3.8

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Income Research & Management	-4.4	-15.2	-15.1	-2.4	0.5	1.4	1.7	-1.2	10.9	10.1	-0.2
Blmbg. U.S. Gov't/Credit	-4.6	-15.1	-14.9	-3.1	-0.1	0.8	1.0	-1.7	8.9	9.7	-0.4
Difference	0.2	-0.1	-0.2	0.7	0.6	0.6	0.7	0.5	2.0	0.4	0.2



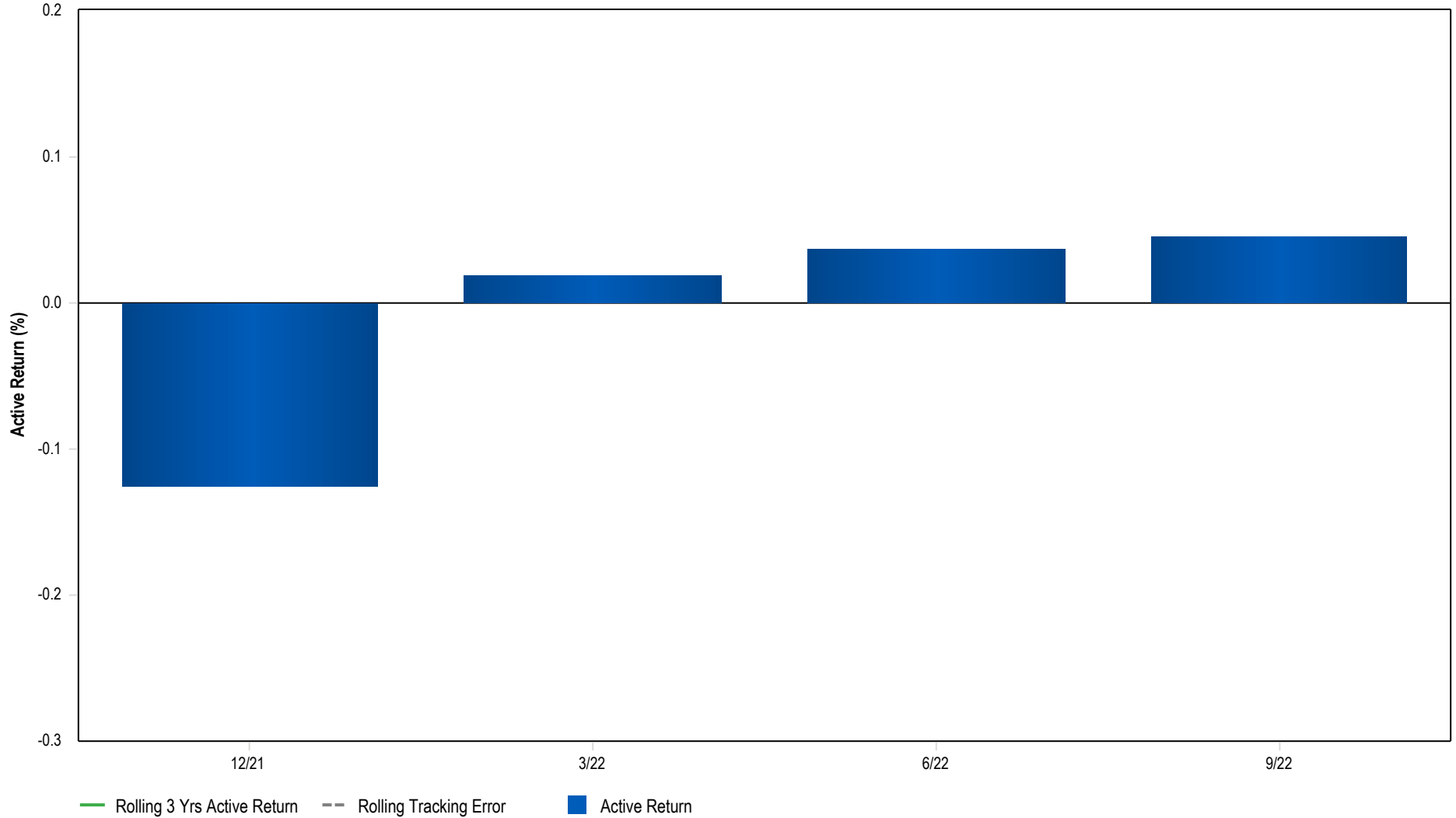


	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ NT Aggregate Bond Index	-4.7 (57)	-14.5 (41)	-14.6 (46)				
● Blmbg. U.S. Aggregate	-4.8 (62)	-14.6 (48)	-14.6 (44)	-3.3 (71)	-0.3 (69)	0.5 (76)	0.9 (74)
5th Percentile	-3.5	-12.4	-12.4	-1.1	0.8	1.7	1.8
1st Quartile	-4.5	-14.2	-14.3	-2.7	0.1	1.0	1.2
Median	-4.6	-14.6	-14.7	-3.0	-0.1	0.8	1.1
3rd Quartile	-4.9	-15.2	-15.4	-3.3	-0.3	0.5	0.9
95th Percentile	-5.2	-16.1	-16.1	-3.8	-0.7	0.3	0.6

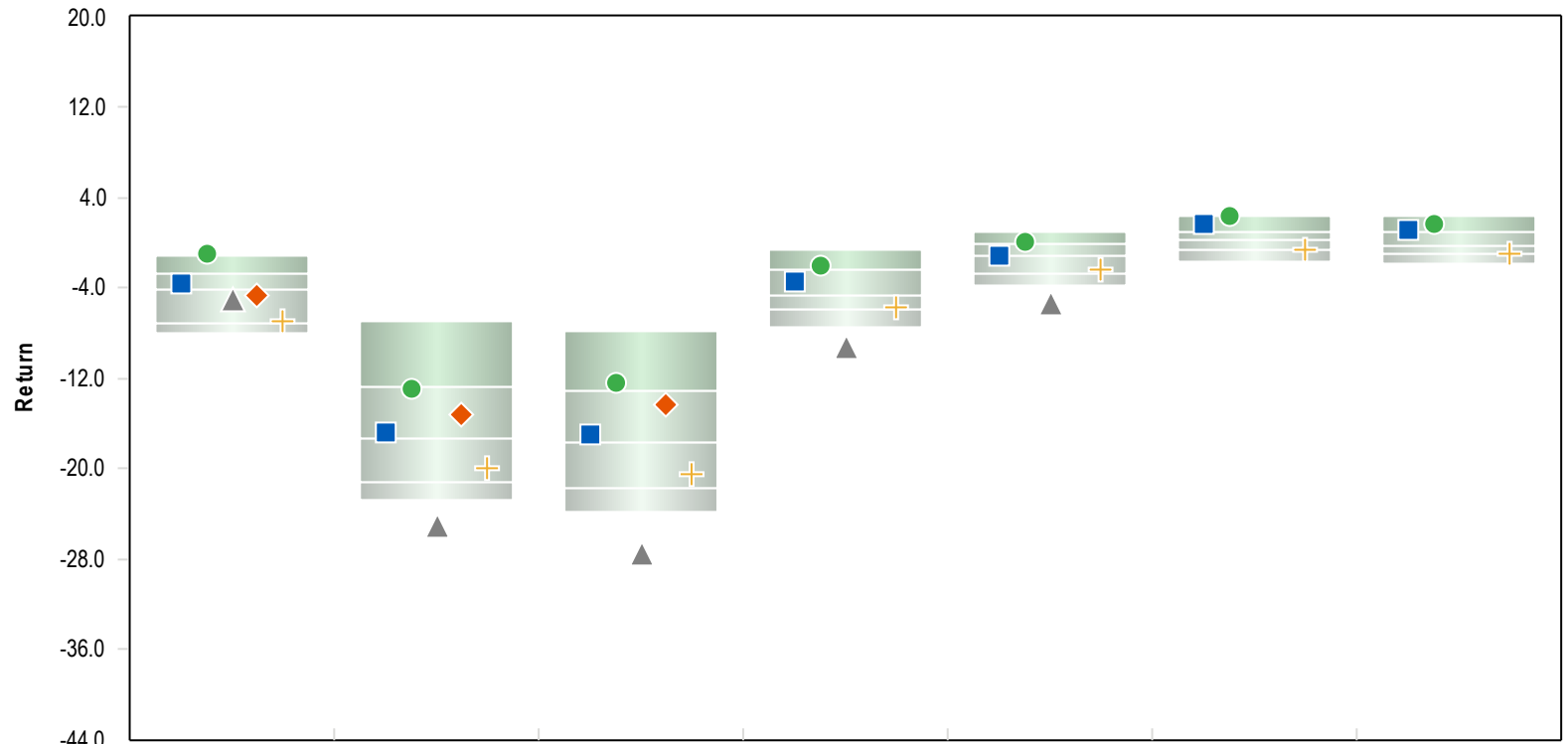
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
NT Aggregate Bond Index	-4.7	-14.5	-14.6								
Blmbg. U.S. Aggregate	-4.8	-14.6	-14.6	-3.3	-0.3	0.5	0.9	-1.5	7.5	8.7	0.0
Difference	0.1	0.1	0.0								

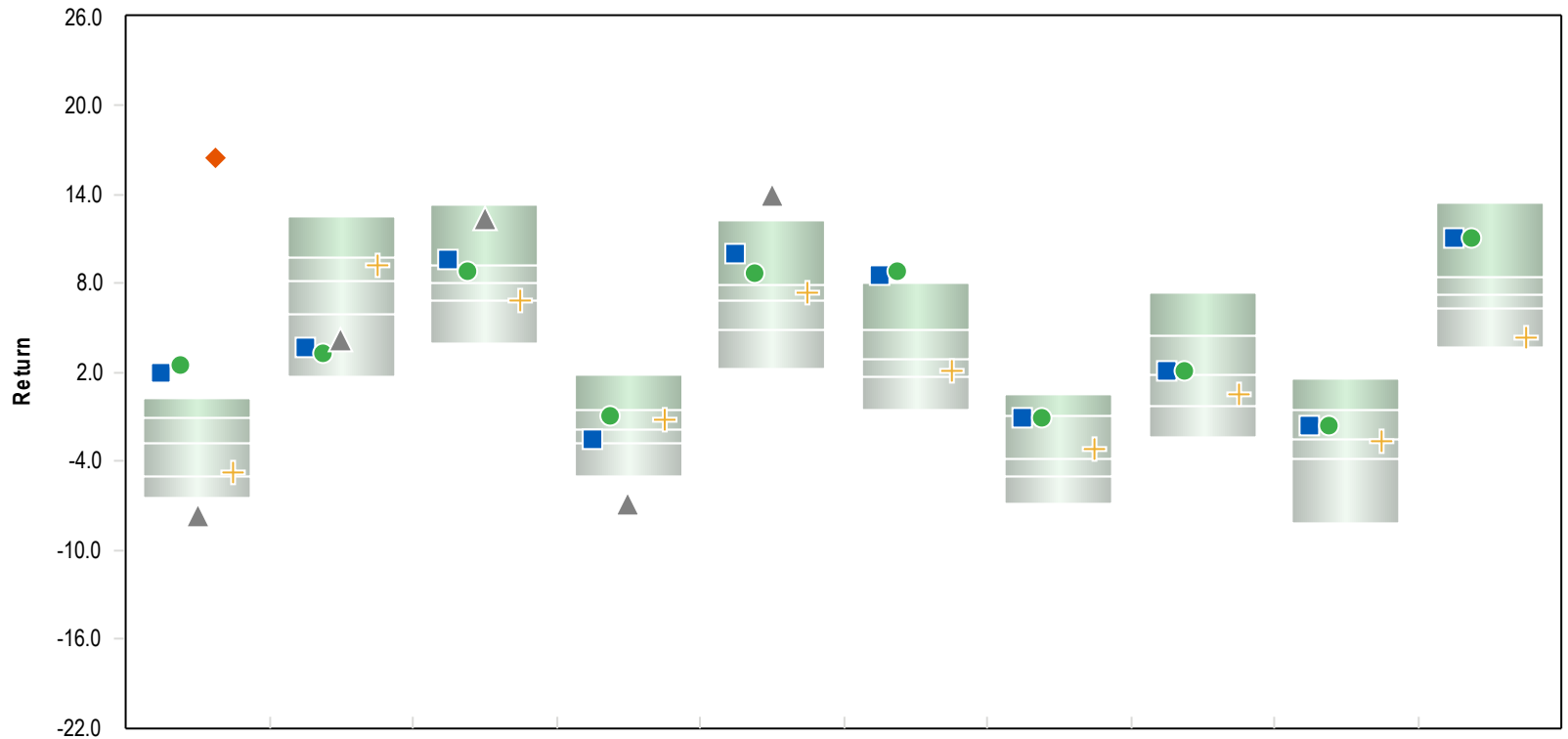


# Global Fixed Income



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Global Fixed	-3.6 (37)	-16.7 (49)	-16.9 (49)	-3.4 (37)	-1.1 (50)	1.7 (14)	1.3 (18)
● Broad Mkt Global Fixed Income	-1.0 (5)	-12.8 (26)	-12.3 (21)	-2.0 (17)	0.0 (24)	2.4 (5)	1.7 (11)
▲ Emerging Market Debt Composite	-5.1 (57)	-25.0 (97)	-27.5 (100)	-9.2 (100)	-5.2 (100)		
◆ Opportunistic Fixed Income	-4.7 (54)	-15.1 (45)	-14.4 (42)				
+ Blmbg. Global Aggregate	-6.9 (75)	-19.9 (67)	-20.4 (63)	-5.7 (73)	-2.3 (65)	-0.6 (76)	-0.9 (75)
5th Percentile	-1.2	-6.8	-7.8	-0.6	1.0	2.4	2.4
1st Quartile	-2.6	-12.6	-13.0	-2.4	0.0	1.0	1.0
Median	-4.1	-17.4	-17.6	-4.6	-1.1	0.2	-0.3
3rd Quartile	-7.1	-21.2	-21.7	-5.9	-2.7	-0.6	-0.9
95th Percentile	-8.0	-22.7	-23.8	-7.5	-3.7	-1.7	-1.8

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

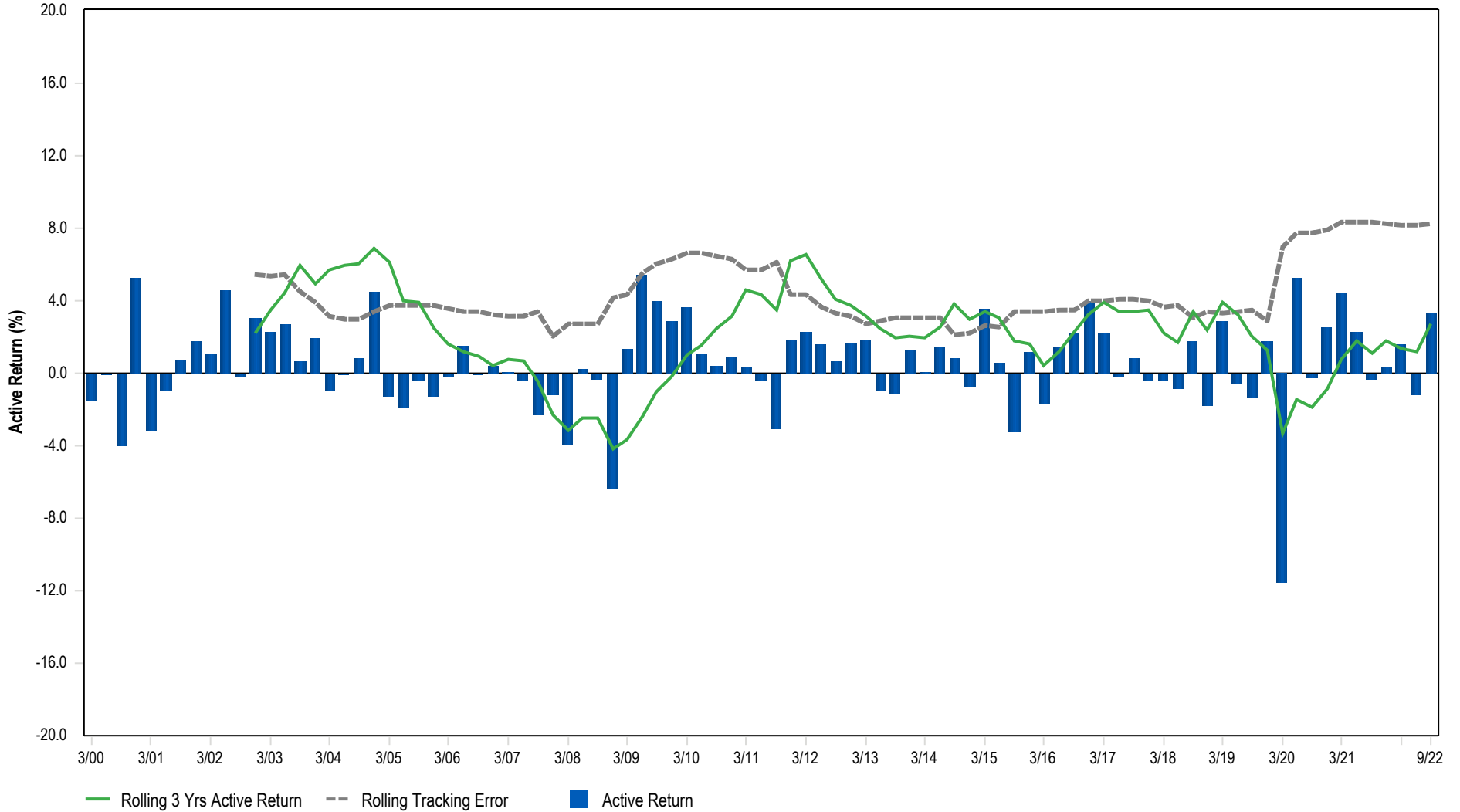


	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Total Global Fixed	2.0 (1)	3.7 (92)	9.6 (22)	-2.4 (68)	10.0 (10)	8.5 (3)	-1.1 (27)	2.1 (47)	-1.5 (38)	11.0 (14)
● Broad Mkt Global Fixed Income	2.6 (1)	3.3 (93)	8.9 (30)	-0.9 (34)	8.7 (19)	8.8 (3)	-1.1 (27)	2.1 (47)	-1.5 (38)	11.0 (14)
▲ Emerging Market Debt Composite	-7.6 (98)	4.3 (89)	12.4 (6)	-6.8 (100)	14.0 (1)					
◆ Opportunistic Fixed Income	16.5 (1)									
+ Blmbg. Global Aggregate	-4.7 (69)	9.2 (36)	6.8 (77)	-1.2 (40)	7.4 (39)	2.1 (69)	-3.2 (41)	0.6 (62)	-2.6 (53)	4.3 (94)

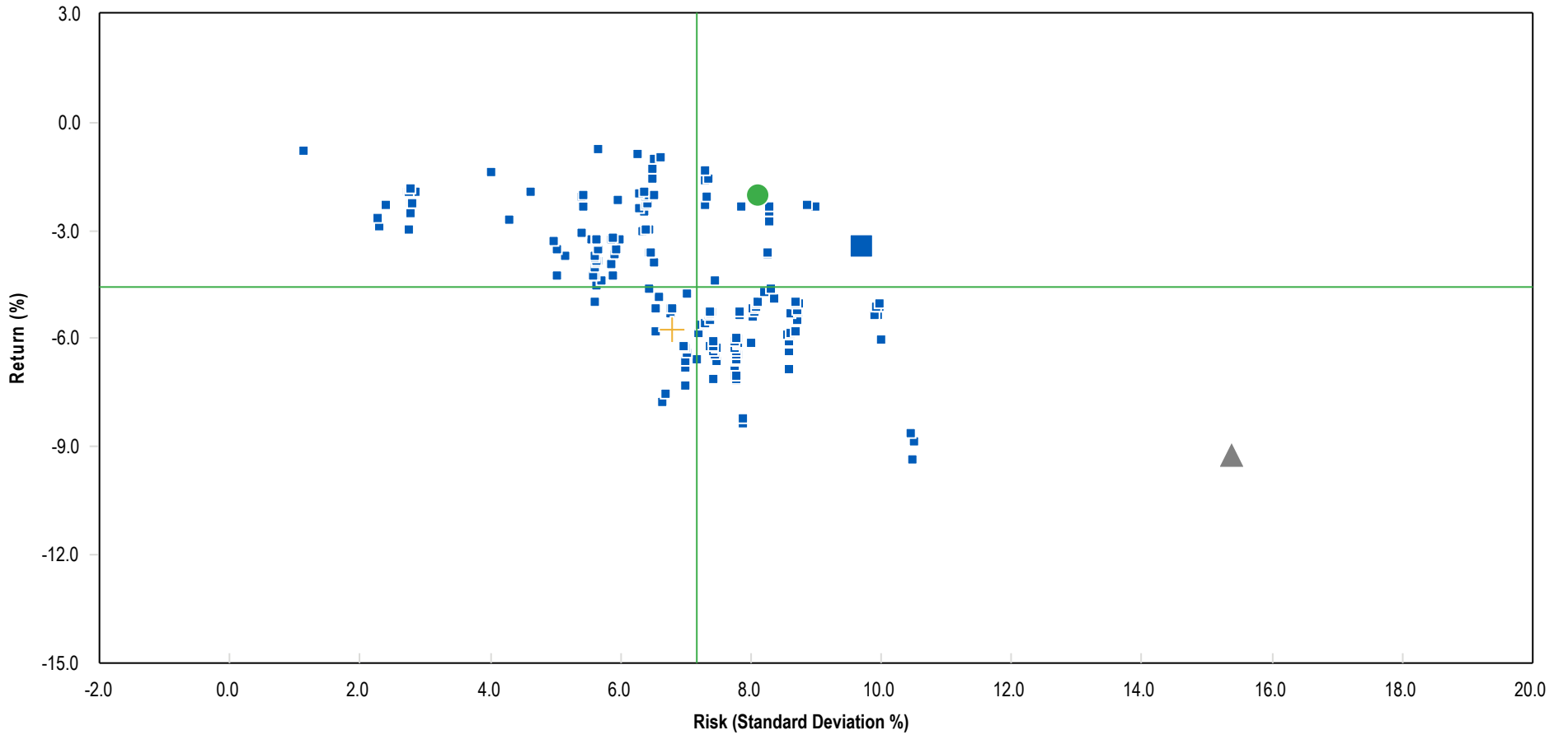
5th Percentile	0.2	12.5	13.4	1.8	12.3	8.1	0.5	7.4	1.7	13.5
1st Quartile	-1.0	9.8	9.2	-0.5	7.9	4.9	-0.9	4.6	-0.5	8.4
Median	-2.7	8.2	8.1	-1.8	6.8	2.9	-3.8	1.9	-2.5	7.3
3rd Quartile	-4.9	5.9	6.9	-2.8	4.9	1.8	-4.9	-0.2	-3.8	6.3
95th Percentile	-6.4	1.7	4.0	-5.0	2.3	-0.5	-6.9	-2.3	-8.1	3.7

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Total Global Fixed	-3.6	-16.7	-16.9	-3.4	-1.1	1.7	1.3	2.0	3.7	9.6	-2.4
Blmbg. Global Aggregate	-6.9	-19.9	-20.4	-5.7	-2.3	-0.6	-0.9	-4.7	9.2	6.8	-1.2
Difference	3.3	3.2	3.5	2.3	1.2	2.3	2.2	6.7	-5.5	2.8	-1.2

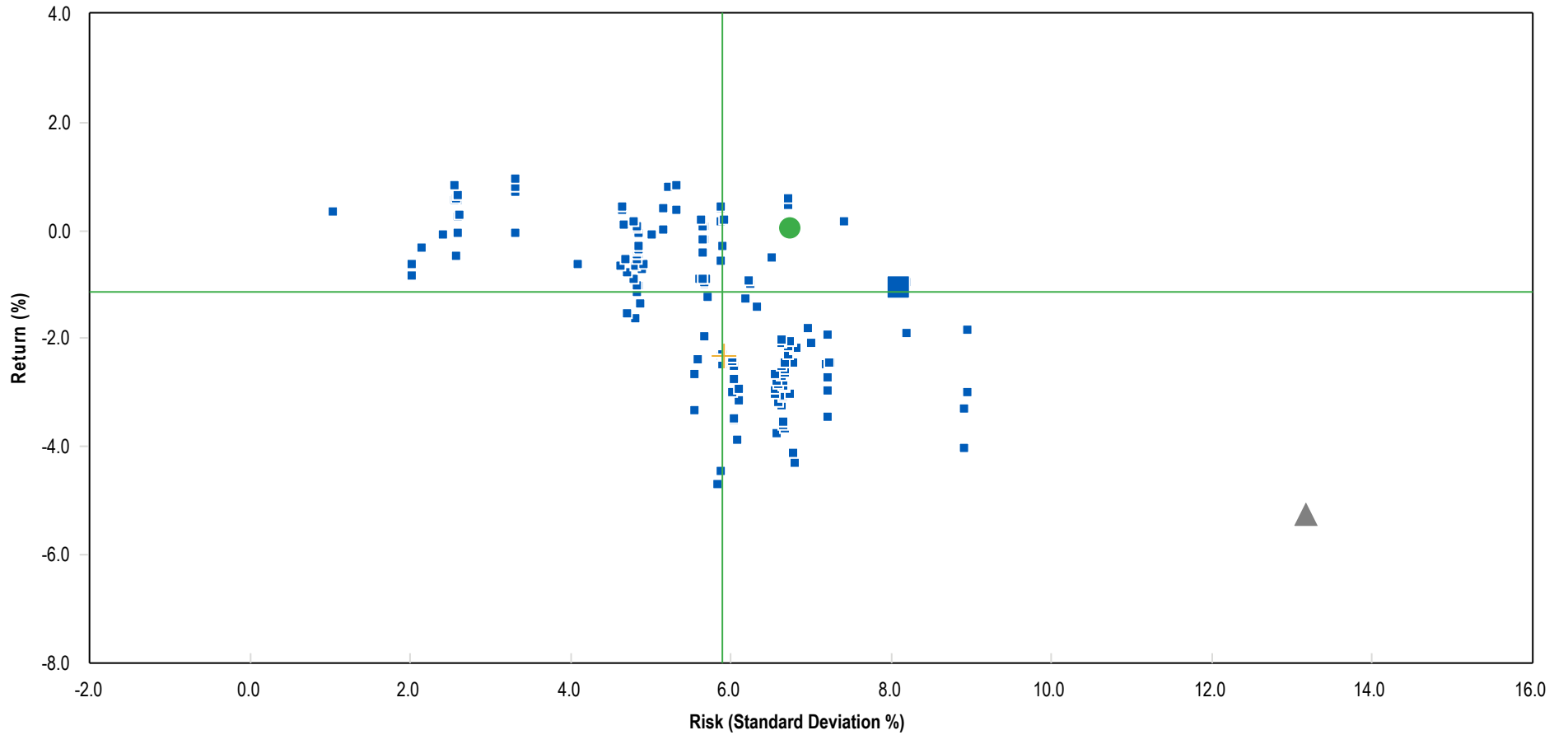


Net of fees.



	Return	Standard Deviation
■ Total Global Fixed	-3.4	9.7
● Broad Mkt Global Fixed Income	-2.0	8.1
▲ Emerging Market Debt Composite	-9.2	15.4
◆ Opportunistic Fixed Income		
+ Blmbg. Global Aggregate	-5.7	6.8
— Median	-4.6	7.2

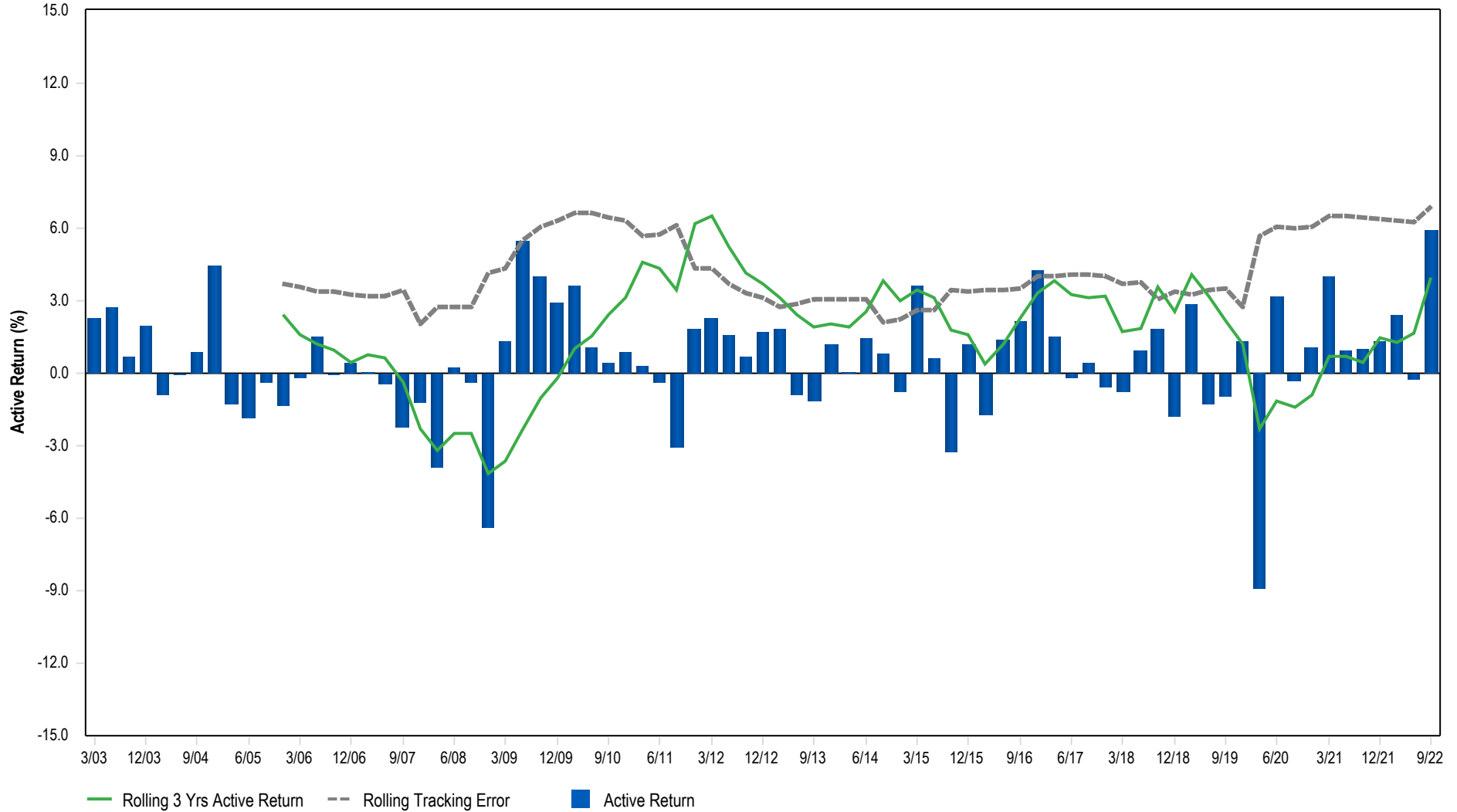
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total Global Fixed	-1.1	8.1
● Broad Mkt Global Fixed Income	0.0	6.7
▲ Emerging Market Debt Composite	-5.2	13.2
◆ Opportunistic Fixed Income		
+ Blmbg. Global Aggregate	-2.3	5.9
— Median	-1.1	5.9

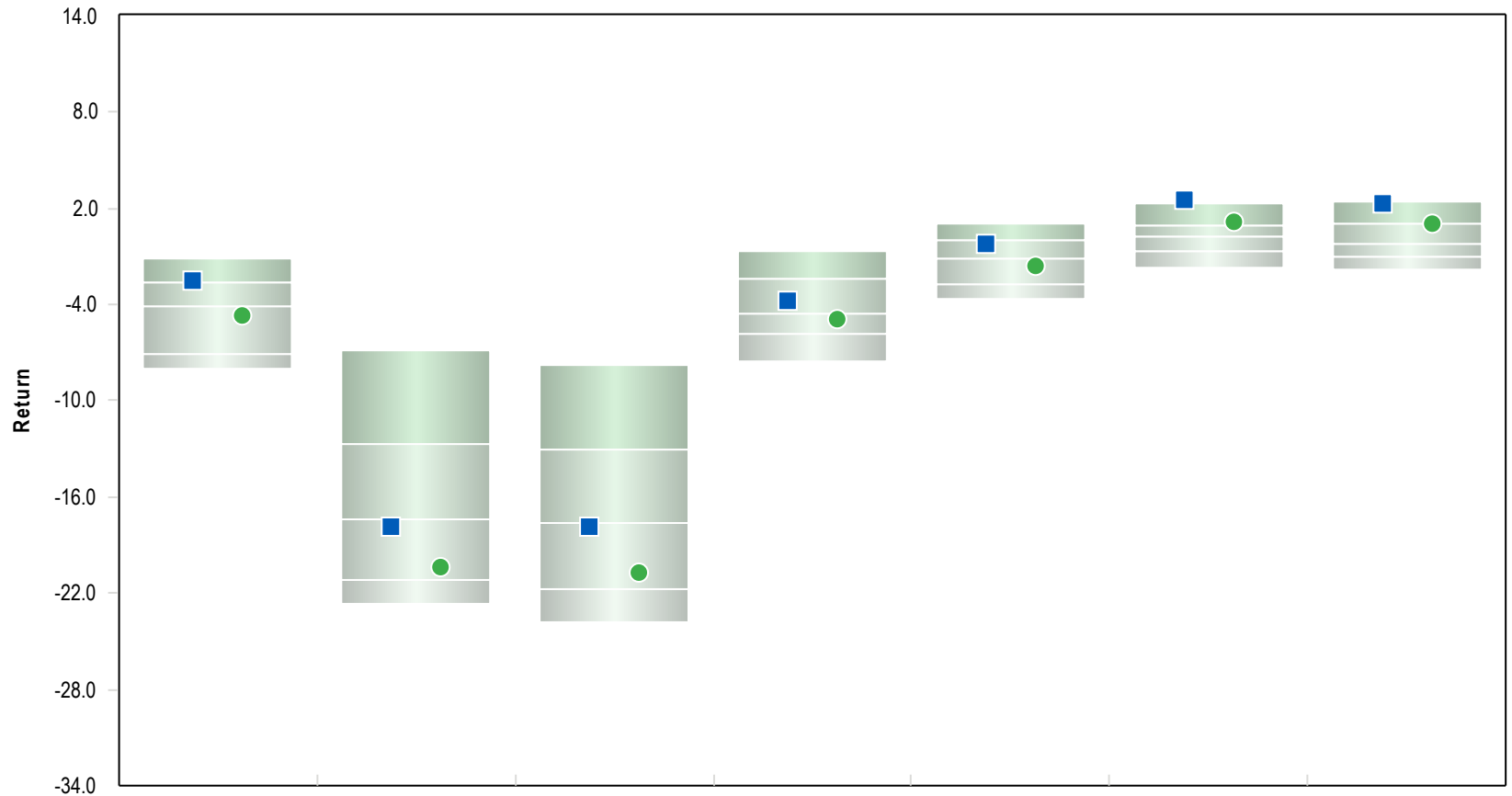
Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Broad Mkt Global Fixed Income	-1.0	-12.8	-12.3	-2.0	0.0	2.4	1.7	2.6	3.3	8.9	-0.9
Blmbg. Global Aggregate	-6.9	-19.9	-20.4	-5.7	-2.3	-0.6	-0.9	-4.7	9.2	6.8	-1.2
Difference	5.9	7.1	8.1	3.7	2.3	3.0	2.6	7.3	-5.9	2.1	0.3



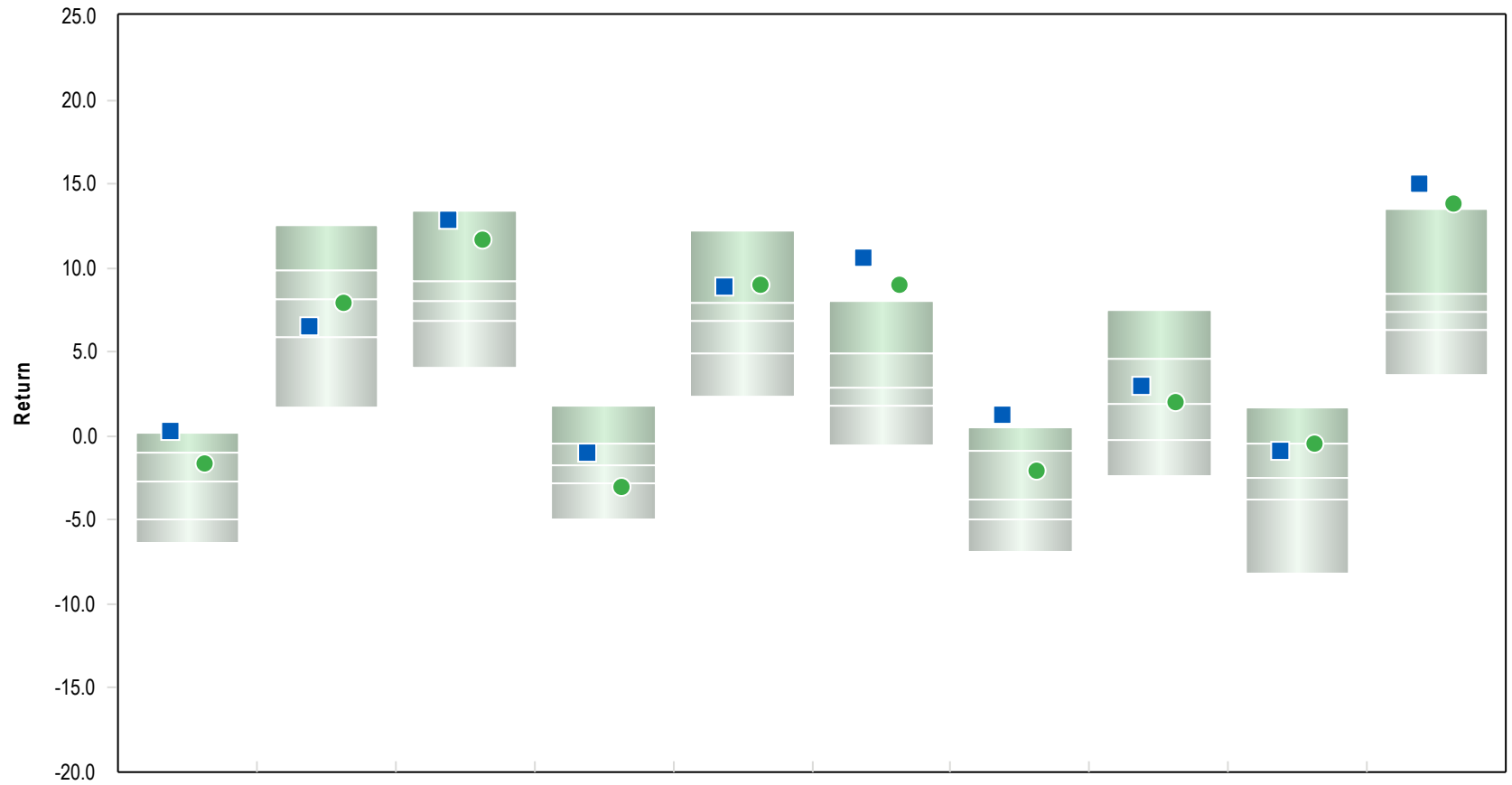
Net of fees.





	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ PIMCO Diversified Income	-2.5 (25)	-17.9 (53)	-17.8 (52)	-3.7 (42)	-0.2 (29)	2.5 (5)	2.3 (6)
● PIMCO Diversified Index*	-4.6 (53)	-20.4 (70)	-20.7 (68)	-4.9 (54)	-1.6 (55)	1.1 (19)	1.0 (26)
5th Percentile	-1.2	-6.8	-7.8	-0.6	1.0	2.4	2.4
1st Quartile	-2.6	-12.6	-13.0	-2.4	0.0	1.0	1.0
Median	-4.1	-17.4	-17.6	-4.6	-1.1	0.2	-0.3
3rd Quartile	-7.1	-21.2	-21.7	-5.9	-2.7	-0.6	-0.9
95th Percentile	-8.0	-22.7	-23.8	-7.5	-3.7	-1.7	-1.8

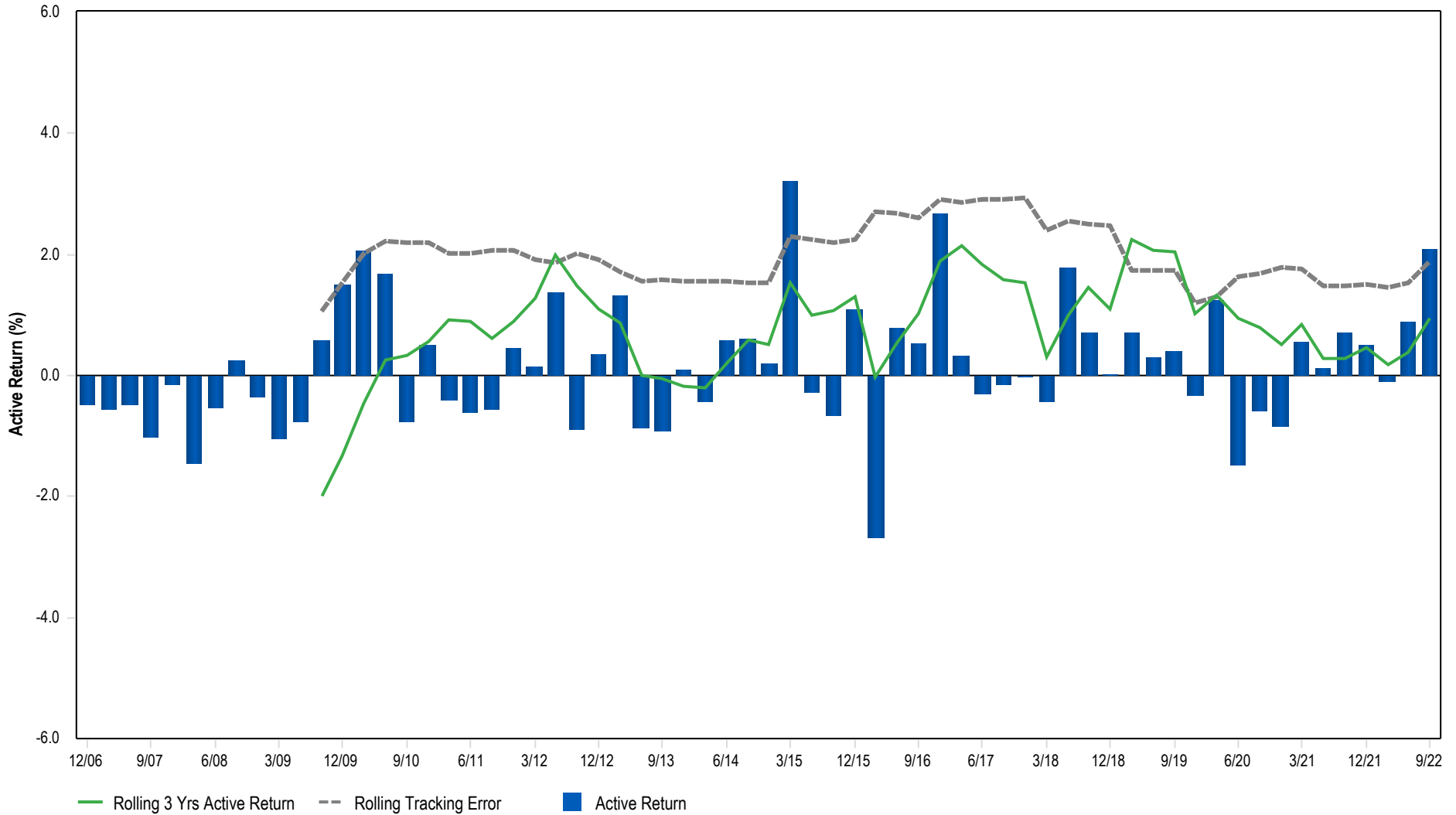
\*33.3% ML Global HY/33.3% JPM EMBI Global/33.3% LB Global Agg



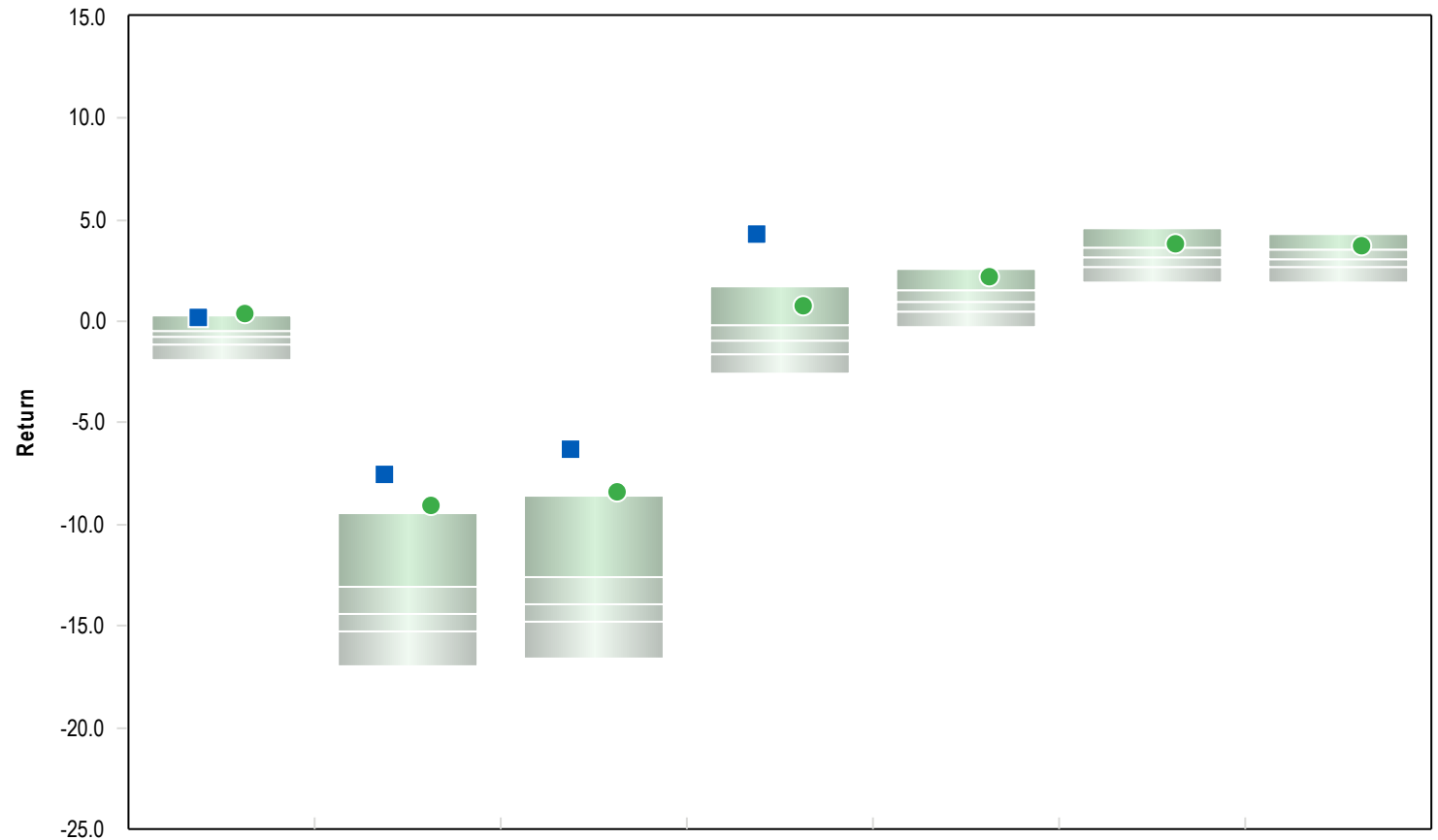
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ PIMCO Diversified Income	0.3 (5)	6.5 (72)	12.8 (6)	-1.0 (35)	8.8 (18)	10.6 (2)	1.2 (2)	3.0 (38)	-0.9 (29)	15.0 (3)
● PIMCO Diversified Index*	-1.6 (35)	8.0 (58)	11.7 (9)	-3.0 (77)	9.0 (15)	9.0 (3)	-2.0 (33)	2.0 (48)	-0.5 (26)	13.9 (5)
5th Percentile	0.2	12.5	13.4	1.8	12.3	8.1	0.5	7.4	1.7	13.5
1st Quartile	-1.0	9.8	9.2	-0.5	7.9	4.9	-0.9	4.6	-0.5	8.4
Median	-2.7	8.2	8.1	-1.8	6.8	2.9	-3.8	1.9	-2.5	7.3
3rd Quartile	-4.9	5.9	6.9	-2.8	4.9	1.8	-4.9	-0.2	-3.8	6.3
95th Percentile	-6.4	1.7	4.0	-5.0	2.3	-0.5	-6.9	-2.3	-8.1	3.7

\*33.3% ML Global HY/33.3% JPM EMBI Global/33.3% LB Global Agg

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
PIMCO Diversified Income	-2.5	-17.9	-17.8	-3.7	-0.2	2.5	2.3	0.3	6.5	12.8	-1.0
PIMCO Diversified Index*	-4.6	-20.3	-20.7	-4.9	-1.6	1.1	1.0	-1.6	8.0	11.7	-3.0
Difference	2.1	2.4	2.9	1.2	1.4	1.4	1.3	1.9	-1.5	1.1	2.0



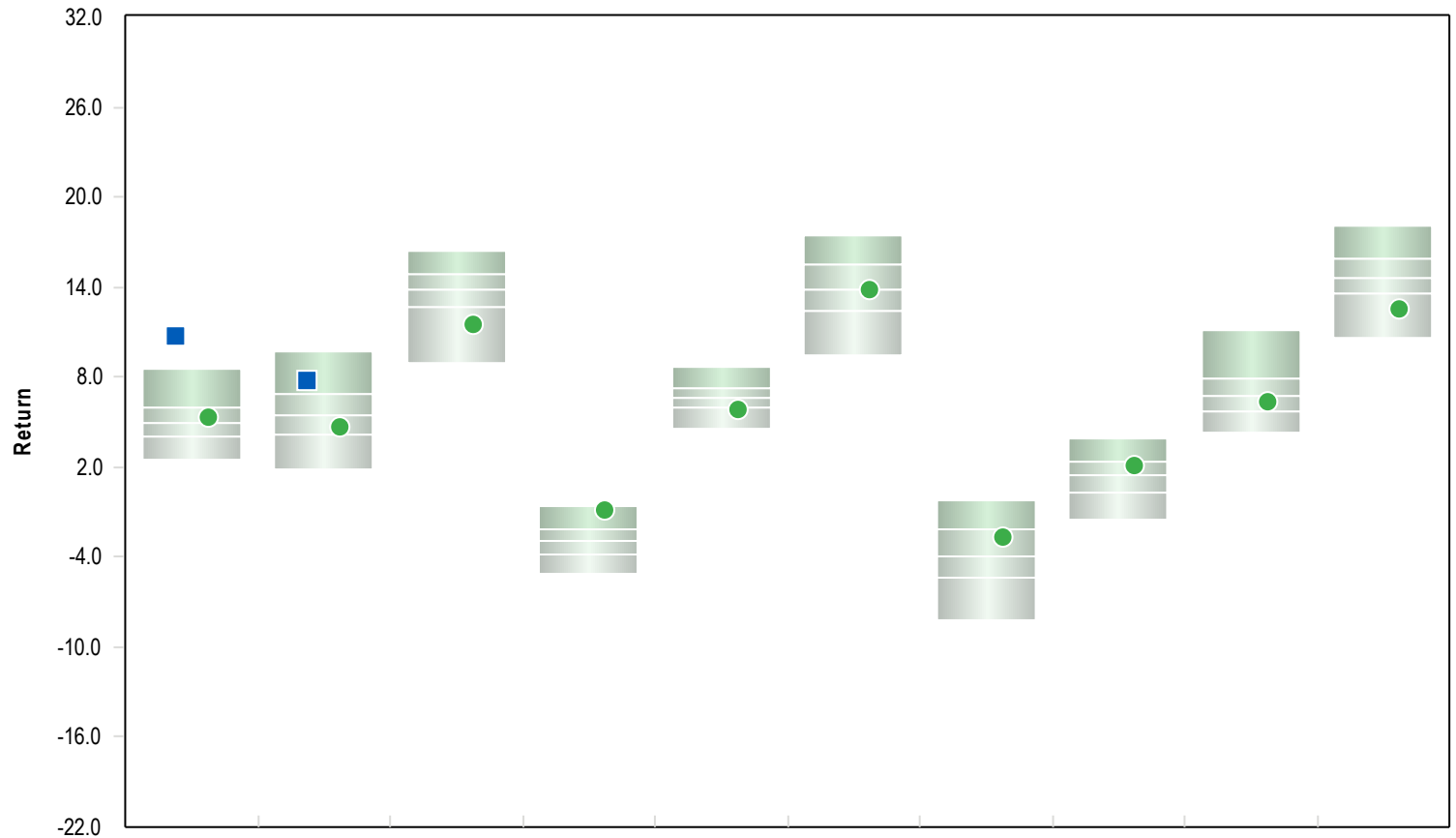
\*PIMCO Index: 33% BC Global Agg/33% ML Global HY/33% JPM EMBI Global.



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ GoldenTree Multi-Sector Opportunistic Fund	0.2 (7)	-7.6 (4)	-6.3 (3)	4.3 (1)			
● GoldenTree Blended Benchmark*	0.4 (5)	-9.0 (5)	-8.4 (5)	0.8 (12)	2.2 (9)	3.9 (17)	3.7 (18)

5th Percentile	0.3	-9.4	-8.6	1.8	2.6	4.6	4.3
1st Quartile	-0.4	-13.1	-12.6	-0.2	1.5	3.6	3.6
Median	-0.8	-14.4	-13.9	-0.9	1.0	3.2	3.1
3rd Quartile	-1.2	-15.3	-14.8	-1.6	0.5	2.7	2.7
95th Percentile	-1.9	-17.0	-16.6	-2.6	-0.3	1.9	2.0

\*50% Merrill Lynch High Yield Index / 50% S&P/LSTA Leveraged Loan Index

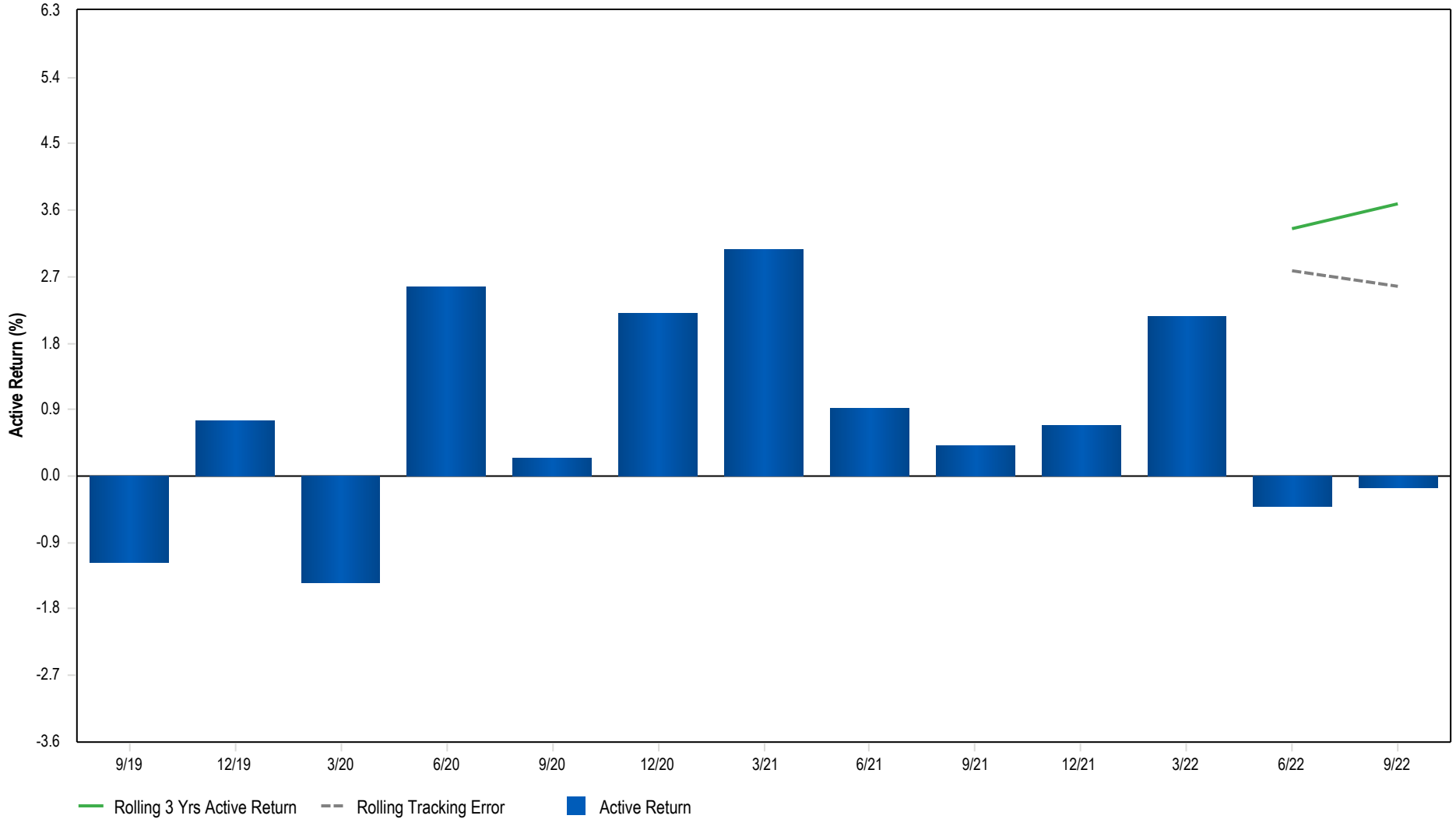


	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ GoldenTree Multi-Sector Opportunistic Fund	10.7 (2)	7.8 (12)								
● GoldenTree Blended Benchmark*	5.3 (42)	4.7 (69)	11.5 (87)	-0.9 (8)	5.8 (80)	13.8 (51)	-2.7 (32)	2.1 (34)	6.4 (59)	12.6 (88)

5th Percentile	8.6	9.7	16.3	-0.5	8.7	17.4	-0.3	3.9	11.1	18.1
1st Quartile	5.9	6.8	14.9	-2.2	7.3	15.5	-2.1	2.4	7.9	15.9
Median	4.9	5.4	13.8	-3.0	6.6	13.8	-4.0	1.5	6.7	14.6
3rd Quartile	4.0	4.2	12.6	-3.8	5.9	12.4	-5.3	0.2	5.7	13.5
95th Percentile	2.4	1.9	9.0	-5.2	4.6	9.4	-8.2	-1.5	4.3	10.6

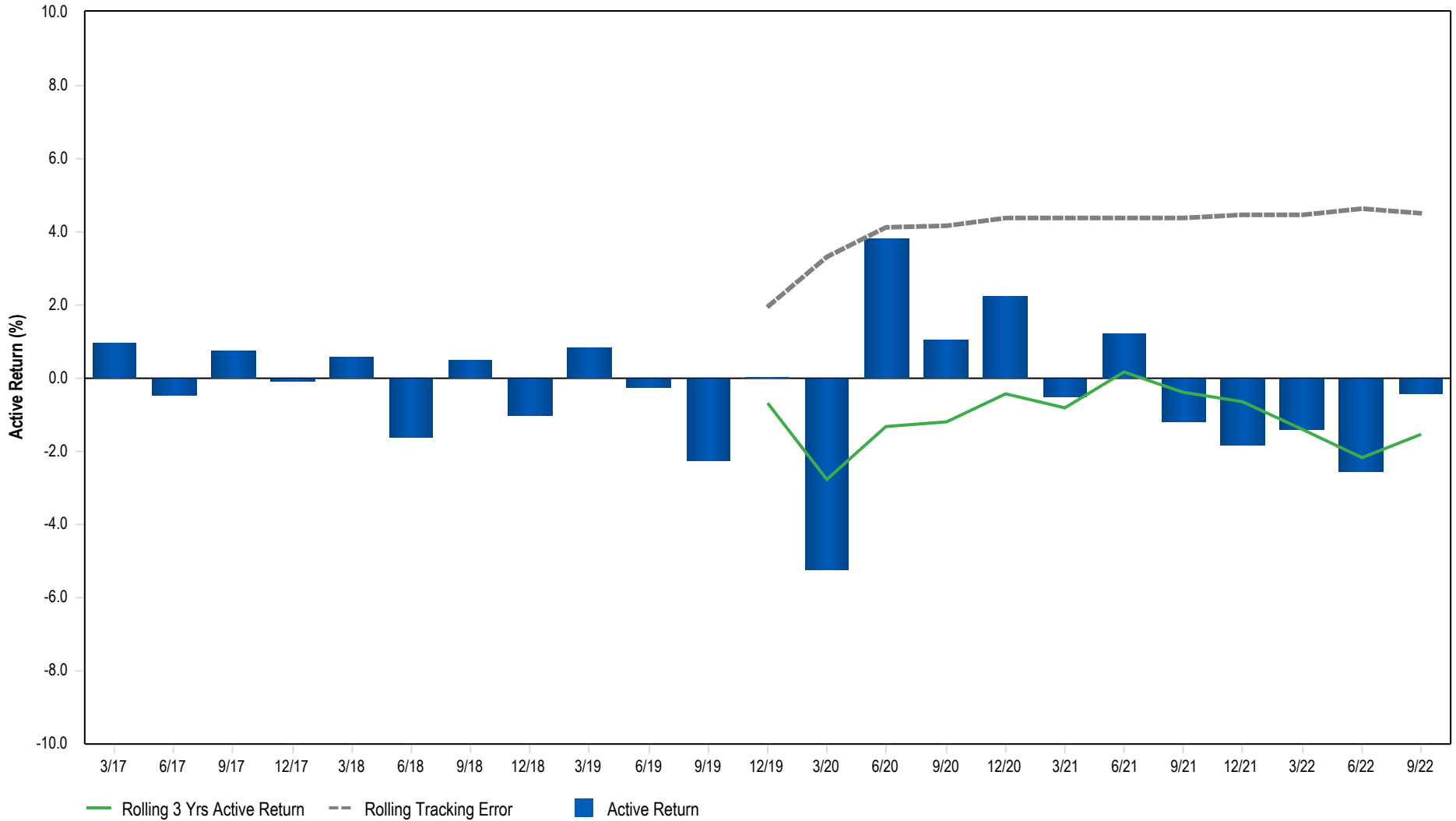
\*50% Merrill Lynch High Yield Index / 50% S&P/LSTA Leveraged Loan Index

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
GoldenTree Multi-Sector Opportunistic Fund	0.2	-7.6	-6.3	4.3				10.7	7.8		
GoldenTree Blended Benchmark*	0.4	-9.0	-8.4	0.8	2.2	3.9	3.7	5.3	4.7	11.5	-0.9
Difference	-0.2	1.4	2.1	3.5				5.4	3.1		

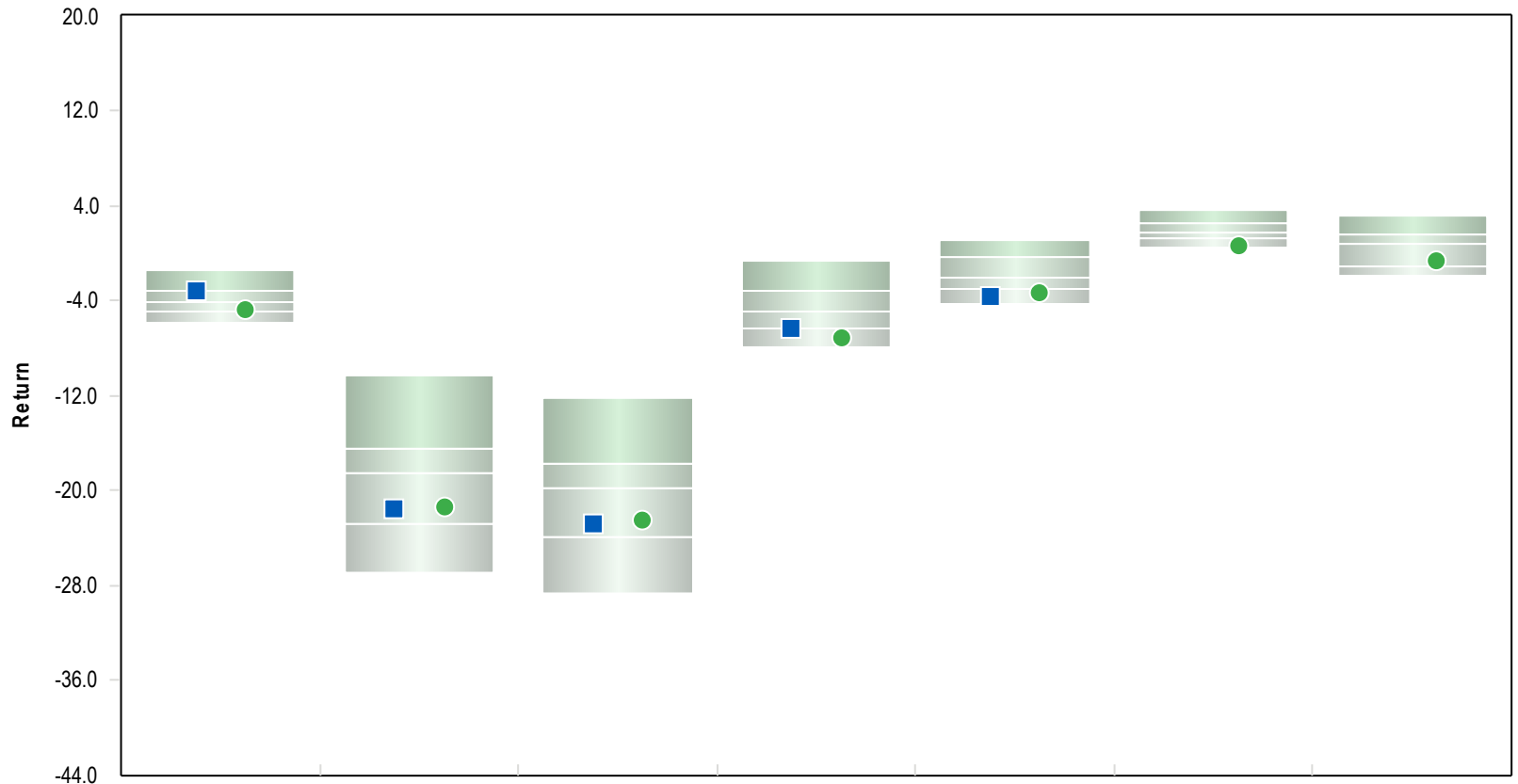


\*50% Merrill Lynch High Yield Index / 50% S&P/LSTA Leveraged Loan Index

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Emerging Market Debt Composite	-5.1	-25.0	-27.5	-9.2	-5.2			-7.6	4.3	12.4	-6.8
50% JPM EMBI Global Diversified/50% JPM GBI-EM Global Diversified US	-4.6	-21.3	-22.5	-7.1	-3.2	0.7	-0.6	-5.3	4.0	14.3	-5.2
Difference	-0.5	-3.7	-5.0	-2.1	-2.0			-2.3	0.3	-1.9	-1.6



Net of fees.

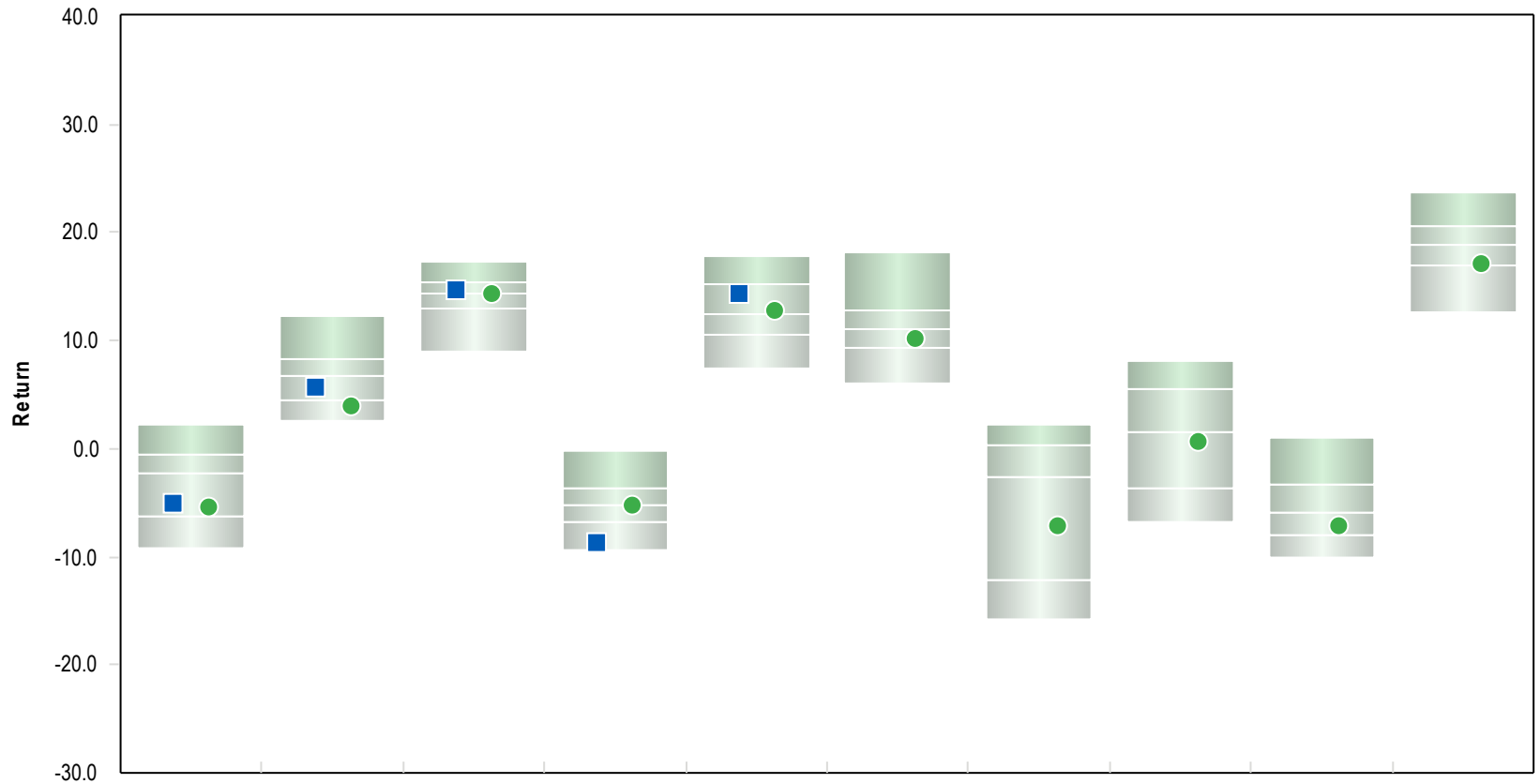


	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Stone Harbor EMD	-3.1 (25)	-21.5 (67)	-22.8 (71)	-6.4 (76)	-3.6 (89)		
● 50% JPM EMBI Global Div./ 50% JPM GBI-EM Global Div.	-4.6 (68)	-21.3 (66)	-22.5 (66)	-7.1 (89)	-3.2 (79)	0.7 (90)	-0.6 (70)

5th Percentile	-1.3	-10.3	-12.2	-0.6	1.1	3.6	3.2
1st Quartile	-3.1	-16.4	-17.8	-3.1	-0.3	2.5	1.6
Median	-4.0	-18.5	-19.8	-4.9	-2.1	1.8	0.8
3rd Quartile	-4.9	-22.7	-23.9	-6.4	-3.0	1.3	-1.1
95th Percentile	-5.8	-26.8	-28.6	-7.8	-4.2	0.4	-1.9

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.





	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Stone Harbor EMD	-5.0 (68)	5.7 (61)	14.7 (42)	-8.7 (92)	14.3 (34)	10.2 (65)	-7.1 (66)	0.7 (58)	-7.1 (65)	17.2 (72)
● 50% JPM EMBI Global Div./ 50% JPM GBI-EM Global Div.	-5.3 (70)	4.0 (80)	14.3 (49)	-5.2 (48)	12.7 (47)	10.2 (65)	-7.1 (66)	0.7 (58)	-7.1 (65)	17.2 (72)

5th Percentile	2.2	12.2	17.2	-0.2	17.7	18.1	2.2	8.1	1.0	23.6
1st Quartile	-0.5	8.3	15.3	-3.6	15.2	12.8	0.3	5.6	-3.4	20.6
Median	-2.3	6.7	14.3	-5.3	12.5	11.1	-2.7	1.5	-5.9	18.9
3rd Quartile	-6.2	4.5	13.0	-6.8	10.5	9.3	-12.2	-3.6	-8.0	17.0
95th Percentile	-9.2	2.5	9.0	-9.3	7.4	6.1	-15.7	-6.8	-10.1	12.6

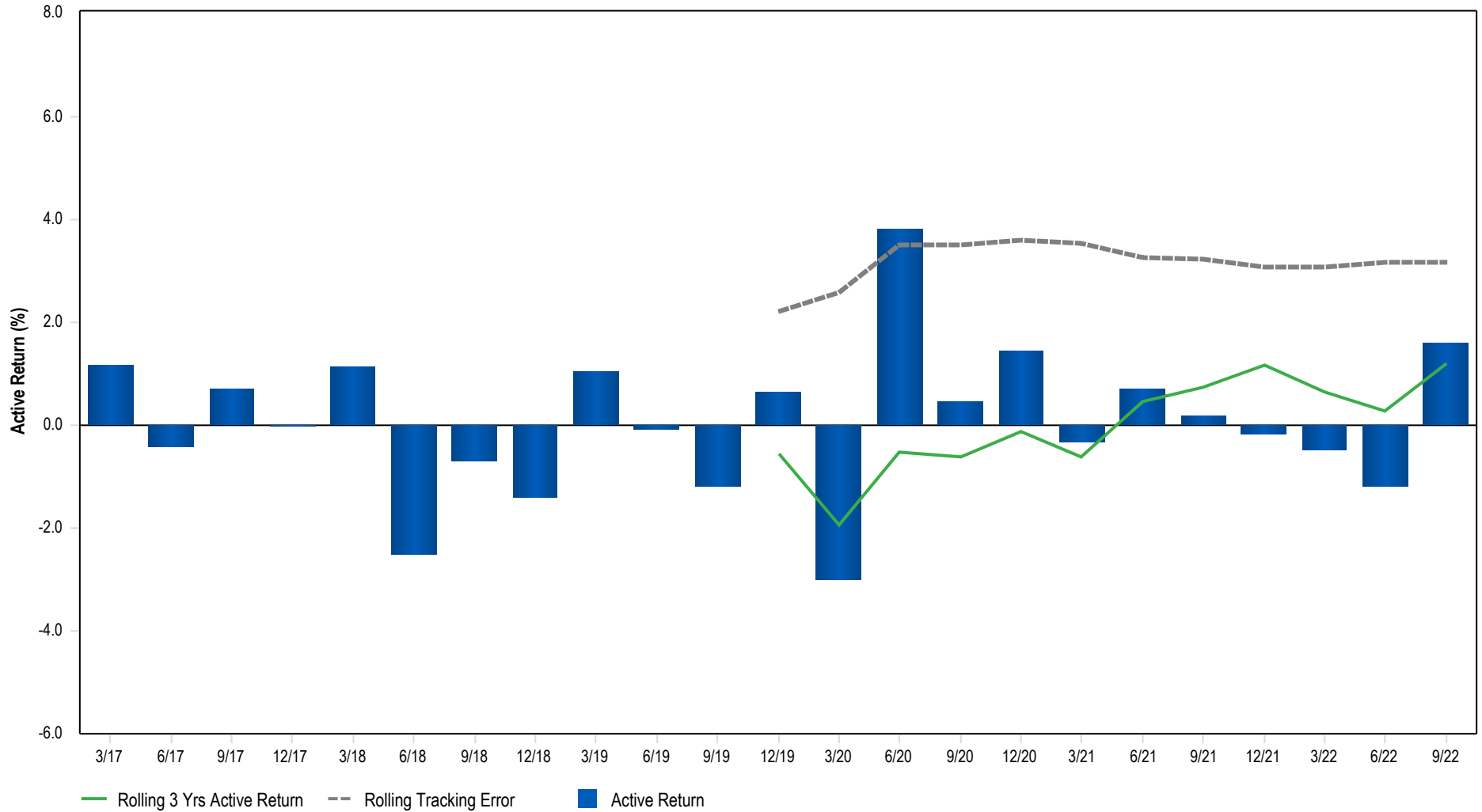
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

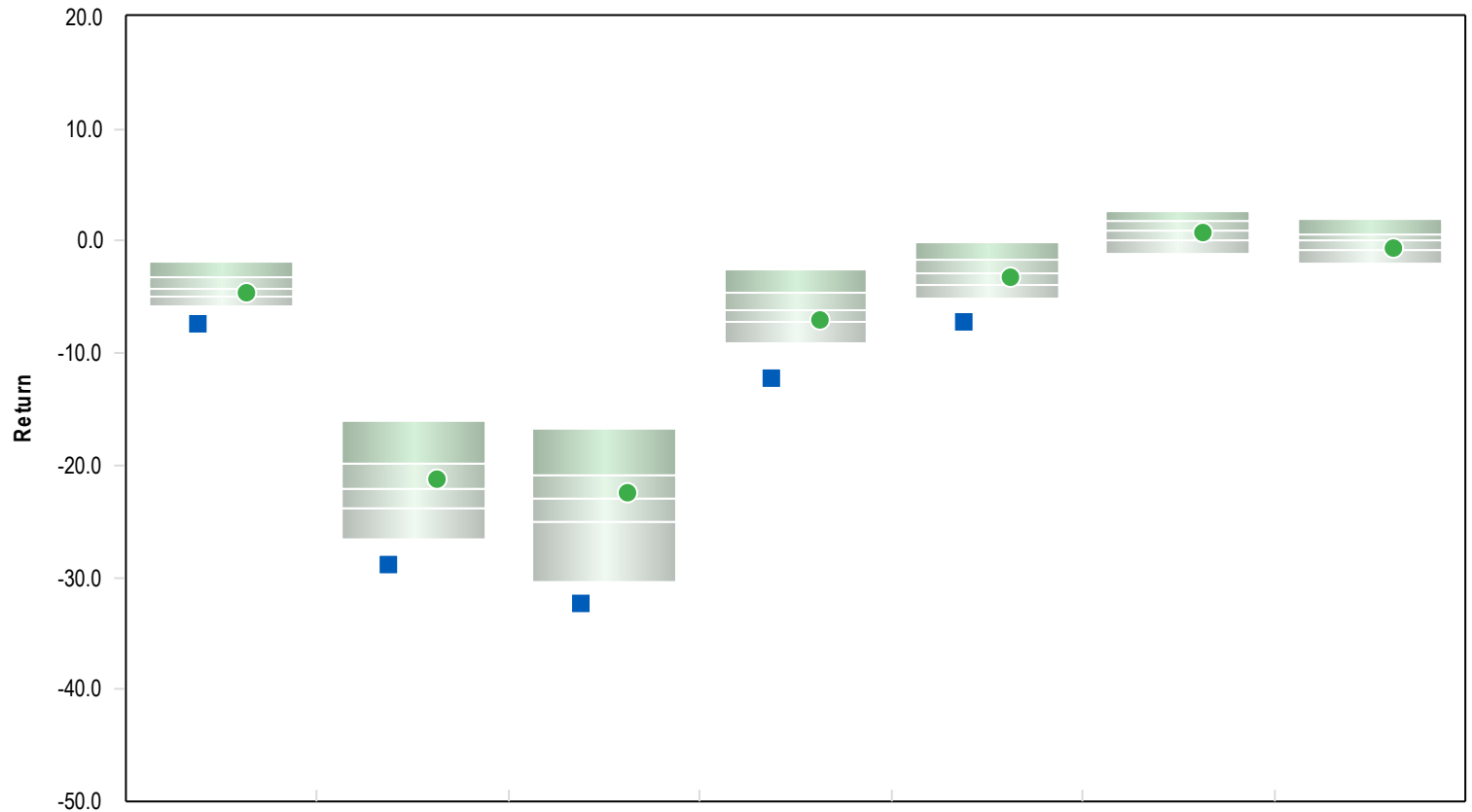
# Bristol County Retirement System

## Comparative Performance & Rolling Return

As of September 30, 2022

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Stone Harbor EMD	-3.1	-21.5	-22.8	-6.4	-3.6			-5.0	5.7	14.7	-8.7
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified US	-4.6	-21.3	-22.5	-7.1	-3.2	0.7	-0.6	-5.3	4.0	14.3	-5.2
Difference	1.5	-0.2	-0.3	0.7	-0.4			0.3	1.7	0.4	-3.5





	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Ashmore Emerging Markets Total Return	-7.3 (100)	-28.8 (100)	-32.3 (99)	-12.2 (98)	-7.1 (98)		
● 50% JPM EMBI Global Div./ 50% JPM GBI-EM Global Div.	-4.6 (66)	-21.3 (44)	-22.5 (44)	-7.1 (72)	-3.2 (63)	0.7 (57)	-0.6 (73)

5th Percentile	-1.9	-16.0	-16.8	-2.4	-0.1	2.6	2.0
1st Quartile	-3.3	-19.9	-20.9	-4.6	-1.7	1.7	0.6
Median	-4.3	-22.1	-22.9	-6.1	-2.8	0.9	0.0
3rd Quartile	-4.9	-23.8	-25.1	-7.3	-3.8	0.1	-0.8
95th Percentile	-5.8	-26.6	-30.4	-9.2	-5.1	-1.1	-2.0

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

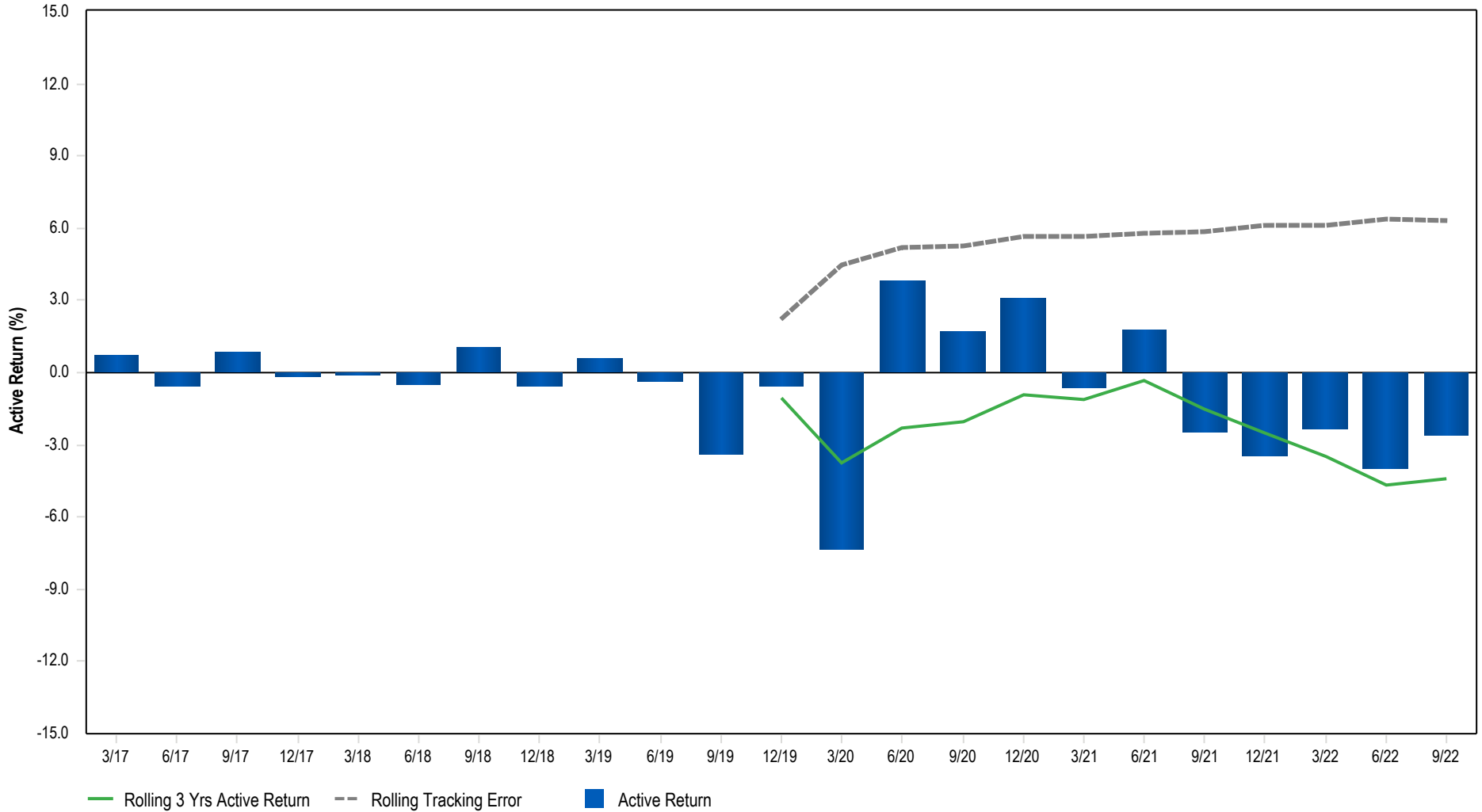


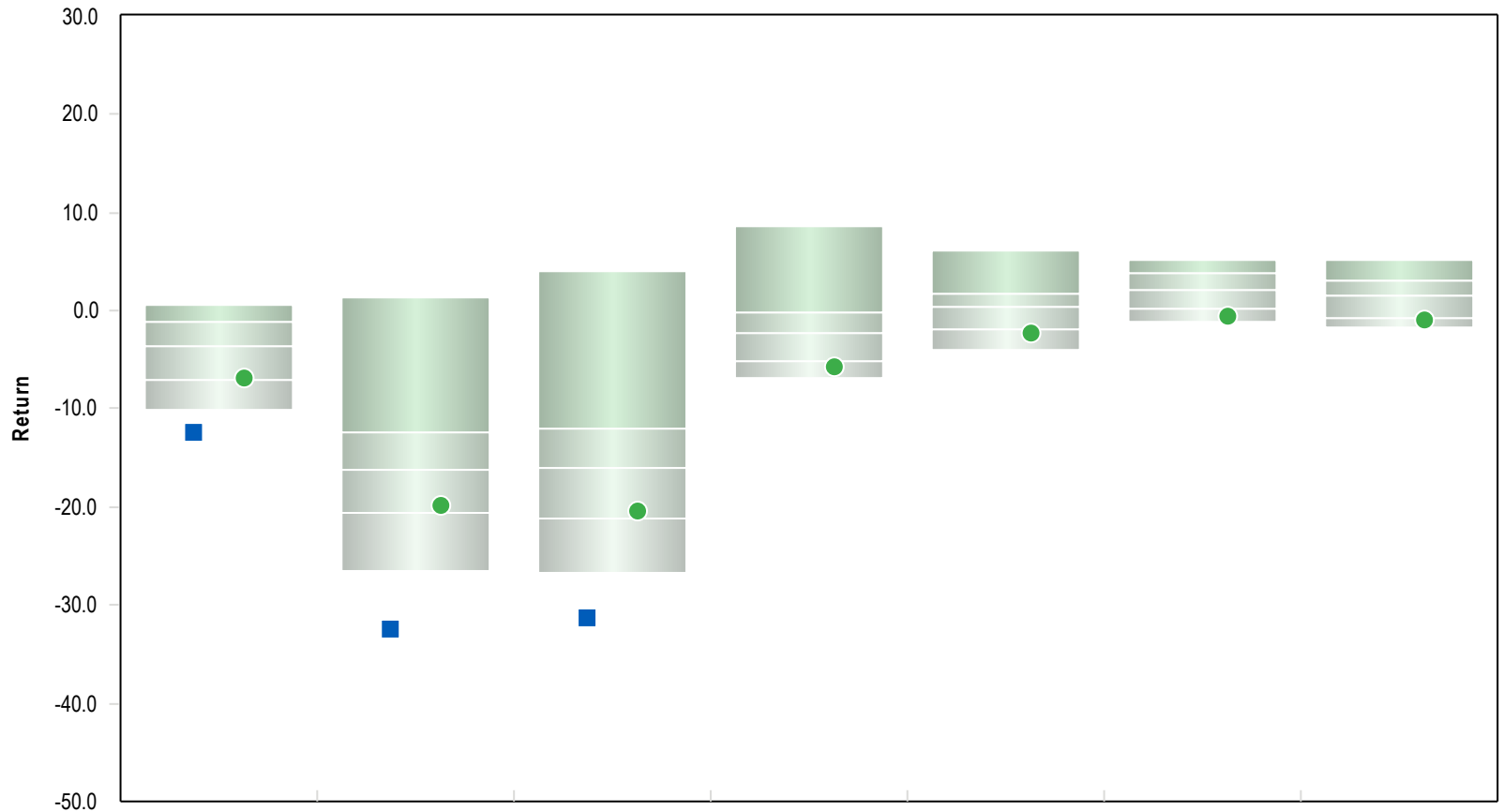
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ Ashmore Emerging Markets Total Return	-10.1 (98)	2.9 (88)	9.9 (93)	-5.3 (42)	13.7 (10)	10.2 (56)	-7.1 (84)	0.7 (58)	-7.1 (63)	17.2 (65)
● 50% JPM EMBI Global Div./ 50% JPM GBI-EM Global Div.	-5.3 (89)	4.0 (79)	14.3 (31)	-5.2 (39)	12.7 (23)	10.2 (56)	-7.1 (84)	0.7 (58)	-7.1 (63)	17.2 (65)

5th Percentile	0.8	9.1	16.5	-1.7	14.3	15.0	2.0	6.5	-0.5	22.9
1st Quartile	-1.8	7.2	14.7	-4.2	12.5	13.2	-0.6	4.1	-4.7	19.7
Median	-3.0	5.7	13.6	-5.9	10.5	10.4	-2.5	1.3	-6.5	18.6
3rd Quartile	-4.2	4.3	12.3	-7.1	9.1	9.0	-4.5	-1.7	-7.7	16.3
95th Percentile	-6.8	2.1	8.8	-9.0	6.6	5.5	-13.7	-6.2	-10.4	11.2

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Ashmore Emerging Markets Total Return	-7.3	-28.8	-32.3	-12.2	-7.1			-10.1	2.9	9.9	-5.3
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified US	-4.6	-21.3	-22.5	-7.1	-3.2	0.7	-0.6	-5.3	4.0	14.3	-5.2
Difference	-2.7	-7.5	-9.8	-5.1	-3.9			-4.8	-1.1	-4.4	-0.1



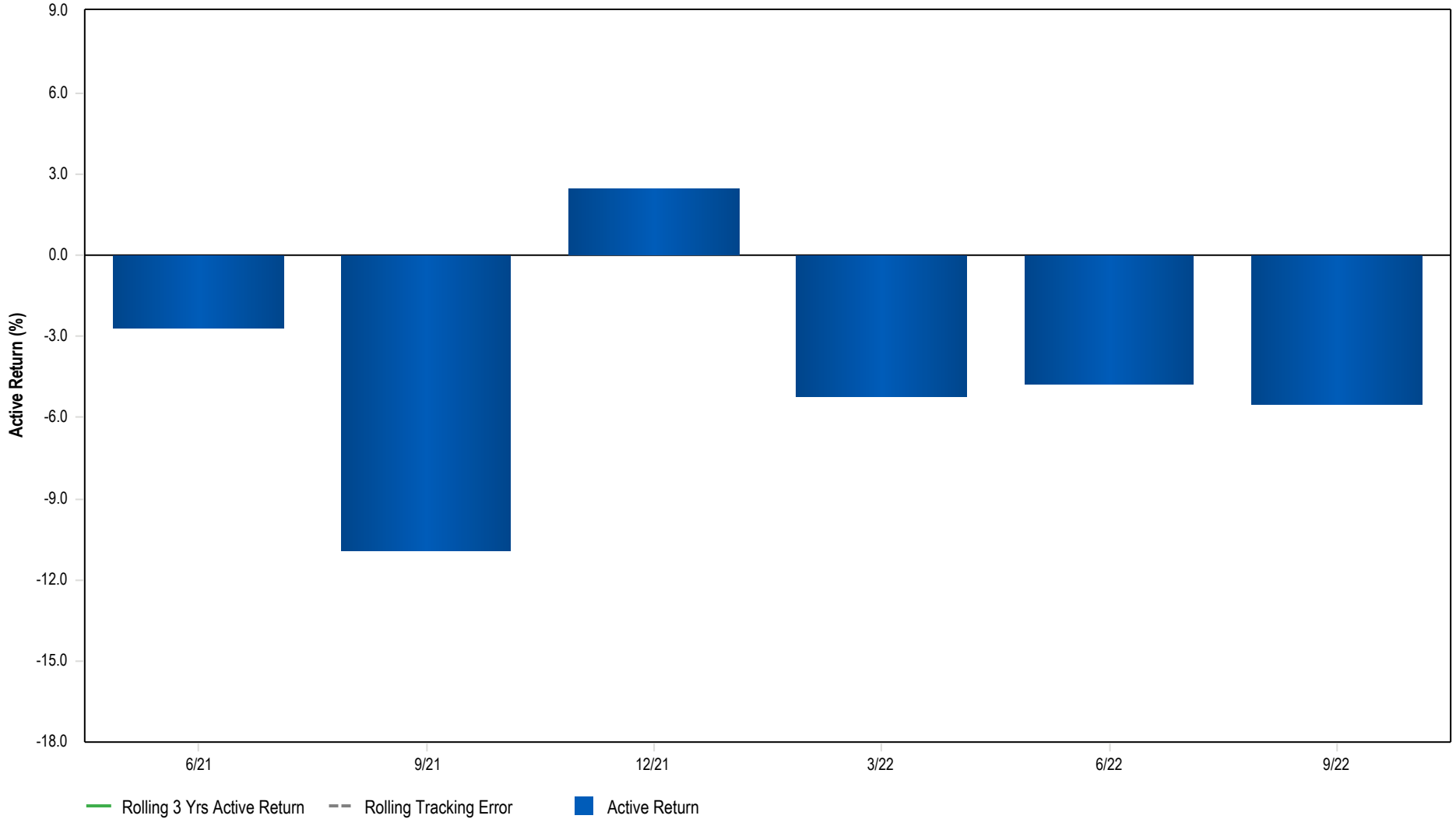


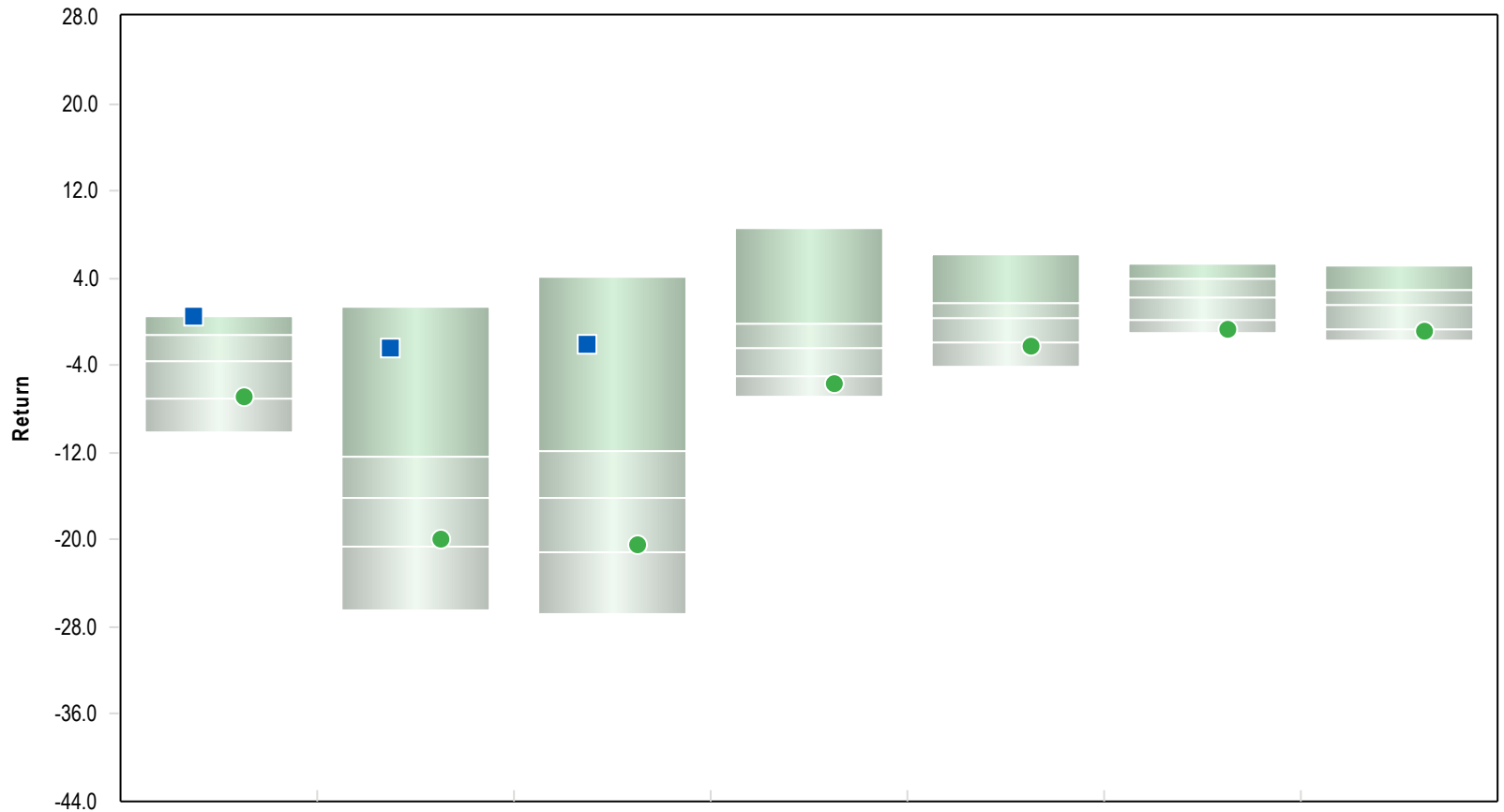
	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ EnTrust Global Recovery Fund	-12.4 (98)	-32.5 (99)	-31.3 (98)				
● Blmbg. Global Aggregate	-6.9 (75)	-19.9 (69)	-20.4 (70)	-5.7 (83)	-2.3 (81)	-0.6 (89)	-0.9 (84)

5th Percentile	0.6	1.3	4.0	8.5	6.2	5.3	5.2
1st Quartile	-1.2	-12.4	-11.9	-0.2	1.8	3.9	3.0
Median	-3.7	-16.1	-16.1	-2.4	0.4	2.2	1.6
3rd Quartile	-7.0	-20.5	-21.1	-5.1	-1.9	0.2	-0.7
95th Percentile	-10.1	-26.5	-26.7	-6.9	-4.1	-1.1	-1.7

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
EnTrust Global Recovery Fund	-12.4	-32.5	-31.3								
Blmbg. Global Aggregate	-6.9	-19.9	-20.4	-5.7	-2.3	-0.6	-0.9	-4.7	9.2	6.8	-1.2
Difference	-5.5	-12.6	-10.9								





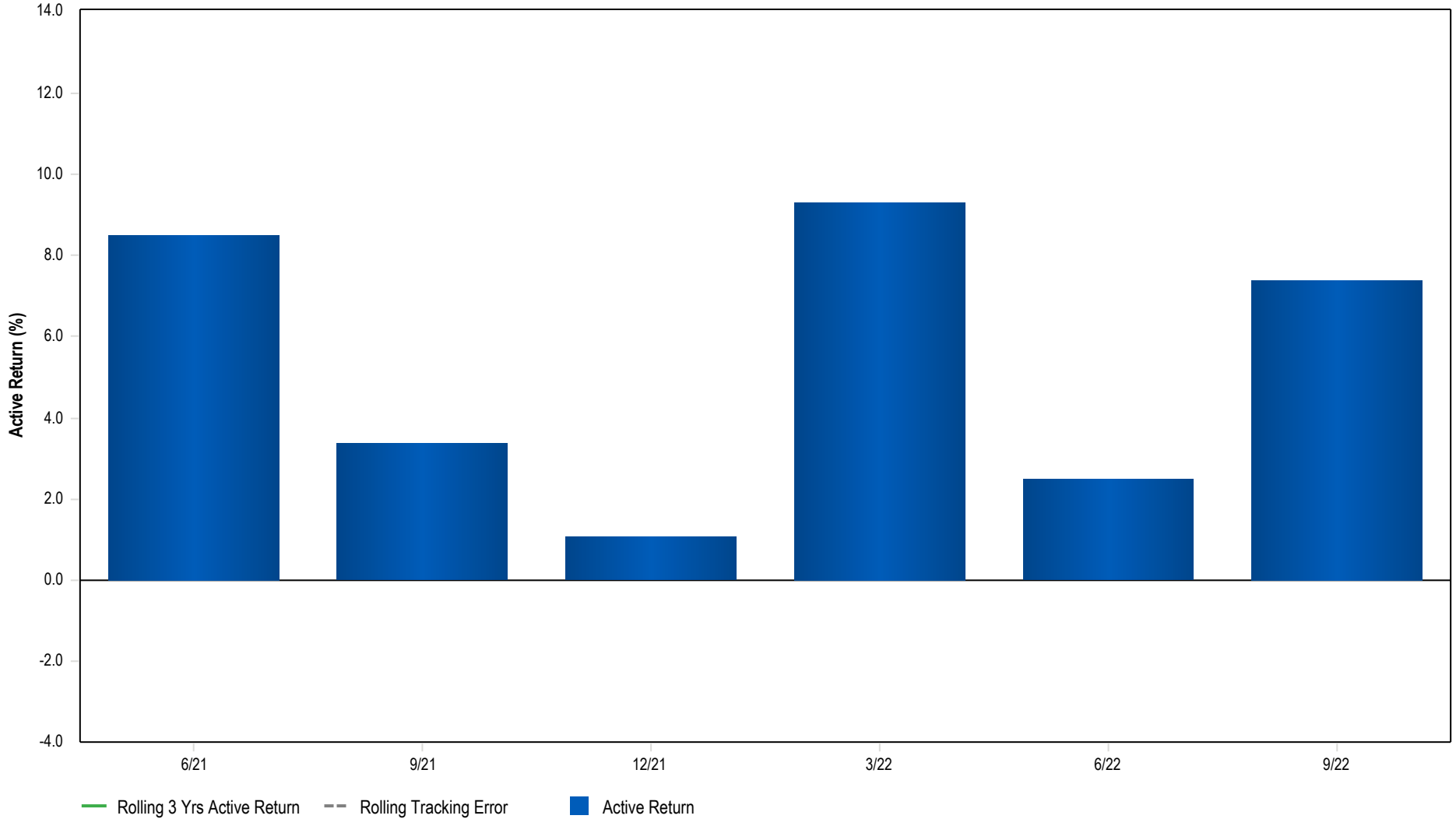
	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Bardin Hill Opportunistic Credit	0.4 (7)	-2.4 (7)	-2.0 (6)				
● Blmbg. Global Aggregate	-6.9 (75)	-19.9 (69)	-20.4 (70)	-5.7 (83)	-2.3 (81)	-0.6 (89)	-0.9 (84)

5th Percentile	0.6	1.3	4.0	8.5	6.2	5.3	5.2
1st Quartile	-1.2	-12.4	-11.9	-0.2	1.8	3.9	3.0
Median	-3.7	-16.1	-16.1	-2.4	0.4	2.2	1.6
3rd Quartile	-7.0	-20.5	-21.1	-5.1	-1.9	0.2	-0.7
95th Percentile	-10.1	-26.5	-26.7	-6.9	-4.1	-1.1	-1.7

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2021	2020	2019	2018
Bardin Hill Opportunistic Credit	0.4	-2.4	-2.0								
Blmbg. Global Aggregate	-6.9	-19.9	-20.4	-5.7	-2.3	-0.6	-0.9	-4.7	9.2	6.8	-1.2
Difference	7.3	17.5	18.4								



## Other Fixed Income

	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Invesco Mortgage Recovery Fund	62,752	0.0	0.0	-0.3	-3.0	-4.1	7.9	3.4	16.8	13.7	03/31/2010

Bristol County Retirement System

Schedule of Investable Assets

Invesco Mortgage Recovery Fund

Since Inception Ending September 30, 2022

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Contributions (\$)	Withdrawals (\$)	Gain/Loss (\$)	Ending Market Value (\$)	%Return	Unit Value	Income (\$)	Income % of Beginning Market Value
Jun-2010		2,047,799	2,089,844	42,045		2,151,396	5.7	105.7	27,307	0.0
Sep-2010	2,151,396	739,731	921,104	181,373	142,577	3,033,704	5.9	112.0	75,028	3.5
Dec-2010	3,033,704	-448,204	33,362	481,566	96,495	2,681,995	3.7	116.1	209,106	6.9
Mar-2011	2,681,995	-265,432	215,509	480,941	114,718	2,531,281	4.3	121.1	206,684	7.7
Jun-2011	2,531,281	-248,483	200,172	448,655	-37,226	2,245,572	-1.7	119.1	33,871	1.3
Sep-2011	2,245,572	1,186,159	1,302,619	116,460	-15,163	3,416,568	-0.7	118.3	8,310	0.4
Dec-2011	3,416,568	-974,627		974,627	7,383	2,449,324	0.2	118.6	38,619	1.1
Mar-2012	2,449,324	-880,764		880,764	106,038	1,674,598	4.6	124.1	18,649	0.8
Jun-2012	1,674,598	-3,746	159,003	162,749	44,872	1,715,724	2.5	127.1	75,013	4.5
Sep-2012	1,715,724	-10,305		10,305	37,498	1,742,917	2.2	129.9		0.0
Dec-2012	1,742,917	-510,562		510,562	85,492	1,317,847	5.9	137.6		0.0
Mar-2013	1,317,847	-65,326		65,326	22,847	1,275,368	1.7	140.0		0.0
Jun-2013	1,275,368	-59,917	20,152	80,069	26,281	1,241,732	2.2	143.1		0.0
Sep-2013	1,241,732	221,939	221,939		2,024	1,465,695	0.1	143.3		0.0
Dec-2013	1,465,695	132,967	329,829	196,862	124,547	1,723,209	8.1	154.9		0.0
Mar-2014	1,723,209	-97,979		97,979	39,216	1,664,446	2.4	158.5		0.0
Jun-2014	1,664,446	-64,464	70,551	135,015	53,465	1,653,447	3.3	163.8		0.0
Sep-2014	1,653,447	-38,489	40,092	78,581	82,363	1,697,321	5.1	172.2		0.0
Dec-2014	1,697,321	53,602	88,065	34,463	315,116	2,066,039	18.0	203.2		0.0
Mar-2015	2,066,039	-338,868	42,571	381,439	49,102	1,776,273	2.9	209.0		0.0
Jun-2015	1,776,273	28,704	28,704		67,010	1,871,987	3.9	217.2		0.0
Sep-2015	1,871,987	-239,366	44,631	283,997	184,643	1,817,264	11.3	241.8		0.0
Dec-2015	1,817,264	-255,351		255,351	107,519	1,669,432	6.9	258.4		0.0
Mar-2016	1,669,432	9,080	57,199	48,119	-204	1,678,308	0.0	258.4		0.0
Jun-2016	1,678,308	-423,449		423,449	62,718	1,317,577	5.0	271.3		0.0
Sep-2016	1,317,577	-175,341		175,341	1,890	1,144,126	0.2	271.7		0.0
Dec-2016	1,144,126	-1,965		1,965	-85,161	1,057,000	-7.4	251.5		0.0
Mar-2017	1,057,000				-25,343	1,031,657	-2.4	245.5		0.0
Jun-2017	1,031,657	-559,332		559,332	-399	471,926	-0.1	245.3		0.0
Sep-2017	471,926	-80,808		80,808	-25,848	365,270	-6.6	229.1		0.0

\*% return represents a time weighted return.

# Bristol County Retirement System

## Schedule of Investable Assets

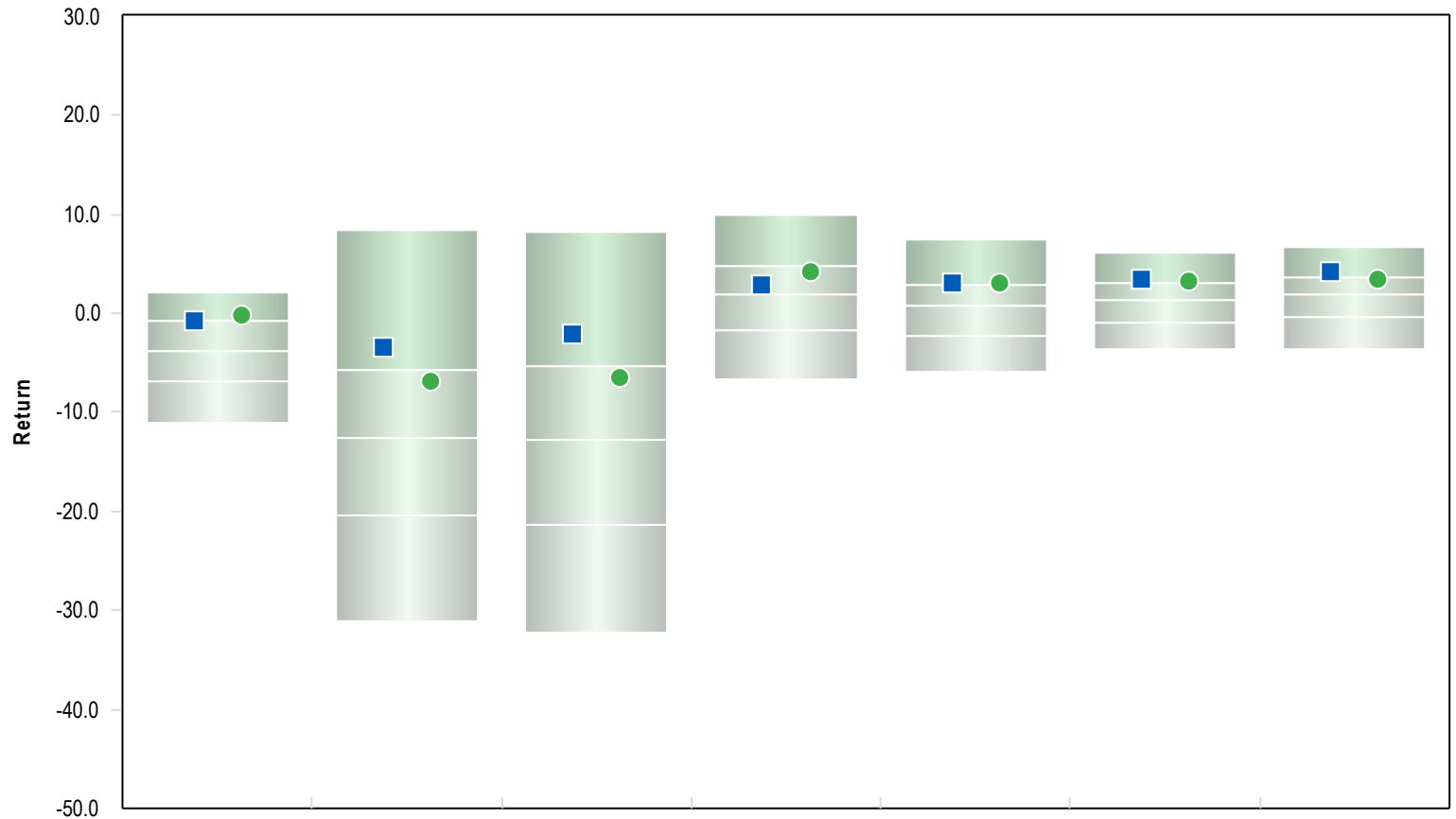
## Invesco Mortgage Recovery Fund

Since Inception Ending September 30, 2022

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Contributions (\$)	Withdrawals (\$)	Gain/Loss (\$)	Ending Market Value (\$)	%Return	Unit Value	Income (\$)	Income % of Beginning Market Value
Dec-2017	365,270				18,088	383,358	5.0	240.4		0.0
Mar-2018	383,358	840	840		12,252	396,450	3.4	248.5		0.0
Jun-2018	396,450	-76,638		76,638	22,664	342,476	5.8	262.8		0.0
Sep-2018	342,476				13,122	355,598	3.8	272.9		0.0
Dec-2018	355,598				18,584	374,182	5.2	287.1		0.0
Mar-2019	374,182	-126,979		126,979	5,019	252,222	1.4	291.1		0.0
Jun-2019	252,222				-824	251,398	-0.3	290.1		0.0
Sep-2019	251,398				-41	251,357	0.0	290.1		0.0
Dec-2019	251,357				-11,356	240,001	-4.5	277.0		0.0
Mar-2020	240,001				-1,073	238,928	-0.4	275.7		0.0
Jun-2020	238,928				-136	238,792	-0.1	275.6		0.0
Sep-2020	238,792				367	239,159	0.2	276.0		0.0
Dec-2020	239,159	-172,673		172,673	-1,356	65,130	-2.0	270.4		0.0
Mar-2021	65,130				-371	64,759	-0.6	268.8		0.0
Jun-2021	64,759				918	65,677	1.4	272.6		0.0
Sep-2021	65,677				-1,008	64,669	-1.5	268.4		0.0
Dec-2021	64,669				-1,744	62,925	-2.7	261.2		0.0
Mar-2022	62,925				-100	62,825	-0.2	260.8		0.0
Jun-2022	62,825				-73	62,752	-0.1	260.5		0.0
Sep-2022	62,752					62,752	0.0	260.5		0.0
		-1,698,247	5,866,186	7,564,433	1,657,402	62,752	8.0	260.5	692,587	0.0

\*% return represents a time weighted return.

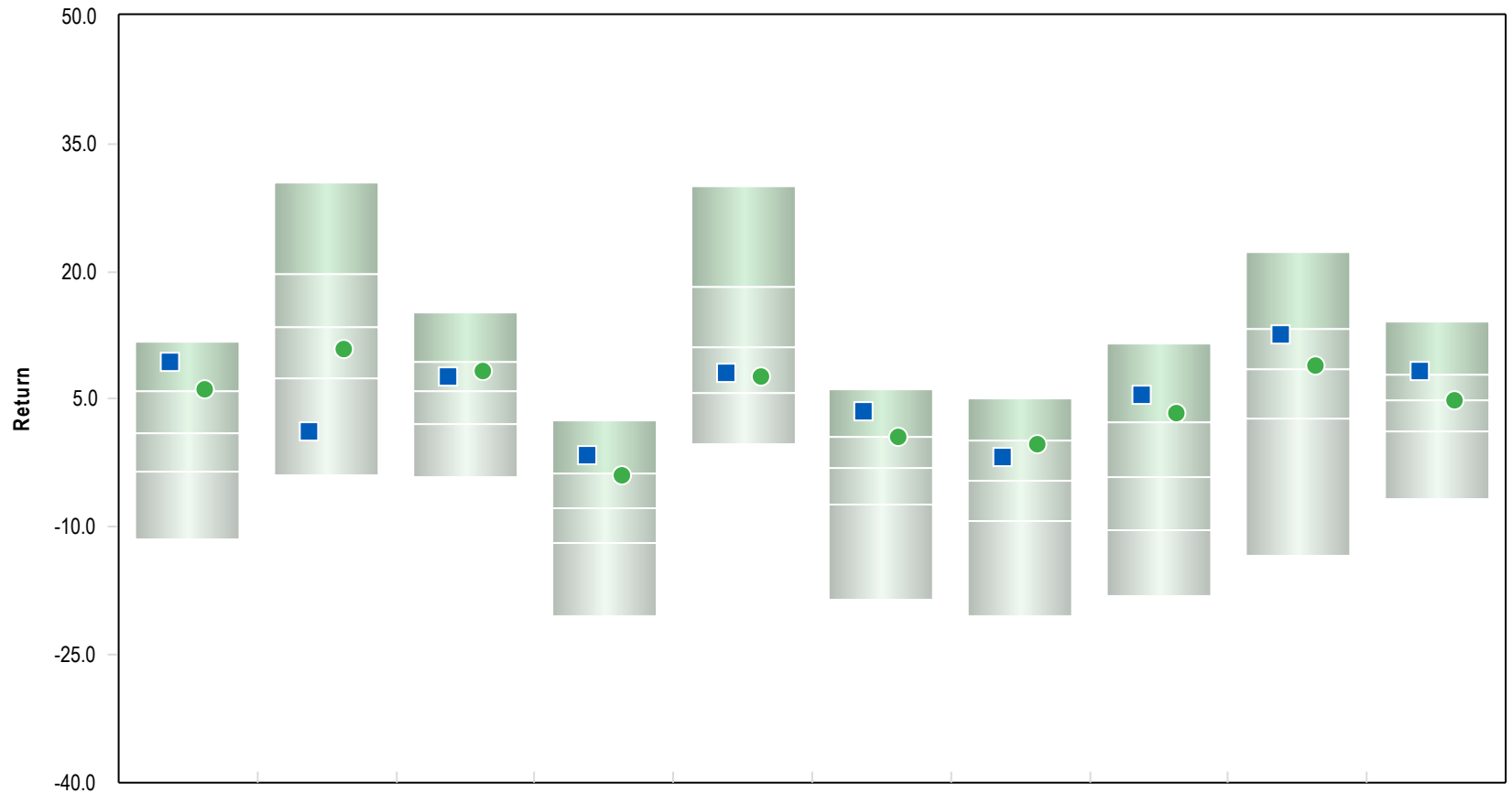
## Alternatives



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ PRIT Absolute Return	-0.7 (25)	-3.5 (22)	-2.2 (19)	2.9 (41)	3.1 (24)	3.5 (20)	4.3 (17)
● HFRI Fund of Funds Composite Index	-0.2 (23)	-6.8 (28)	-6.4 (30)	4.2 (30)	3.1 (24)	3.2 (24)	3.5 (27)

5th Percentile	2.1	8.5	8.3	9.9	7.4	6.2	6.6
1st Quartile	-0.8	-5.6	-5.3	4.7	2.9	3.1	3.6
Median	-3.7	-12.6	-12.8	1.9	0.8	1.4	1.9
3rd Quartile	-6.9	-20.4	-21.4	-1.6	-2.2	-0.8	-0.4
95th Percentile	-11.0	-31.0	-32.3	-6.6	-5.9	-3.6	-3.6

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

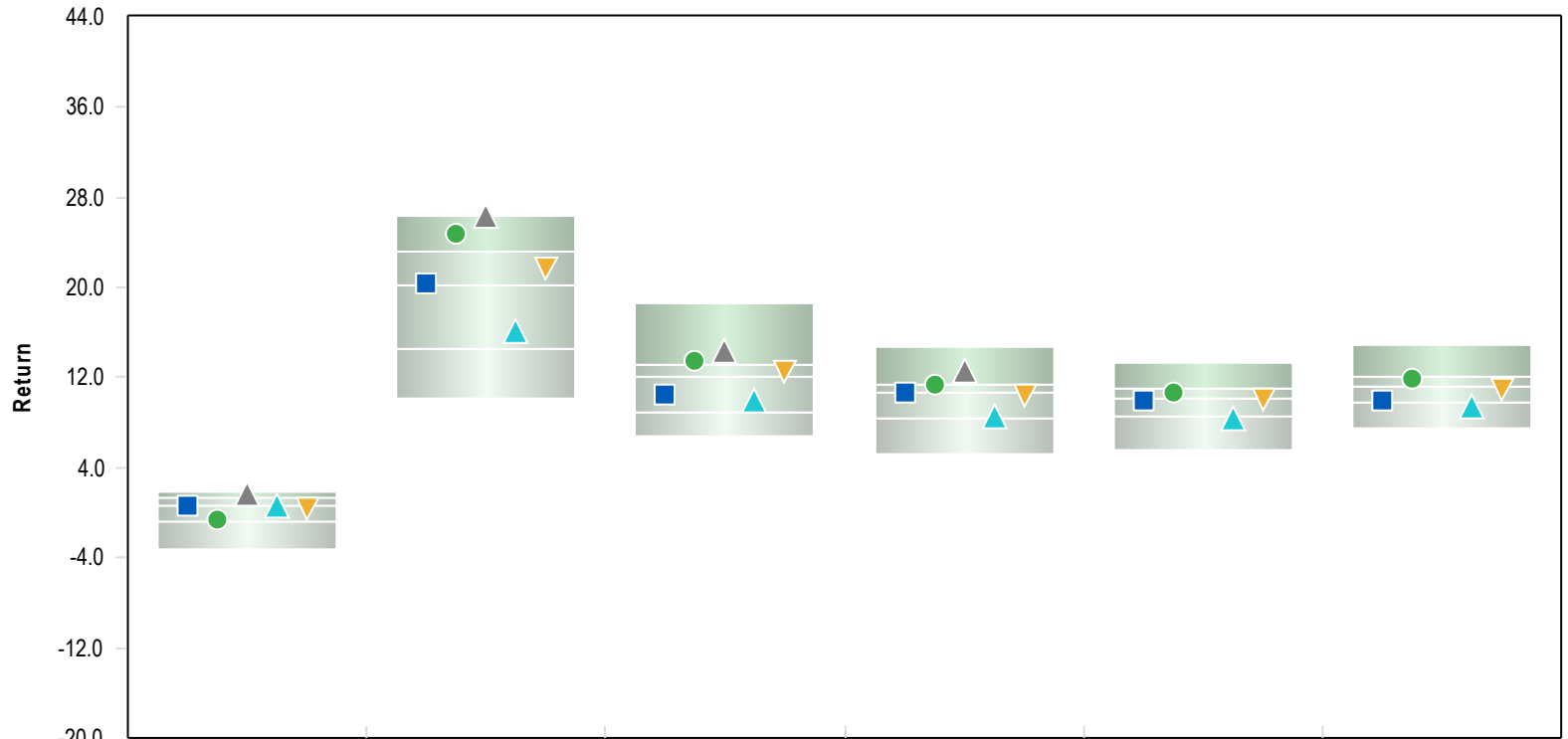


	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
■ PRIT Absolute Return	9.5 (12)	1.3 (93)	7.7 (36)	-1.6 (16)	8.2 (64)	3.6 (12)	-1.9 (38)	5.5 (10)	12.6 (29)	8.4 (23)
● HFRI F of F Composite Index	6.2 (25)	10.9 (63)	8.4 (31)	-4.0 (28)	7.8 (66)	0.5 (26)	-0.3 (29)	3.4 (20)	9.0 (49)	4.8 (51)

5th Percentile	11.8	30.4	15.1	2.5	29.9	6.2	5.0	11.5	22.3	14.1
1st Quartile	6.0	19.8	9.4	-3.6	18.2	0.5	0.2	2.3	13.3	8.0
Median	1.0	13.4	6.0	-7.9	11.1	-3.1	-4.5	-4.1	8.6	4.8
3rd Quartile	-3.4	7.5	2.0	-11.9	5.8	-7.3	-9.3	-10.4	2.8	1.3
95th Percentile	-11.4	-4.0	-4.1	-20.5	-0.2	-18.5	-20.4	-18.0	-13.3	-6.6

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

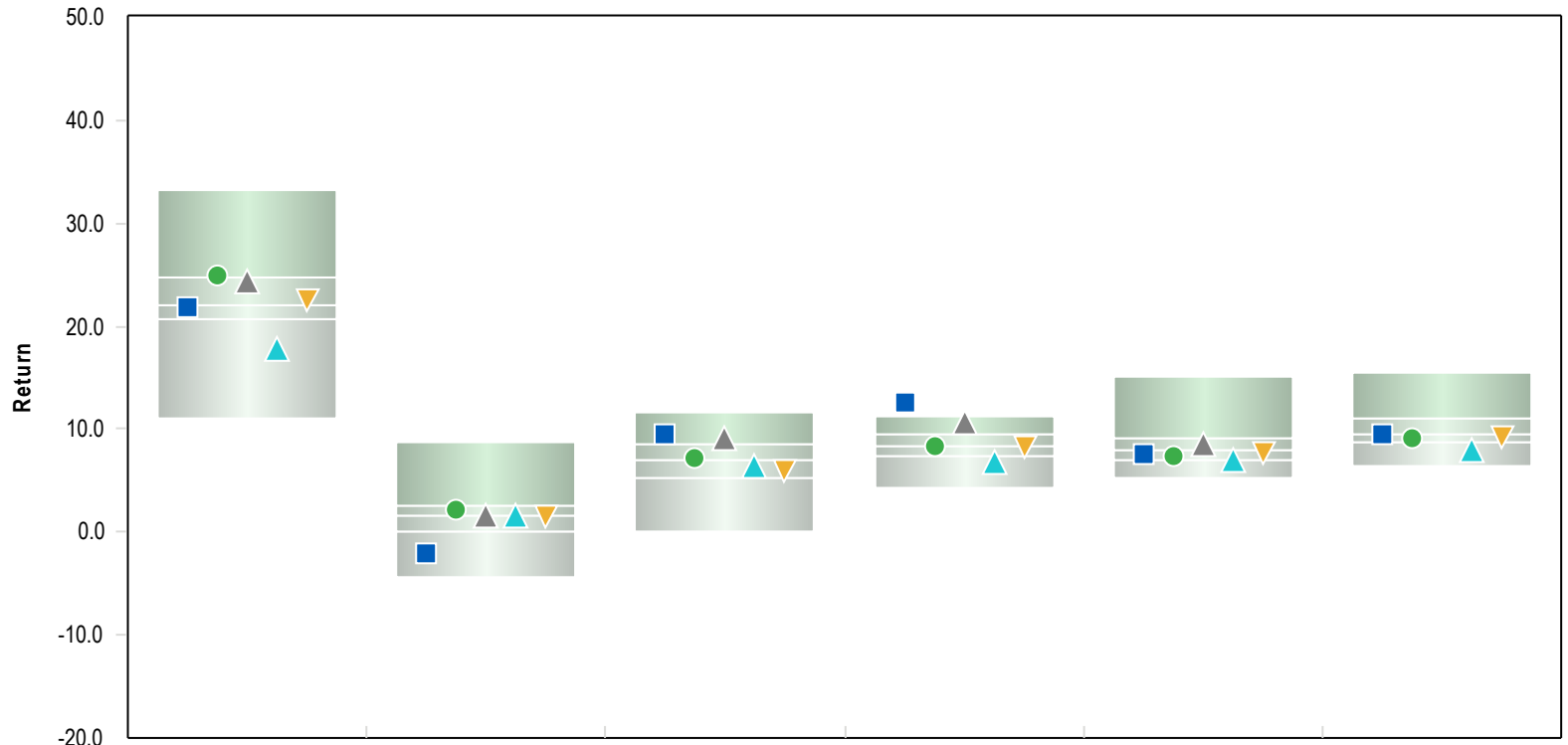




	1 Qtr	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Real Estate	0.7 (35)	20.3 (49)	10.5 (66)	10.6 (51)	10.0 (56)	10.0 (72)
● RREEF America REIT II	-0.6 (74)	24.9 (14)	13.5 (19)	11.3 (28)	10.7 (33)	11.9 (33)
▲ Intercontinental	1.6 (13)	26.4 (6)	14.4 (11)	12.6 (10)		
▲ NCREIF Property Index	0.6 (49)	16.1 (70)	9.9 (67)	8.6 (72)	8.5 (78)	9.5 (78)
▼ NCREIF ODCE Equal Weighted	0.5 (53)	21.8 (37)	12.7 (36)	10.6 (52)	10.2 (46)	11.1 (53)

5th Percentile	1.9	26.4	18.6	14.8	13.4	14.8
1st Quartile	1.3	23.3	13.2	11.4	11.0	12.1
Median	0.6	20.2	12.1	10.6	10.1	11.2
3rd Quartile	-0.7	14.6	9.0	8.4	8.6	9.7
95th Percentile	-3.3	10.1	6.8	5.3	5.5	7.4

Parentheses contain percentile rankings.  
Calculation based on quarterly periodicity.



	2021	2020	2019	2018	2017	2016
■ Total Real Estate	21.9 (54)	-2.0 (90)	9.5 (20)	12.6 (3)	7.6 (58)	9.6 (49)
● RREEF America REIT II	25.0 (24)	2.1 (36)	7.3 (38)	8.4 (47)	7.4 (64)	9.1 (59)
▲ Intercontinental	24.3 (27)	1.6 (43)	9.1 (22)	10.7 (12)	8.5 (41)	
▲ NCREIF Property Index	17.7 (84)	1.6 (46)	6.4 (65)	6.7 (81)	7.0 (78)	8.0 (81)
▼ NCREIF ODCE Equal Weighted	22.6 (49)	1.6 (49)	6.1 (73)	8.3 (54)	7.8 (53)	9.3 (53)

5th Percentile	33.3	8.6	11.6	11.3	15.1	15.5
1st Quartile	24.7	2.5	8.6	9.5	9.1	11.0
Median	22.1	1.6	7.0	8.4	8.1	9.5
3rd Quartile	20.8	0.0	5.3	7.4	7.0	8.8
95th Percentile	11.1	-4.5	0.1	4.3	5.3	6.5

Parentheses contain percentile rankings.  
Calculation based on quarterly periodicity.

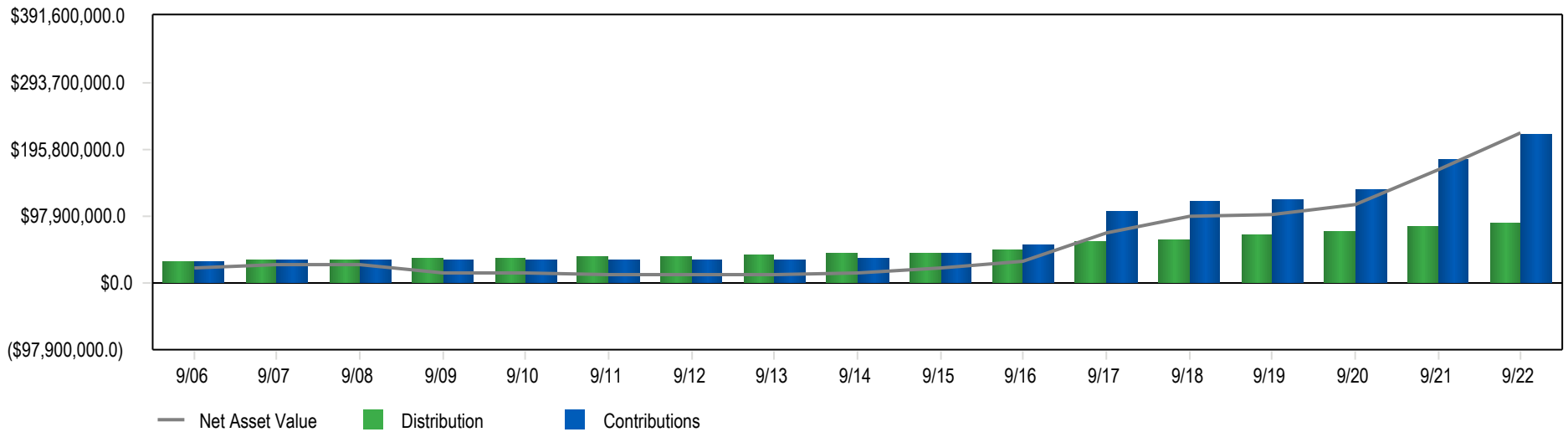
Cash Flow Summary

Capital Committed: \$198,427,501  
 Total Contributions: \$226,295,301  
 Remaining Capital Commitment: -\$17,166,605

Total Distributions: \$88,070,889  
 Market Value: \$221,205,421

Inception Date: 01/01/1995  
 Inception IRR: 14.1  
 TVPI: 1.4

Cash Flow Analysis



## Bristol County Retirement System

## Hard Asset Summary of Partnership

As of September 30, 2022

Partnerships	Vintage Year	Investment Strategy	Capital Commitment (\$)	Contributions (\$)	Distributions (\$)	Market Value (\$)	IRR (%)	DPI Multiple	TVPI Multiple	Remaining Commitment (\$)
<b>Closed-End Real Estate</b>			<b>76,776,354</b>	<b>79,158,136</b>	<b>62,533,944</b>	<b>32,568,506</b>	<b>5.6</b>	<b>0.8</b>	<b>1.2</b>	<b>4,278,970</b>
Invesco Mortgage Recovery II	2016	Real Estate	15,000,000	16,416,062	13,292,489	4,486,413	4.2	0.8	1.1	4,278,970
TerraCap Partners IV	2017	Value-Add Real Estate	10,000,000	10,965,720	6,402,228	8,832,125	10.5	0.6	1.4	
TerraCap Partners V	2020	Value-Add Real Estate	17,500,000	17,500,000	376,127	19,249,968	8.2	0.0	1.1	
<b>Closed-End Infrastructure</b>			<b>13,000,000</b>	<b>15,755,794</b>	<b>10,983,279</b>	<b>9,736,132</b>	<b>11.4</b>	<b>0.7</b>	<b>1.3</b>	<b>1,238,497</b>
GCM Customized Infrastructures Strategies II, LP	2015	Infrastructure	13,000,000	15,755,794	10,983,279	9,736,132	11.4	0.7	1.3	1,238,497
<b>Closed-End Timber</b>			<b>8,578,397</b>	<b>4,508,621</b>	<b>6,022,470</b>	<b>2,079,972</b>	<b>7.3</b>	<b>1.3</b>	<b>1.8</b>	<b>4,115,927</b>
Brookfield Timberlands Fund V	2013	Timber	5,000,000	1,171,900	1,500,683	244,288	6.7	1.3	1.5	3,874,251
Eastern Timberland Opportunities II	2014	Timber	2,500,000	2,258,324	1,921,557	1,835,684	7.6	0.9	1.7	241,676
<b>Total Hard Assets</b>			<b>198,427,501</b>	<b>226,295,301</b>	<b>88,070,889</b>	<b>221,205,421</b>	<b>14.1</b>	<b>0.4</b>	<b>1.4</b>	<b>-17,166,605</b>

\* Composites and Total Hard Assets include prior funds that have been fully liquidated

	Market Value (\$)	%	1 Quarter	1 Quarter Ending Jun-2022	1 Quarter Ending Mar-2022	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Real Assets</b>													
<b>Closed-End Real Estate</b>	32,568,506	4.0	0.0	-1.0	0.8	-0.2	9.5	3.9	7.2	7.3	7.8	5.6	10/01/2004
Invesco Mortgage Recovery II	4,486,413	0.6	0.0	-2.9	-1.4	-4.3	-4.5	-17.3	0.5			4.2	05/20/2016
TerraCap Partners IV	8,832,125	1.1	0.0	-0.7	1.2	0.6	14.1	11.4				10.5	07/17/2018
TerraCap Partners V	19,249,968	2.4	0.0	-0.7	1.2	0.4	11.1					8.2	10/16/2020
<b>Closed-End Infrastructure</b>	9,736,132	1.2	0.0	2.7	-0.5	2.2	8.5	13.0	12.2			11.4	03/10/2016
GCM Customized Infrastructures Strategies II, LP	9,736,132	1.2	0.0	2.7	-0.5	2.2	8.5	13.0	12.2			11.4	03/10/2016
<b>Closed-End Timber</b>	2,079,972	0.3	0.0	-1.0	0.8	-0.1	0.5	3.7	4.9	5.4		7.3	12/23/2013
Brookfield Timberlands Fund V	244,288	0.0	0.0	-6.4	0.2	-6.5	-9.0	1.3	3.7	4.0		6.7	12/23/2013
Eastern Timberland Opportunities II	1,835,684	0.2	0.0	1.9	1.2	3.2	5.6	4.7	5.4	6.0		7.6	07/03/2014

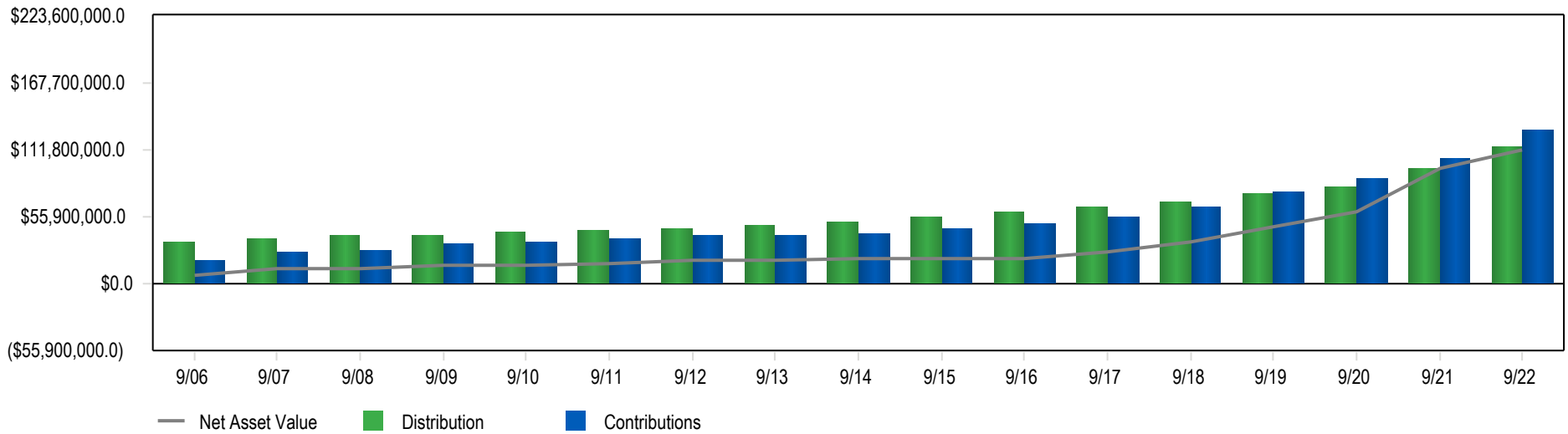
Cash Flow Summary

Capital Committed: \$195,431,750  
 Total Contributions: \$129,433,956  
 Remaining Capital Commitment: \$70,602,578

Total Distributions: \$114,552,745  
 Market Value: \$111,358,693

Inception Date: 01/05/1995  
 Inception IRR: 177.7  
 TVPI: 1.7

Cash Flow Analysis



Partnerships	Vintage Year	Capital Commitment (\$)	Contributions (\$)	Distributions (\$)	Market Value (\$)	IRR (%)	DPI Multiple	TVPI Multiple	Remaining Commitment (\$)
DuPont Capital Management II	2005	5,000,000	3,666,445	3,454,306	317,208	0.4	0.9	1.0	1,592,651
BlackRock Vesey Street Fund III	2005	5,000,000	4,433,304	5,839,094	147,576	4.1	1.3	1.4	650,000
DN Partners II	2005	6,000,000	2,829,275	28,285	2,911,591	0.3	0.0	1.0	3,170,725
BlackRock Vesey Street Fund IV	2007	10,000,000	9,370,622	14,724,558	491,314	7.9	1.6	1.6	2,260,127
Mesirow PE Fund V	2008	5,000,000	4,297,431	7,680,658	2,985,168	15.9	1.8	2.5	706,700
PRIT Vintage 2014	2014	9,090,291	8,479,902	9,062,557	11,209,606	22.1	1.1	2.4	639,794
PRIT Vintage 2015	2015	12,307,878	12,147,418	13,053,547	16,819,604	25.8	1.1	2.5	350,415
PRIT Vintage 2016	2016	8,302,928	7,316,416	4,911,241	8,932,504	20.1	0.7	1.9	1,007,723
PRIT Vintage 2017	2017	15,589,476	13,390,601	3,857,115	18,777,841	23.6	0.3	1.7	2,240,227
PRIT Vintage 2018	2018	14,323,604	11,783,964	2,615,509	16,076,750	25.1	0.2	1.6	2,565,950
PRIT Vintage 2019	2019	9,425,656	7,191,494	2,126,289	9,693,055	36.1	0.3	1.6	2,287,843
PRIT Vintage 2020	2020	10,391,266	6,052,696	60,209	6,721,417	11.9	0.0	1.1	4,342,727
PRIT Vintage 2021	2021	18,780,010	7,918,023	1,612	7,791,604	-2.0	0.0	1.0	10,867,268
PRIT Vintage 2022		7,625,827	1,702,845	-617	1,541,732	-18.9	-	0.9	5,925,902
GCM Grosvenor SOF III	2020	20,000,000	4,519,924	1,981,079	2,594,980	1.8	0.4	1.0	17,446,241
Pomona Capital Fund X	2020	20,000,000	3,200,000		4,346,742	42.3	-	1.4	16,800,000
<b>Total Private Equity</b>		<b>195,431,750</b>	<b>129,433,956</b>	<b>114,552,745</b>	<b>111,358,693</b>	<b>177.7</b>	<b>0.9</b>	<b>1.7</b>	<b>70,602,578</b>

\*Active Private Equity managers shown

	Market Value (\$)	%	1 Quarter	1 Quarter Ending Jun-2022	1 Quarter Ending Mar-2022	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Total Private Equity</b>	<b>111,358,693</b>	<b>13.7</b>	<b>-4.7</b>	<b>-2.8</b>	<b>6.6</b>	<b>-1.5</b>	<b>7.6</b>	<b>24.8</b>	<b>22.6</b>	<b>18.9</b>	<b>16.0</b>	<b>177.7</b>	<b>01/05/1995</b>
BlackRock Vesey Street Fund III	147,576	0.0	0.0	-5.8	1.9	-4.0	-1.8	1.5	-5.2	-5.1	8.8	4.1	07/17/2006
DuPont Capital Management II	317,208	0.0	0.0	-8.2	-3.5	-11.5	-2.6	-2.3	-3.3	-2.3	0.5	0.4	08/14/2006
DN Partners II	2,911,591	0.4	0.0	0.0	31.0	31.0	31.0	14.9	26.8	7.8	2.3	0.3	01/11/2007
BlackRock Vesey Street Fund IV	491,314	0.1	0.0	-31.0	-8.0	-36.0	-28.3	0.0	5.5	6.3	9.2	7.9	02/24/2009
Mesirow PE Fund V	2,985,168	0.4	0.0	-10.3	-10.0	-19.5	-16.6	24.3	19.9	17.0	17.7	15.9	04/09/2009
PRIT Vintage 2014	11,209,606	1.4	-3.7	-2.9	3.4	-3.2	11.8	26.2	25.4	24.5		22.1	05/01/2014
PRIT Vintage 2015	16,819,604	2.1	-9.2	-4.6	-3.3	-16.1	-6.5	27.2	28.7	26.6		25.8	03/01/2015
PRIT Vintage 2016	8,932,504	1.1	-6.7	1.3	1.1	-4.1	5.8	29.7	21.5			20.1	03/01/2016
PRIT Vintage 2017	18,777,841	2.3	-5.3	1.4	8.7	4.5	9.5	26.9	23.7			23.6	04/30/2017
PRIT Vintage 2018	16,076,750	2.0	-4.7	-2.0	7.3	0.2	12.8	28.5				25.1	05/30/2018
PRIT Vintage 2019	9,693,055	1.2	-3.4	-2.3	5.5	-0.6	29.0	36.7				36.1	03/31/2019
PRIT Vintage 2020	6,721,417	0.8	-6.9	-0.4	19.8	9.1	10.9					11.9	02/29/2020
PRIT Vintage 2021	7,791,604	1.0	-2.6	-1.0	26.0	15.5	2.5					-2.0	03/31/2021
PRIT Vintage 2022	1,541,732	0.2	23.0	-42.9	-82.0	-18.9						-18.9	02/28/2022
GCM Grosvenor SOF III	2,594,980	0.3	0.0	-3.2	-1.5	-4.7						1.8	12/15/2021
Pomona Capital Fund X	4,346,742	0.5	0.0	-20.0								42.3	03/25/2022