

Bristol County Retirement System

Analysis of Investment Performance

As of September 30, 2019

Table of Contents

ANALYSIS OF INVESTMENT PERFORMANCE

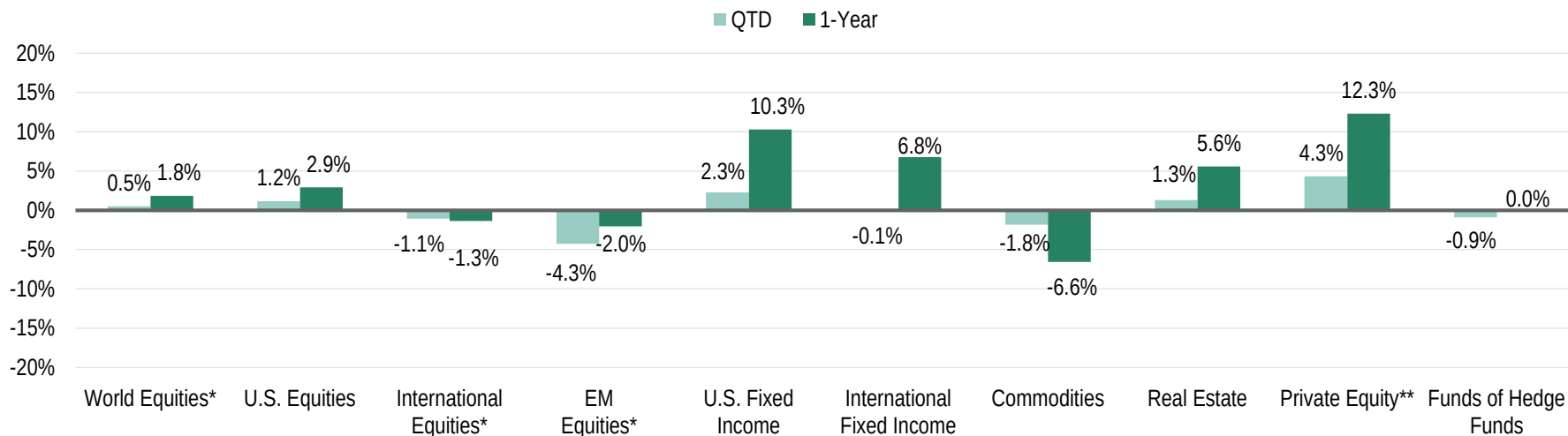
	SECTION
Financial Market Conditions.....	1
Total Fund	2
Domestic Equity	3
International Equity	4
Domestic Fixed Income.....	5
Global Fixed Income	6
Alternatives	7

This performance report ("Report") is based upon information obtained by Segal Marco Advisors ("SMA") from third parties over which SMA does not exercise any control. Although the information collected by SMA is believed to be reliable, SMA cannot verify or guarantee the accuracy or validity of such information or the uniformity of the manner in which such information was prepared. The rates of return reflected herein are time weighted and geometrically linked on a monthly basis using a modified Dietz method. Monthly valuations and returns are calculated based on the assumptions that all transactions and prices are accurate from the custodian and /or investment manager. The client to whom Segal Marco Advisors delivers this Report ("Client") agrees and acknowledges that this Report has been prepared solely for the benefit of Client. SMA disclaims any and all liability that may arise in connection with Client's conveyance (whether or not consented to by SMA) of the this Report (in whole or in part) to any third party. Client further agrees and acknowledges that SMA shall have no liability, whatsoever, resulting from, or with respect to, errors in, or incompleteness of, the information obtained from third parties. Client understands that the prior performance of an investment and /or investment manager is not indicative of such investment 's and/or investment manager's future performance. This Report does not constitute an offer or a solicitation of an offer for the purchase or sale of any security nor is it an endorsement of any custodian , investment and/or investment manager.

Financial Market Conditions

Q3 2019 In Review

Summary of Investment Returns



Quarterly Synopsis

- World equity markets rose in Q3. Central banks remained accommodative and economic data was broadly positive.
- U.S. equity was positive in the quarter. The Federal Reserve cut rates in July, and trade tensions cooled toward quarter-end.
- International equities declined with lackluster economic data. The ECB said it would restart quantitative easing to jumpstart growth.
- Emerging market equity also fell. A stronger US dollar and weakening global growth led EM stocks lower.
- U.S. fixed income rose in the quarter. The July rate cut and the prospect of further easing boosted IG credit and Treasuries.
- Non-U.S. fixed income fell slightly. Corporate bonds outperformed government bonds in the quarter.
- Hedge funds declined. Global macro strategies were the top performers.

* Net Dividends Reinvested

** Performance as of Q2 2019 because Q3 2019 performance data is not yet available.

Sources: Investment Metrics, Thomson One, FactSet

Q3 2019 Index Returns

Asset Class	Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
World Equity	MSCI World ¹	0.53	17.61	1.83	10.21	7.18	9.01
U.S. Equity	Russell 3000	1.16	20.09	2.92	12.83	10.44	13.08
Non-U.S. Equity	MSCI EAFE ¹	-1.07	12.80	-1.34	6.48	3.27	4.90
Emerging Market Equity	MSCI EM ¹	-4.25	5.89	-2.02	5.97	2.33	3.37
U.S. Fixed Income	Bloomberg Barclays U.S. Aggregate	2.27	8.52	10.30	2.92	3.38	3.75
Non-U.S. Fixed Income	FTSE ² Non-U.S. WGBI (Unhedged)	-0.11	5.39	6.78	0.60	1.28	1.15
Commodities	Bloomberg Commodity Index	-1.84	3.13	-6.57	-1.50	-7.18	-4.32
Real Estate	NFI-ODCE ³	1.31	4.80	5.59	7.30	9.34	10.86
Private Equity	Thomson Reuters Private Equity ⁴	4.34	9.47	12.31	15.52	11.98	14.79
Hedge Funds	HFRI Fund of Funds Composite	-0.90	5.21	0.01	3.21	1.98	2.69

¹ Net Dividends Reinvested

² 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.

³ NCREIF Fund Index (NFI) – Open End Diversified Core Equity (ODCE)

⁴ Performance as of Q2 2019 because Q3 2019 performance data is not yet available.

Sources: Investment Metrics, Thomson One, FactSet

Q3 2019 Index Returns

Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500®	1.70	20.55	4.25	13.39	10.84	13.24
Russell 1000	1.42	20.53	3.87	13.19	10.62	13.23
Russell 1000 Growth	1.49	23.30	3.71	16.89	13.39	14.94
Russell 1000 Value	1.36	17.81	4.00	9.43	7.79	11.46
Russell 2000	-2.40	14.18	-8.89	8.23	8.19	11.19
Russell 2000 Growth	-4.17	15.34	-9.63	9.79	9.08	12.25
Russell 2000 Value	-0.57	12.82	-8.24	6.54	7.17	10.06
Russell 3000	1.16	20.09	2.92	12.83	10.44	13.08
MSCI EAFE*	-1.07	12.80	-1.34	6.48	3.27	4.90
MSCI World*	0.53	17.61	1.83	10.21	7.18	9.01
MSCI EM*	-4.25	5.89	-2.02	5.97	2.33	3.37

Fixed-Income Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Blbg Bar U.S. Aggregate	2.27	8.52	10.30	2.92	3.38	3.75
Blbg Bar U.S. Govt/Credit	2.64	9.72	11.32	3.16	3.61	3.94
Blbg Bar U.S. Intermediate Govt/Credit	1.37	6.41	8.17	2.40	2.68	3.05
Blbg Bar U.S. L/T Govt/Credit	6.58	20.93	21.88	5.56	6.81	7.4
Blbg Bar U.S. Government	2.39	7.66	10.40	2.27	2.90	3.00
Blbg Bar U.S. Credit	2.98	12.61	12.63	4.33	4.54	5.32
Blbg Bar U.S. Mortgage-Backed Securities	1.37	5.60	7.80	2.32	2.80	3.14
Blbg Bar U.S. Corporate High Yield	1.33	11.41	6.36	6.07	5.37	7.94
FTSE Non-U.S. WGBI (Unhedged)***	-0.11	5.39	6.78	0.60	1.28	1.15
FTSE 3-Month T-Bill***	0.56	1.78	2.36	1.52	0.96	0.52

Other Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Hueler Stable Value	0.64	1.89	2.50	2.19	2.02	2.20
Bloomberg Commodity	-1.84	3.13	-6.57	-1.50	-7.18	-4.32
HFRI Fund of Funds Composite	-0.90	5.21	0.01	3.21	1.98	2.69
NCREIF NFI-ODCE	1.31	4.80	5.59	7.30	9.34	10.86
Thomson Reuters Private Equity**	4.34	9.47	12.31	15.52	11.98	14.79

* Net Dividends Reinvested

** Performance reported as of Q2 2019 because Q3 2019 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

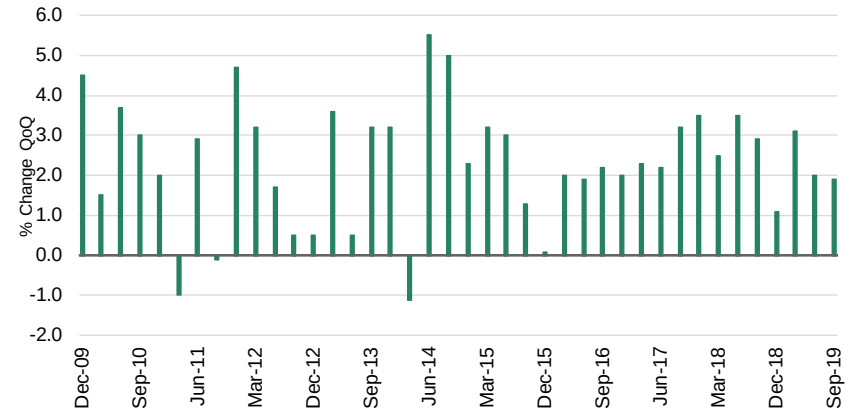
Sources: eVestment Alliance, Hueler Analytics, Investment Metrics, Thomson One, FactSet

Q3 2019 In Review: U.S. Economy

GDP Growth

- U.S. GDP growth rose by 1.9% in Q3 2019.
- Consumer spending fell to 2.9% in Q3 after a particularly robust Q2. Spending on big-ticket items like cars slowed but remained relatively robust. Services spending declined as well.
- Nonresidential fixed investment, ie software, R&D and equipment spending, fell 3.0%. This decline suggests that trade and political uncertainty are affecting business investment decisions.

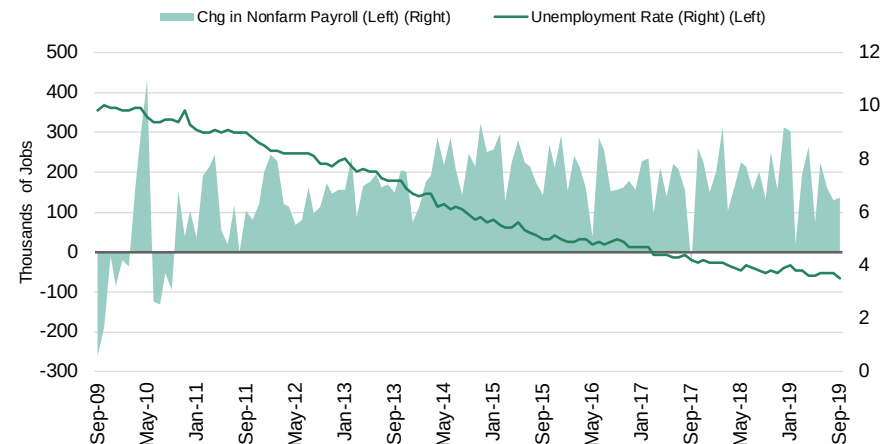
U.S. Real GDP Growth



Employment Picture

- The unemployment rate fell to 3.5% in September. Nonfarm payrolls rose by 430,000 over the quarter.
- Employment gains were led by health care, professional and business services, government, and transportation and warehousing.
- Employment in industries such as retail, mining, construction, manufacturing, wholesale trade, information, financial activities, and leisure and hospitality showed little change.

U.S. Nonfarm Payrolls and Unemployment Rate

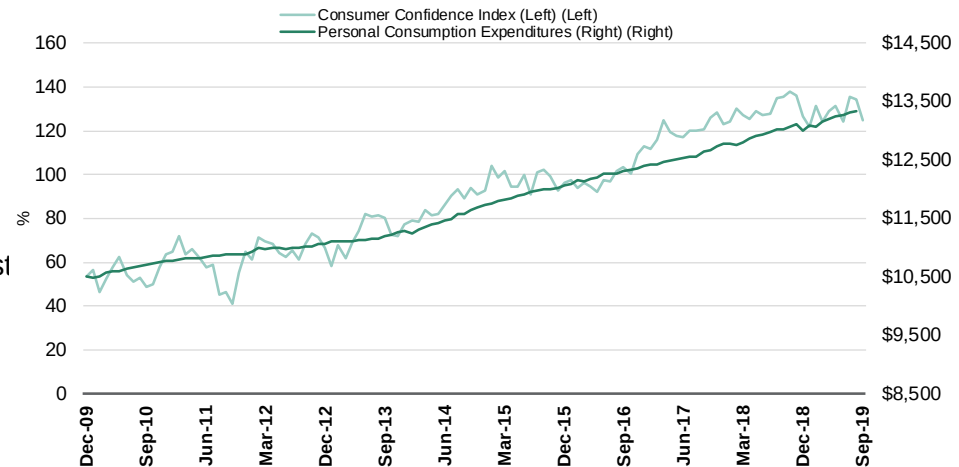


Q3 2019 In Review: U.S. Economy

Consumer Confidence and Spending

- Sentiment rose in Q3, as the Conference Board's Consumer Confidence Index increased from 121.5 at the end of June to 125.1 at the end of September.
- Personal consumption expenditures rose in August*.
- Consumer confidence increased as worries over global trade tensions eased somewhat and the Fed continued to cut interest rates.

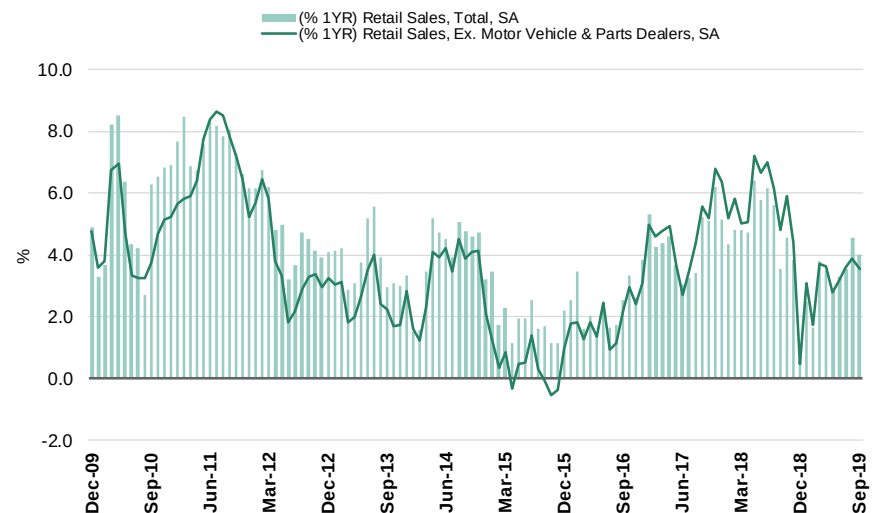
Consumer Confidence and Spending



Retail Sales

- Retail sales ended September* up 4.0% from one year ago.
- Motor vehicle, building materials, hobbies and online purchases all fell in September.
- Sales were unchanged at electronic and appliance stores, and were higher at furniture and clothing stores.

U.S. Retail Sales



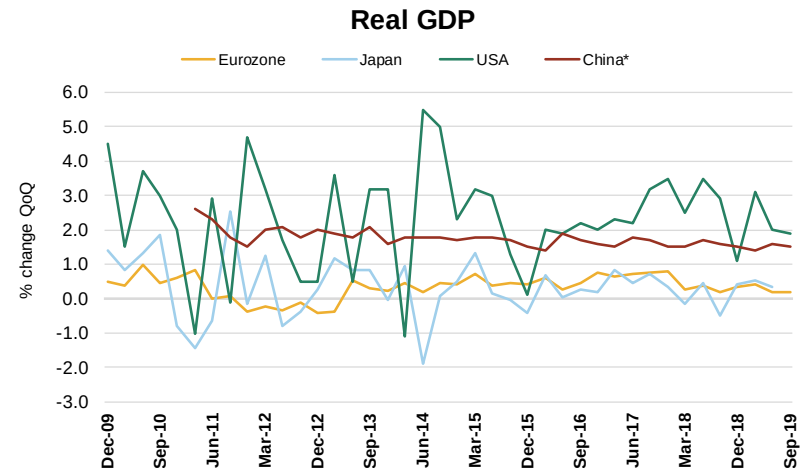
*The most recent data available.

Source this page: FactSet

Q3 2019 In Review: Global Economy

World GDP Growth

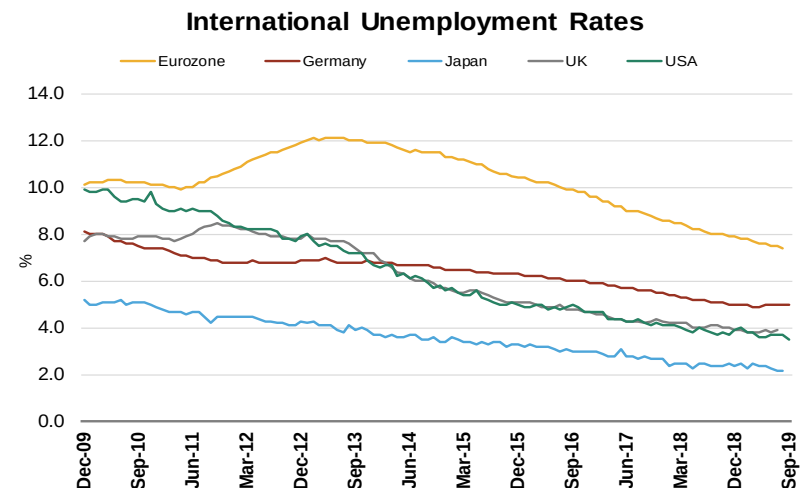
- Eurozone GDP rose 0.2% quarter over quarter (QoQ), slightly above market expectations. The Eurozone's annual growth rate was 1.06%.
- China's GDP growth fell by 0.1% QoQ to 1.5% in Q3. The country's annual growth rate dropped to 6%, the slowest since Q1 1992.
- Japan's GDP increased 0.3% QoQ in Q2, less than the 0.6% growth notched in Q1. The Japanese economy's annual growth rate rose to 1.0%.
- U.S. GDP grew 1.9% in Q3.



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 fell to 7.4% in August 2019**, the region's lowest-recorded rate since July 2008. The Czech Republic (2.0%) and Germany (3.1%) had the lowest unemployment rates in the EU.
- Japan's unemployment rate fell to 2.2% in August. This matches its previous historic low of 2.2% from October 1992.



*Quarter over quarter data calculations began in 2011.

**Most recent data available.

Source this page: FactSet

Q3 2019 In Review: Global Equity Overview

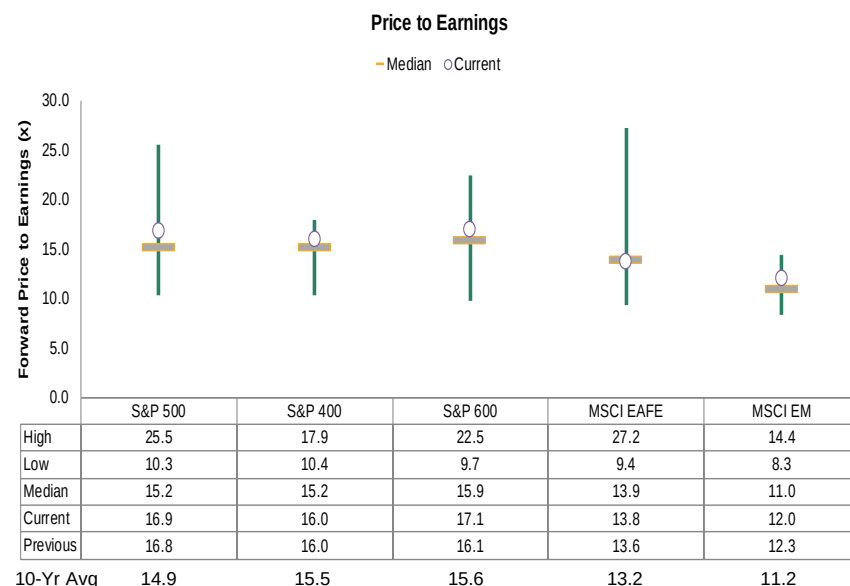
Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	1.70	20.55	4.25	13.39	10.84	13.24
MSCI Europe, Australasia and Far East (EAFE)*	-1.07	12.80	-1.34	6.48	3.27	4.90
MSCI Emerging Markets (EM)*	-4.25	5.89	-2.02	5.97	2.33	3.37

All data in the table are percentages.

* Net dividends reinvested

Global Equity Performance and Valuations

- U.S. equity markets were higher in Q3, while developed international and emerging markets were lower.
- After climbing through July, global equity markets dipped sharply in August, but then recovered into mid-September as new U.S.-China talks were announced and odds of a no-deal Brexit declined.
- Trade risks across the globe remained unresolved, which led to the underperformance of international stocks in Q3 relative to domestic markets. Global trade uncertainty particularly undermined countries that are tightly integrated with Chinese supply chains.
- Trade issues were not limited to China and the U.S.— questions surrounded trade relations between the U.S. and Europe and between Japan and South Korea.
- Brexit and other political questions also dogged international stocks. While odds of a no-deal Brexit declined, uncertainty surrounding the situation continued.



Data range is from 3/31/00-09/30/19. P/E ratios are forward 12 months.

Q3 2019 In Review: U.S. Equity

U.S. Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	1.70	20.55	4.25	13.39	10.84	13.24
Russell 1000	1.42	20.53	3.87	13.19	10.62	13.23
Russell 1000 Growth	1.49	23.30	3.71	16.89	13.39	14.94
Russell 1000 Value	1.36	17.81	4.00	9.43	7.79	11.46
Russell 2000	-2.40	14.18	-8.89	8.23	8.19	11.19
Russell 2000 Growth	-4.17	15.34	-9.63	9.79	9.08	12.25
Russell 2000 Value	-0.57	12.82	-8.24	6.54	7.17	10.06
Russell 3000	1.16	20.09	2.92	12.83	10.44	13.08

All data in the tables are percentages.

Performance

- All indices were negative for small cap funds, while large cap indices were positive. Recent interest rate cuts had a stronger positive effect on large cap funds, and earnings growth expectations for the quarter were positive.
- Small cap growth has outperformed value for the year to date, though small cap value held up better than growth in Q3. In large cap, however, growth has dominated both for the year to date and the quarter.
- The top performing sectors in Q3 were defensive: Utilities (+9.3%) and Consumer Staples (+6.1%). Energy was the worst performing sector in the S&P 500 during 3Q (-6.3%); the drop in composite crude oil (down 6%) is a likely factor.

S&P 500 Sector Returns	QTD	1-Year
Cons. Disc.	0.51	2.36
Cons. Staples	6.11	16.85
Energy	-6.30	-19.21
Financials	2.01	3.92
Healthcare	-2.25	-3.57
Industrials	0.99	1.39
IT	3.34	8.59
Materials	-0.12	2.70
Telecom	2.22	5.69
Real Estate	7.71	24.74
Utilities	9.33	27.10

Q3 2019 In Review: International Equity

MSCI International Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
World ex. U.S.	-0.93	13.57	-0.95	6.49	3.06	4.78
EAFE	-1.07	12.80	-1.34	6.48	3.27	4.90
EAFE Local Currency	1.75	15.67	1.56	8.30	6.02	7.04
Europe	-1.80	13.72	-0.75	6.57	2.38	4.61
Europe ex U.K.	-1.55	15.07	0.02	7.31	3.18	4.46
U.K.	-2.49	10.09	-2.88	4.63	0.44	4.76
Japan	3.13	11.12	-4.69	6.22	5.61	5.51
Pacific Asia ex Japan	-5.20	11.89	3.01	7.12	4.20	5.75

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

Performance

- International markets lost their momentum in the third quarter as the MSCI EAFE and World ex US indices fell roughly 1% for the quarter, trailing domestic markets again. Japan (3.1%) and Netherlands (2.4%) both had positive absolute returns in the quarter, while Spain (-3.8%), Germany, and Sweden were among the worst performers.
- A strengthening US dollar hampered both developed and emerging markets, as the Trade Weighted USD Index rose 3% during the quarter.
- Protests in Hong Kong caused turmoil in Asia and dragged Pacific Asia ex Japan down, while Brexit uncertainty continued to act as a headwind to UK stocks despite a reduced chance of a no deal exit. The ECB's announcement of a new monetary stimulus package was a positive for Europe stocks.
- Energy fell the most in Q3 with the drop in crude prices. Materials (-5.42%) and financials (-2.59%) also struggled. Health care (+2.41%) and utilities (+2.39%) gained the most.

MSCI EAFE Sector Returns	QTD	1-Year
Consumer Disc.	0.26	-2.04
Cons. Staples	1.89	6.93
Energy	-6.50	-14.53
Financials	-2.59	-6.25
Healthcare	2.41	4.30
Industrials	-2.00	-2.06
IT	-0.51	1.81
Materials	-5.42	-5.71
Telecom	-0.93	-0.74
Utilities	2.39	13.15
Real Estate	-1.25	4.25

Q3 2019 In Review: Emerging Market Equity

MSCI EM Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Emerging Markets	-4.25	5.89	-2.02	5.97	2.33	3.37
EM Local Currency	-2.07	7.77	-0.23	7.63	5.52	5.91
Asia	-3.41	5.98	-3.87	6.33	4.09	5.20
EMEA	-7.02	5.13	0.85	3.83	-1.08	1.06
Latin America	-5.61	6.32	6.70	6.80	-0.78	-0.48

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

Performance

- Emerging markets slumped in Q3, falling nearly 4.3%, yet again trailing both domestic and international developed markets.
- The US China trade war continues to be a headwind to EM equities as the two countries announced a new round of tariffs. Emerging market stocks fell sharply in both July and August amid geopolitical volatility, including the bombing of several ARAMCO oil fields in Saudi Arabia, before posting a slight positive return in September.
- Taiwan was the only EM country to post positive returns for the quarter (5.2%) driven by Taiwan Semiconductor, which benefited from strong Q2 earnings and an acceleration in 5G deployments, while South Africa fell nearly 13% as a result of economic and geopolitical issues.
- All EM sectors posted negative absolute returns, with the exception of tech. EM tech, despite poor performance from China's tech conglomerates, showed resiliency in posting positive absolute performance. Materials and healthcare continue to be strong detractors.

Sources this page: Investment Metrics, FactSet

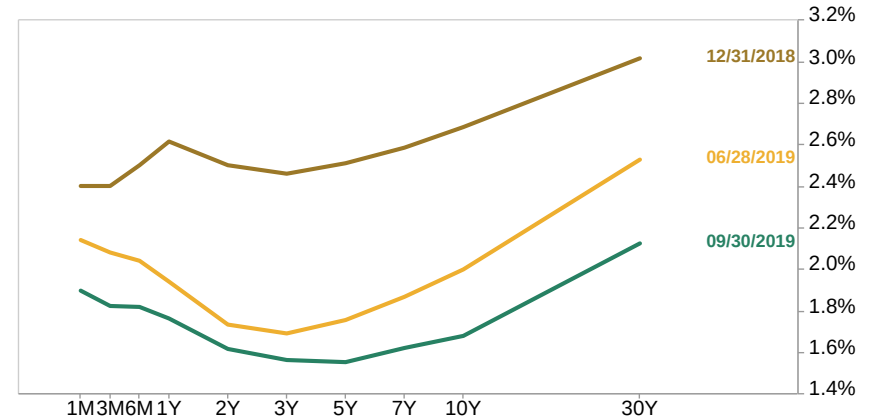
MSCI EM Sector Returns	QTD	1-Year
Cons. Disc.	-3.06	0.08
Cons. Staples	-0.81	2.97
Energy	-3.95	-2.32
Financials	-7.99	1.64
Healthcare	-6.60	-24.22
Industrials	-5.23	-4.38
IT	5.63	3.94
Materials	-10.72	-15.87
Telecom	-5.17	-2.46
Utilities	-3.55	7.18
Real Estate	-8.76	6.82

Q3 2019 In Review: Fixed Income Overview

Yield Curve

- Treasury yields continued to fall across the curve in Q3, with the Fed cutting rates by 0.25% in July and by 0.25% in September.
- The yield curve inverted in late August, with the 10-year yield falling below the 2-year yield. Global demand for Treasuries also contributed to lower yields across all tenors.
- The 30-year Treasury ended the quarter yielding 2.12%, which was 40 bps lower than its yield at the end of Q2. The 2-year Treasury ended the quarter at 1.63%, which was 12 bps lower than the prior quarter. The curve reverted by the end of the quarter, with the 10-year Treasury at 1.68%, 5 bps higher than the 2-year Treasury.

United States Treasury Yield Curve



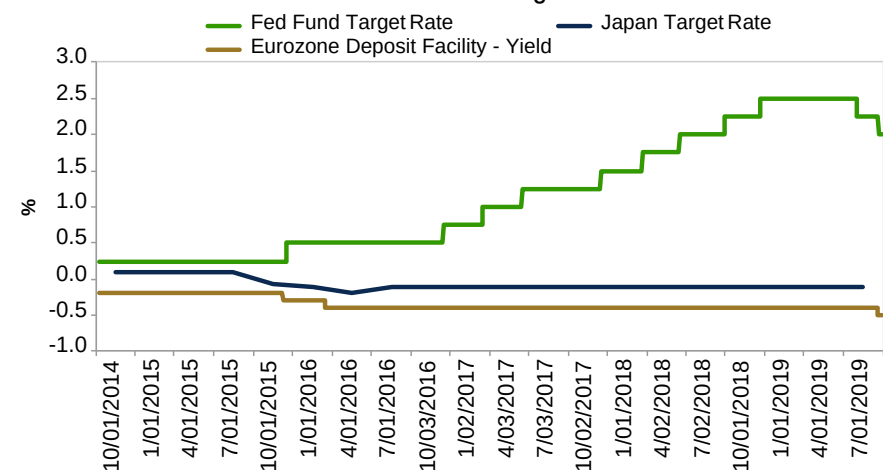
Monetary Policies/Global Interest Rates

- Central bank deposit rates remained negative in Japan and Europe. The European Central Bank lowered the deposit rate by 10 bps to negative 0.50%.
- Concern for economic growth increased due to the inverted yield curve, which is considered to be a leading indicator of recession.
- The U.S. continues to be a global outlier with its policy rate at 2.0%. Policy rates in the Eurozone and Japan remain negative. The ECB cut its deposit rate and said it will restart bond purchases in November in an effort to stimulate economic growth in Europe.

Interest Rates	Fed Funds Rate	EZ Deposit Facility Rate
Average	5.13% (1971-2019)	1.00% (1999-2019)
Max	20.0% (Mar. 1980)	3.75% (Oct. 2000)
Min	0.25% (Dec. 2008)	-0.50% (Sep. 2019)

Source this page: FactSet

Central Bank Target Rates



Q3 2019 In Review: U.S. Fixed Income

U.S. Fixed Income Indices*	QTD	YTD	1-Year	3-Year	5-Year	10-Year
U.S. Aggregate	2.27	8.52	10.30	2.92	3.38	3.75
Government/Credit	2.64	9.72	11.32	3.16	3.61	3.94
Government	2.39	7.66	10.40	2.27	2.90	3.00
Investment Grade Corporate	3.05	13.20	13.00	4.50	4.72	5.56
Investment Grade CMBS	1.89	8.61	10.40	3.31	3.79	6.12
U.S. Corporate High Yield	1.33	11.41	6.36	6.07	5.37	7.94
FTSE** 3-Month T-Bill	0.56	1.78	2.36	1.52	0.96	0.52
Hueler Stable Value	0.64	1.89	2.50	2.19	2.02	2.20

* Bloomberg Barclays Indices, unless otherwise noted.

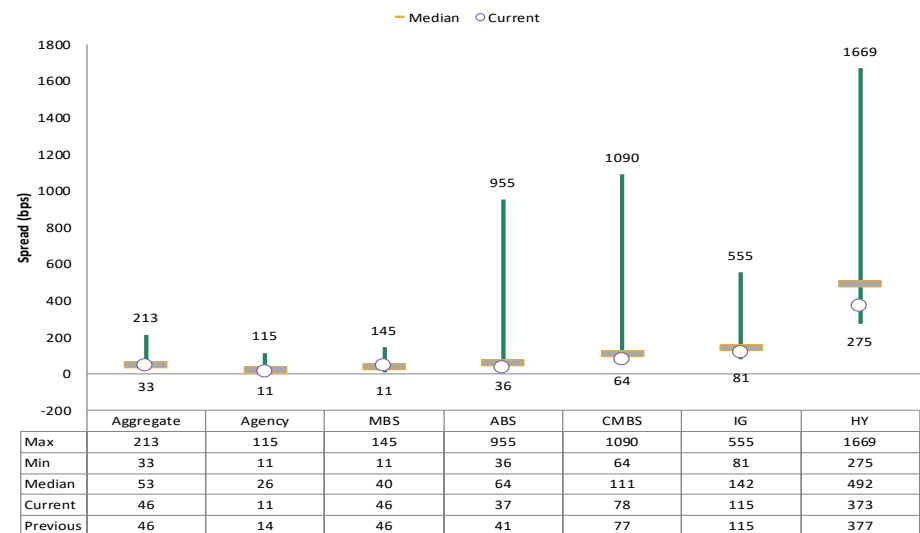
** Formerly Citigroup. Citigroup's fixed income indices were purchased by London Stock Exchange Group (LSEG) and were rebranded to FTSE by July 31, 2018. FTSE Russell is a unit of LSEG's Information Services Division and a wholly owned subsidiary of LSEG.

All data in the table are percentages.

Performance and Spreads

- The U.S. Aggregate Index was positive in Q3. In absolute terms, the US Investment Grade Corporate sector generated the strongest returns (+3.05%). Given the sizeable Treasury weight in the index, that sector's solid performance was a significant positive contributor as well for the quarter (+2.40%).
- After generating a 2.50% return in Q2, high yield continued to rise in Q3, generating 1.33% for the quarter. Higher quality credits outperformed the CCC and below sector (which actually had negative performance for the quarter).
- With the exception of bank loans, most domestic fixed income spreads were either tighter than or in line with end of Q2 levels, but still wider than the levels seen at the end of the third quarter of 2018.

Fixed Income Spreads



Q3 2019 In Review: International Fixed Income

Global Fixed Income Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Bloomberg Barclays Global Aggregate	0.71	6.32	7.60	1.59	1.99	2.34
Bloomberg Barclays Global Aggregate (Hgd)	2.59	8.75	10.65	3.65	4.12	4.17
FTSE Non-U.S. WGBI*	-0.11	5.39	6.78	0.60	1.28	1.15
FTSE Non-U.S. WGBI (Hgd)	3.49	10.06	12.57	4.36	5.04	4.52
JPM EMBI Global Diversified**	1.50	12.99	11.57	4.61	5.74	6.88
JPM GBI-EM Global Diversified***	-0.79	7.86	10.13	3.06	0.55	2.47

All data in the table are percentages.

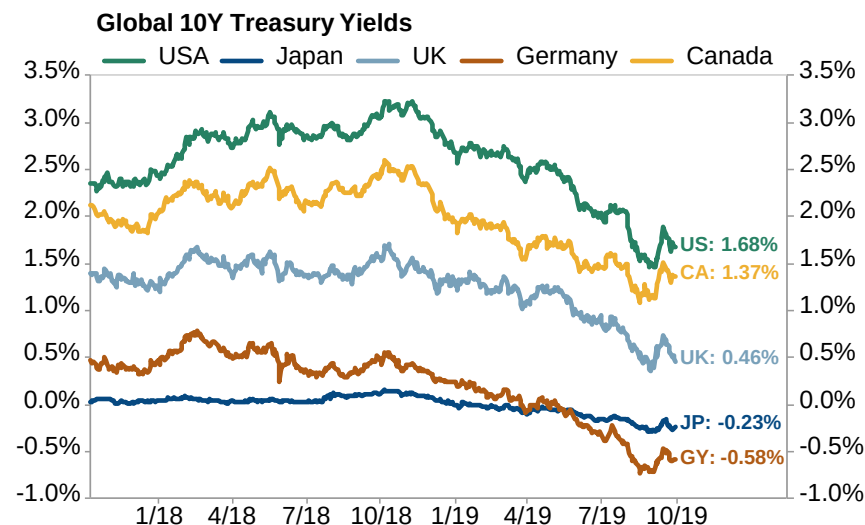
* Formerly Citigroup. The FTSE Non-U.S. World Government Bond Index (WGBI) measures the performance of fixed-rate, local currency, investment grade sovereign bonds excluding the U.S.

** 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 fell in Q3 across developed markets.
- Rhetoric from central banks was more dovish than the prior quarter due to escalating global trade tensions and unresolved or underwhelming growth in major international regions like the Eurozone.
- The yen appreciated relative to the U.S. dollar, while the British pound and euro depreciated during the quarter.
- In emerging markets, mixed results (but more positively skewed) were seen in both Asia ex-Japan and Latin America.



Q3 2019 In Review: Absolute Return Strategies

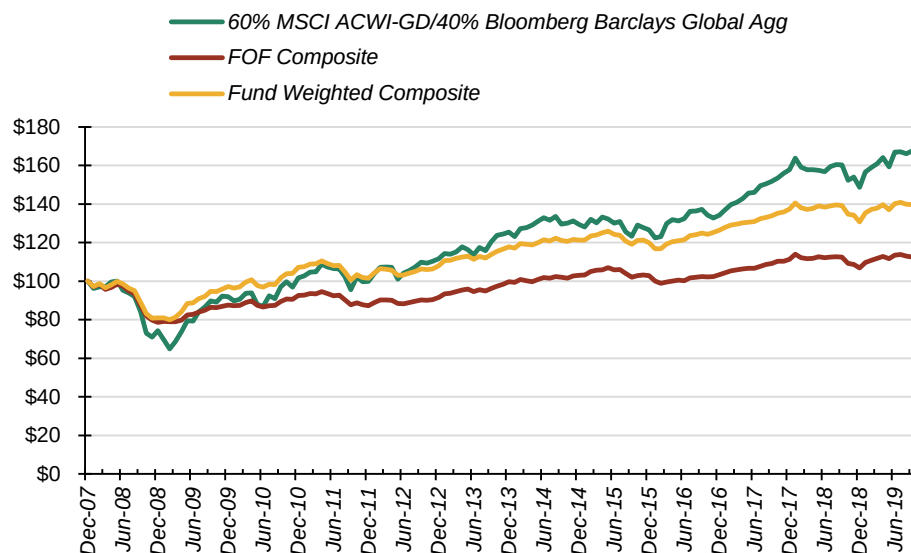
HFR Indexes	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Fund of Funds Composite	-0.90	5.21	0.01	3.21	1.98	2.69
Fund Weighted Composite	-0.39	6.81	0.40	3.78	2.90	3.97
Event Driven	-0.60	4.83	-0.22	4.56	3.02	5.09
Equity Hedge	-1.13	8.00	-1.18	4.78	3.47	4.44
Macro	1.49	6.46	4.02	1.21	1.27	1.29
Emerging Markets	-1.95	6.47	2.14	3.92	2.37	2.89
Relative Value	0.16	5.59	1.99	4.03	3.30	5.42

Hedge Fund Performance

- The HFRI Fund Weighted Composite decreased -0.4% during Q3, with mixed results across the major hedge fund strategies. However, hedge fund strategies reported the best first three-quarters of a year since 2009.
- Macro continued its success in Q3, outperforming each of the major hedge fund strategies presented by a wide margin. Geopolitical and macroeconomic uncertainties continued during the quarter, which resulted in diversified opportunities across asset classes and regions. Emerging Markets strategies suffered the greatest losses, fueled by surprise primary election results in Argentina and growing tensions between the US and China that drove fears of economic slowdown.
- The Fund Weighted Composite and Fund of Funds Composite indices were both negative and underperformed the 60/40 Balanced MSCI ACWI/Bloomberg Barclays Global Aggregate Index, which gained 0.4% during the quarter.

Sources this page: FactSet, eVestment

**HFR Fund Weighted and Fund of Funds Composite
Growth of \$100 | January 2008 - September 2019**

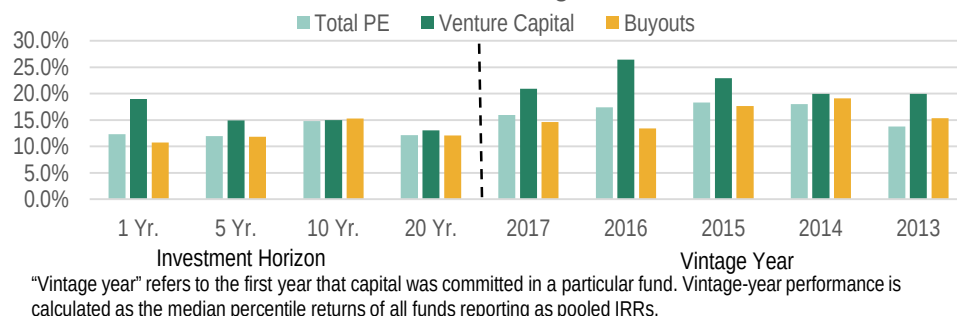


Q3 2019 In Review: Private Equity

Performance

- The total return for private equity funds, comprising performance across all regions and strategies, was 4.3% in Q2 2019* and 12.3% over the 1-year period ending Q2.
- The 5-, 10-, and 20-year returns for private equity funds were 12.0%, 14.8% and 12.1%, respectively, at the end of Q2. Venture funds continued to outperform other strategies over the most recent five years, however, over the long-term, the return dispersion across asset classes narrowed.
- 2015-through-2017-vintages all generated impressive returns by Q2, with venture even generating 20+% IRRs.

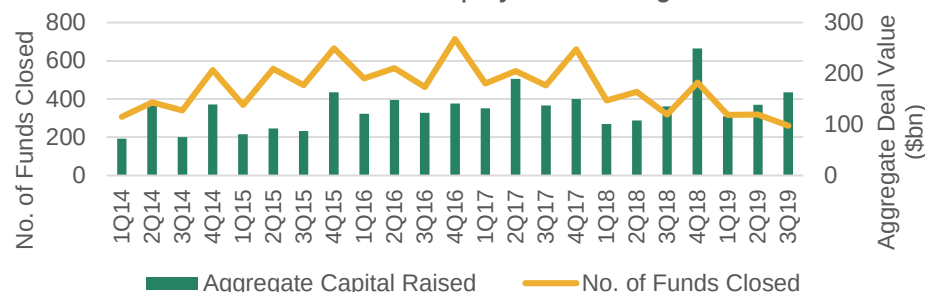
Global Private Equity Performance by Investment Horizon and Vintage Year



Fundraising

- Globally, private equity funds raised approximately \$417.3 billion through September 2019, which was \$72.5 billion higher than that was raised in the same period of 2018.
- Capital continues to be concentrated among a small number of large funds. Also, the number of funds closed has declined significantly: 895 funds have closed year-to-date compared to 1,150 during the same period a year ago.
- Dry powder** continues to rise and so does unrealized value, which stood at a record \$1.3 trillion as of 2018 YE.

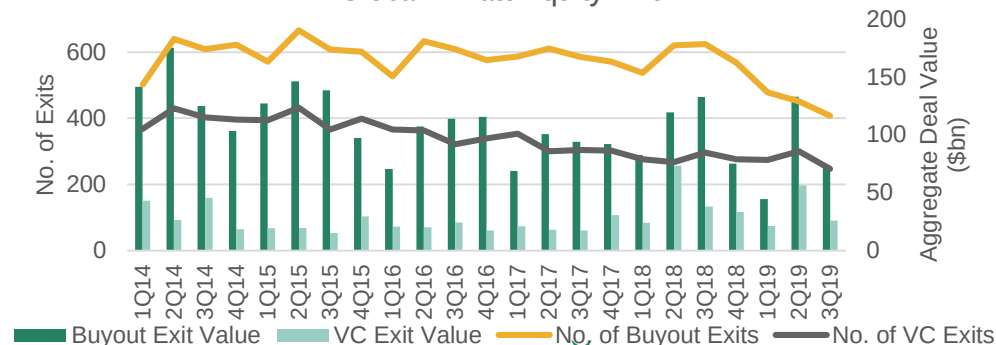
Global Private Equity Fundraising



Exit Activity

- Buyout exits have also seen an appreciable drop in value and volume this year. Activity continued to slow down in Q3 2019 with only 408 exits made in the quarter.
- Venture-backed exits slowed down in Q3, recording the lowest number of exits (247) over the 5-year period. Total value of exits also decreased to \$26 billion, reflecting the exit challenge for venture capital managers. WeWork's delayed IPO cast uncertainty over valuations of other tech firms that were also planning to go public.

Global Private Equity Exit



*Most recent data available.

**Dry powder is capital raised that hasn't yet been invested.

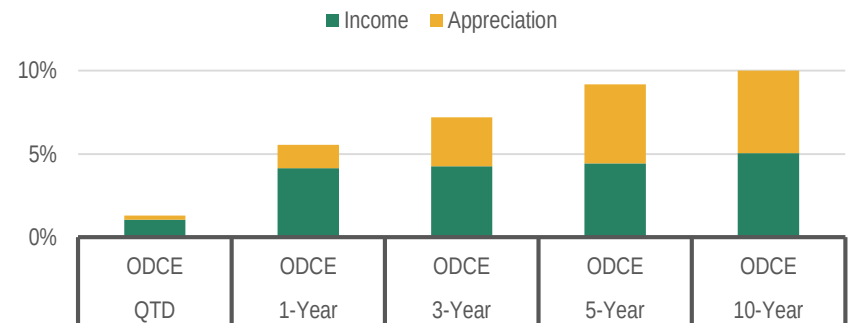
Sources this page: Thomson Reuters, Preqin

Q3 2019 In Review: Real Estate

Real Estate Performance

- NFI ODCE was up 131 bps for the quarter, while the NCREIF NPI gained 141 bps and the NAREIT Equity REIT Index gained 773 bps
- Income for the NFI-ODCE was 105 bps for the quarter, and has been consistently between 4.1% - 5% over a trailing 1-3-5-10 year basis
- US property fundamentals continue to show modest operating results but are seeing decelerating cash flow growth driven by slower economic growth and supply in line with current demand.
- US REITs finished the quarter trading at near 15% premium to NAV. That is relative to a 7% average historical premium.
- Certain sub-sectors (primary CBD office, shopping centers, hotels, malls) are trading at significant discounts relative to private real estate valuations, presenting a potentially attractive asymmetric risk/return profile should the gap close.

NCREIF Fund Index (NFI) Open-End Diversified Core (ODCE)
Real Estate Performance



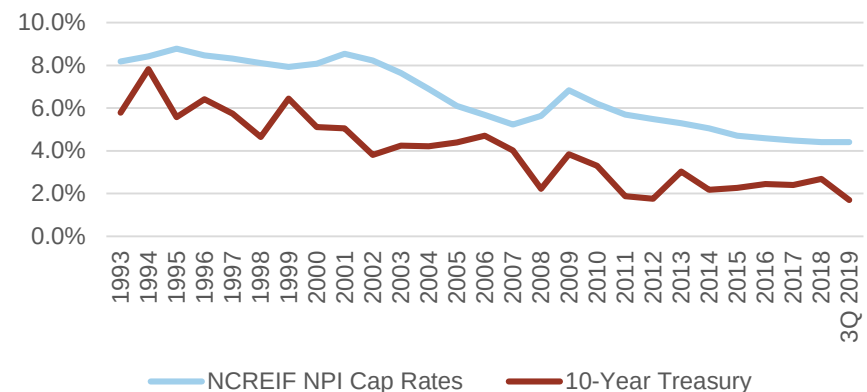
The NFI-ODCE (Open-end Diversified Core Equity) is defined by NCREIF as a fund-level cap-weighted, gross of fee, time-weighted return index with an inception date of December 31, 1977.

The NFI-CEVA Index, which is a quarter lagged in performance reporting, is defined by NCREIF as a capitalization-weighted, gross of fees, time-weighted return index. Funds included in the index must be closed-end with a value-add strategy operated for U.S. institutional investors and must comply with NCREIF's data collection and reporting standards.

Real Estate Capitalization Rates* vs. Treasuries

- Asset values remain steady for the most part; however, record levels of capital committed with growing number of retail assets for sale with limited price discovery YTD.
- Concerns among some market participants that values may have peaked after significant appreciation, but declining bond yields YTD plus continued easy credit financing have reduced those concerns
- Prevailing cap rates have been buoyed by historically wide spreads versus financing costs and persistent demand for real estate.
- Treasury rate decreases in 2019 relative to more consistent cap-rates have resulted in a 272 bps spread as of 3Q 2019, the widest spread since 2014

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.

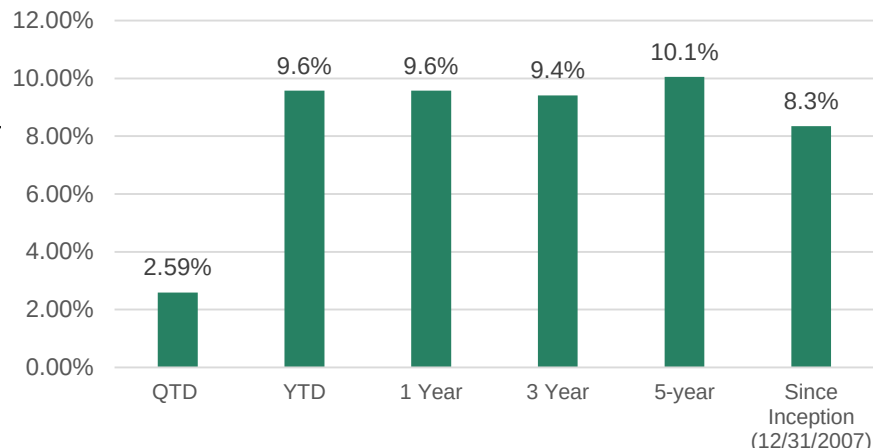
Sources this page: NCREIF, Bloomberg

Q3 2019 In Review: Infrastructure

Infrastructure Performance

- Private infrastructure gained 2.6% in Q4 2018* and 9.6% over the 1-year period ending December 31, 2018.
- Strong investor demand for infrastructure investments has led to good absolute performance across all time periods. The 4th quarter returns are indicative of continued solid income and appreciation for infrastructure assets.
- The number of deals completed in Q3 2019 fell slightly to 607 from 623 and is still well below the quarterly average number of deals. At \$460.6 million, the average deal size year to date is on pace to be a record high. Average deal size has increased throughout 2019.
- Public infrastructure registered a 2.1% return in Q3 2019, as per the FTSE Global Infrastructure 50/50 Index. Investors have favored infrastructure securities in the volatile market due to their contracted cash flows and relative safety.

Preqin Infrastructure Annualized Return as of 12/31/2018*

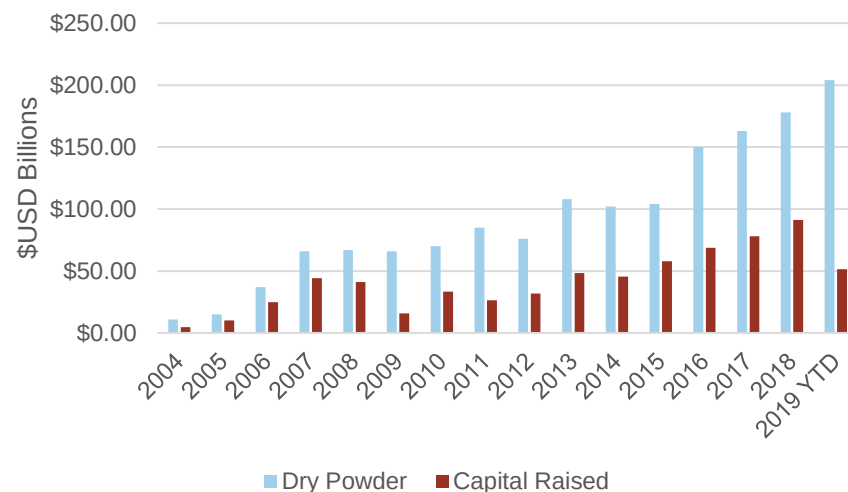


According to Preqin, the Preqin Infrastructure Index captures the average returns earned by investors in their infrastructure portfolios, based on the actual amount of money invested. The Preqin Infrastructure index is calculated on a quarterly basis using data from Preqin's Infrastructure Online services.

Dry Powder and Fundraising

- Infrastructure fundraising remains strong but there was a significant dip in Q3 of 2019. \$9.3 billion in funds were raised in Q3 2019 with an average fund size of \$488 billion. This is down from the \$23.1 Billion raised in Q2 2019 at the average fund size at \$887 million.
- Dry powder** dropped to \$204 billion. The decline in fundraising and a greater ability for managers to put capital to work helped decrease the amount of dry powder available.
- North America-based managers have driven the growth of dry powder in 2019. Asian and European based strategies have not seen significant growth in dry powder this year.

Dry Powder and Fundraising



*The most recent data available.

**Dry powder is capital raised that hasn't yet been invested.

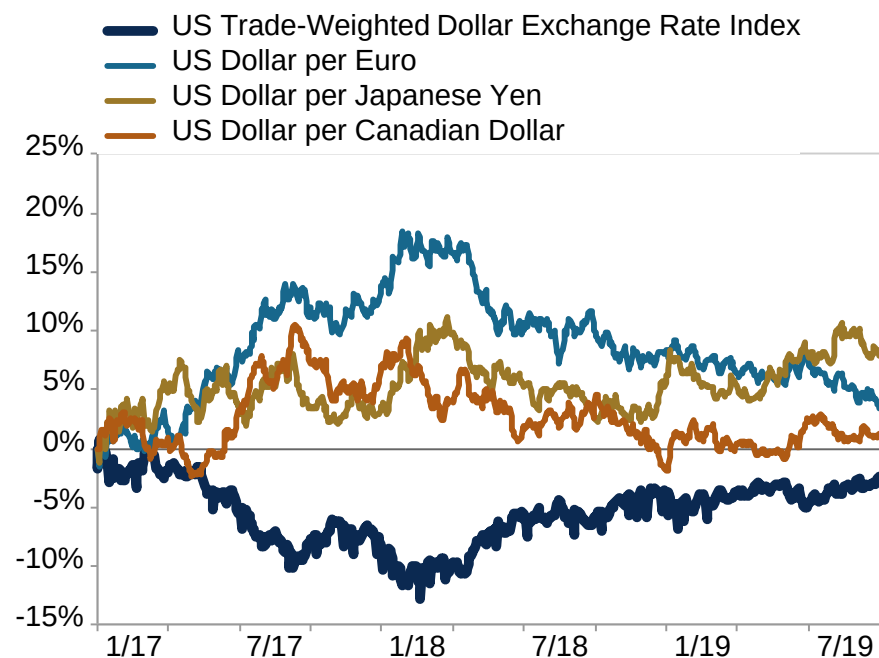
Sources this page: Preqin

Q3 2019 In Review: Commodities and Currencies

BCOM Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Bloomberg Commodity Index (BCOM)	-1.84	3.13	-6.57	-1.50	-7.18	-4.32
Energy	-4.53	5.63	-21.61	-0.82	-16.84	-11.90
Agriculture	-6.15	-5.04	-4.89	-9.64	-7.27	-3.60
Industrial Metals	2.44	7.24	-2.07	5.84	-1.68	-2.00
Precious Metals	5.28	12.83	20.52	0.88	2.17	2.32
Livestock	0.77	-6.13	-5.48	5.85	-6.58	-1.44

Commodity and Currency Highlights

- The Bloomberg Commodity Index decreased during Q3, with 18 out of 23 constituents posting negative performance.
- Underlying performance across sectors was mixed as Energy and Agriculture both posted negative returns. The top three detractors across all constituents during the quarter were in Agriculture due to favorable weather conditions that increased expected yields for the year, lowering prices.
- All base metals declined due to a stronger US Dollar and the continuing US-China trade war, except Nickel, which drove the sector's positive performance with an ~35% increase as a result of the Indonesian government announcing a ban on all nickel ore exports starting in 2020.
- Energy declined after a volatile quarter, which included a coordinated attack on a major Saudi Arabia oil field, temporarily reducing global crude oil production and processing by ~5%.
- The USD strengthened in Q3, while the yen was relatively flat and the euro was lower.



Total Fund

Bristol County Retirement System

Comparative Performance

As of September 30, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Quarter	1 Quarter Ending Jun-2019	1 Quarter Ending Mar-2019	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total Fund	713,452	100.00	0.04	3.12	7.53	10.92	4.43	7.93	6.51	8.19	8.48	7.40	01/01/2000
Total Plan Index			0.62	3.38	8.31	12.66	4.77	7.77	6.29	7.84	8.05	4.94	
Total Plan Allocation Index			0.35	3.05	8.27	11.97	4.46	N/A	N/A	N/A	N/A	N/A	
Total Domestic Equity	155,513	21.80	-1.09	3.16	15.01	17.36	-2.97	10.03	8.42	12.04	12.30	5.31	01/01/2000
S&P 500 Index			1.70	4.30	13.65	20.55	4.25	13.39	10.84	13.26	13.24	5.67	
Russell 3000 Index			1.16	4.10	14.04	20.09	2.92	12.83	10.44	13.00	13.08	6.00	
ClearBridge Large Cap Growth	29,835	4.18	-0.31	5.38	16.12	22.00	5.78	N/A	N/A	N/A	N/A	7.90	09/01/2018
Russell 1000 Growth Index			1.49	4.64	16.10	23.30	3.71	16.89	13.39	15.02	14.94	3.95	
Columbia	28,947	4.06	-5.82	4.33	22.16	20.03	-3.58	12.59	10.20	N/A	N/A	12.16	09/01/2013
Russell 1000 Growth Index			1.49	4.64	16.10	23.30	3.71	16.89	13.39	15.02	14.94	14.94	
LSV	34,251	4.80	0.76	2.24	10.93	14.28	-1.56	9.40	7.57	12.35	12.08	8.70	09/01/2004
Russell 1000 Value Index			1.36	3.84	11.93	17.81	4.00	9.43	7.79	11.30	11.46	7.89	
Lyrical	31,609	4.43	-0.49	1.63	13.46	14.74	-5.24	5.33	5.12	N/A	N/A	9.00	09/01/2013
Russell 1000 Value Index			1.36	3.84	11.93	17.81	4.00	9.43	7.79	11.30	11.46	9.88	
Frontier Capital Appreciation	15,854	2.22	-0.54	2.46	15.12	17.30	N/A	N/A	N/A	N/A	N/A	4.24	12/01/2018
Russell 2000 Growth Index			-4.17	2.75	17.14	15.34	-9.63	9.79	9.08	11.43	12.25	1.86	
Earnest Partners	15,017	2.10	1.03	2.62	12.21	16.34	-5.01	9.65	9.42	12.11	12.23	11.31	04/01/2003
Russell 2000 Value Index			-0.57	1.38	11.93	12.82	-8.24	6.54	7.17	9.35	10.06	9.88	

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Quarter	1 Quarter Ending Jun-2019	1 Quarter Ending Mar-2019	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total International Equity	163,405	22.90	-2.46	3.77	10.01	11.35	1.56	7.16	4.55	7.17	7.02	9.57	01/01/2000
MSCI EAFE (net)			-1.07	3.68	9.98	12.80	-1.34	6.48	3.27	6.12	4.90	2.95	
MSCI AC World ex USA			-1.70	3.22	10.44	12.06	-0.72	6.85	3.39	5.50	4.93	3.88	
Arrowstreet Capital	27,475	3.85	-1.44	3.37	10.75	12.84	-1.57	7.79	5.17	7.93	7.01	7.28	07/01/2001
MSCI AC World ex USA			-1.70	3.22	10.44	12.06	-0.72	6.85	3.39	5.50	4.93	5.96	
Freedom Capital Intl	33,318	4.67	-2.50	2.45	10.21	10.10	-5.44	7.35	5.54	9.08	8.82	8.91	06/01/1998
MSCI EAFE (net)			-1.07	3.68	9.98	12.80	-1.34	6.48	3.27	6.12	4.90	4.09	
Fiera International Equity	32,423	4.54	-0.19	6.96	12.00	19.56	N/A	N/A	N/A	N/A	N/A	16.62	12/01/2018
MSCI EAFE (Net)			-1.07	3.68	9.98	12.80	-1.34	6.48	3.27	6.12	4.90	7.33	
Lazard Emerging Markets	35,728	5.01	-3.81	2.59	7.07	5.65	0.05	2.58	-0.11	0.88	2.79	2.15	05/01/2007
MSCI Emerging Markets Index			-4.11	0.74	9.97	6.23	-1.63	6.37	2.71	2.79	3.73	3.05	
Aberdeen Emerging Markets	34,461	4.83	-3.90	3.99	10.86	10.79	7.24	N/A	N/A	N/A	N/A	6.06	03/01/2017
MSCI Emerging Markets Index			-4.11	0.74	9.97	6.23	-1.63	6.37	2.71	2.79	3.73	5.71	
Global REITs													
Brookfield Global Real Estate	15,147	2.12	3.36	-0.12	15.22	18.95	N/A	N/A	N/A	N/A	N/A	11.99	12/01/2018
FTSE EPRA/NAREIT Developed Index			4.87	0.20	14.86	20.69	14.11	6.62	7.78	8.07	9.50	14.15	

Bristol County Retirement System

Comparative Performance

As of September 30, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Quarter	1 Quarter Ending Jun-2019	1 Quarter Ending Mar-2019	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total Domestic Fixed	55,452	7.77	2.26	3.41	3.21	9.14	10.39	3.22	3.77	3.12	4.65	5.75	01/01/2000
Barclays Cap Aggregate			2.27	3.08	2.94	8.52	10.30	2.92	3.38	2.72	3.75	5.09	
Income Research & Management	43,038	6.03	2.76	3.68	3.40	10.17	11.74	3.63	4.07	3.57	4.80	5.81	12/01/1996
Blmbg. Barc. U.S. Gov't/Credit			2.64	3.53	3.26	9.72	11.32	3.16	3.61	2.86	3.94	5.18	
IR+M TIPS	12,162	1.70	0.59	2.54	2.61	5.84	5.81	2.03	1.98	0.92	2.82	3.65	02/01/2007
Barclays Cap US Treas: US TIPS			1.35	2.86	3.19	7.58	7.13	2.21	2.45	1.06	3.46	4.16	
Total Global Fixed	115,202	16.15	-0.68	2.72	5.06	7.18	6.56	3.71	3.94	3.33	5.11	6.45	01/01/2000
Barclays Cap Global Aggregate			0.71	3.29	2.20	6.32	7.60	1.59	2.00	1.21	2.34	4.50	
Franklin Templeton Global Bond	21,835	3.06	-3.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.84	05/01/2019
FTSE World Government Bond Index			0.85	3.57	1.74	6.27	8.13	1.19	1.80	0.59	1.69	4.97	
PIMCO Diversified Income	42,954	6.02	1.23	3.62	5.81	10.99	9.59	5.83	5.70	4.98	6.87	6.71	08/01/2006
Global Diversified Index**			0.81	3.31	5.10	9.49	8.03	3.69	3.96	3.65	5.45	6.08	
GoldenTree Multi-Sector Opportunistic Fund	20,101	2.82	-0.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.50	05/01/2019
Global Diversified Index**			0.81	3.31	5.10	9.49	8.03	3.69	3.96	3.65	5.45	3.79	
Stone Harbor EMD	15,892	2.23	-0.82	4.78	5.97	10.12	9.03	N/A	N/A	N/A	N/A	3.51	11/01/2016
50%/50% Blend **			0.37	4.86	4.93	10.44	10.91	3.89	3.19	2.26	4.73	4.38	
Ashmore Emerging Markets Total Return	14,420	2.02	-3.07	4.44	5.54	6.84	6.67	N/A	N/A	N/A	N/A	5.20	01/01/2017
50%/50% Blend **			0.37	4.86	4.93	10.44	10.91	3.89	3.19	2.26	4.73	6.23	

Bristol County Retirement System

Comparative Performance

As of September 30, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Quarter	1 Quarter Ending Jun-2019	1 Quarter Ending Mar-2019	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
PRIT Absolute Return	35,061	4.91	-0.17	2.86	3.10	5.88	2.14	4.89	2.99	4.89	4.54	4.06	10/01/2008
HFRI Fund of Funds Composite Index			-0.82	1.49	4.60	5.29	0.08	3.23	1.99	3.21	2.70	2.34	
HFRI FOF: Diversified Index			-0.63	1.67	4.32	5.39	0.55	3.32	2.01	3.24	2.78	2.43	
Total Real Estate	60,383	8.46	1.65	1.81	1.35	4.89	8.39	10.62	9.83	9.63	7.99	7.16	01/01/1995
NCREIF Property Index			1.41	1.51	1.80	4.80	6.24	6.76	8.57	9.29	9.77	9.37	
RREEF America REIT II	13,826	1.94	1.79	1.79	1.85	5.52	6.74	8.07	10.01	11.21	11.66	7.56	04/01/2005
NCREIF Property Index			1.41	1.51	1.80	4.80	6.24	6.76	8.57	9.29	9.77	8.26	
Intercontinental	30,869	4.33	2.50	1.45	1.97	6.05	8.32	N/A	N/A	N/A	N/A	9.22	01/01/2017
NCREIF Property Index			1.41	1.51	1.80	4.80	6.24	6.76	8.57	9.29	9.77	6.73	
Total Infrastructure	35,995	5.05	1.98	4.33	2.79	9.36	12.32	12.93	N/A	N/A	N/A	13.18	03/01/2016
IFM	28,252	3.96	2.40	4.05	3.39	10.16	11.79	N/A	N/A	N/A	N/A	15.87	04/01/2017
Bristol County Cash	25,980	3.64	0.83	0.73	0.62	2.20	3.23	2.29	1.72	1.34	1.08	2.78	01/01/1997
90 Day U.S. Treasury Bill			0.56	0.64	0.60	1.81	2.38	1.54	0.96	0.70	0.52	2.18	

**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.

Bristol County Retirement System

As of September 30, 2019

Internal Rates of Return

	Market Value (\$)	%	1 Quarter	1 Quarter Ending Jun-2019	1 Quarter Ending Mar-2019	1 Quarter Ending Dec-2018	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date
Other Fixed Income												
Invesco Mortgage Recovery Fund	251,398	0.04	0.00	-0.33	1.35	5.23	7.79	-2.91	19.39	17.31	13.93	03/31/2010
Real Assets												
Active Funds:												
Brookfield Timberlands Fund V	1,144,262	0.16	0.00	2.31	3.19	-8.23	-3.64	8.91	8.74	N/A	8.89	12/23/2013
Eastern Timberland Opportunities II	3,002,999	0.42	1.96	0.91	4.40	-0.94	6.36	7.63	9.25	N/A	8.97	07/03/2014
GCM Customized Infrastructures Strategies II, LP	7,742,690	1.09	0.00	5.35	-0.05	5.77	11.78	10.04	N/A	N/A	9.51	03/10/2016
Invesco Mortgage Recovery II	4,994,437	0.70	0.00	6.42	0.75	10.59	20.14	19.49	N/A	N/A	14.03	05/20/2016
TerraCap Partners IV	10,629,264	1.49	0.00	-1.06	-0.33	4.19	2.82	N/A	N/A	N/A	5.30	07/17/2018
Funds in Liquidation												
Hunt RIVA (FKA SSgA Tuckerman)	64,294	0.01	0.00	1.50	-0.85	-1.51	-0.88	-9.09	-2.92	8.85	0.00	10/01/2004

Bristol County Retirement System

As of September 30, 2019

Internal Rates of Return

	Market Value (\$)	%	1 Quarter	1 Quarter Ending Jun-2019	1 Quarter Ending Mar-2019	1 Quarter Ending Dec-2018	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date
Total Private Equity	47,166,878	6.61	6.71	3.60	2.19	3.85	17.49	17.82	11.23	11.11	177.68	01/05/1995
Active Funds:												
BlackRock Vesey Street Fund III	337,272	0.05	0.00	-2.68	0.23	-5.36	-8.31	-5.23	4.52	9.08	4.14	07/17/2006
DuPont Capital Management II	582,371	0.08	0.00	-2.05	-0.28	-4.33	-6.74	-1.34	-3.66	0.96	0.56	08/14/2006
DN Partners II	1,939,453	0.27	-0.41	-0.31	-0.31	80.58	78.15	40.78	-3.89	-3.36	-4.26	01/11/2007
BlackRock Vesey Street Fund IV	3,798,485	0.53	0.00	0.42	1.46	0.11	2.08	8.27	6.32	9.65	8.06	02/24/2009
Mesirow PE Fund V	3,999,834	0.56	0.00	6.47	4.43	2.81	14.50	16.09	15.40	16.31	14.47	04/09/2009
PRIT Vintage 2014	9,117,110	1.28	5.86	7.71	-1.10	5.63	19.19	26.54	20.13	N/A	19.63	05/01/2014
PRIT Vintage 2015	13,852,920	1.94	11.93	8.36	-0.36	8.99	32.14	29.46	N/A	N/A	24.54	03/01/2015
PRIT Vintage 2016	5,194,158	0.73	4.01	3.58	-4.25	0.99	4.62	6.99	N/A	N/A	5.01	03/01/2016
PRIT Vintage 2017	4,907,489	0.69	10.33	-5.23	28.02	-28.95	10.06	N/A	N/A	N/A	9.18	04/30/2017
PRIT Vintage 2018	2,578,667	0.36	14.17	-16.17	17.40	-27.77	-1.24	N/A	N/A	N/A	-2.44	05/30/2018
PRIT Vintage 2019	714,002	0.10	3.33	-0.65	N/A	N/A	N/A	N/A	N/A	N/A	4.44	03/31/2019
Funds in Liquidation:												
Charles River XI	145,117	0.02	0.00	0.04	0.02	3.14	3.21	7.93	14.78	7.93	8.84	11/22/2000

Bristol County Retirement System

Comparative Performance

As of September 30, 2019

	Allocation		Performance (%)									
	Market Value (\$000)	%	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total Fund	713,452	100.00	-3.68	17.25	7.32	0.21	5.30	18.86	15.68	-1.44	14.26	21.58
Total Plan Index			-4.59	15.96	6.19	0.79	6.25	17.81	12.59	0.45	11.21	21.02
Total Plan Allocation Index			-4.73	16.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Domestic Equity	155,513	21.80	-11.11	23.61	9.01	0.66	10.97	39.12	16.25	1.11	17.08	29.17
S&P 500 Index			-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06	26.46
Russell 3000 Index			-5.24	21.13	12.74	0.48	12.56	33.55	16.42	1.03	16.93	28.34
Columbia	28,947	4.06	-4.30	35.56	-8.17	8.65	10.45	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index			-1.51	30.21	7.08	5.67	13.05	33.48	15.26	2.64	16.71	37.21
ClearBridge Large Cap Growth	29,835	4.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index			-1.51	30.21	7.08	5.67	13.05	33.48	15.26	2.64	16.71	37.21
Intech Large Cap Growth	-	0.00	N/A	30.03	6.11	4.36	10.44	33.91	14.80	2.22	17.65	27.40
Russell 1000 Growth Index			-1.51	30.21	7.08	5.67	13.05	33.48	15.26	2.64	16.71	37.21
LSV	34,251	4.80	-11.72	18.89	16.66	-2.14	13.25	40.94	21.22	-0.94	13.94	24.91
Russell 1000 Value Index			-8.27	13.66	17.34	-3.83	13.45	32.53	17.51	0.39	15.51	19.69
Lyrical	31,609	4.43	-20.80	19.32	15.33	-4.25	14.28	N/A	N/A	N/A	N/A	N/A
Russell 1000 Value Index			-8.27	13.66	17.34	-3.83	13.45	32.53	17.51	0.39	15.51	19.69
Frontier Capital Appreciation	15,854	2.22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2000 Growth Index			-9.31	22.17	11.32	-1.38	5.60	43.30	14.59	-2.91	29.09	34.47
Rice Hall James	-	0.00	1.03	13.28	7.08	-0.08	5.41	36.41	13.30	9.12	30.15	38.55
Russell 2000 Growth Index			-9.31	22.17	11.32	-1.38	5.60	43.30	14.59	-2.91	29.09	34.47
Earnest Partners	15,017	2.10	-13.38	20.01	24.39	-4.51	8.89	34.88	14.90	2.76	20.45	26.39
Russell 2000 Value Index			-12.86	7.84	31.74	-7.47	4.22	34.52	18.05	-5.50	24.50	20.58

Bristol County Retirement System

Comparative Performance

As of September 30, 2019

	Allocation		Performance (%)									
	Market Value (\$000)	%	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total International Equity	163,405	22.90	-12.74	27.74	8.40	-4.29	-3.24	21.81	24.35	-14.17	17.77	53.39
<i>MSCI EAFE (net)</i>			-13.79	25.03	1.00	-0.81	-4.90	22.78	17.32	-12.14	7.75	31.78
<i>MSCI AC World ex USA</i>			-13.78	27.77	5.01	-5.25	-3.44	15.78	17.39	-13.33	11.60	42.14
Arrowstreet Capital	27,475	3.85	-11.98	27.26	6.87	-1.88	-2.74	23.44	19.10	-12.96	14.39	47.80
<i>MSCI AC World ex USA</i>			-13.78	27.77	5.01	-5.25	-3.44	15.78	17.39	-13.33	11.60	42.14
Freedom Capital Intl	33,318	4.67	-12.90	27.96	6.75	1.37	-2.88	33.24	31.46	-15.84	20.72	53.54
<i>MSCI EAFE (net)</i>			-13.79	25.03	1.00	-0.81	-4.90	22.78	17.32	-12.14	7.75	31.78
Fiera International Equity	32,423	4.54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI EAFE (Net)</i>			-13.79	25.03	1.00	-0.81	-4.90	22.78	17.32	-12.14	7.75	31.78
MFS International Equity	-	0.00	N/A	28.02	0.30	0.02	-4.21	18.57	22.55	-9.80	N/A	N/A
<i>MSCI EAFE (Net)</i>			-13.79	25.03	1.00	-0.81	-4.90	22.78	17.32	-12.14	7.75	31.78
Lazard Emerging Markets	35,728	5.01	-18.05	27.55	20.92	-20.42	-4.04	-0.77	21.83	-18.11	22.37	73.53
<i>MSCI Emerging Markets Index</i>			-14.25	37.75	11.60	-14.60	-1.82	-2.27	18.64	-18.17	19.20	79.02
Aberdeen Emerging Markets	34,461	4.83	-13.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI Emerging Markets Index</i>			-14.25	37.75	11.60	-14.60	-1.82	-2.27	18.64	-18.17	19.20	79.02
Global REITs												
Brookfield Global Real Estate	15,147	2.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE EPRA/NAREIT Developed Index</i>			-4.74	11.42	4.99	0.05	15.89	4.39	28.65	-5.82	20.40	38.26

Bristol County Retirement System

Comparative Performance

As of September 30, 2019

	Allocation		Performance (%)									
	Market Value (\$000)	%	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total Domestic Fixed	55,452	7.77	-0.08	3.82	3.86	0.66	6.15	-2.14	9.73	5.49	9.95	11.40
Barclays Cap Aggregate			0.01	3.54	2.65	0.55	5.97	-2.02	4.21	7.84	6.54	5.93
Income Research & Management	43,038	6.03	-0.19	4.49	4.00	0.20	7.23	-1.39	7.70	8.31	7.71	14.40
Blmbg. Barc. U.S. Gov't/Credit			-0.42	4.00	3.05	0.15	6.01	-2.35	4.82	8.74	6.59	4.52
IR+M TIPS	12,162	1.70	-0.26	1.97	4.11	-0.53	0.88	-5.54	4.96	9.08	6.41	10.49
Barclays Cap US Treas: US TIPS			-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31	11.41
Total Global Fixed	115,202	16.15	-2.43	10.00	8.55	-1.05	2.13	-1.54	11.04	4.23	12.13	21.87
Barclays Cap Global Aggregate			-1.19	7.39	2.09	-3.15	0.59	-2.60	4.32	5.64	5.54	6.93
Franklin Templeton Global Bond	21,835	3.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FTSE World Government Bond Index			-0.84	7.49	1.60	-3.57	-0.48	-4.00	1.65	6.35	5.17	2.55
PIMCO Diversified Income	42,954	6.02	-0.96	8.85	10.56	1.24	2.98	-0.91	14.97	4.44	14.27	31.57
Global Diversified Index**			-3.03	8.97	8.97	-2.02	1.99	-0.49	13.86	5.68	10.39	31.15
GoldenTree Multi-Sector Opportunistic Fund	20,101	2.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Global Diversified Index**			-3.03	8.97	8.97	-2.02	1.99	-0.49	13.86	5.68	10.39	31.15
Stone Harbor EMD	15,892	2.23	-8.65	14.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50%/50% Blend **			-5.15	12.74	10.16	-7.14	0.71	-7.10	17.21	2.79	14.02	26.00
Ashmore Emerging Markets Total Return	14,420	2.02	-5.33	13.66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50%/50% Blend **			-5.15	12.74	10.16	-7.14	0.71	-7.10	17.21	2.79	14.02	26.00
Colchester Global Bond	-	0.00	-0.47	8.74	4.28	-5.53	0.27	-2.88	N/A	N/A	N/A	N/A
FTSE World Government Bond Index			-0.84	7.49	1.60	-3.57	-0.48	-4.00	1.65	6.35	5.17	2.55

Bristol County Retirement System

Comparative Performance

As of September 30, 2019

	Allocation		Performance (%)									
	Market Value (\$000)	%	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
PRIT Absolute Return	35,061	4.91	-1.56	8.16	3.57	-1.86	5.53	12.61	8.36	-2.77	6.29	12.33
HFRI Fund of Funds Composite Index			-3.87	7.77	0.51	-0.27	3.37	8.96	4.79	-5.72	5.70	11.47
HFRI FOF: Diversified Index			-3.17	6.87	0.45	-0.17	3.42	9.04	4.81	-5.01	5.48	11.46
Total Real Estate	60,383	8.46	12.55	7.60	9.60	12.77	10.35	7.79	6.52	7.31	11.09	-33.08
NCREIF Property Index			6.72	6.96	7.97	13.33	11.82	10.98	10.54	14.26	13.11	-16.85
RREEF America REIT II	13,826	1.94	8.43	7.44	9.14	16.70	12.99	15.01	12.41	14.12	20.26	-29.13
NCREIF Property Index			6.72	6.96	7.97	13.33	11.82	10.98	10.54	14.26	13.11	-16.85
Intercontinental	30,869	4.33	10.74	8.53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Property Index			6.72	6.96	7.97	13.33	11.82	10.98	10.54	14.26	13.11	-16.85
Total Infrastructure	35,995	5.05	16.03	15.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IFM	28,252	3.96	16.98	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bristol County Cash	25,980	3.64	3.84	0.77	0.35	1.19	0.86	0.23	0.12	0.28	0.56	1.15
90 Day U.S. Treasury Bill			1.87	0.86	0.25	0.03	0.04	0.05	0.08	0.08	0.13	0.17

**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.

Bristol County Retirement System

Plan Index

As of September 30, 2019

Policy Index	Weight (%)
Jan-1976	
Blmbg. Barc. U.S. Aggregate	35.00
MSCI EAFE (Net)	15.00
S&P 500	50.00
Jul-2007	
Blmbg. Barc. U.S. Aggregate	33.00
MSCI EAFE (Net)	22.00
S&P 500	45.00
Jul-2010	
Blmbg. Barc. U.S. Aggregate	33.00
MSCI EAFE (Net)	25.50
S&P 500	41.50
Jan-2017	
Blmbg. Barc. U.S. Aggregate	18.00
Russell 3000 Index	34.00
Blmbg. Barc. Global Aggregate	16.50
MSCI AC World ex USA	24.00
NCREIF Property Index	7.50

Bristol County Retirement System

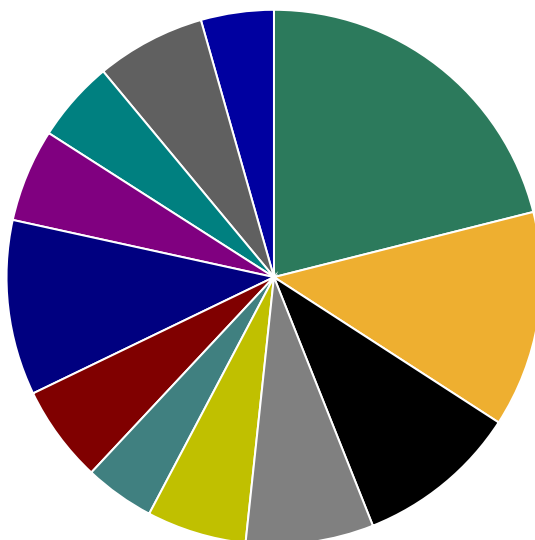
Total Plan Allocation Index

As of September 30, 2019

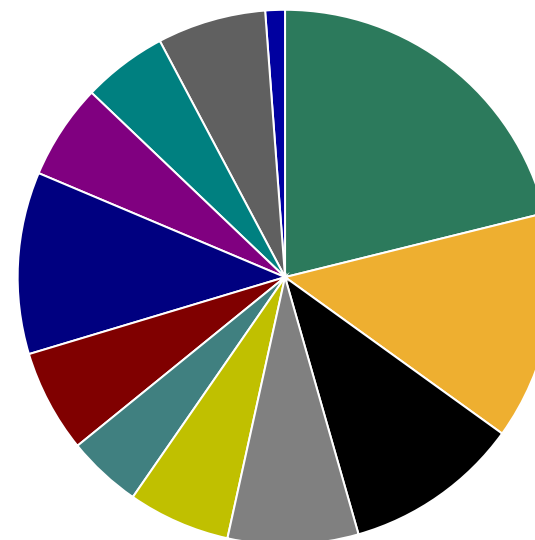
Policy Index	Weight (%)
Jan-2017	
Russell 3000 Index	30.00
NCREIF Timberland Index	3.00
FTSE EPRA/NAREIT Developed Index	2.00
MSCI EAFE Index	12.50
MSCI Emerging Markets Index	10.50
Blmbg. Barc. U.S. Aggregate	11.00
Blmbg. Barc. U.S. TIPS	2.00
Blmbg. Barc. Global Aggregate	6.50
50% JPM EMBI Global Div./ 50% JPM GBI-EM Global Div.	7.00
FTSE High Yield Market Capped Index	3.00
HFRI FOF: Diversified Index	5.00
NCREIF Property Index	7.50

Sep-2019 : \$713,451,542

Jun-2019 : \$686,779,337



Segments	Market Value (\$)	Allocation (%)
Domestic Equity	150,332,285	21.07
International Equity	93,215,969	13.07
Emerging Equity	70,189,226	9.84
Domestic Fixed Income	55,135,435	7.73
International Fixed Income	42,954,357	6.02
Emerging Fixed Income	30,311,788	4.25
Global Fixed Income	41,935,975	5.88
Real Estate	75,529,305	10.59
Alternative Investment	40,142,077	5.63
Hedge Fund	35,060,950	4.91
Private Equity	47,166,878	6.61
Cash Equivalent	31,477,298	4.41



Segments	Market Value (\$)	Allocation (%)
Domestic Equity	145,209,977	21.14
International Equity	94,721,148	13.79
Emerging Equity	73,088,374	10.64
Domestic Fixed Income	54,142,238	7.88
International Fixed Income	42,433,988	6.18
Emerging Fixed Income	30,922,014	4.50
Global Fixed Income	42,687,366	6.22
Real Estate	75,568,419	11.00
Alternative Investment	39,584,140	5.76
Hedge Fund	35,120,196	5.11
Private Equity	45,112,865	6.57
Cash Equivalent	8,188,613	1.19

Bristol County Retirement System

Financial Reconciliation

1 Quarter Ending September 30, 2019

	Market Value As of 07/01/2019	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2019
Domestic Equity							
ClearBridge Large Cap Growth	27,964,975	2,000,000	-	-44,577	-	-85,213	29,835,184
Columbia	28,618,034	2,000,000	-	-	-	-1,671,173	28,946,861
LSV	32,038,002	2,000,000	-	-46,529	-	259,416	34,250,889
Lyrical	29,796,052	2,000,000	-	-56,434	-	-130,209	31,609,410
Earnest Partners	13,901,574	1,000,000	-	-28,283	-	143,416	15,016,707
Frontier Capital Appreciation	14,935,586	1,000,000	-	-	-	-81,143	15,854,443
International Equity							
Arrowstreet Capital	27,927,754	-	-	-51,051	-	-401,536	27,475,167
Freedom Capital Intl	34,247,467	-	-	-74,264	-	-855,258	33,317,945
Fiera International Equity	32,545,926	-	-	-60,626	-	-62,442	32,422,858
Lazard Emerging Markets	37,143,220	-	-	-	-	-1,414,980	35,728,240
Aberdeen Emerging Markets	35,945,154	-	-	-83,890	-	-1,400,279	34,460,986
Global REITs							
Brookfield Global Real Estate	14,653,833	-	-	-	-	492,730	15,146,564
Domestic Fixed Income							
Income Research & Management	41,915,313	-	-	-32,038	-	1,155,129	43,038,404
IRM-TIPS	12,093,486	-	-	-2,993	-	71,573	12,162,067
Invesco Mortgage Recovery Fund	251,398	-	-	-	-	-	251,398
International Fixed Income							
Colchester Global Bond	-	-	-	-	-	-	-
Franklin Templeton Global Bond	22,573,052	-	-	-25,289	-	-712,363	21,835,400
PIMCO Diversified Income	42,433,988	-	-	-	-	520,369	42,954,357
GoldenTree Multi-Sector Opportunistic Fund	20,114,314	-	-	-	-	-13,739	20,100,575
Stone Harbor EMD	16,045,453	-	-	-22,097	-	-131,120	15,892,236
Ashmore Emerging Markets Total Return	14,876,561	-	-	-	-	-457,010	14,419,552

Bristol County Retirement System

Financial Reconciliation

1 Quarter Ending September 30, 2019

	Market Value As of 07/01/2019	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2019
Short Term Investments							
Bristol County Cash	6,026,408	37,071,134	-17,342,759	-	-	224,873	25,979,655
Total Private Equity							
DN Partners II	1,947,499	-	-	-	-	-8,046	1,939,453
Charles River XI	145,117	-	-	-	-	-	145,117
DuPont Capital Management II	582,371	-	-	-	-	-	582,371
BlackRock Vesey Street Fund III	337,272	-	-	-	-	-	337,272
BlackRock Vesey Street Fund IV	4,419,670	21,265	-642,450	-	-21,265	21,265	3,798,485
Mesirow PE Fund V	4,124,834	75,000	-200,000	-32,800	-	32,800	3,999,834
PRIT Vintage 2014	8,669,457	244,053	-308,264	-1,093	-	512,958	9,117,110
PRIT Vintage 2015	12,947,706	369,718	-986,644	-8,688	-82	1,530,909	13,852,920
PRIT Vintage 2016	5,387,715	109,534	-508,056	-625	-68	205,657	5,194,158
PRIT Vintage 2017	4,167,885	321,787	-26,092	-761	-108	444,778	4,907,489
PRIT Vintage 2018	2,046,671	504,983	-279,212	-220	-198	306,643	2,578,667
PRIT Vintage 2019	336,669	361,697	-	-249	-506	16,391	714,002
Real Assets							
Hunt RIVA (FKA SSgA Tuckerman)	64,294	-	-	-	-	-	64,294
RREEF America REIT II	13,615,262	-	-	-32,526	-	243,383	13,826,120
Intercontinental	30,180,814	-	-	-68,115	-	755,927	30,868,626
Brookfield Timberlands Fund V	1,155,219	2,917	-13,874	-2,769	-148	2,917	1,144,262
Eastern Timberland Opportunities II	2,945,390	-	-	-	-	57,609	3,002,999
GCM Customized Infrastructures Strategies II, LP	7,840,764	342,228	-440,302	-34,972	-16	34,988	7,742,690
Invesco Mortgage Recovery II	6,071,481	-	-1,077,044	-	-	-	4,994,437
IFM	27,642,767	-	-	-53,986	-	663,345	28,252,126
TerraCap Partners IV	10,982,734	-	-353,470	-	-	-	10,629,264
Hedge Fund of Funds							
PRIT Absolute Return	35,120,196	-	-	-7,675	-	-51,571	35,060,950
Total Fund	686,779,337	49,424,316	-22,178,167	-772,550	-22,390	220,995	713,451,542

Bristol County Retirement System

Financial Reconciliation

1 Year Ending September 30, 2019

	Market Value As of 10/01/2018	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2019
Domestic Equity							
ClearBridge Large Cap Growth	27,650,022	2,000,000	-1,250,000	-152,907	-	1,588,070	29,835,184
Columbia	36,356,133	2,000,000	-7,250,000	-	-	-2,159,272	28,946,861
LSV	34,212,270	2,000,000	-1,250,000	-185,688	-	-525,693	34,250,889
Lyrical	32,729,196	2,000,000	-1,250,000	-225,982	-	-1,643,804	31,609,410
Earnest Partners	14,873,406	1,000,000	-	-109,466	-	-747,232	15,016,707
Frontier Capital Appreciation	-	15,250,000	-	-	-	604,443	15,854,443
Rice Hall James	16,338,490	-	-14,163,559	-44,770	-	-2,130,161	-
International Equity							
Arrowstreet Capital	30,693,865	-	-2,500,000	-220,943	-	-497,756	27,475,167
Freedom Capital Intl	38,843,730	-	-3,000,000	-306,987	-	-2,218,798	33,317,945
Fiera International Equity	-	27,500,000	-	-196,306	-	5,119,164	32,422,858
MFS International Equity	32,027,786	-	-29,377,556	-	-	-2,650,231	-
Lazard Emerging Markets	41,644,942	-	-6,000,000	-	-	83,298	35,728,240
Aberdeen Emerging Markets	32,437,766	-	-	-319,149	-	2,342,368	34,460,986
Global REITs							
Brookfield Global Real Estate	-	13,450,000	-	-	-	1,696,564	15,146,564
CBRE Clarion Global REITs	13,884,825	-	-13,453,192	-36,566	-	-395,067	-
Domestic Fixed Income							
Income Research & Management	41,545,842	-	-3,000,000	-129,359	-	4,621,922	43,038,404
IRM-TIPS	11,505,795	-	-	-11,665	-	667,937	12,162,067
Invesco Mortgage Recovery Fund	355,598	-	-126,979	-	-	22,779	251,398

Bristol County Retirement System

Financial Reconciliation

1 Year Ending September 30, 2019

	Market Value As of 10/01/2018	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2019
International Fixed Income							
Colchester Global Bond	25,831,839	-	-26,396,028	-84,090	-	648,279	-
Franklin Templeton Global Bond	-	22,500,000	-	-25,289	-	-639,311	21,835,400
PIMCO Diversified Income	64,943,579	-	-27,000,000	-	-	5,010,778	42,954,357
GoldenTree Multi-Sector Opportunistic Fund	-	20,000,000	-	-	-	100,575	20,100,575
Stone Harbor EMD	18,477,612	-	-4,000,000	-96,607	-	1,511,232	15,892,236
Ashmore Emerging Markets Total Return	15,417,629	-	-2,000,000	-	-	1,001,922	14,419,552
Short Term Investments							
Bristol County Cash	4,901,594	188,157,602	-167,391,047	-	-	311,507	25,979,655
Total Private Equity							
DN Partners II	1,078,489	12,139	-	-	-	848,825	1,939,453
Charles River XI	140,609	-	-	-	-	4,508	145,117
DuPont Capital Management II	718,797	3,393	-93,852	-3,393	-	-42,574	582,371
BlackRock Vesey Street Fund III	478,912	4,601	-112,500	-	-4,601	-29,140	337,272
BlackRock Vesey Street Fund IV	5,130,274	178,428	-1,605,046	-	-57,991	152,820	3,798,485
Mesirow PE Fund V	4,267,377	175,350	-1,000,000	-41,912	-350	599,369	3,999,834
PRIT Vintage 2014	7,723,372	1,095,115	-1,169,175	-3,348	-31,216	1,502,362	9,117,110
PRIT Vintage 2015	9,211,365	2,388,211	-1,068,085	-35,321	-55,725	3,412,474	13,852,920
PRIT Vintage 2016	3,687,005	1,796,503	-510,466	-3,661	-36,701	261,477	5,194,158
PRIT Vintage 2017	1,796,632	2,804,697	-35,040	-4,015	-55,725	400,940	4,907,489
PRIT Vintage 2018	621,643	2,256,928	-279,212	-3,020	-13,348	-4,325	2,578,667
PRIT Vintage 2019	-	701,414	-1,869	-482	-1,033	15,972	714,002

Bristol County Retirement System

Financial Reconciliation

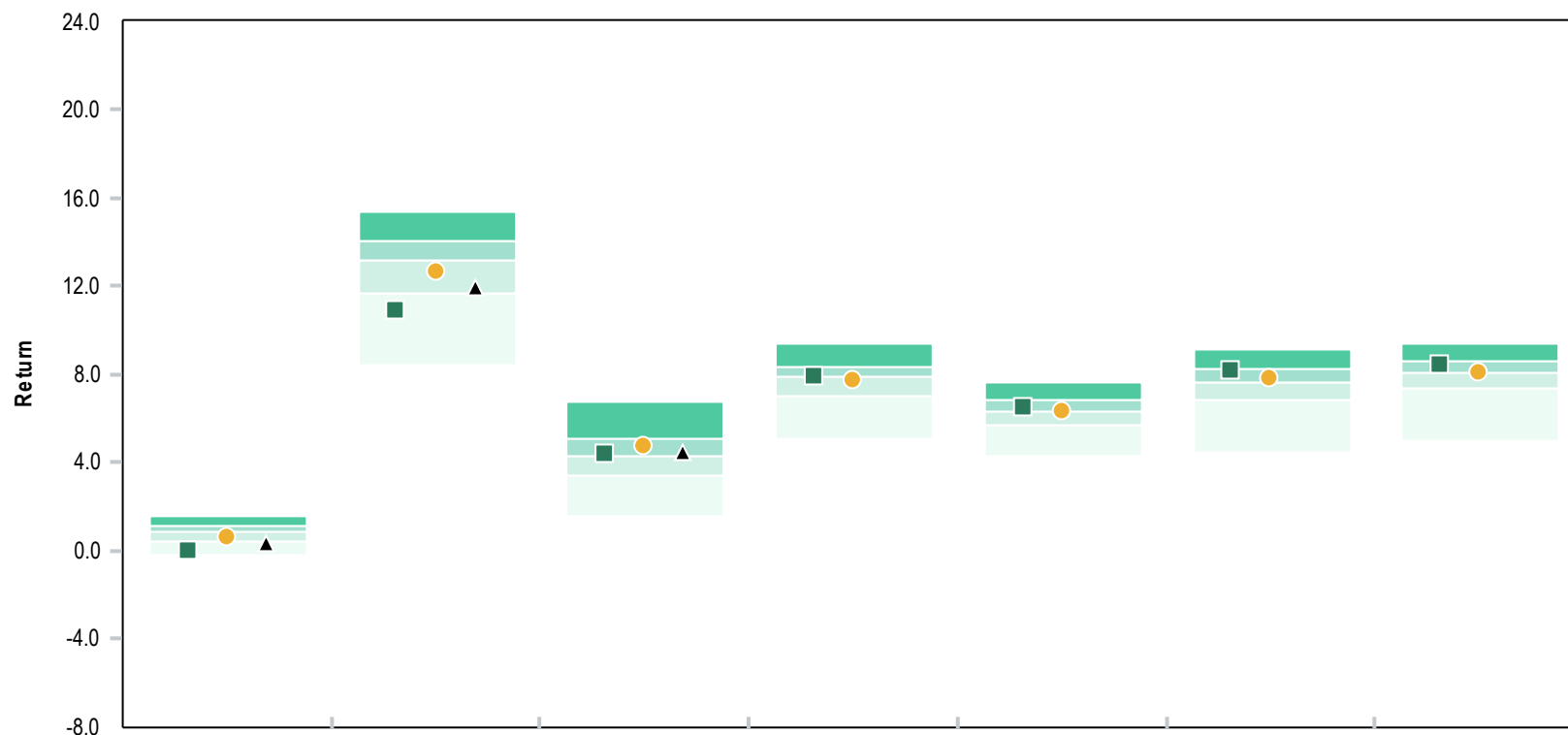
1 Year Ending September 30, 2019

	Market Value As of 10/01/2018	Contributions	Distributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2019
Real Assets							
Hunt RIVA (FKA SSgA Tuckerman)	64,863	-	-	-	-	-569	64,294
RREEF America REIT II	13,075,311	-	-	-127,624	-	878,433	13,826,120
Intercontinental	28,898,285	-	-	-415,639	-	2,385,980	30,868,626
Brookfield Timberlands Fund V	1,316,521	11,600	-139,230	-10,955	-644	-33,029	1,144,262
Eastern Timberland Opportunities II	2,925,979	-	-106,457	-	-	183,477	3,002,999
GCM Customized Infrastructures Strategies II, LP	7,143,214	1,513,295	-1,718,460	-106,799	-51,391	962,830	7,742,690
Invesco Mortgage Recovery II	7,630,066	1,347,230	-5,419,613	-	-	1,436,754	4,994,437
IFM	25,493,583	-	-	-230,551	-	2,989,094	28,252,126
TerraCap Partners IV	10,931,303	-	-603,363	-	-	301,324	10,629,264
Hedge Fund of Funds							
PRIT Absolute Return	34,324,739	-	-	-292,529	-	1,028,740	35,060,950
Total Fund	701,330,256	310,146,506	-323,270,727	-3,425,023	-308,724	28,979,254	713,451,542

Bristol County Retirement System

All Public Plans < \$1B-Total Fund

As of September 30, 2019



■ Total Fund
● Total Plan Index
▲ Total Plan Allocation Index

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund	0.04 (91)	10.92 (85)	4.43 (46)	7.93 (50)	6.51 (42)	8.19 (29)	8.48 (31)
Total Plan Index	0.62 (67)	12.66 (61)	4.77 (35)	7.77 (55)	6.29 (52)	7.84 (44)	8.05 (52)
Total Plan Allocation Index	0.35 (82)	11.97 (72)	4.46 (46)	N/A	N/A	N/A	N/A

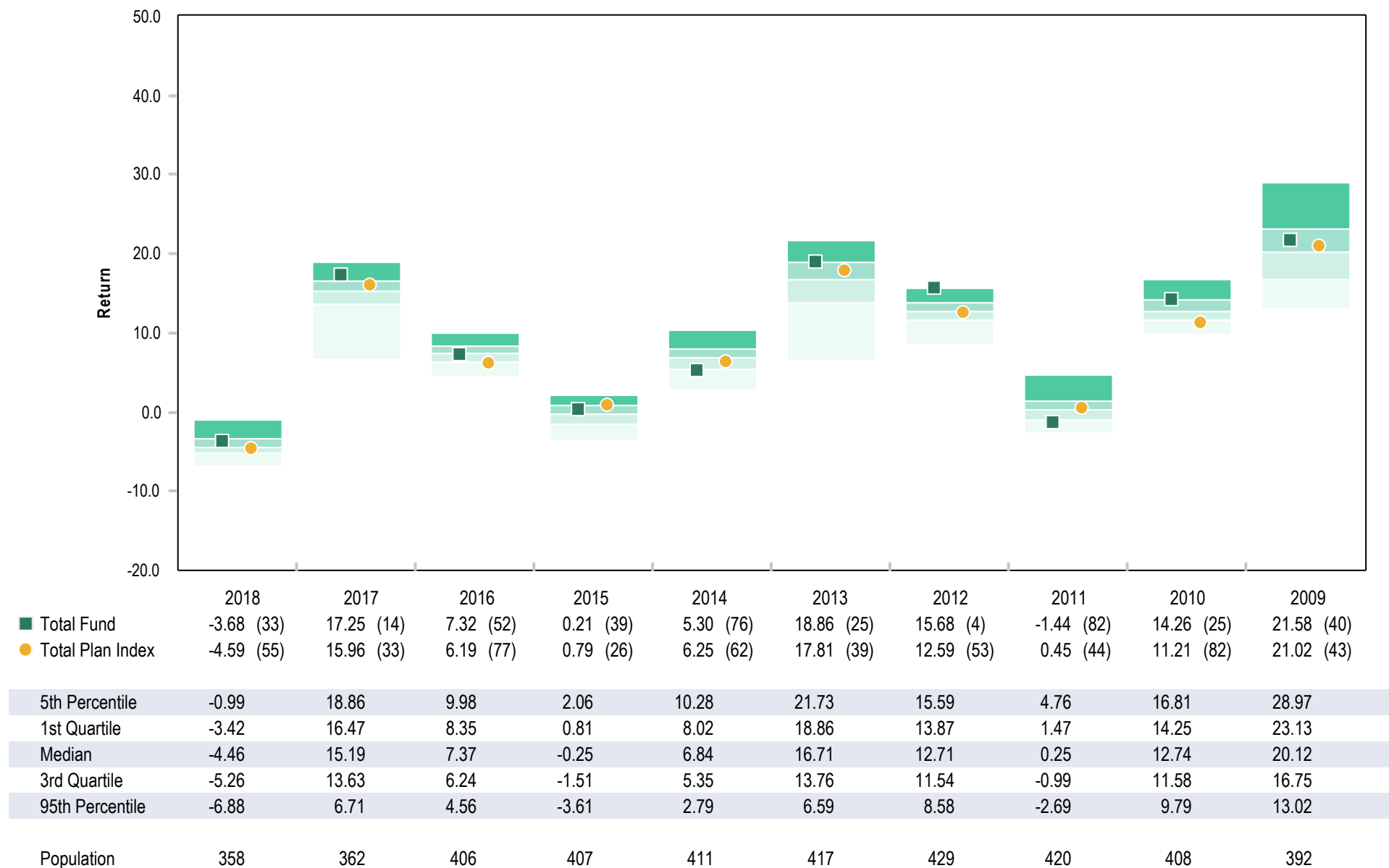
5th Percentile	1.58	15.40	6.78	9.41	7.64	9.11	9.37
1st Quartile	1.12	14.10	5.09	8.39	6.88	8.29	8.58
Median	0.84	13.18	4.29	7.91	6.33	7.62	8.10
3rd Quartile	0.46	11.65	3.41	7.04	5.74	6.88	7.43
95th Percentile	-0.15	8.46	1.55	5.07	4.31	4.47	5.01
Population	394	388	383	364	353	334	290

Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.

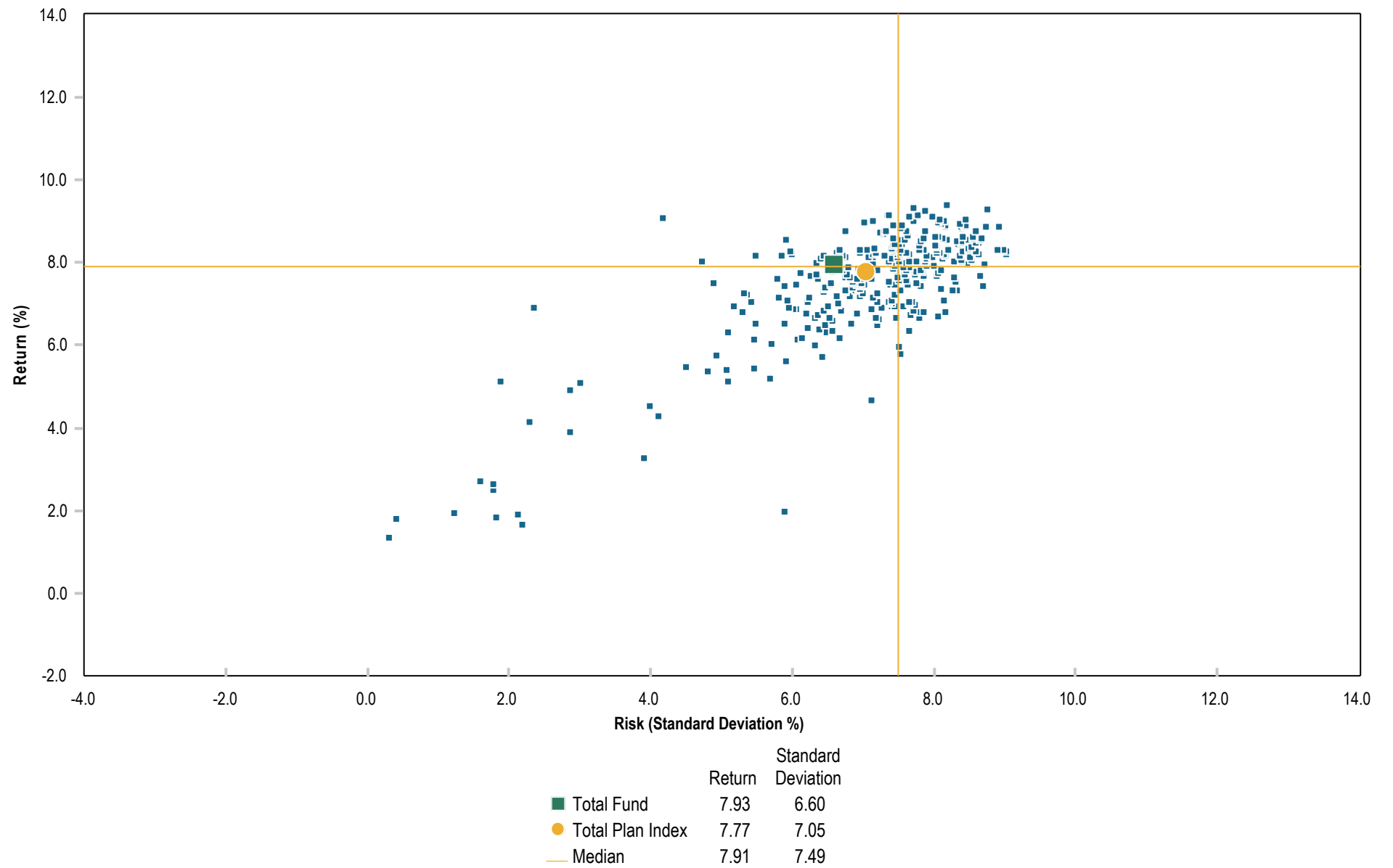
Bristol County Retirement System

All Public Plans < \$1B-Total Fund

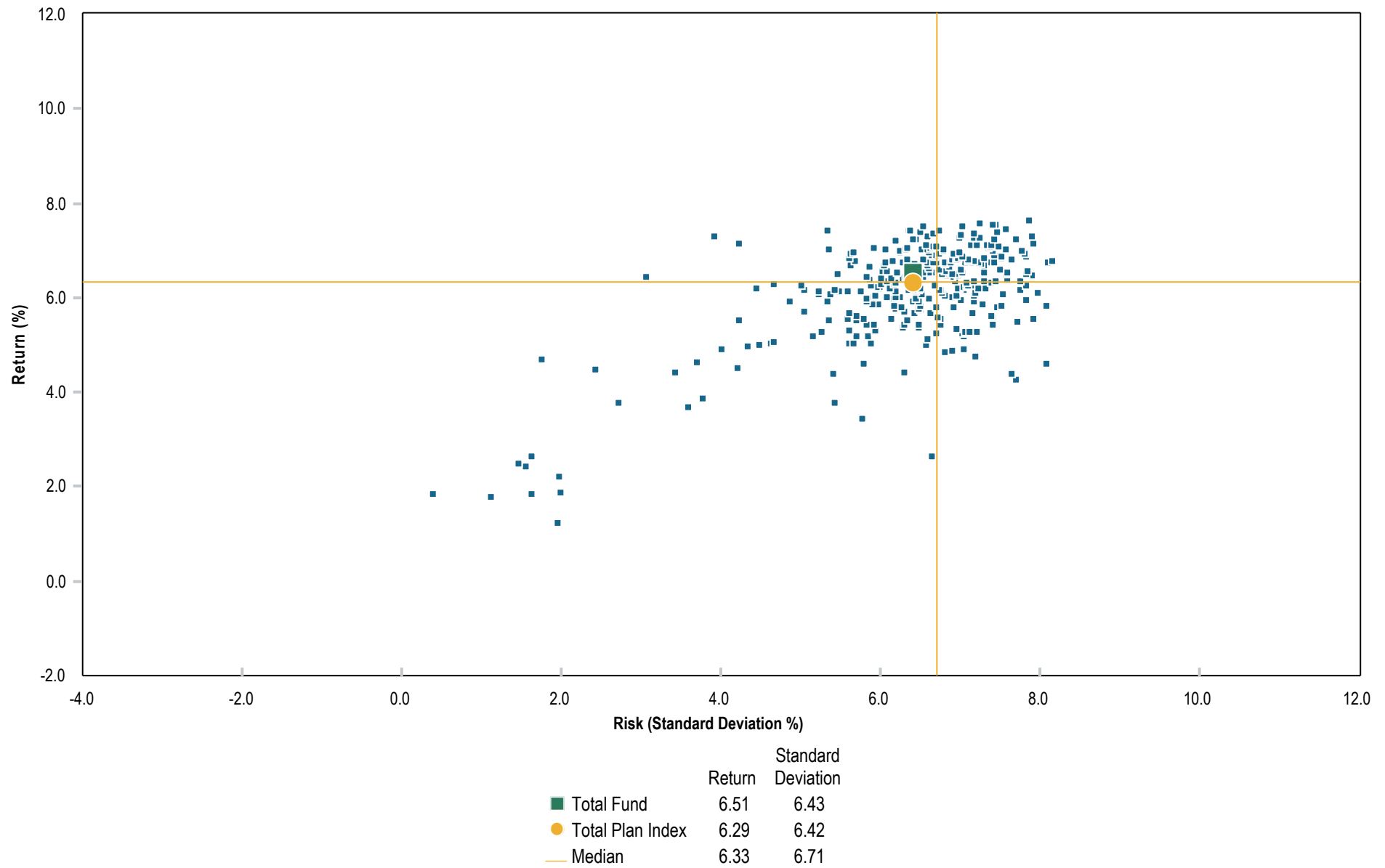
As of September 30, 2019



Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.



Calculation based on quarterly periodicity.



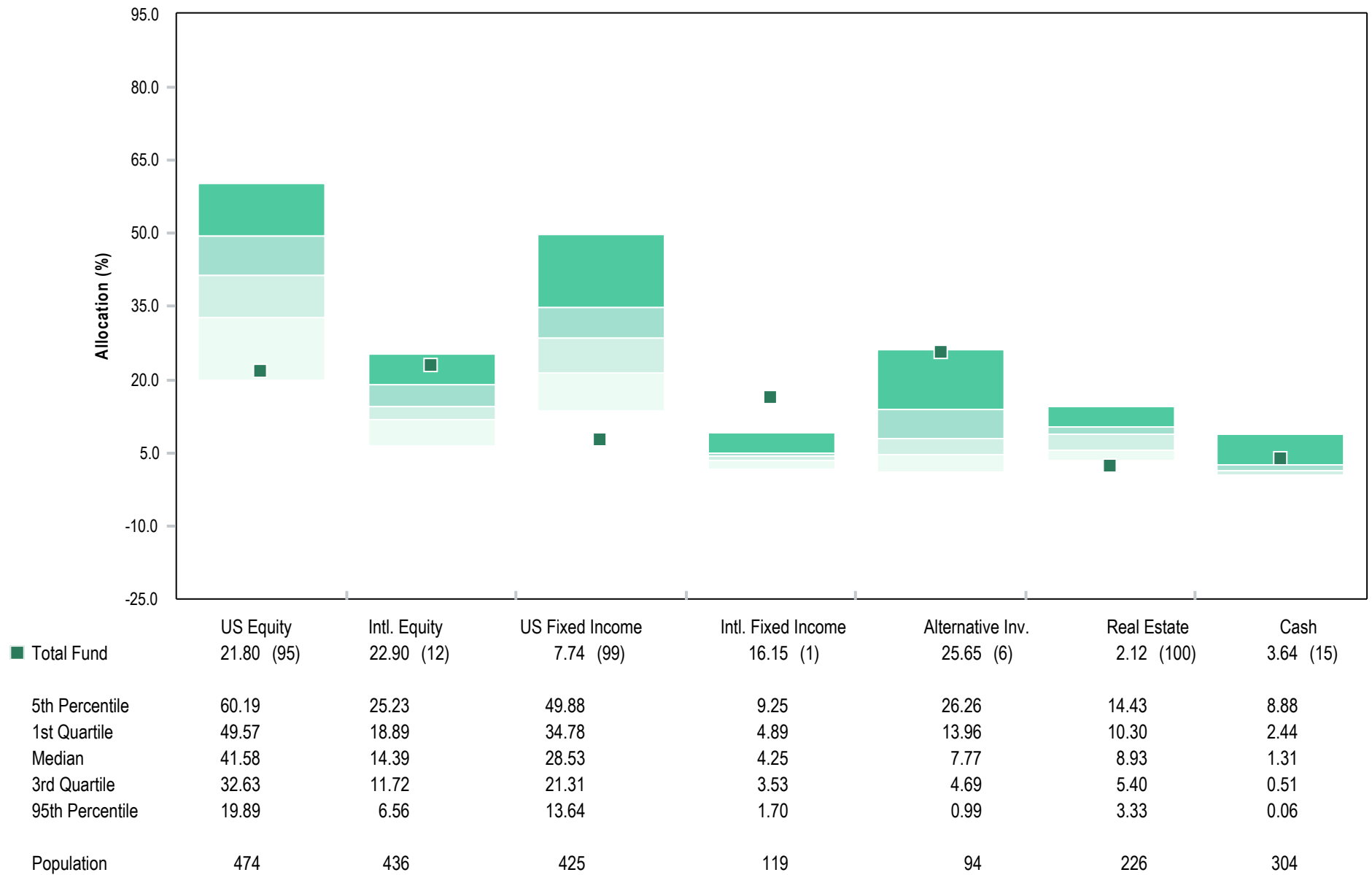
Calculation based on quarterly periodicity.

Bristol County Retirement System

Plan Sponsor TF Asset Allocation

As of September 30, 2019

All Public Plans < \$1B-Total Fund



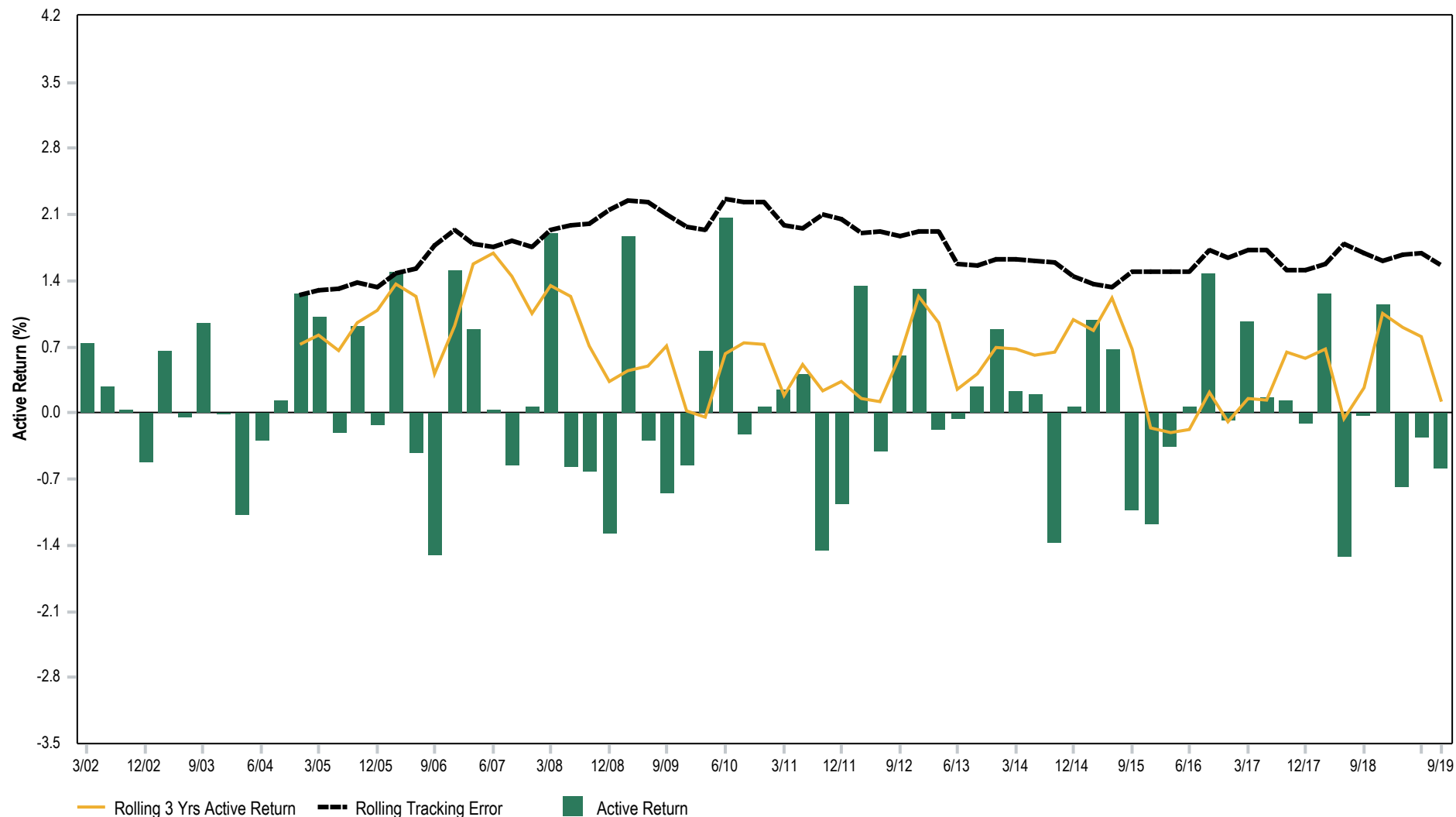
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

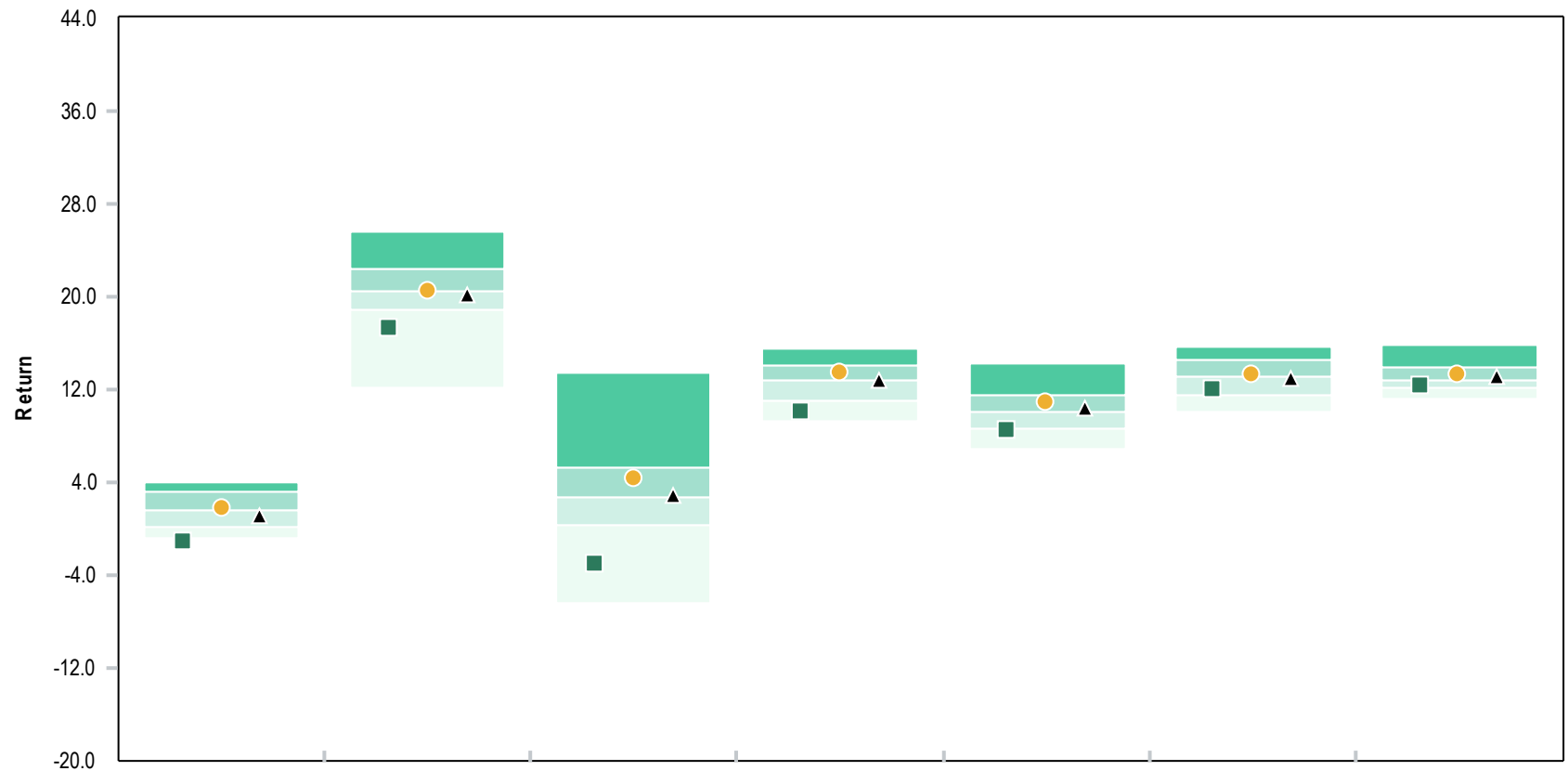
As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Total Fund	0.04	10.92	4.43	7.93	6.51	8.19	8.48	-3.68	17.25	7.32	0.21
Total Plan Index	0.62	12.66	4.77	7.77	6.29	7.84	8.05	-4.59	15.96	6.19	0.79
Difference	-0.58	-1.74	-0.34	0.16	0.22	0.35	0.43	0.91	1.29	1.13	-0.58



Gross of Fees

Domestic Equity



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Domestic Equity	-1.09 (99)	17.36 (83)	-2.97 (90)	10.03 (90)	8.42 (77)	12.04 (67)	12.30 (67)
● S&P 500 Index	1.70 (50)	20.55 (49)	4.25 (35)	13.39 (46)	10.84 (34)	13.26 (46)	13.24 (42)
▲ Russell 3000 Index	1.16 (60)	20.09 (57)	2.92 (45)	12.83 (50)	10.44 (45)	13.00 (52)	13.08 (43)

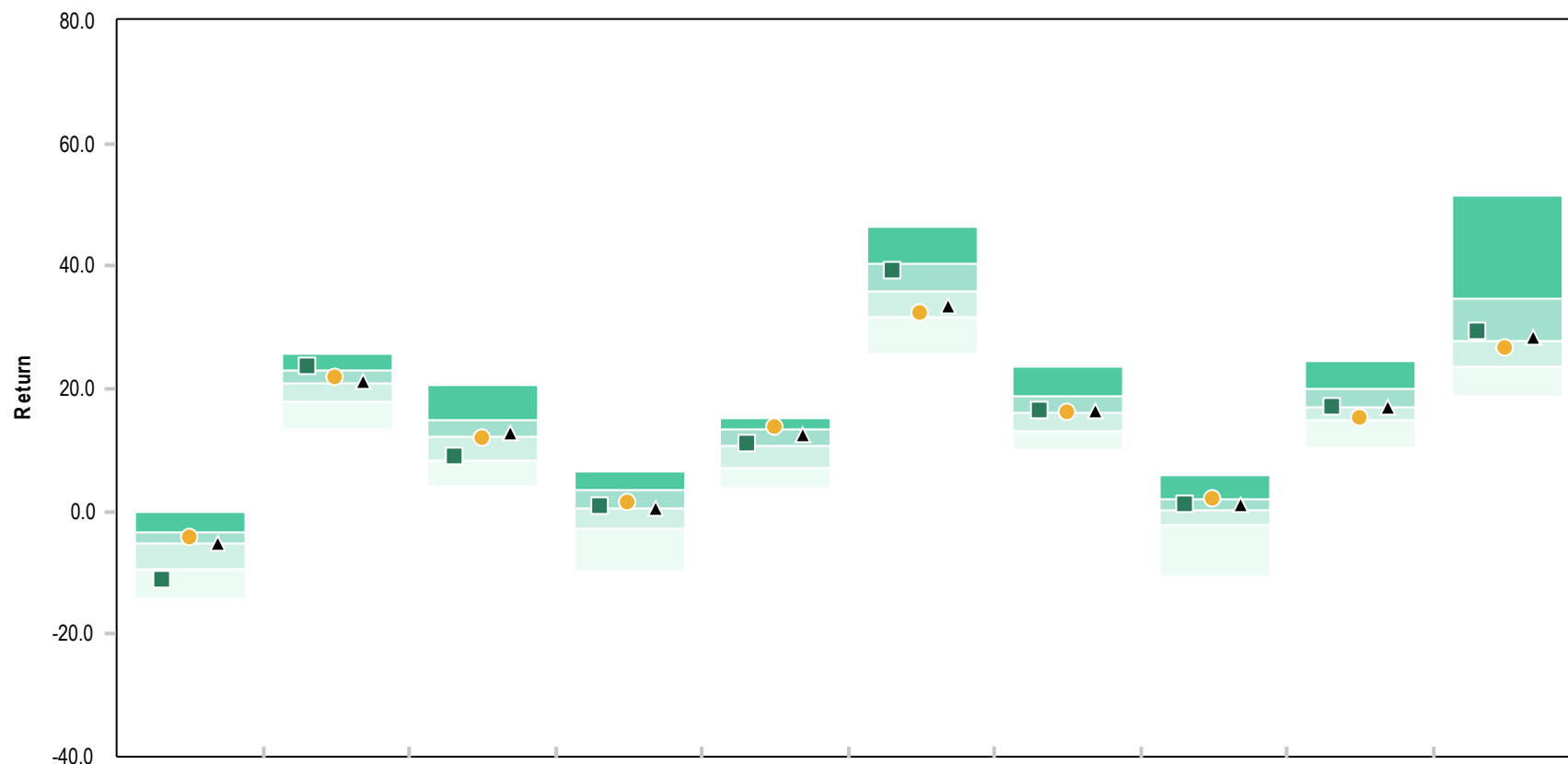
5th Percentile	3.99	25.64	13.49	15.56	14.27	15.74	15.91
1st Quartile	3.25	22.46	5.32	14.14	11.48	14.58	13.97
Median	1.60	20.49	2.76	12.80	10.12	13.10	12.75
3rd Quartile	0.14	18.90	0.25	11.10	8.61	11.47	12.15
95th Percentile	-0.73	12.21	-6.40	9.26	6.84	10.05	11.27

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

IM U.S. All Cap Core Equity (SA+CF)

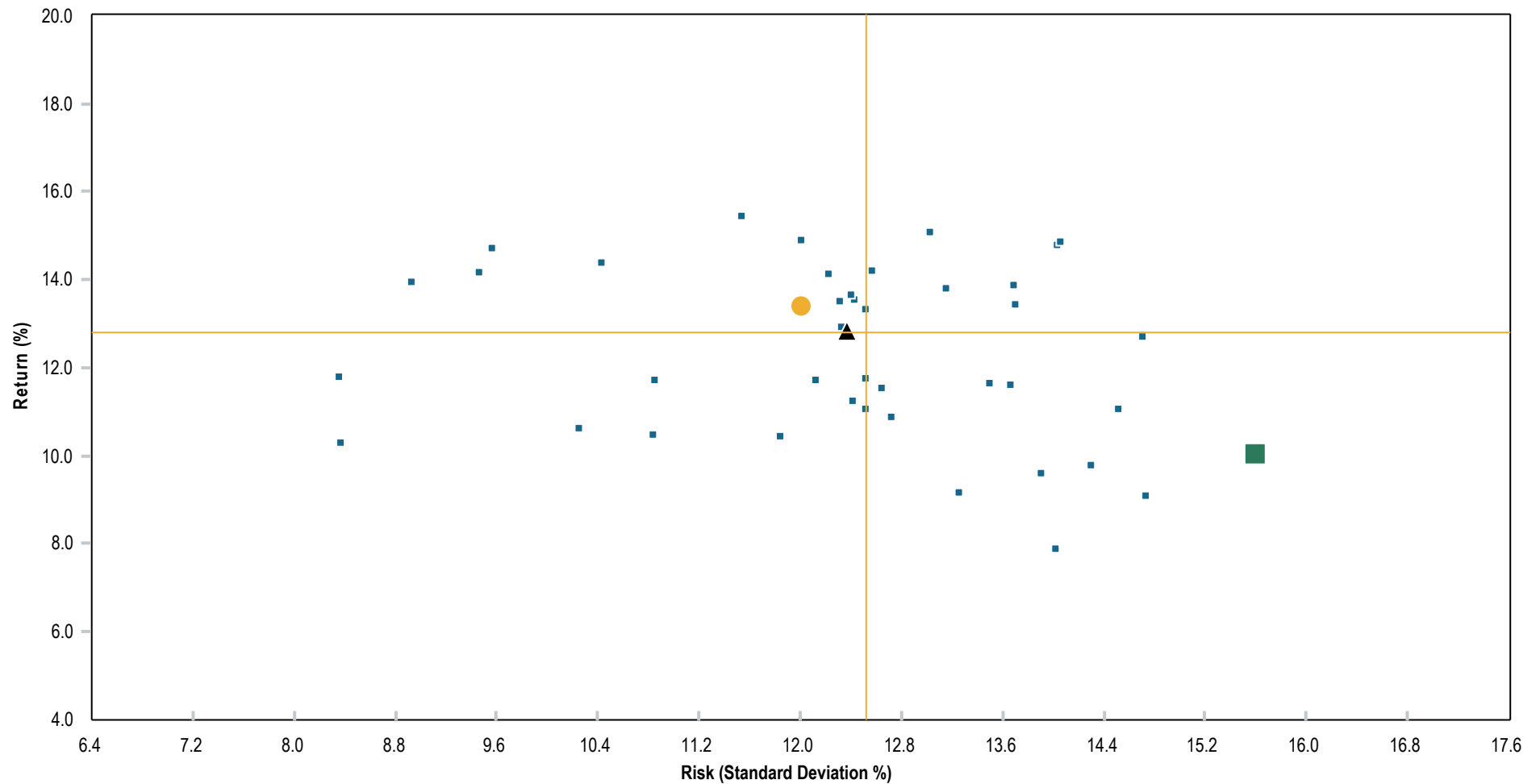
As of September 30, 2019



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ Total Domestic Equity	-11.11 (84)	23.61 (19)	9.01 (69)	0.66 (47)	10.97 (49)	39.12 (28)	16.25 (48)	1.11 (43)	17.08 (47)	29.17 (44)
● S&P 500 Index	-4.38 (38)	21.83 (34)	11.96 (52)	1.38 (40)	13.69 (18)	32.39 (73)	16.00 (50)	2.11 (25)	15.06 (71)	26.46 (56)
▲ Russell 3000 Index	-5.24 (51)	21.13 (48)	12.74 (48)	0.48 (50)	12.56 (32)	33.55 (66)	16.42 (44)	1.03 (43)	16.93 (53)	28.34 (46)

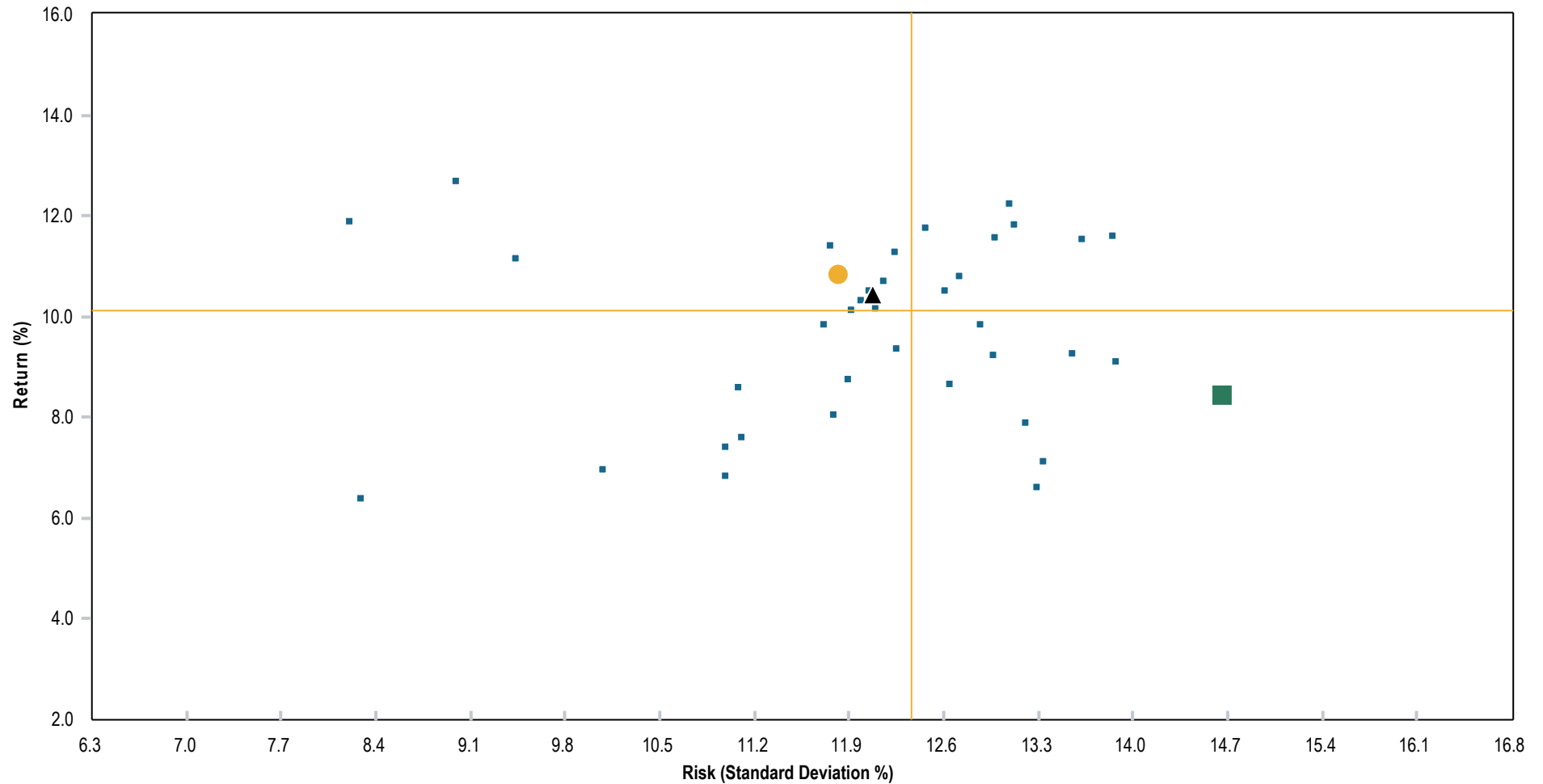
5th Percentile	-0.08	25.61	20.45	6.38	15.10	46.48	23.62	5.78	24.54	51.35
1st Quartile	-3.51	23.00	14.94	3.65	13.30	40.43	18.95	2.01	20.06	34.84
Median	-5.19	20.91	12.17	0.45	10.80	35.95	15.97	0.32	16.99	27.82
3rd Quartile	-9.43	17.90	8.41	-2.75	7.21	31.68	13.08	-2.23	14.77	23.68
95th Percentile	-14.11	13.36	4.18	-9.67	3.86	25.65	10.00	-10.48	10.29	18.88

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total Domestic Equity	10.03	15.60
● S&P 500 Index	13.39	12.01
▲ Russell 3000 Index	12.83	12.37
— Median	12.80	12.52

Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total Domestic Equity	8.42	14.66
● S&P 500 Index	10.84	11.83
▲ Russell 3000 Index	10.44	12.07
— Median	10.12	12.36

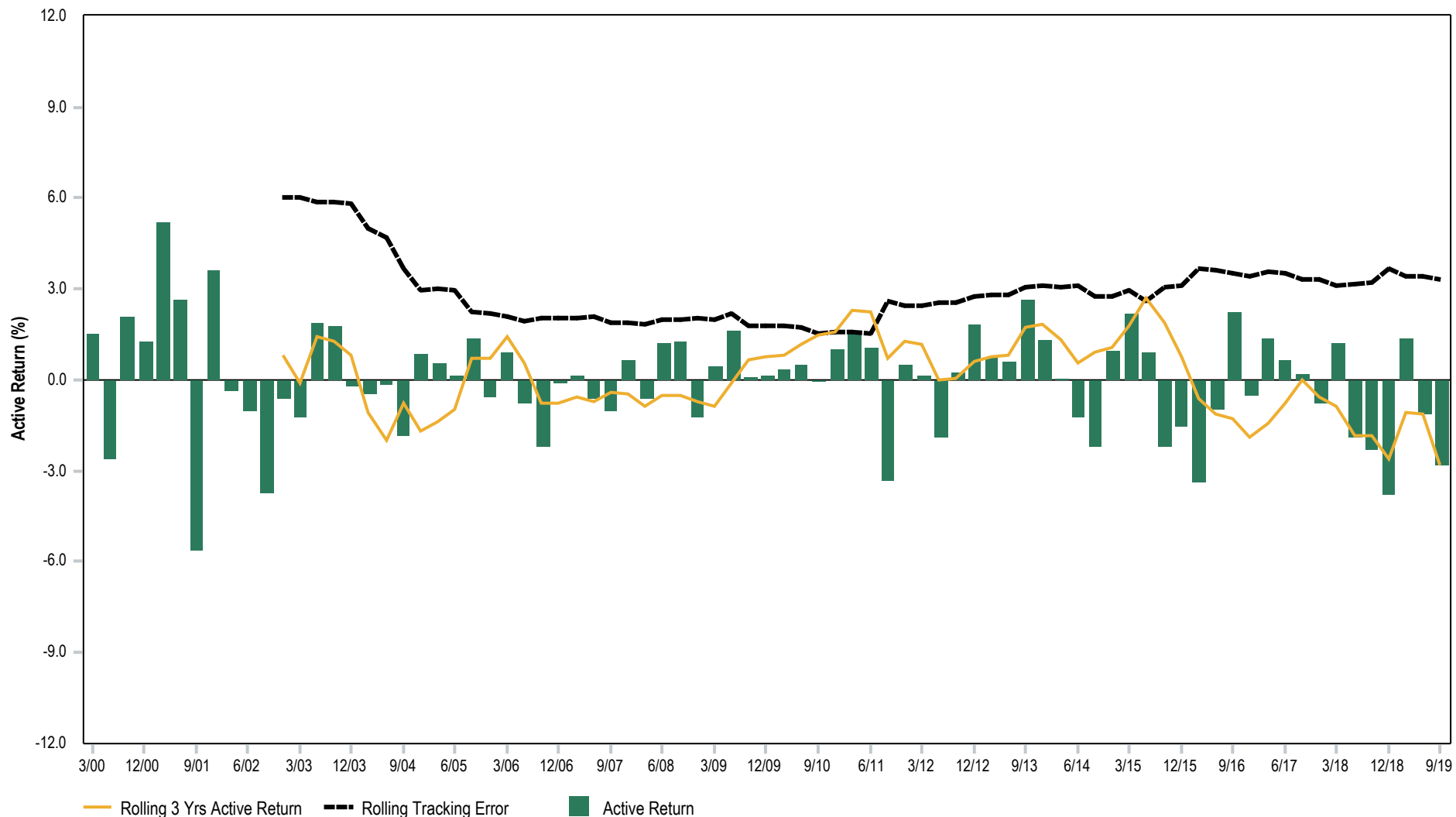
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Total Domestic Equity	-1.09	17.36	-2.97	10.03	8.42	12.04	12.30	-11.11	23.61	9.01	0.66
S&P 500 Index	1.70	20.55	4.25	13.39	10.84	13.26	13.24	-4.38	21.83	11.96	1.38
Difference	-2.79	-3.19	-7.22	-3.36	-2.42	-1.22	-0.94	-6.73	1.78	-2.95	-0.72



Bristol County Retirement System

Total Domestic Equity

1 Quarter Ending September 30, 2019

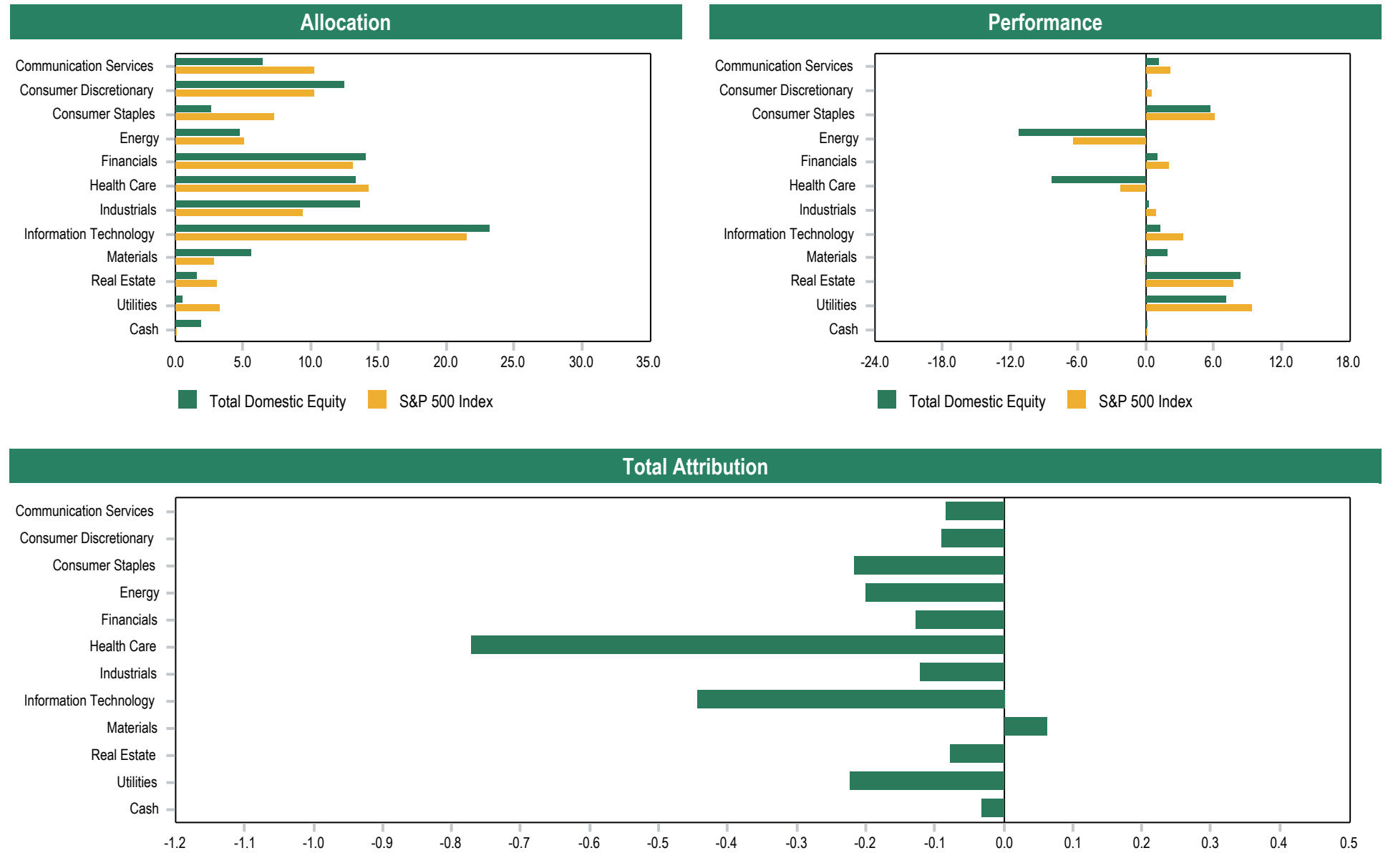
Buy-and-Hold Portfolio -0.63
 Portfolio Trading -0.46
 Actual Return -1.09
 Benchmark Return 1.70
 Actual Active Return -2.78

Stock Selection -1.90
 Sector Selection -0.57
 Interaction 0.15
 Total Selection -2.33

Portfolio Trading -0.46
 Benchmark Trading 0.00
 Active Trading Impact -0.46

Buy & Hold Active Return -2.78

	Allocation — 07/01/2019		Performance — 1 Quarter Ending September 30, 2019		Attribution			Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	
Communication Services	6.39	10.19	1.24	2.24	-0.10	-0.02	0.04	-0.08
Consumer Discretionary	12.41	10.19	0.00	0.51	-0.05	-0.03	-0.01	-0.09
Consumer Staples	2.61	7.27	5.76	6.12	-0.03	-0.21	0.02	-0.22
Energy	4.71	5.05	-11.18	-6.35	-0.24	0.03	0.02	-0.20
Financials	13.99	13.07	1.08	2.01	-0.12	0.00	-0.01	-0.13
Health Care	13.31	14.20	-8.31	-2.25	-0.86	0.04	0.05	-0.77
Industrials	13.64	9.38	0.26	0.90	-0.06	-0.03	-0.03	-0.12
Information Technology	23.24	21.48	1.34	3.38	-0.44	0.03	-0.04	-0.44
Materials	5.62	2.80	1.93	-0.09	0.06	-0.05	0.06	0.06
Real Estate	1.60	3.05	8.33	7.72	0.02	-0.09	-0.01	-0.08
Utilities	0.56	3.31	7.17	9.36	-0.07	-0.21	0.06	-0.22
Cash	1.91	0.00	0.00	0.00	0.00	-0.03	0.00	-0.03
Total	100.00	100.00	-0.63	1.70	-1.90	-0.57	0.15	-2.33



Buy-and-Hold Portfolio -0.63
 Portfolio Trading -0.46
 Actual Return -1.09
 Benchmark Return 1.70
 Actual Active Return -2.78

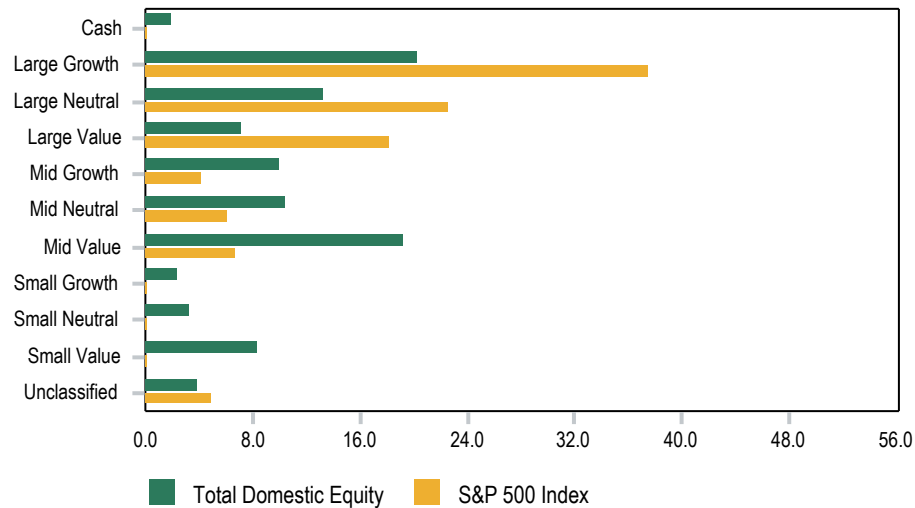
Stock Selection -2.18
 Style Selection -0.96
 Interaction 0.81
 Total Selection -2.33

Portfolio Trading -0.46
 Benchmark Trading 0.00
 Active Trading Impact -0.46

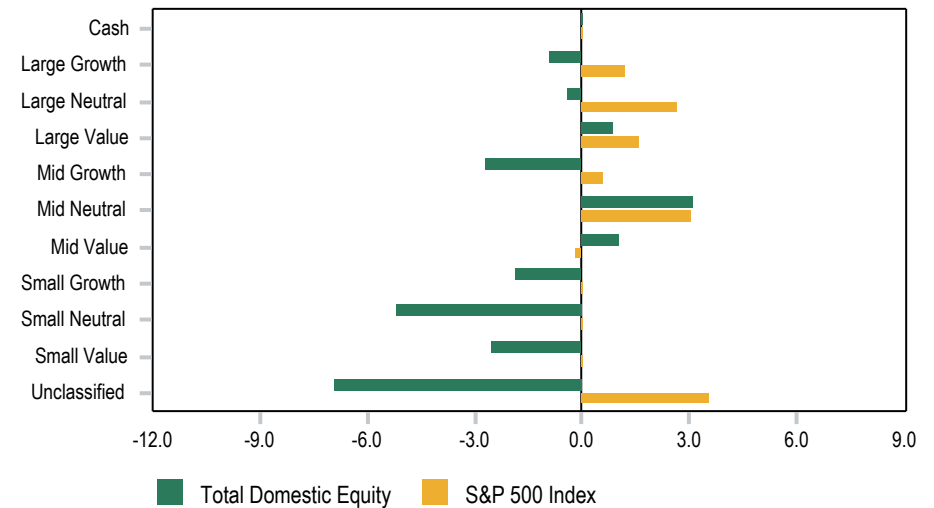
Buy & Hold Active Return -2.78

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019				Attribution	
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction	Total
Cash	1.91	0.00	0.00	0.00	0.00	-0.03	0.00	-0.03
Large Growth	20.22	37.45	-0.94	1.18	-0.80	0.09	0.37	-0.34
Large Neutral	13.26	22.59	-0.43	2.64	-0.69	-0.09	0.29	-0.50
Large Value	7.14	18.14	0.89	1.60	-0.13	0.01	0.08	-0.04
Mid Growth	10.00	4.12	-2.71	0.56	-0.13	-0.07	-0.19	-0.39
Mid Neutral	10.39	6.16	3.09	3.05	0.00	0.06	0.00	0.06
Mid Value	19.19	6.65	1.06	-0.19	0.08	-0.24	0.16	0.00
Small Growth	2.38	0.00	-1.89	0.00	0.00	-0.09	0.00	-0.09
Small Neutral	3.33	0.00	-5.21	0.00	0.00	-0.23	0.00	-0.23
Small Value	8.34	0.00	-2.53	0.00	0.00	-0.35	0.00	-0.35
Unclassified	3.83	4.89	-6.94	3.55	-0.51	-0.02	0.11	-0.42
Total	100.00	100.00	-0.63	1.70	-2.18	-0.96	0.81	-2.33

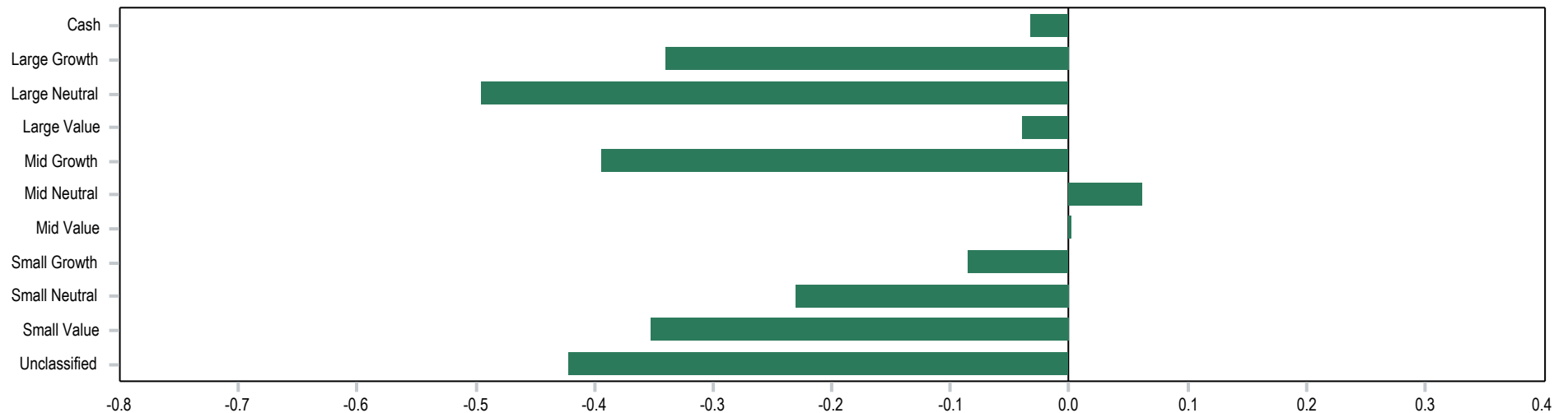
Allocation



Performance



Total Attribution



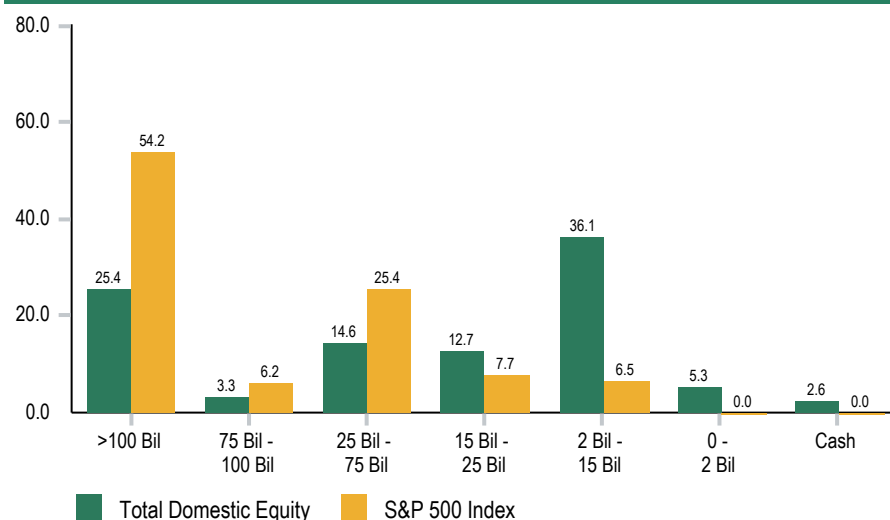
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Amazon.com Inc	1.97	2.92	-0.95	-8.33
Facebook Inc	1.76	1.73	0.03	-7.73
Visa Inc	1.47	1.20	0.27	-0.75
Celanese Corp	1.33	0.06	1.27	14.07
HCA Healthcare Inc	1.33	0.13	1.20	-10.62
Adobe Inc	1.19	0.54	0.65	-6.24
AerCap Holdings NV	1.11	0.00	1.11	5.27
Unitedhealth Group Inc	1.10	0.83	0.27	-10.53
Assurant Inc.	1.10	0.03	1.07	18.87
Alibaba Group Holding Ltd	1.08	0.00	1.08	-1.31
% of Portfolio	13.44	7.44	6.00	

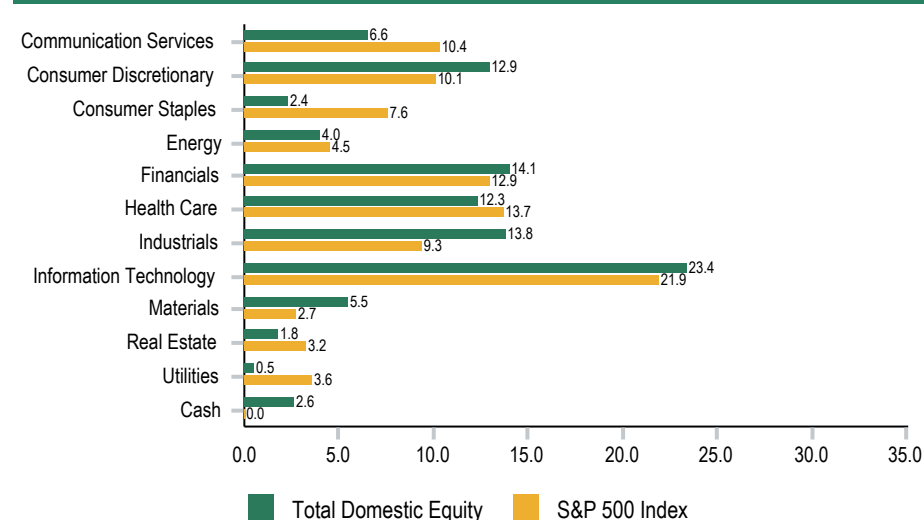
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	101,143,981,778	246,599,138,806
Median Mkt. Cap (\$)	6,730,063,720	22,714,385,610
Price/Earnings ratio	17.13	20.56
Price/Book ratio	2.98	3.48
5 Yr. EPS Growth Rate (%)	17.15	15.83
Current Yield (%)	1.49	1.98
Beta (5 Years, Monthly)	1.19	1.00
Number of Stocks	404	505

Distribution of Market Capitalization (%)



Sector Weights (%)



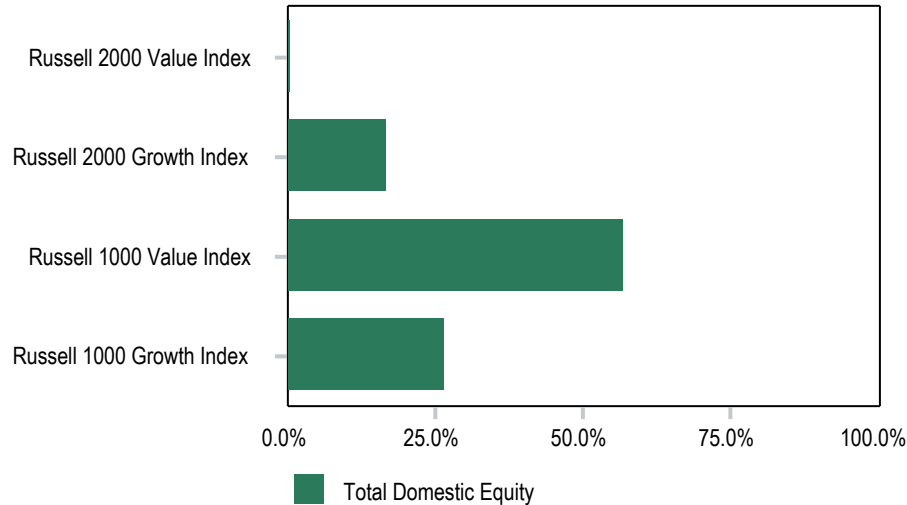
Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Gogo Inc	0.04	0.00	0.04	51.51
Model N Inc	0.03	0.00	0.03	42.36
MACOM Technology Solutions Holdings Inc	0.08	0.00	0.08	42.07
TherapeuticsMD Inc	0.07	0.00	0.07	39.62
Acacia Communications Inc	0.09	0.00	0.09	38.68
Insulet Corp	0.25	0.00	0.25	38.16
Meritage Homes Corp	0.21	0.00	0.21	37.03
Gannett Co Inc	0.02	0.00	0.02	33.58
Cardlytics Inc	0.08	0.00	0.08	29.02
Cabot Microelectronics Corp	0.29	0.00	0.29	28.28
% of Portfolio	1.16	0.00	1.16	

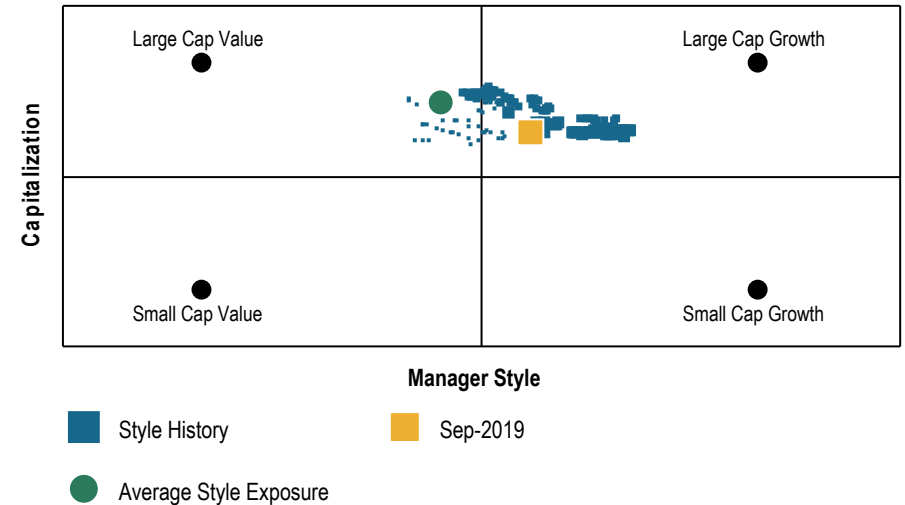
Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
McDermott International Inc.	0.00	0.00	0.00	-79.09
Mallinckrodt Plc	0.00	0.00	0.00	-73.75
2U Inc	0.03	0.00	0.03	-56.75
Sarepta Therapeutics Inc	0.19	0.00	0.19	-50.43
Merit Medical Systems Inc	0.02	0.00	0.02	-48.86
Nektar Therapeutics	0.01	0.01	0.00	-48.81
Green Dot Corp	0.03	0.00	0.03	-48.36
DXC Technology Co	0.01	0.03	-0.02	-46.15
Valaris plc	0.02	0.00	0.02	-43.61
Centennial Resource Development Inc	0.03	0.00	0.03	-40.51
% of Portfolio	0.34	0.04	0.30	

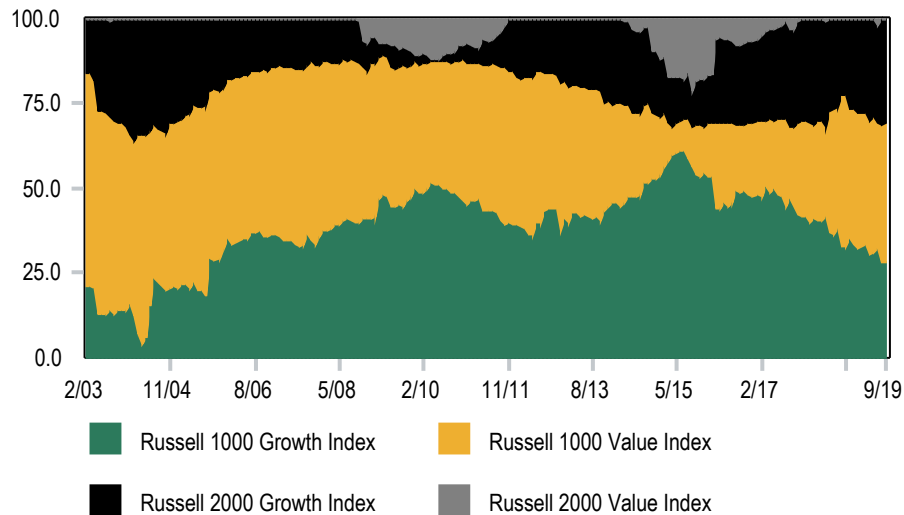
Investment Style Exposure



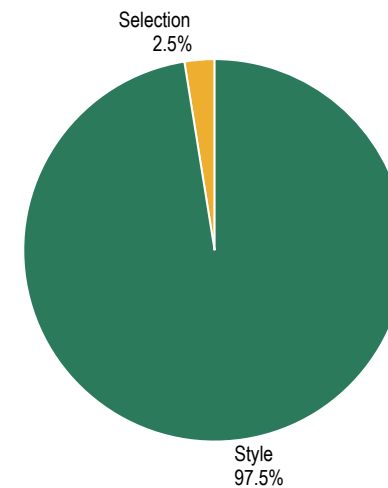
Style Map(ppp)

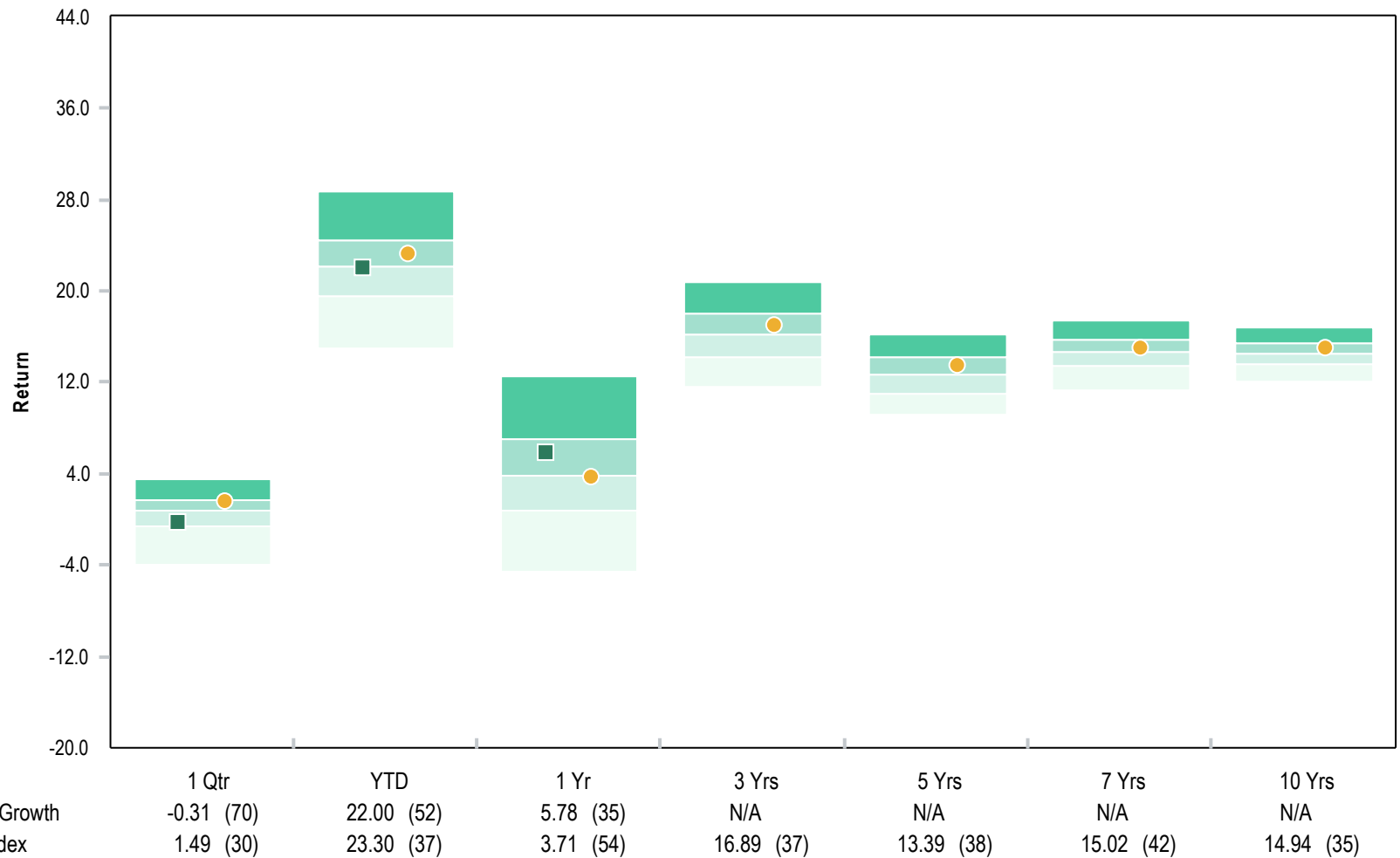


Style History(ppp)



Return Variance





5th Percentile	3.54	28.66	12.54	20.74	16.22	17.48	16.80
1st Quartile	1.72	24.49	7.04	18.08	14.15	15.75	15.42
Median	0.74	22.17	3.90	16.13	12.73	14.66	14.53
3rd Quartile	-0.54	19.61	0.80	14.17	10.97	13.44	13.53
95th Percentile	-3.94	14.97	-4.60	11.59	9.25	11.30	12.00

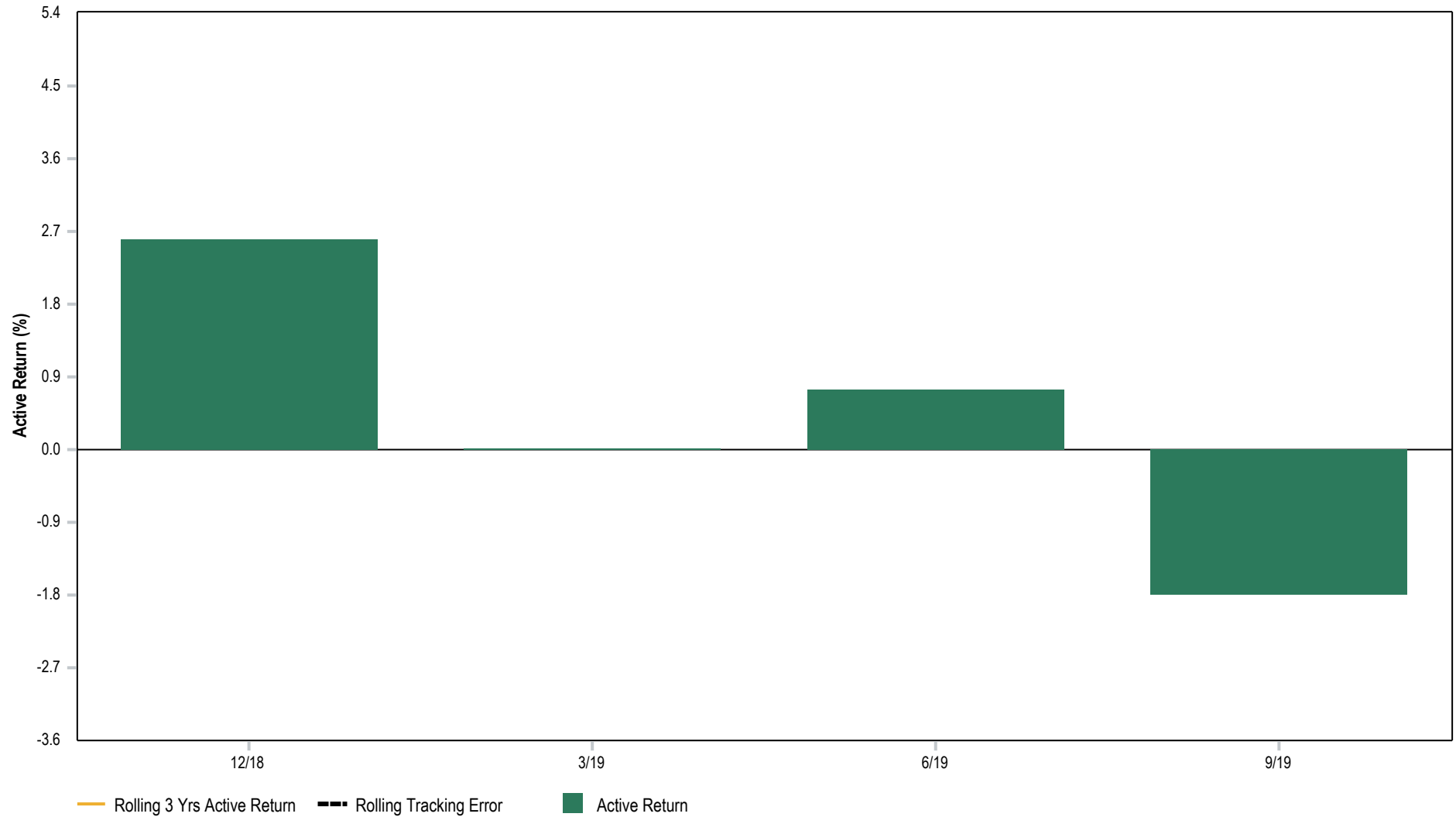
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
ClearBridge Large Cap Growth	-0.31	22.00	5.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	1.49	23.30	3.71	16.89	13.39	15.02	14.94	-1.51	30.21	7.08	5.67
Difference	-1.80	-1.30	2.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



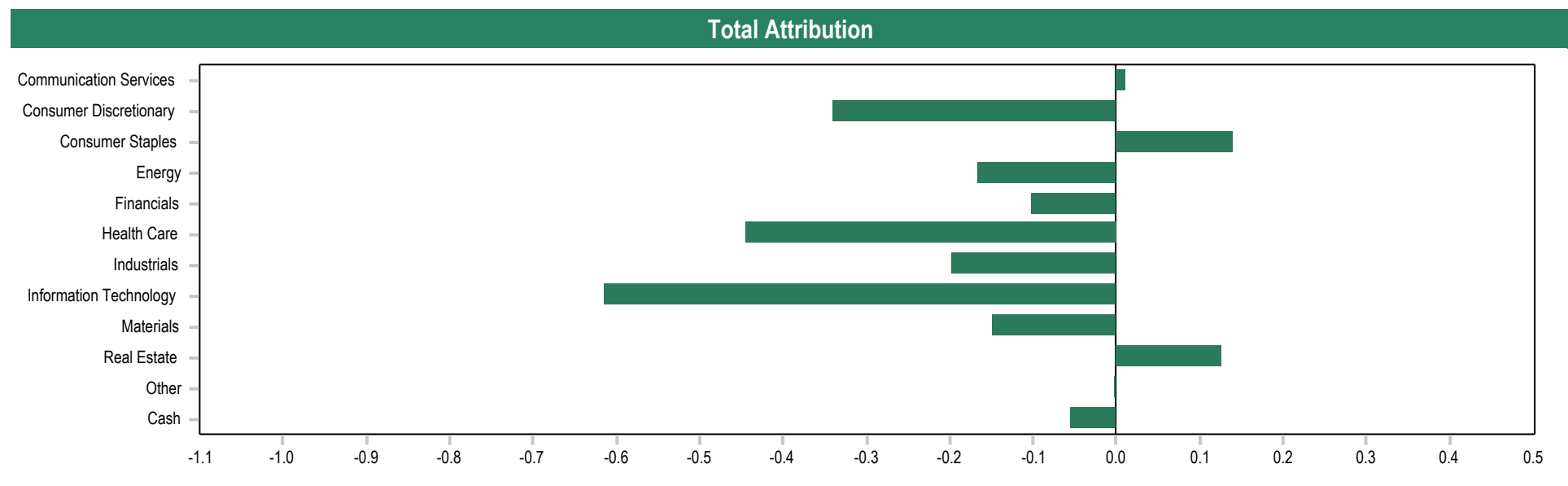
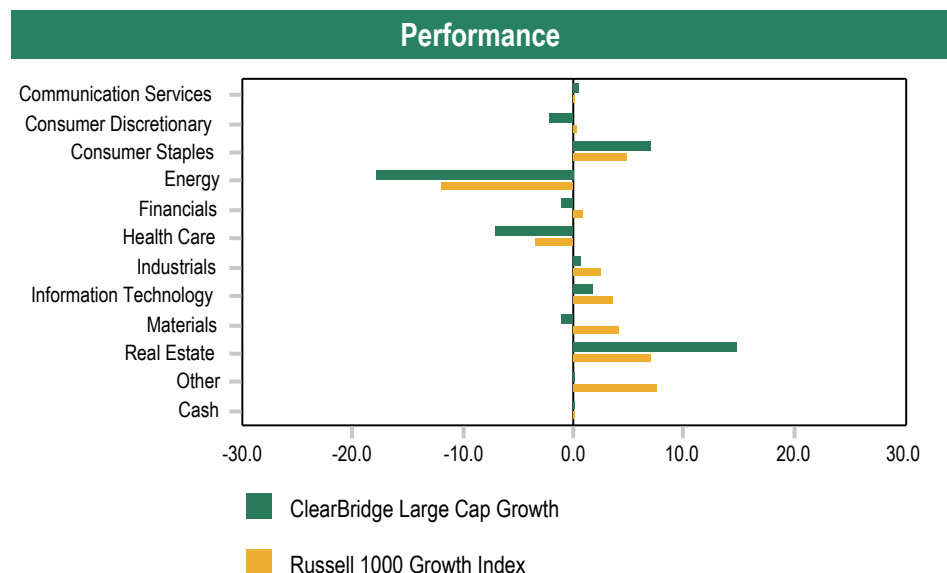
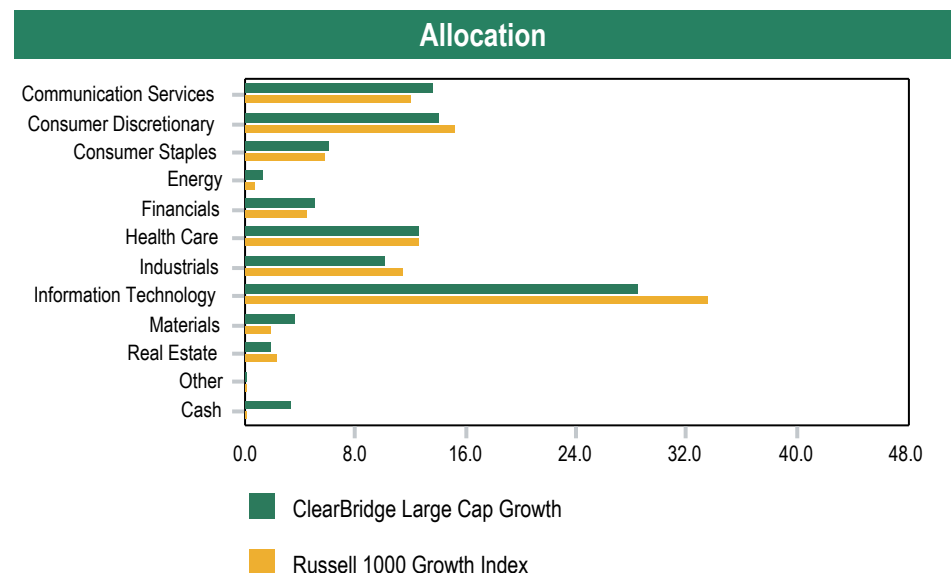
Buy-and-Hold Portfolio -0.15
 Portfolio Trading -0.16
 Actual Return -0.31
 Benchmark Return 1.49
 Actual Active Return -1.80

Stock Selection -1.54
 Sector Selection -0.24
 Interaction -0.02
 Total Selection -1.80

Portfolio Trading -0.16
 Benchmark Trading -0.16
 Active Trading Impact 0.00

Buy & Hold Active Return -1.80

	Allocation — 07/01/2019		Performance — 1 Quarter Ending September 30, 2019		Attribution			Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	
Communication Services	13.66	11.99	0.50	0.25	0.03	-0.02	0.00	0.01
Consumer Discretionary	14.06	15.22	-2.09	0.43	-0.38	0.01	0.03	-0.34
Consumer Staples	6.01	5.74	7.05	4.85	0.13	0.01	0.01	0.14
Energy	1.32	0.69	-17.97	-11.99	-0.04	-0.09	-0.04	-0.17
Financials	5.01	4.45	-1.12	0.82	-0.09	0.00	-0.01	-0.10
Health Care	12.51	12.62	-7.13	-3.51	-0.46	0.01	0.00	-0.45
Industrials	10.05	11.49	0.70	2.53	-0.21	-0.01	0.03	-0.20
Information Technology	28.44	33.55	1.86	3.66	-0.61	-0.10	0.09	-0.62
Materials	3.64	1.86	-1.14	4.17	-0.10	0.04	-0.09	-0.15
Real Estate	1.91	2.35	14.89	7.06	0.18	-0.02	-0.03	0.13
Other	0.00	0.04	0.00	7.61	0.00	0.00	0.00	0.00
Cash	3.39	0.00	0.00	0.00	0.00	-0.06	0.00	-0.06
Total	100.00	100.00	-0.15	1.65	-1.54	-0.24	-0.02	-1.80



Buy-and-Hold Portfolio -0.15
 Portfolio Trading -0.16
 Actual Return -0.31
 Benchmark Return 1.49
 Actual Active Return -1.80

Stock Selection -1.84
 Style Selection -0.06
 Interaction 0.11
 Total Selection -1.80

Portfolio Trading -0.16
 Benchmark Trading -0.16
 Active Trading Impact 0.00

Buy & Hold Active Return -1.80

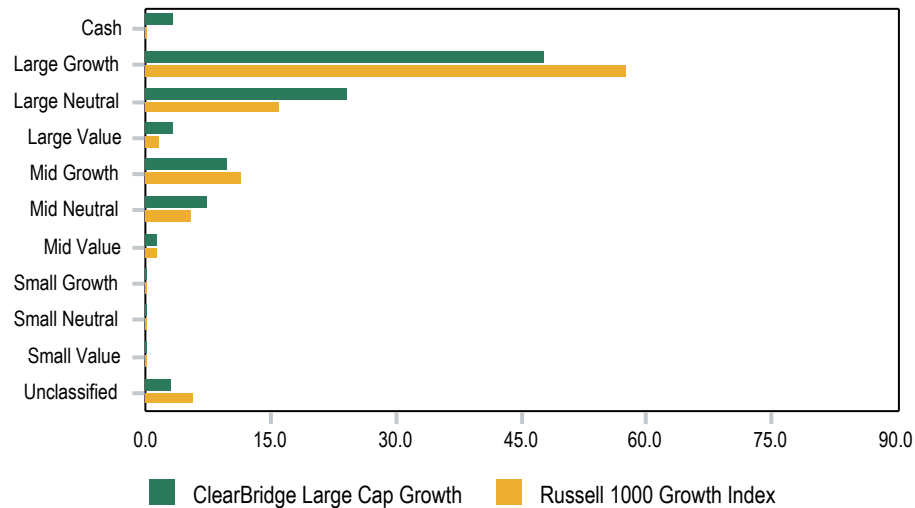
	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019				Attribution	
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction	Total
Cash	3.39	0.00	0.00	0.00	0.00	-0.06	0.00	-0.06
Large Growth	47.74	57.52	0.30	1.86	-0.90	-0.02	0.15	-0.77
Large Neutral	24.18	16.00	0.16	3.03	-0.46	0.11	-0.23	-0.58
Large Value	3.24	1.70	-3.66	-1.50	-0.04	-0.05	-0.03	-0.12
Mid Growth	9.77	11.57	2.23	-0.42	0.31	0.04	-0.05	0.30
Mid Neutral	7.38	5.58	-0.80	-0.74	0.00	-0.04	0.00	-0.05
Mid Value	1.32	1.47	-17.97	-1.96	-0.24	0.01	0.02	-0.21
Small Growth	0.00	0.08	0.00	-4.01	0.00	0.00	0.00	0.00
Small Neutral	0.00	0.22	0.00	-6.15	0.00	0.02	0.00	0.02
Small Value	0.00	0.12	0.00	-6.11	0.00	0.01	0.00	0.01
Unclassified	2.99	5.75	-4.30	4.62	-0.51	-0.08	0.25	-0.35
Total	100.00	100.00	-0.15	1.65	-1.84	-0.06	0.11	-1.80

Bristol County Retirement System

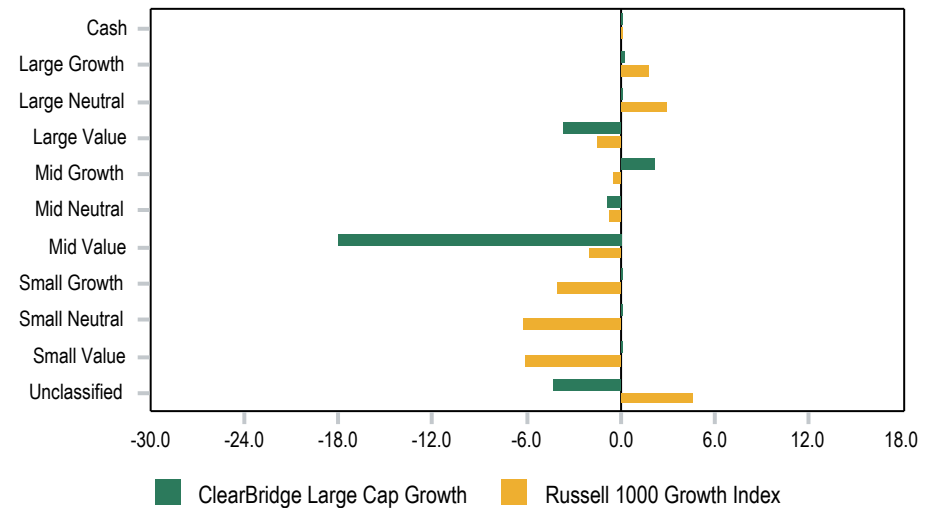
Buy and Hold Style Attribution Graph

1 Quarter Ending September 30, 2019

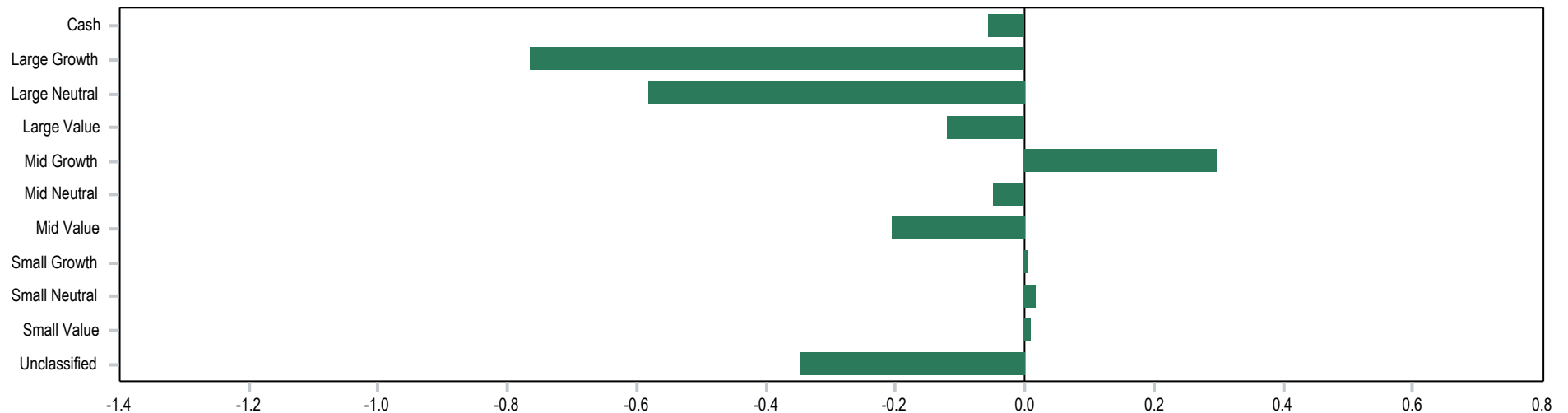
Allocation



Performance



Total Attribution



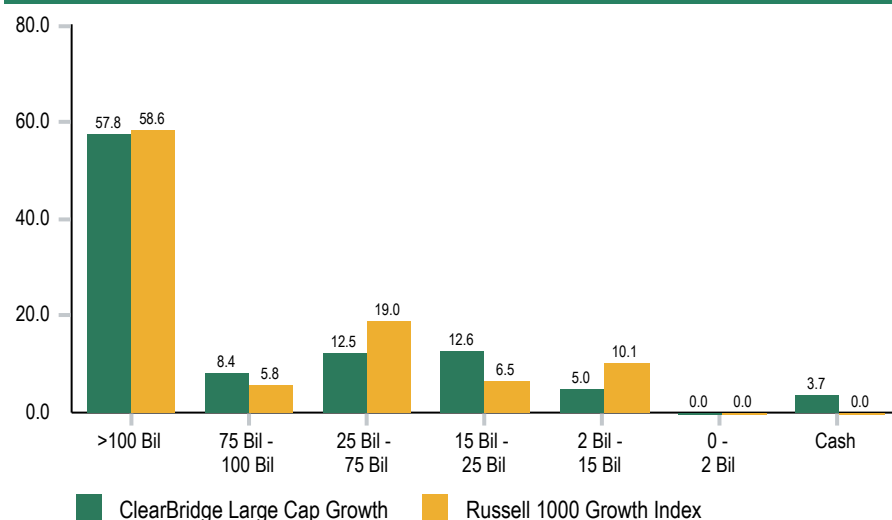
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Amazon.com Inc	5.99	5.14	0.85	-8.33
Microsoft Corp	5.01	7.53	-2.52	4.14
Facebook Inc	4.87	3.05	1.82	-7.73
Visa Inc	4.41	2.14	2.27	-0.75
Alphabet Inc	3.04	2.65	0.39	12.78
Unitedhealth Group Inc	2.77	1.47	1.30	-10.53
Adobe Inc	2.76	0.96	1.80	-6.24
Zoetis Inc	2.71	0.43	2.28	9.94
Thermo Fisher Scientific Inc	2.55	0.57	1.98	-0.76
Walt Disney Co (The)	2.53	0.00	2.53	-6.10
% of Portfolio	36.64	23.94	12.70	

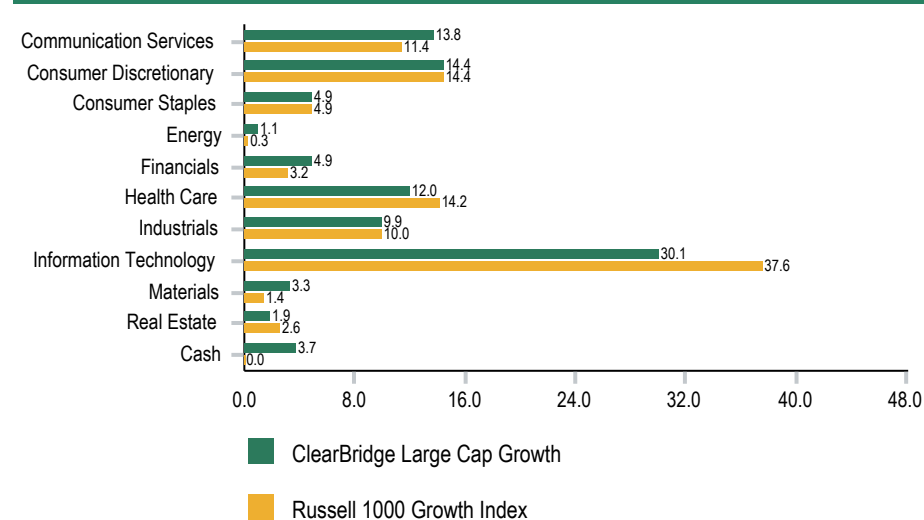
Portfolio Characteristics

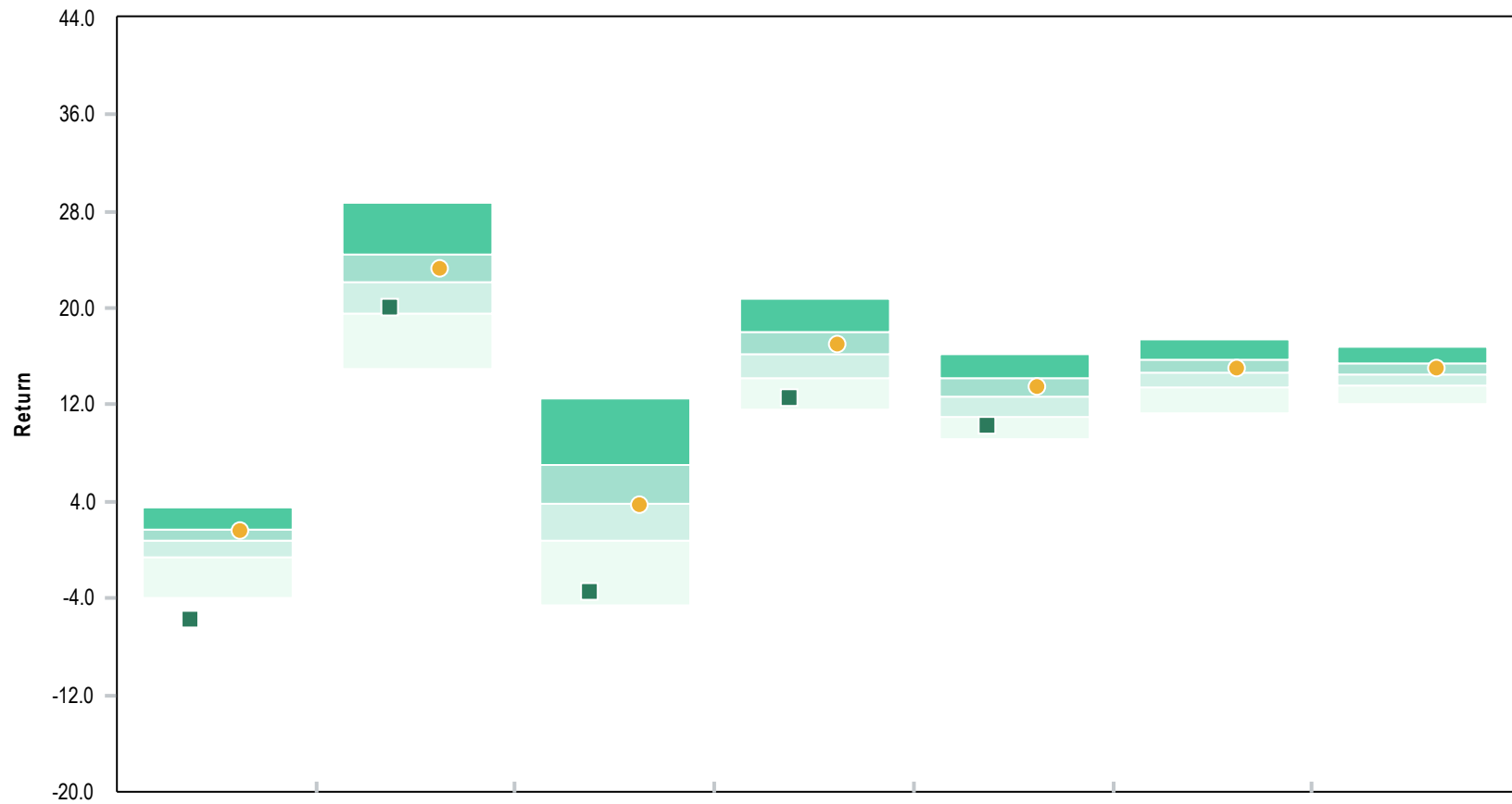
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	276,343,181,817	323,014,230,411
Median Mkt. Cap (\$)	88,202,445,970	12,429,806,360
Price/Earnings ratio	26.01	26.55
Price/Book ratio	5.49	7.56
5 Yr. EPS Growth Rate (%)	24.21	24.01
Current Yield (%)	1.03	1.23
Beta	N/A	1.00
Number of Stocks	49	531

Distribution of Market Capitalization (%)



Sector Weights (%)





	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Columbia	-5.82 (98)	20.03 (74)	-3.58 (92)	12.59 (90)	10.20 (89)	N/A	N/A
● Russell 1000 Growth Index	1.49 (30)	23.30 (37)	3.71 (54)	16.89 (37)	13.39 (38)	15.02 (42)	14.94 (35)

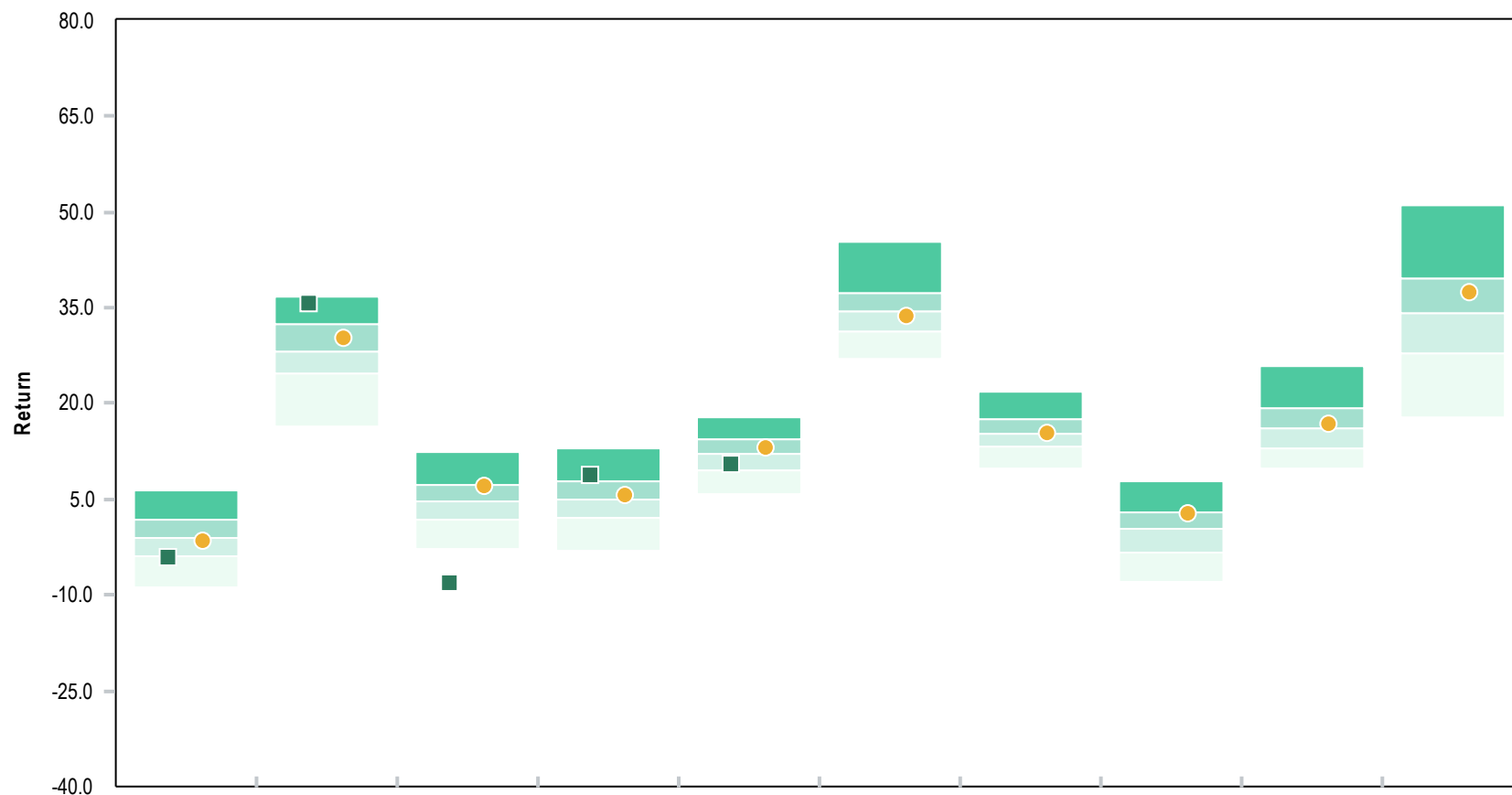
5th Percentile	3.54	28.66	12.54	20.74	16.22	17.48	16.80
1st Quartile	1.72	24.49	7.04	18.08	14.15	15.75	15.42
Median	0.74	22.17	3.90	16.13	12.73	14.66	14.53
3rd Quartile	-0.54	19.61	0.80	14.17	10.97	13.44	13.53
95th Percentile	-3.94	14.97	-4.60	11.59	9.25	11.30	12.00

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

IM U.S. Large Cap Growth Equity (SA+CF)

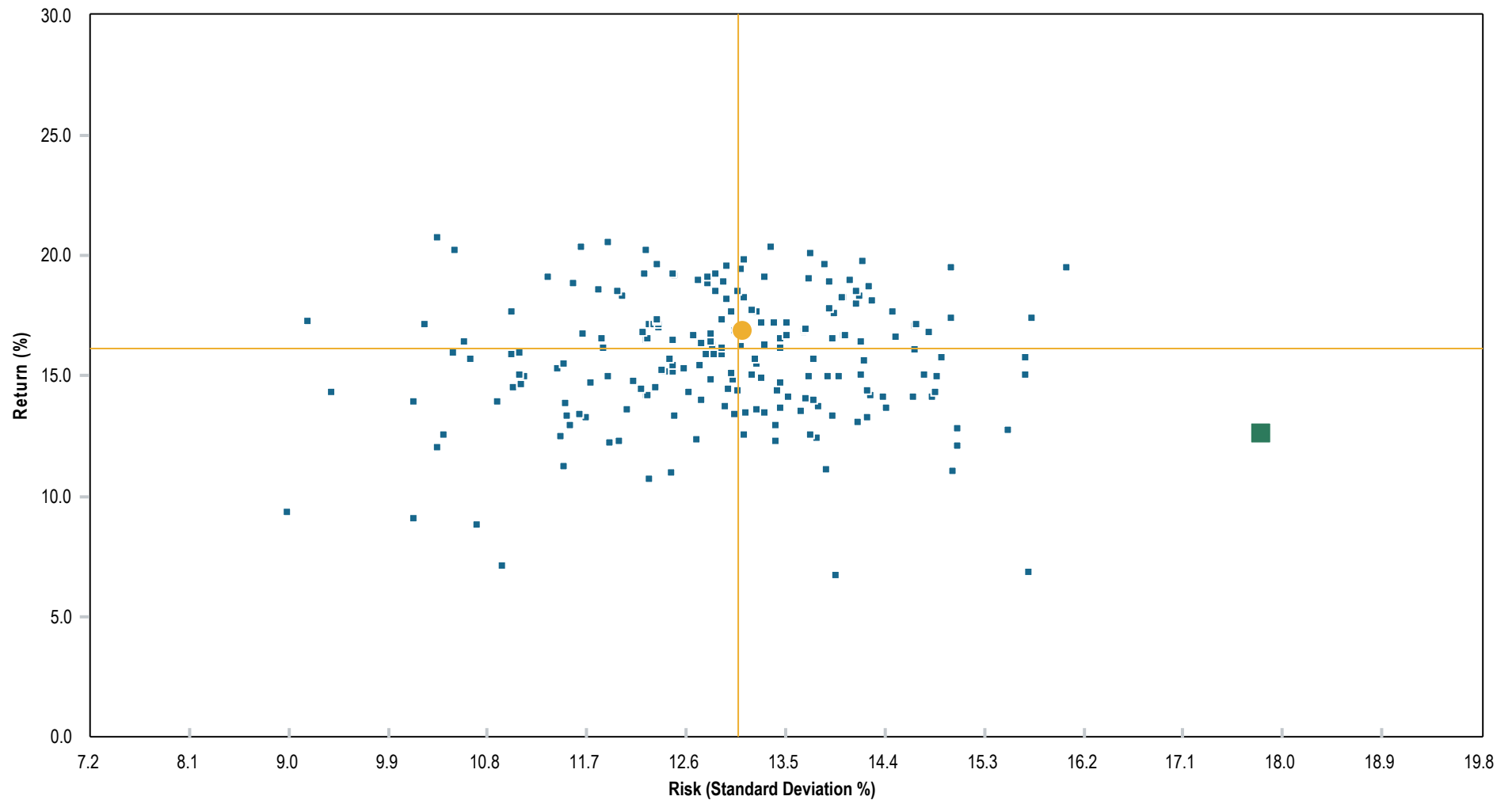
As of September 30, 2019



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ Columbia	-4.30 (80)	35.56 (9)	-8.17 (100)	8.65 (20)	10.45 (66)	N/A	N/A	N/A	N/A	N/A
● Russell 1000 Growth Index	-1.51 (55)	30.21 (38)	7.08 (27)	5.67 (45)	13.05 (39)	33.48 (59)	15.26 (50)	2.64 (27)	16.71 (46)	37.21 (34)

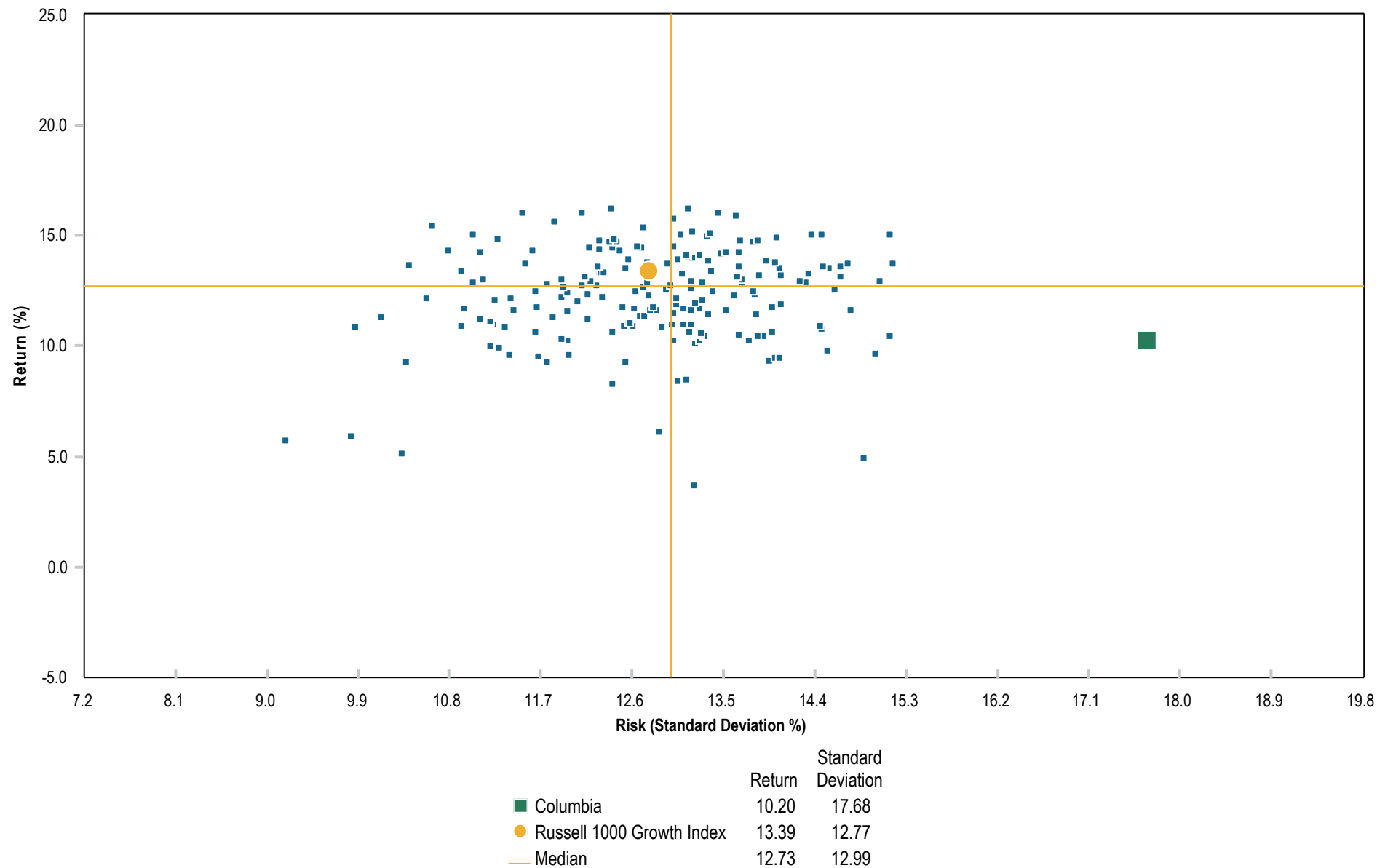
5th Percentile	6.44	36.74	12.47	12.93	17.80	45.22	21.81	7.95	25.77	51.12
1st Quartile	1.68	32.34	7.37	7.96	14.38	37.46	17.69	2.93	19.29	39.53
Median	-1.10	28.11	4.70	4.88	11.99	34.55	15.19	0.25	16.00	34.15
3rd Quartile	-3.79	24.75	1.80	1.99	9.63	31.29	13.13	-3.26	13.12	27.80
95th Percentile	-8.69	16.32	-2.63	-3.08	5.89	26.93	9.82	-7.85	9.85	17.84

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Columbia	12.59	17.81
● Russell 1000 Growth Index	16.89	13.11
— Median	16.13	13.07

Calculation based on monthly periodicity.



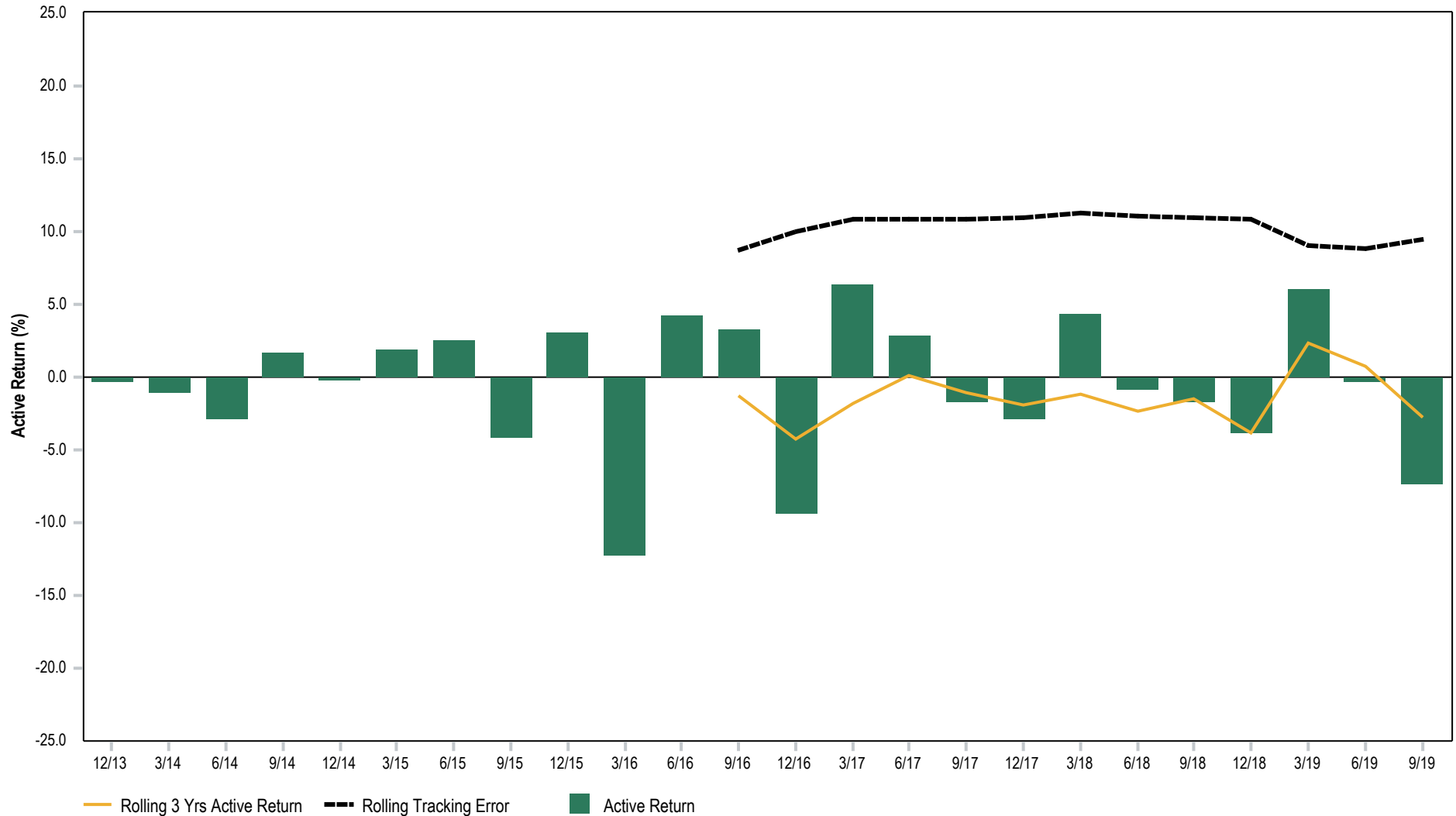
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Columbia	-5.82	20.03	-3.58	12.59	10.20	N/A	N/A	-4.30	35.56	-8.17	8.65
Russell 1000 Growth Index	1.49	23.30	3.71	16.89	13.39	15.02	14.94	-1.51	30.21	7.08	5.67
Difference	-7.31	-3.27	-7.29	-4.30	-3.19	N/A	N/A	-2.79	5.35	-15.25	2.98



Buy-and-Hold Portfolio -4.32
 Portfolio Trading -1.50
 Actual Return -5.82
 Benchmark Return 1.49
 Actual Active Return -7.31

Stock Selection -3.42
 Sector Selection -1.42
 Interaction -1.13
 Total Selection -5.97

Portfolio Trading -1.50
 Benchmark Trading -0.16
 Active Trading Impact -1.33

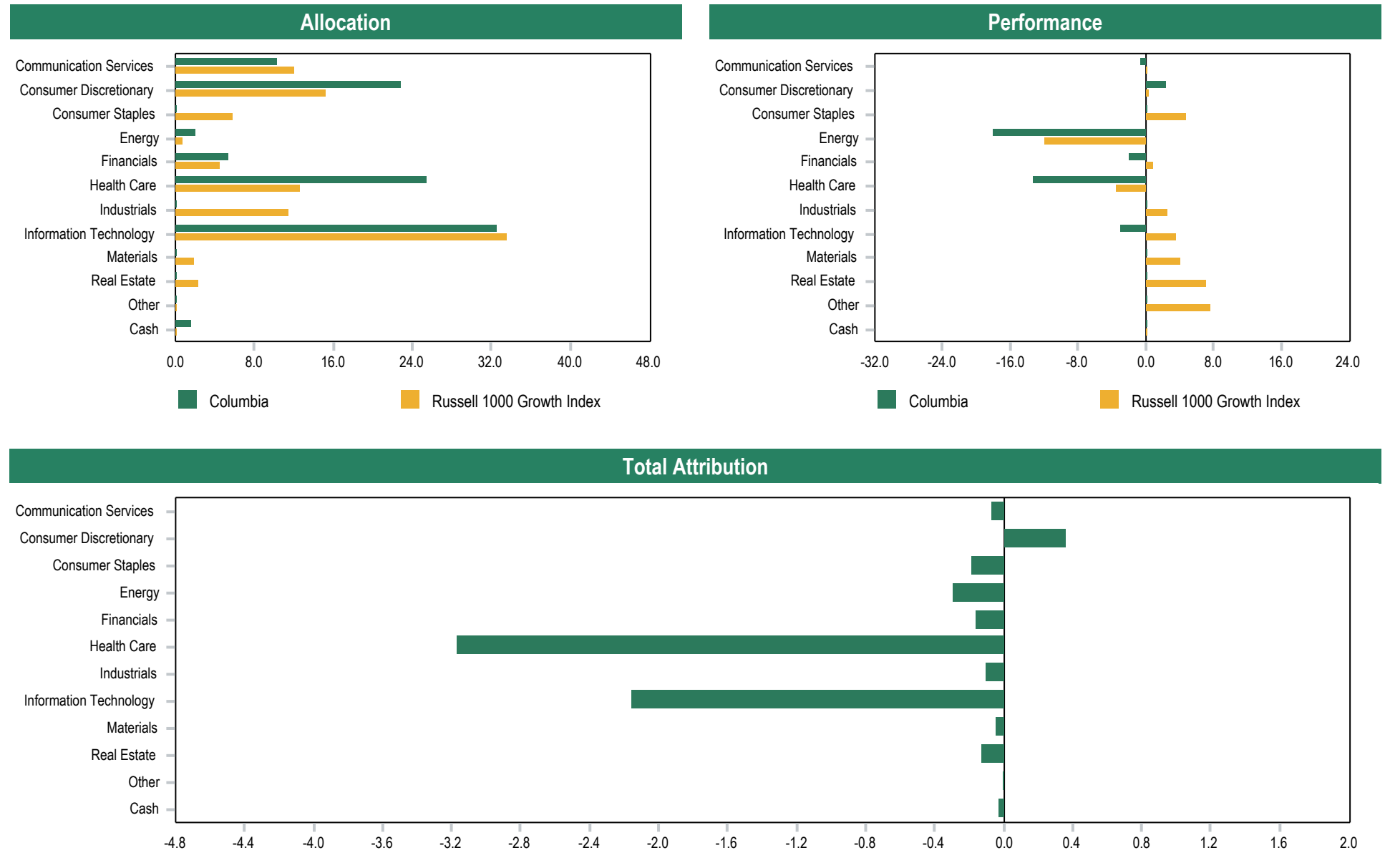
Buy & Hold Active Return -7.31

	Allocation — 07/01/2019		Performance — 1 Quarter Ending September 30, 2019		Attribution			Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	
Communication Services	10.20	11.99	-0.66	0.25	-0.11	0.03	0.02	-0.07
Consumer Discretionary	22.79	15.22	2.42	0.43	0.30	-0.09	0.15	0.36
Consumer Staples	0.00	5.74	0.00	4.85	0.00	-0.18	0.00	-0.18
Energy	1.98	0.69	-17.97	-11.99	-0.04	-0.18	-0.08	-0.29
Financials	5.38	4.45	-2.01	0.82	-0.13	-0.01	-0.03	-0.16
Health Care	25.47	12.62	-13.34	-3.51	-1.24	-0.66	-1.26	-3.17
Industrials	0.00	11.49	0.00	2.53	0.00	-0.10	0.00	-0.10
Information Technology	32.54	33.55	-2.91	3.66	-2.20	-0.02	0.07	-2.16
Materials	0.00	1.86	0.00	4.17	0.00	-0.05	0.00	-0.05
Real Estate	0.00	2.35	0.00	7.06	0.00	-0.13	0.00	-0.13
Other	0.00	0.04	0.00	7.61	0.00	0.00	0.00	0.00
Cash	1.64	0.00	0.00	0.00	0.00	-0.03	0.00	-0.03
Total	100.00	100.00	-4.32	1.65	-3.42	-1.42	-1.13	-5.97

Bristol County Retirement System

Buy and Hold Sector Attribution Graph

1 Quarter Ending September 30, 2019



Buy-and-Hold Portfolio -4.32
 Portfolio Trading -1.50
 Actual Return -5.82
 Benchmark Return 1.49
 Actual Active Return -7.31

Stock Selection -5.21
 Style Selection -0.28
 Interaction -0.48
 Total Selection -5.97

Portfolio Trading -1.50
 Benchmark Trading -0.16
 Active Trading Impact -1.33

Buy & Hold Active Return -7.31

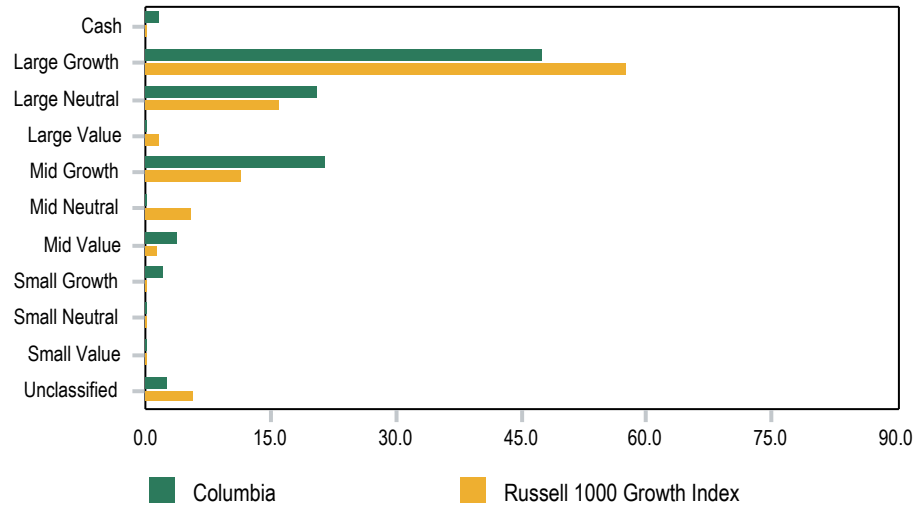
	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction	Total
Cash	1.64	0.00	0.00	0.00	0.00	-0.03	0.00	-0.03
Large Growth	47.60	57.52	-2.35	1.86	-2.42	-0.02	0.42	-2.02
Large Neutral	20.43	16.00	0.03	3.03	-0.48	0.06	-0.13	-0.55
Large Value	0.00	1.70	0.00	-1.50	0.00	0.05	0.00	0.05
Mid Growth	21.47	11.57	-11.81	-0.42	-1.32	-0.21	-1.13	-2.65
Mid Neutral	0.00	5.58	0.00	-0.74	0.00	0.13	0.00	0.13
Mid Value	3.89	1.47	-19.29	-1.96	-0.25	-0.09	-0.42	-0.76
Small Growth	2.26	0.08	13.53	-4.01	0.01	-0.12	0.38	0.27
Small Neutral	0.00	0.22	0.00	-6.15	0.00	0.02	0.00	0.02
Small Value	0.00	0.12	0.00	-6.11	0.00	0.01	0.00	0.01
Unclassified	2.70	5.75	-8.53	4.62	-0.76	-0.09	0.40	-0.45
Total	100.00	100.00	-4.32	1.65	-5.21	-0.28	-0.48	-5.97

Bristol County Retirement System

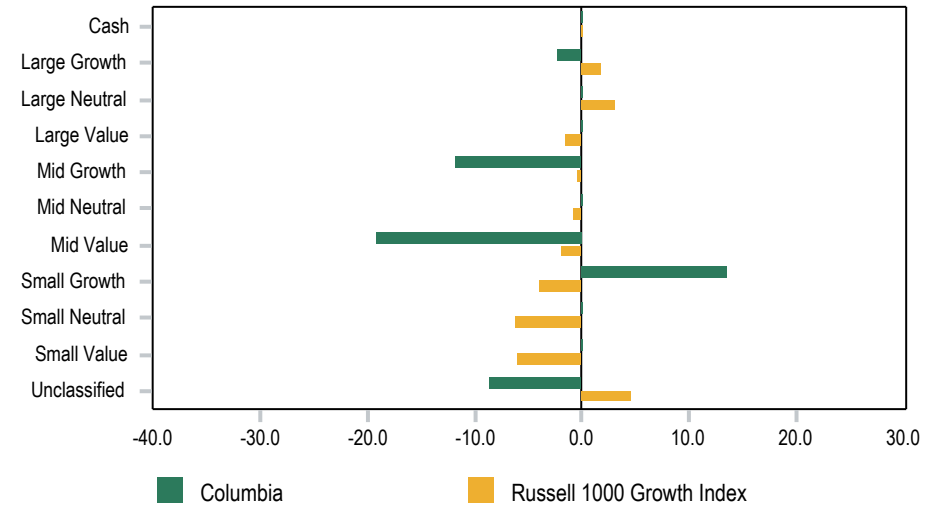
Buy and Hold Style Attribution Graph

1 Quarter Ending September 30, 2019

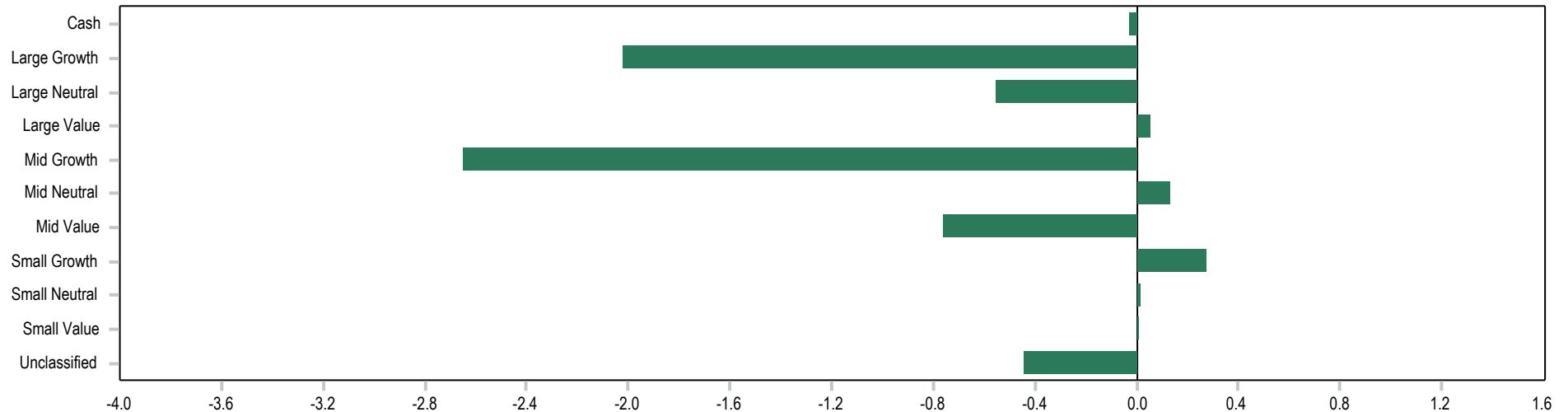
Allocation



Performance



Total Attribution



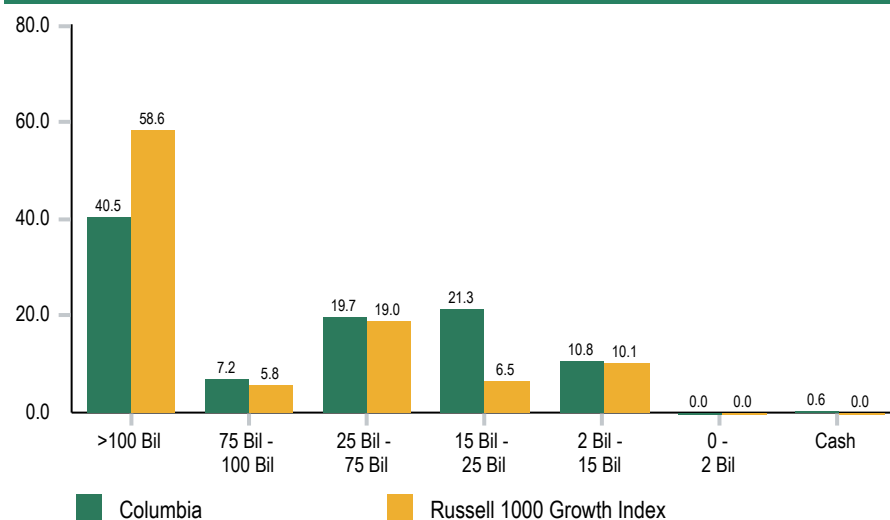
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
NVIDIA Corp	4.48	0.73	3.75	6.10
Amazon.com Inc	4.35	5.14	-0.79	-8.33
Facebook Inc	4.35	3.05	1.30	-7.73
Activision Blizzard Inc	4.11	0.02	4.09	12.12
Alibaba Group Holding Ltd	4.06	0.00	4.06	-1.31
Nike Inc	4.05	0.83	3.22	12.17
Booking Holdings Inc	3.97	0.60	3.37	4.69
salesforce.com Inc	3.82	0.87	2.95	-2.17
IDEXX Laboratories Inc	3.65	0.17	3.48	-1.24
New Oriental Education & Technology Group Inc	3.64	0.00	3.64	14.68
% of Portfolio	40.48	11.41	29.07	

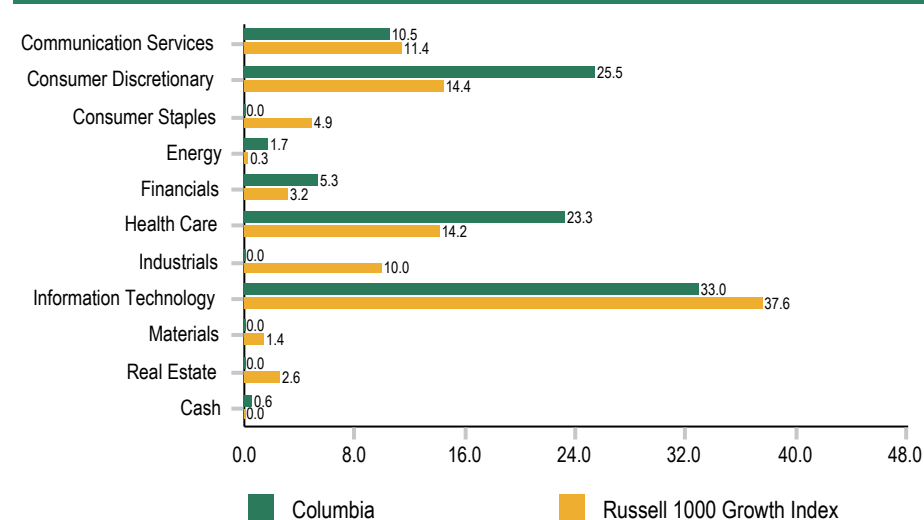
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	139,455,282,214	323,014,230,411
Median Mkt. Cap (\$)	45,734,462,790	12,429,806,360
Price/Earnings ratio	31.97	26.55
Price/Book ratio	6.42	7.56
5 Yr. EPS Growth Rate (%)	29.44	24.01
Current Yield (%)	0.45	1.23
Beta (5 Years, Monthly)	1.27	1.00
Number of Stocks	34	531

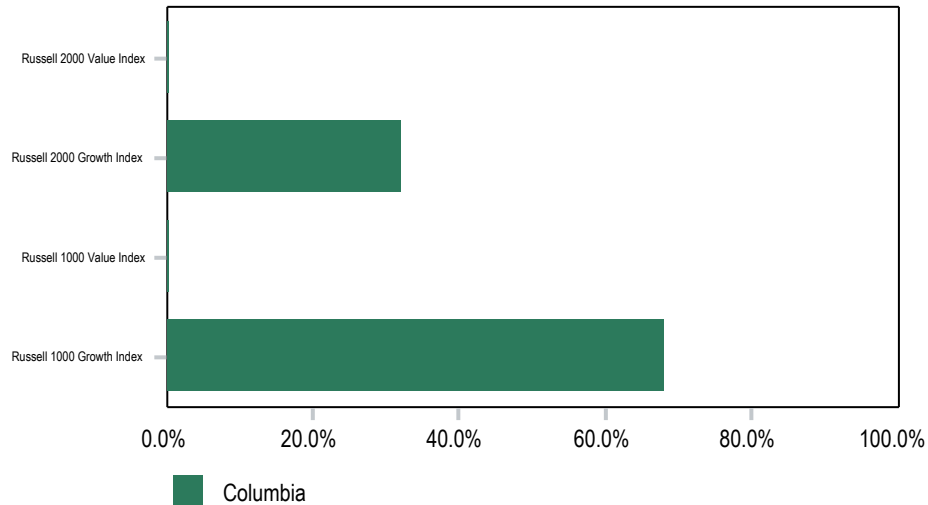
Distribution of Market Capitalization (%)



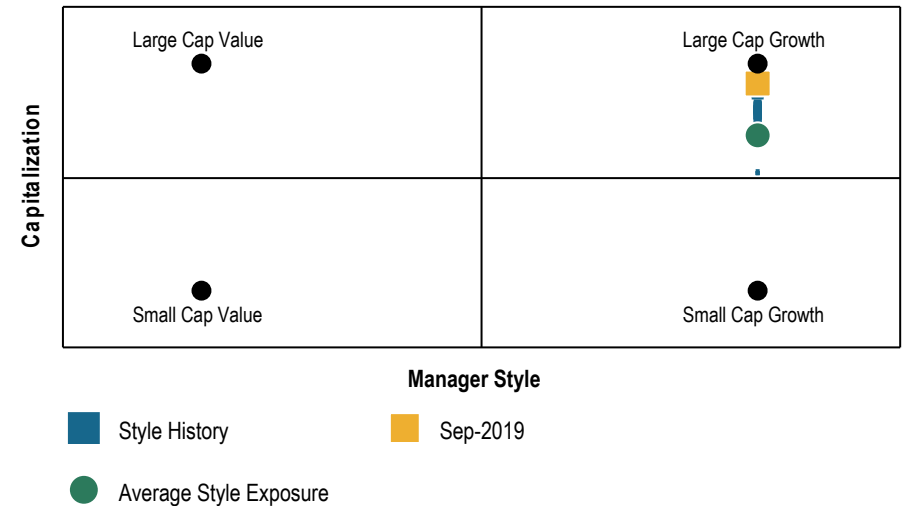
Sector Weights (%)



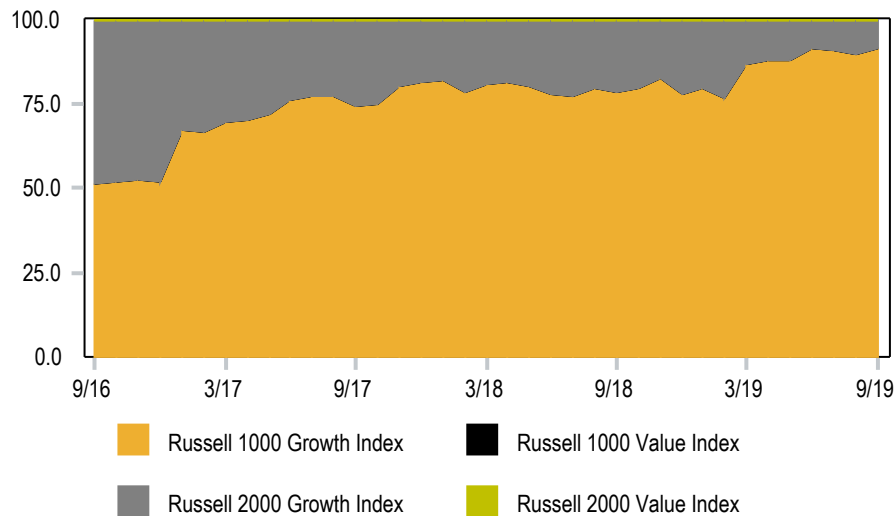
Investment Style Exposure



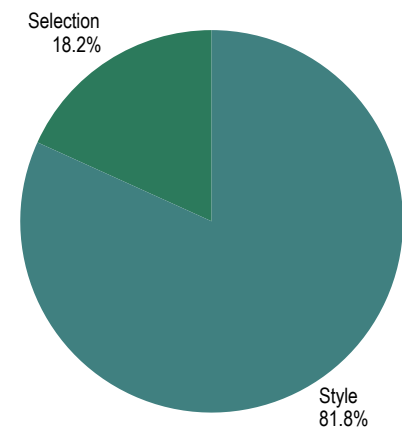
Style Map(ppp)

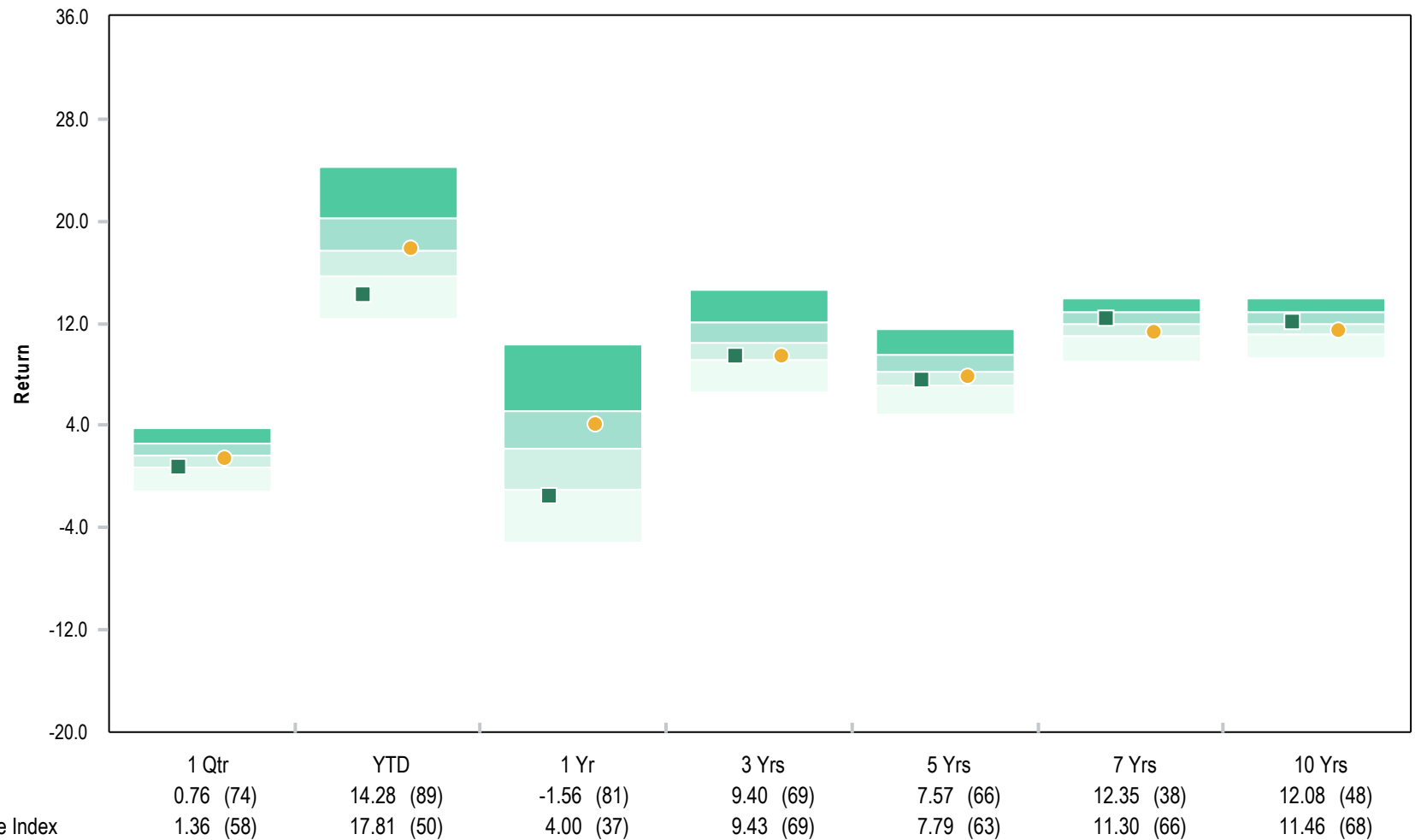


Style History(ppp)



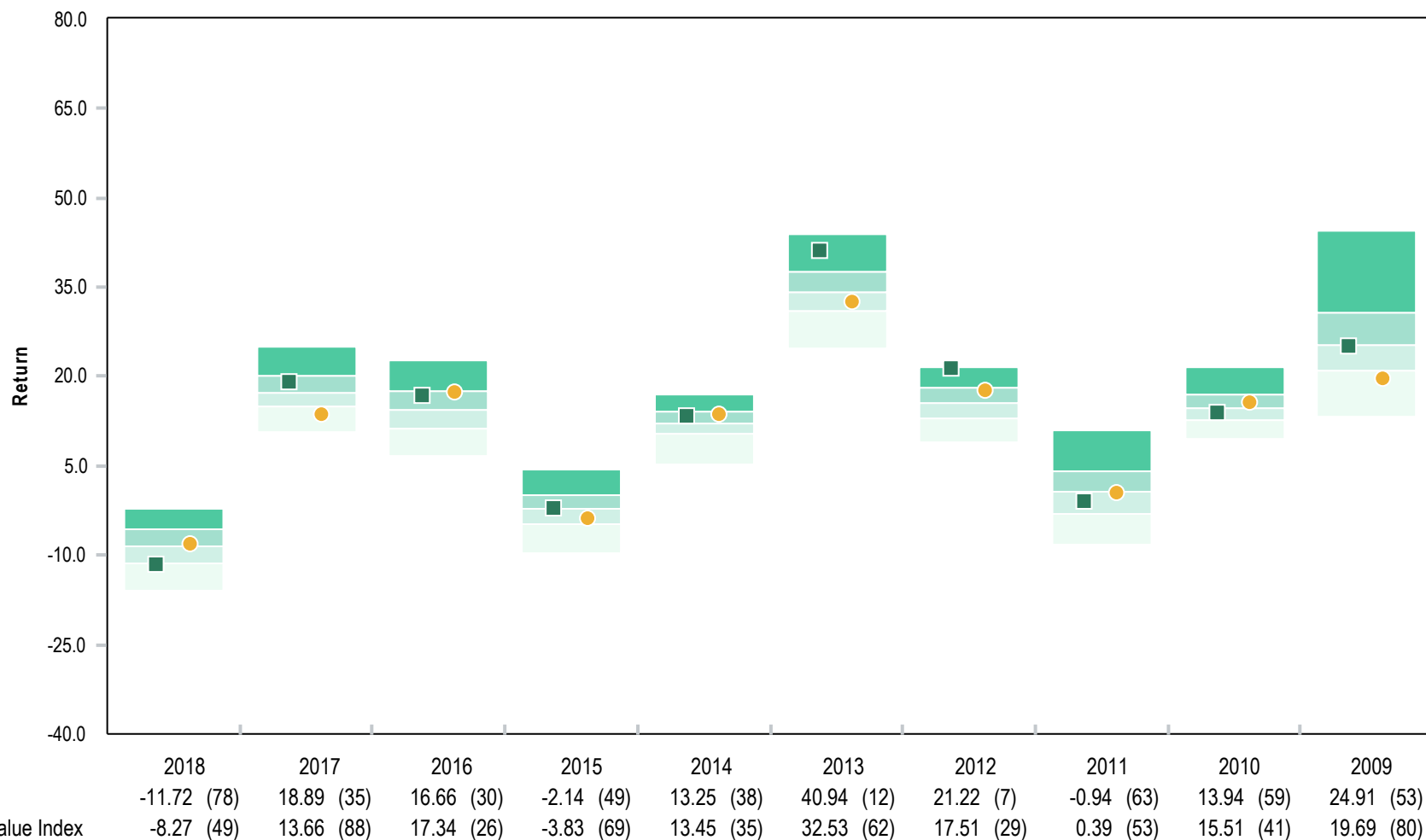
Return Variance





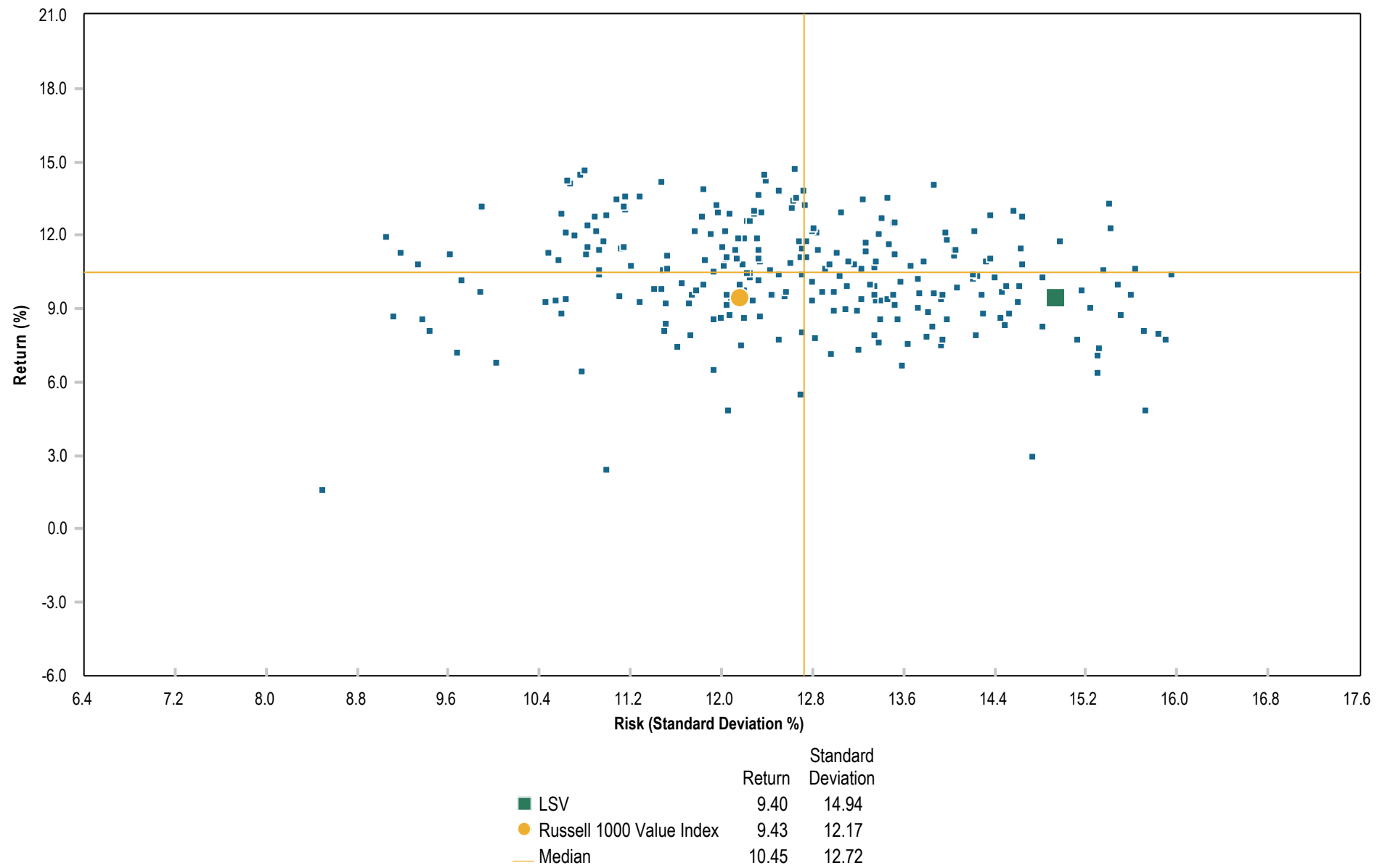
5th Percentile	3.84	24.29	10.30	14.67	11.48	13.95	14.00
1st Quartile	2.62	20.19	5.07	12.04	9.48	12.86	12.84
Median	1.63	17.67	2.14	10.45	8.20	11.93	11.97
3rd Quartile	0.66	15.68	-0.97	9.13	7.11	10.97	11.15
95th Percentile	-1.15	12.30	-5.18	6.56	4.83	8.97	9.32

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

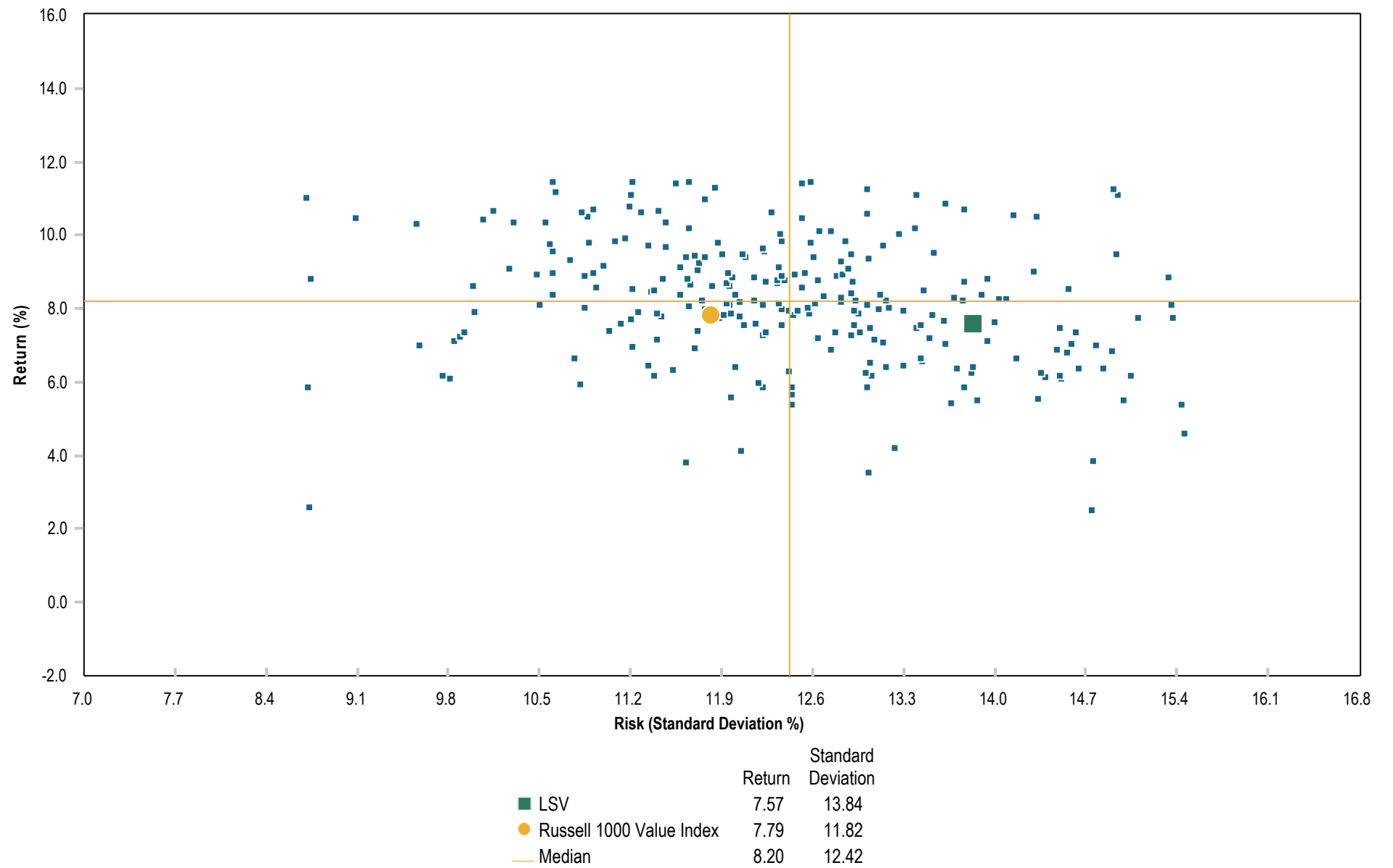


5th Percentile	-2.23	24.94	22.64	4.28	17.08	44.04	21.67	10.90	21.44	44.51
1st Quartile	-5.56	20.07	17.53	0.10	14.07	37.73	18.00	4.22	16.89	30.87
Median	-8.39	17.22	14.53	-2.25	12.17	34.22	15.66	0.62	14.63	25.24
3rd Quartile	-11.46	15.12	11.30	-4.74	10.31	31.08	12.94	-2.99	12.83	20.96
95th Percentile	-16.00	10.62	6.59	-9.70	5.18	24.83	8.91	-8.26	9.58	13.33

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



Calculation based on monthly periodicity.



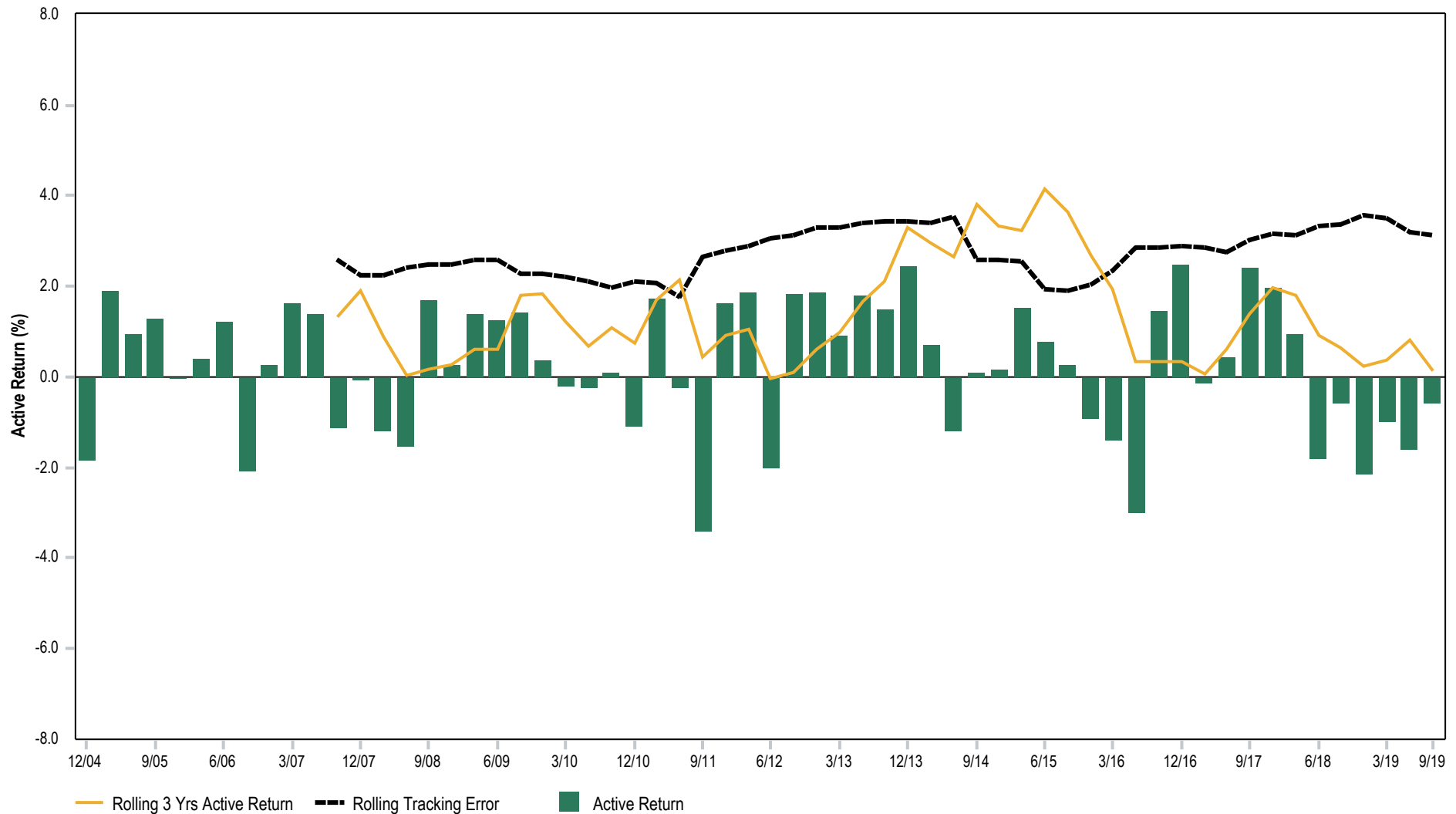
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
LSV	0.76	14.28	-1.56	9.40	7.57	12.35	12.08	-11.72	18.89	16.66	-2.14
Russell 1000 Value Index	1.36	17.81	4.00	9.43	7.79	11.30	11.46	-8.27	13.66	17.34	-3.83
Difference	-0.60	-3.53	-5.56	-0.03	-0.22	1.05	0.62	-3.45	5.23	-0.68	1.69



Buy-and-Hold Portfolio 0.90
 Portfolio Trading -0.14
 Actual Return 0.76
 Benchmark Return 1.36
 Actual Active Return -0.59

Stock Selection -0.17
 Sector Selection -0.43
 Interaction 0.15
 Total Selection -0.45

Portfolio Trading -0.14
 Benchmark Trading 0.01
 Active Trading Impact -0.14

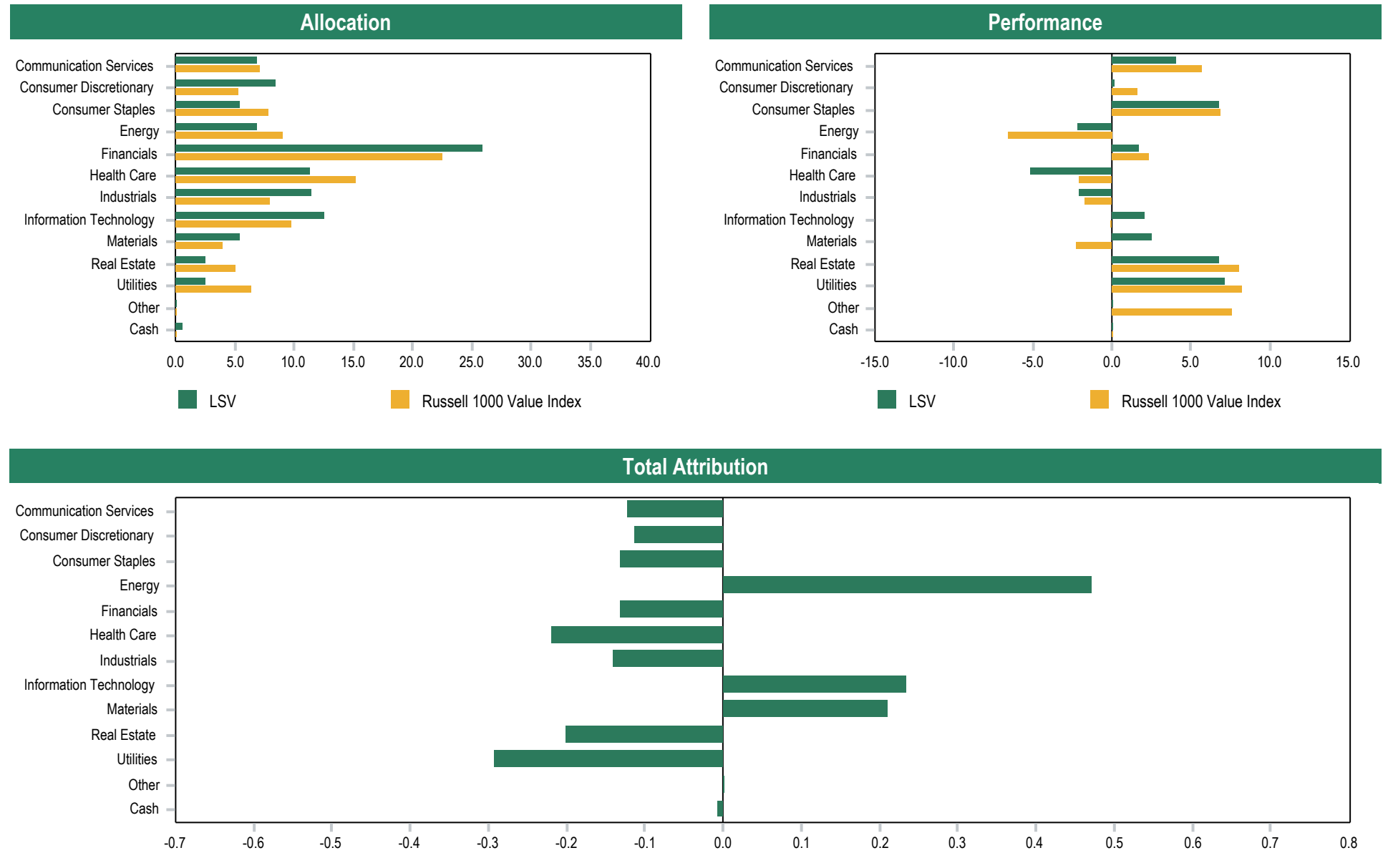
Buy & Hold Active Return -0.59

	Allocation — 07/01/2019		Performance — 1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Communication Services	6.81	7.08	4.09	5.73	-0.12	-0.01	0.00	-0.12
Consumer Discretionary	8.45	5.28	0.19	1.65	-0.08	0.01	-0.05	-0.11
Consumer Staples	5.46	7.78	6.78	6.85	-0.01	-0.13	0.00	-0.13
Energy	6.83	8.98	-2.18	-6.57	0.39	0.17	-0.09	0.47
Financials	25.93	22.50	1.68	2.32	-0.14	0.03	-0.02	-0.13
Health Care	11.37	15.15	-5.12	-2.05	-0.46	0.13	0.12	-0.22
Industrials	11.43	8.00	-2.04	-1.73	-0.03	-0.11	-0.01	-0.14
Information Technology	12.57	9.73	2.12	-0.06	0.21	-0.04	0.06	0.23
Materials	5.40	4.03	2.54	-2.26	0.19	-0.05	0.07	0.21
Real Estate	2.54	5.04	6.77	8.07	-0.07	-0.17	0.03	-0.20
Utilities	2.59	6.42	7.17	8.25	-0.07	-0.26	0.04	-0.29
Other	0.00	0.00	0.00	7.61	0.00	0.00	0.00	0.00
Cash	0.62	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01
Total	100.00	100.00	0.90	1.35	-0.17	-0.43	0.15	-0.45

Bristol County Retirement System

Buy and Hold Sector Attribution Graph

1 Quarter Ending September 30, 2019



Buy-and-Hold Portfolio 0.90
 Portfolio Trading -0.14
 Actual Return 0.76
 Benchmark Return 1.36
 Actual Active Return -0.59

Stock Selection 0.23
 Style Selection -0.49
 Interaction -0.19
 Total Selection -0.45

Portfolio Trading -0.14
 Benchmark Trading 0.01
 Active Trading Impact -0.14

Buy & Hold Active Return -0.59

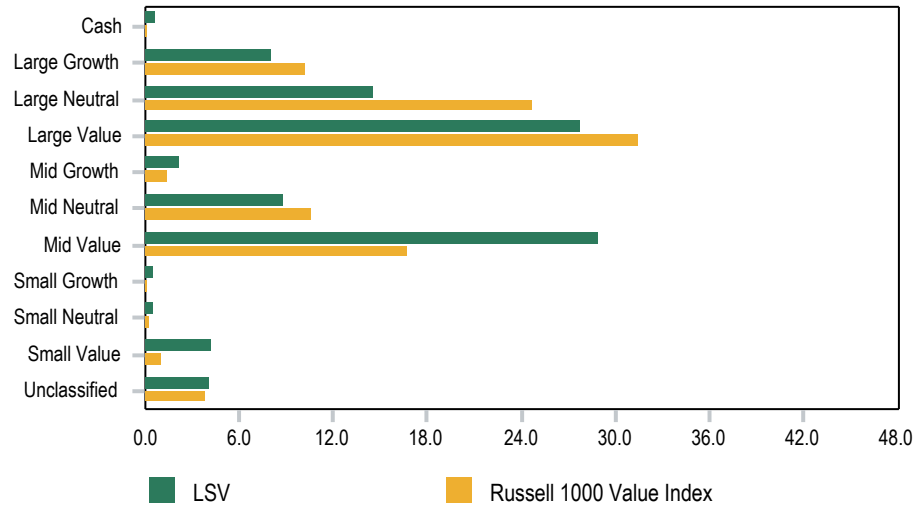
	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019				Attribution	
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction	Total
Cash	0.62	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01
Large Growth	7.96	10.24	-1.25	-2.56	0.13	0.09	-0.03	0.19
Large Neutral	14.53	24.64	2.79	2.45	0.08	-0.11	-0.03	-0.06
Large Value	27.69	31.42	1.23	1.77	-0.17	-0.02	0.02	-0.17
Mid Growth	2.13	1.41	3.18	2.80	0.01	0.01	0.00	0.02
Mid Neutral	8.81	10.59	8.08	3.22	0.51	-0.03	-0.09	0.39
Mid Value	28.95	16.69	-0.13	0.88	-0.17	-0.06	-0.12	-0.35
Small Growth	0.53	0.00	-9.78	-17.73	0.00	-0.10	0.04	-0.06
Small Neutral	0.46	0.22	-17.88	-5.52	-0.03	-0.02	-0.03	-0.07
Small Value	4.20	1.03	-4.49	-6.40	0.02	-0.25	0.06	-0.17
Unclassified	4.12	3.77	-4.09	0.10	-0.16	0.00	-0.01	-0.18
Total	100.00	100.00	0.90	1.35	0.23	-0.49	-0.19	-0.45

Bristol County Retirement System

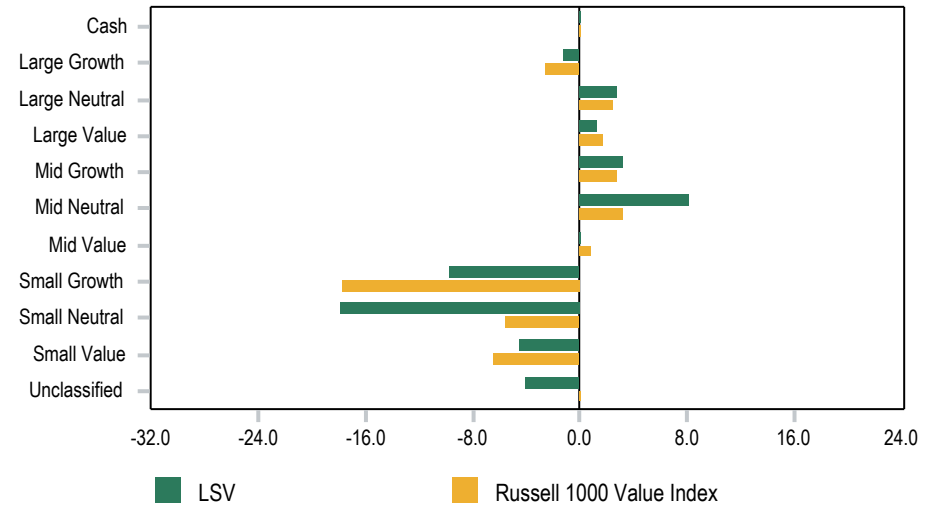
Buy and Hold Style Attribution Graph

1 Quarter Ending September 30, 2019

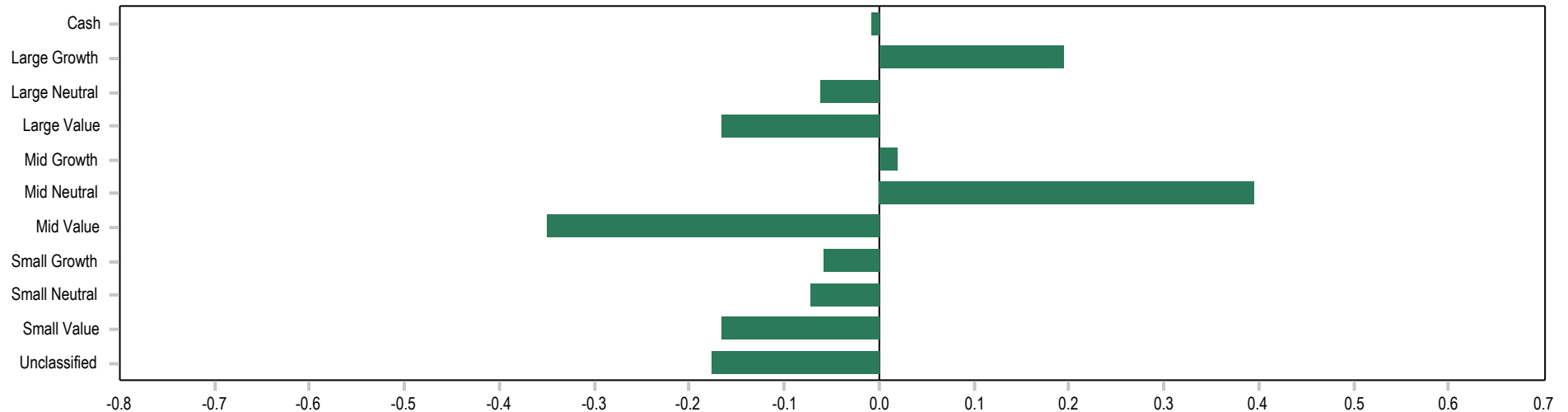
Allocation



Performance



Total Attribution



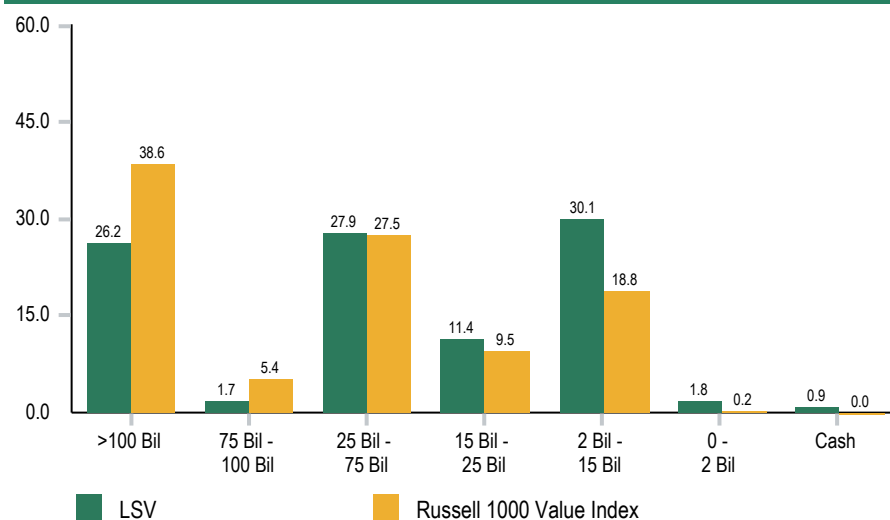
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
JPMorgan Chase & Co	2.86	2.76	0.10	6.01
Verizon Communications Inc	2.52	1.85	0.67	6.78
Intel Corp	2.43	1.69	0.74	8.37
Citigroup Inc	2.16	1.15	1.01	-0.61
Pfizer Inc	2.10	1.48	0.62	-16.28
Bank of America Corp	2.03	1.81	0.22	1.23
Amgen Inc	1.64	0.07	1.57	5.77
AT&T Inc	1.55	2.04	-0.49	14.64
Citizens Financial Group Inc	1.40	0.12	1.28	0.98
Exelon Corp	1.37	0.35	1.02	1.59
% of Portfolio	20.06	13.32	6.74	

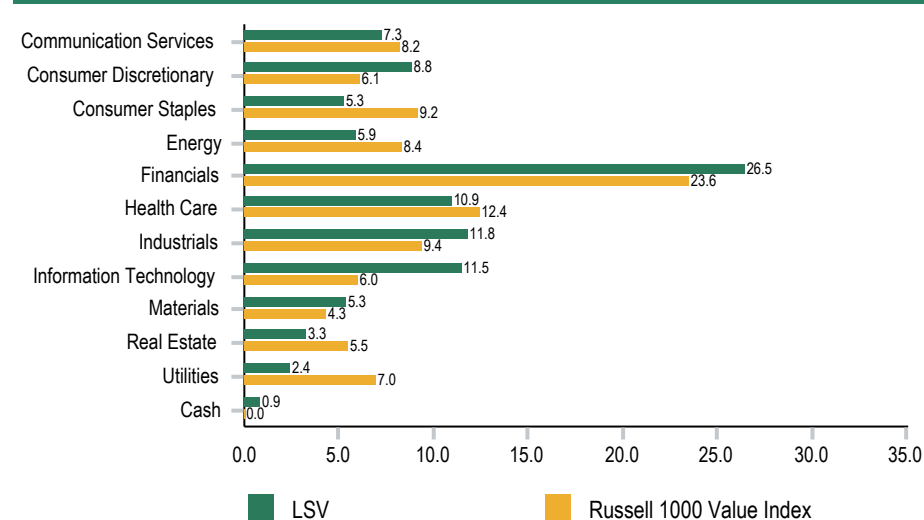
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	78,594,461,449	122,160,989,755
Median Mkt. Cap (\$)	15,029,975,500	9,460,342,920
Price/Earnings ratio	12.10	16.68
Price/Book ratio	2.08	2.17
5 Yr. EPS Growth Rate (%)	10.86	7.53
Current Yield (%)	3.07	2.65
Beta (5 Years, Monthly)	1.14	1.00
Number of Stocks	145	766

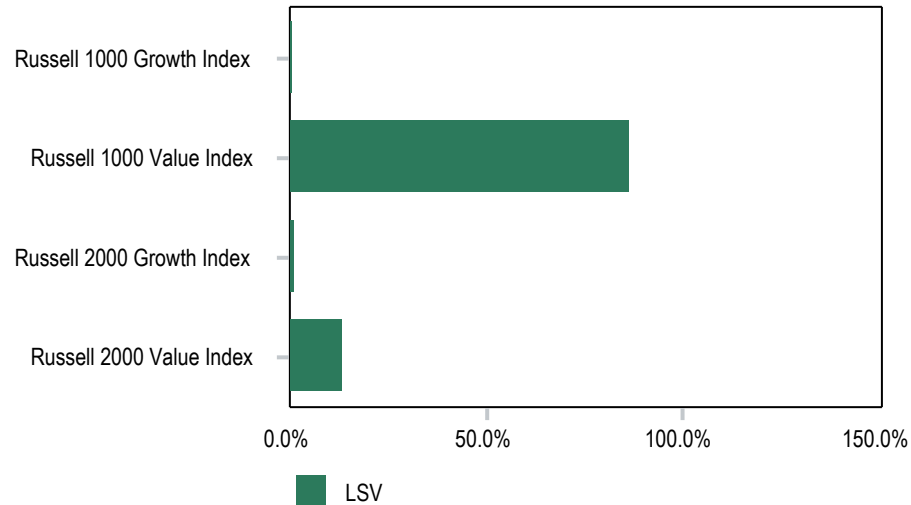
Distribution of Market Capitalization (%)



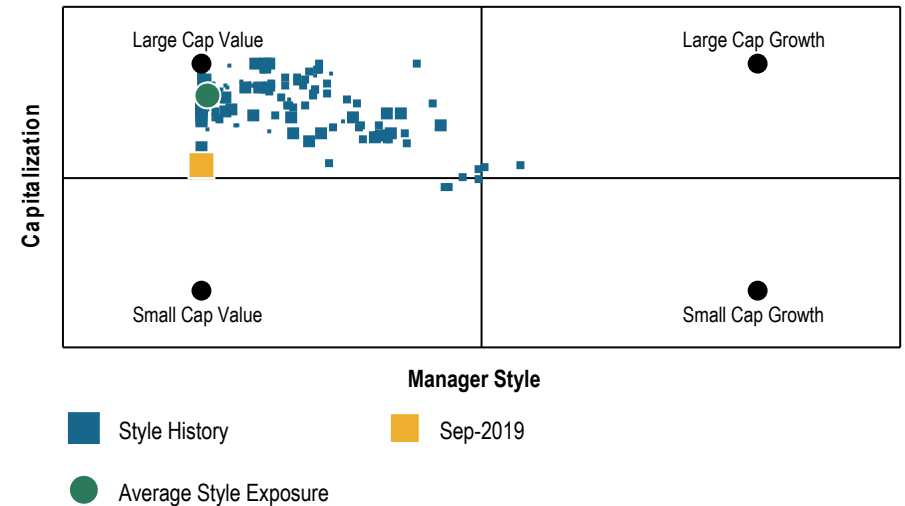
Sector Weights (%)



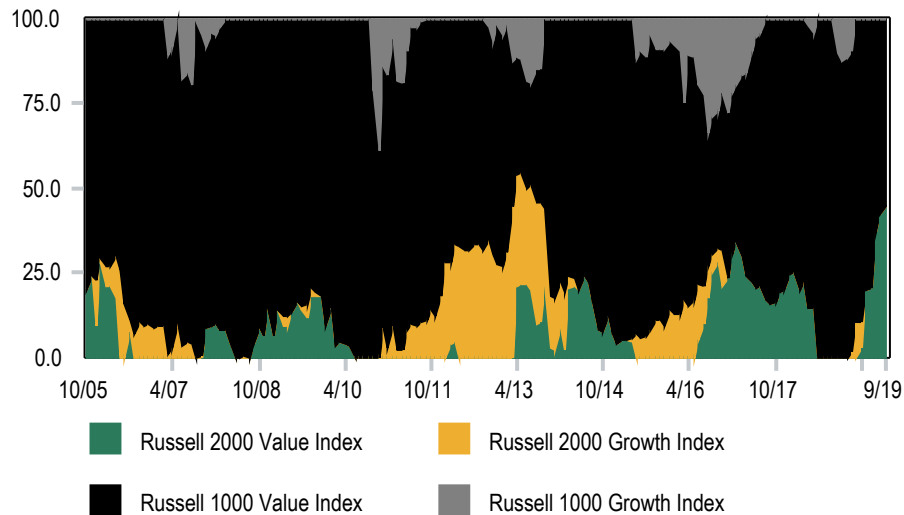
Investment Style Exposure



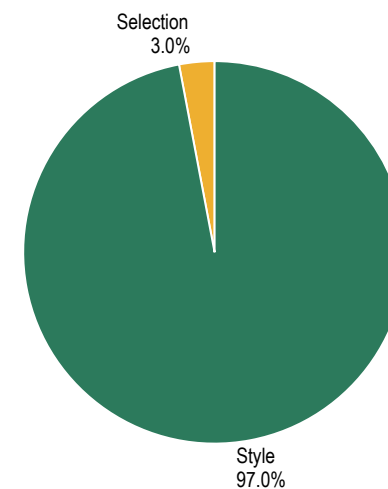
Style Map(ppp)

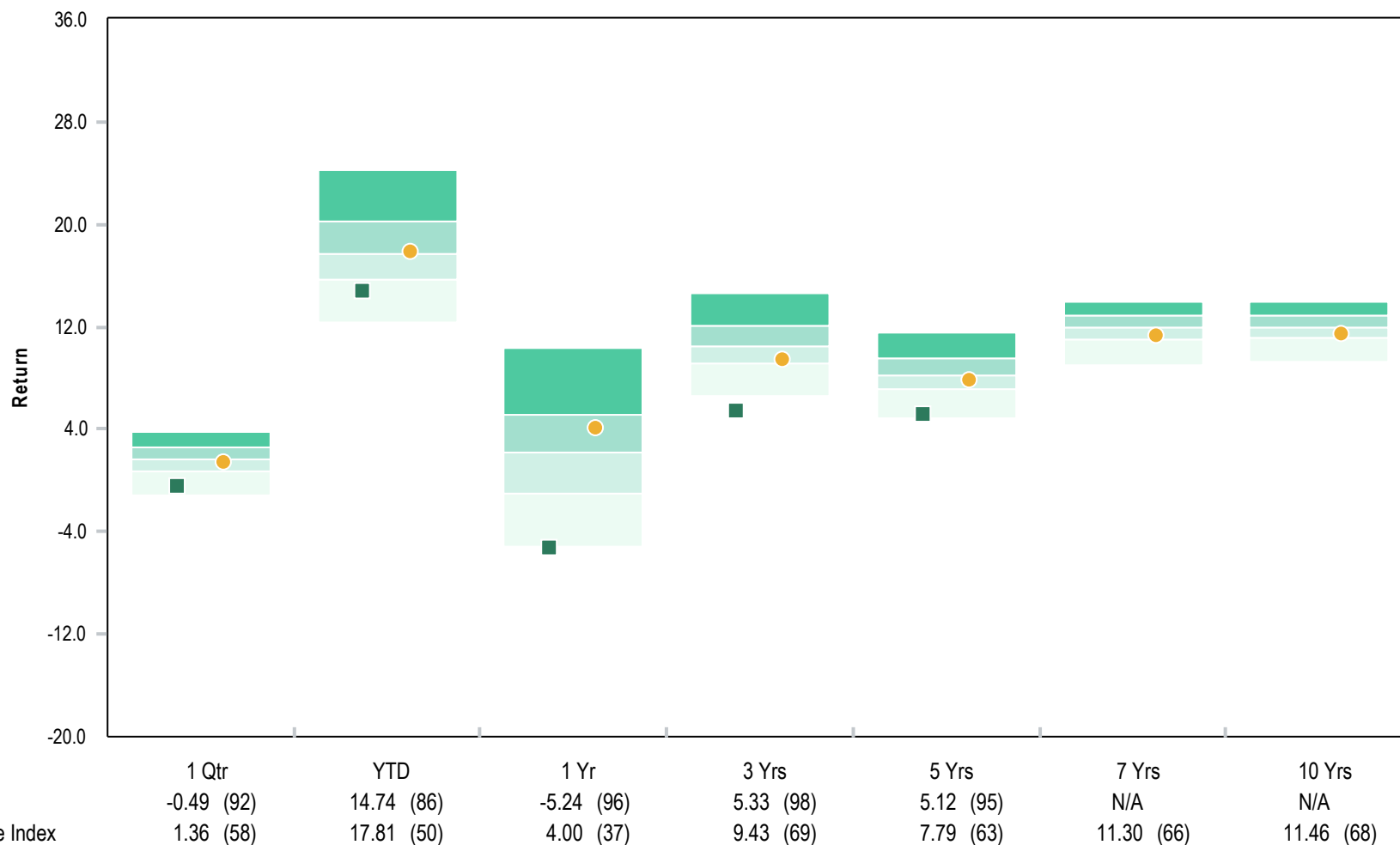


Style History(ppp)



Return Variance





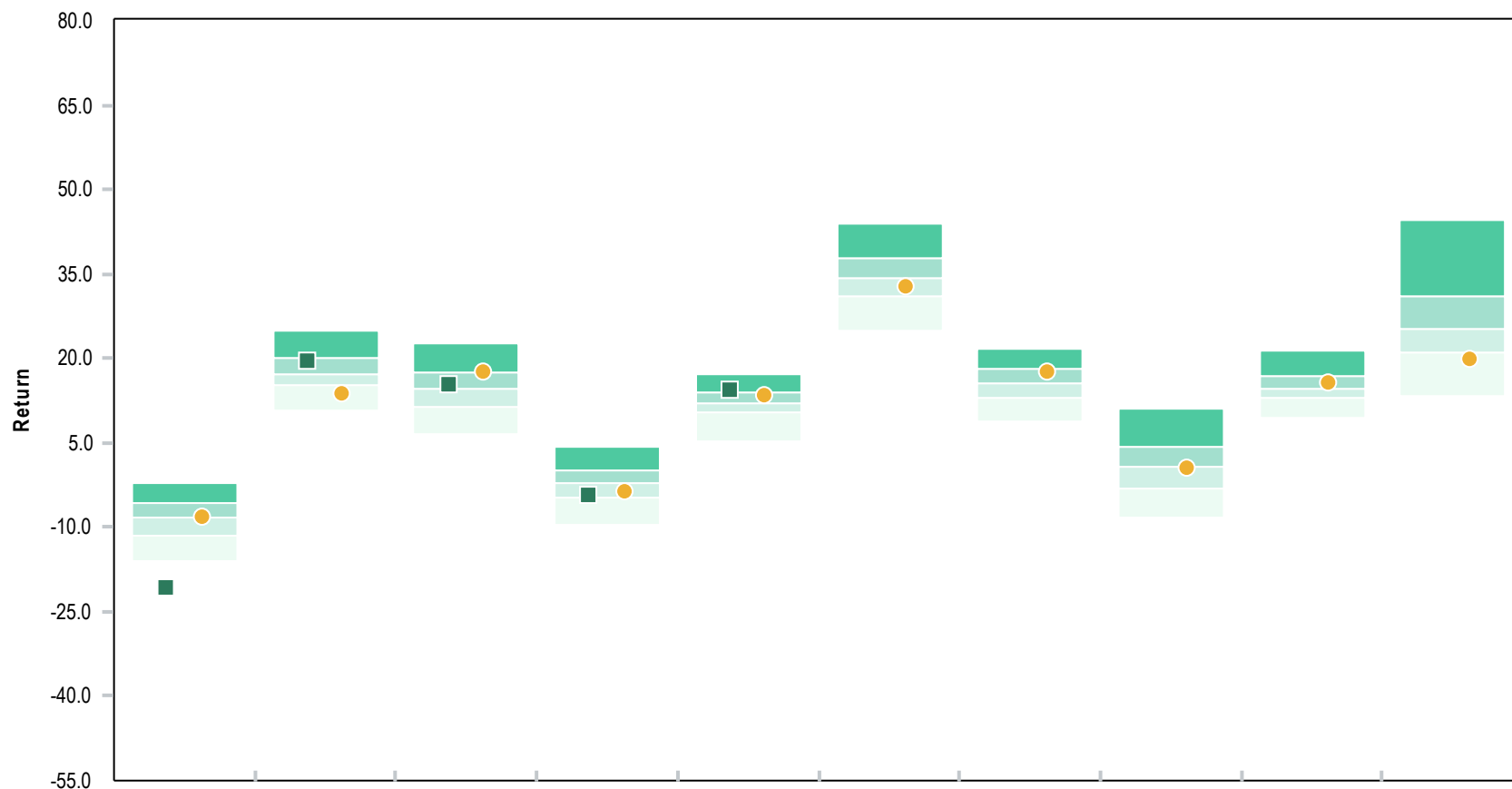
5th Percentile	3.84	24.29	10.30	14.67	11.48	13.95	14.00
1st Quartile	2.62	20.19	5.07	12.04	9.48	12.86	12.84
Median	1.63	17.67	2.14	10.45	8.20	11.93	11.97
3rd Quartile	0.66	15.68	-0.97	9.13	7.11	10.97	11.15
95th Percentile	-1.15	12.30	-5.18	6.56	4.83	8.97	9.32

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

IM U.S. Large Cap Value Equity (SA+CF)

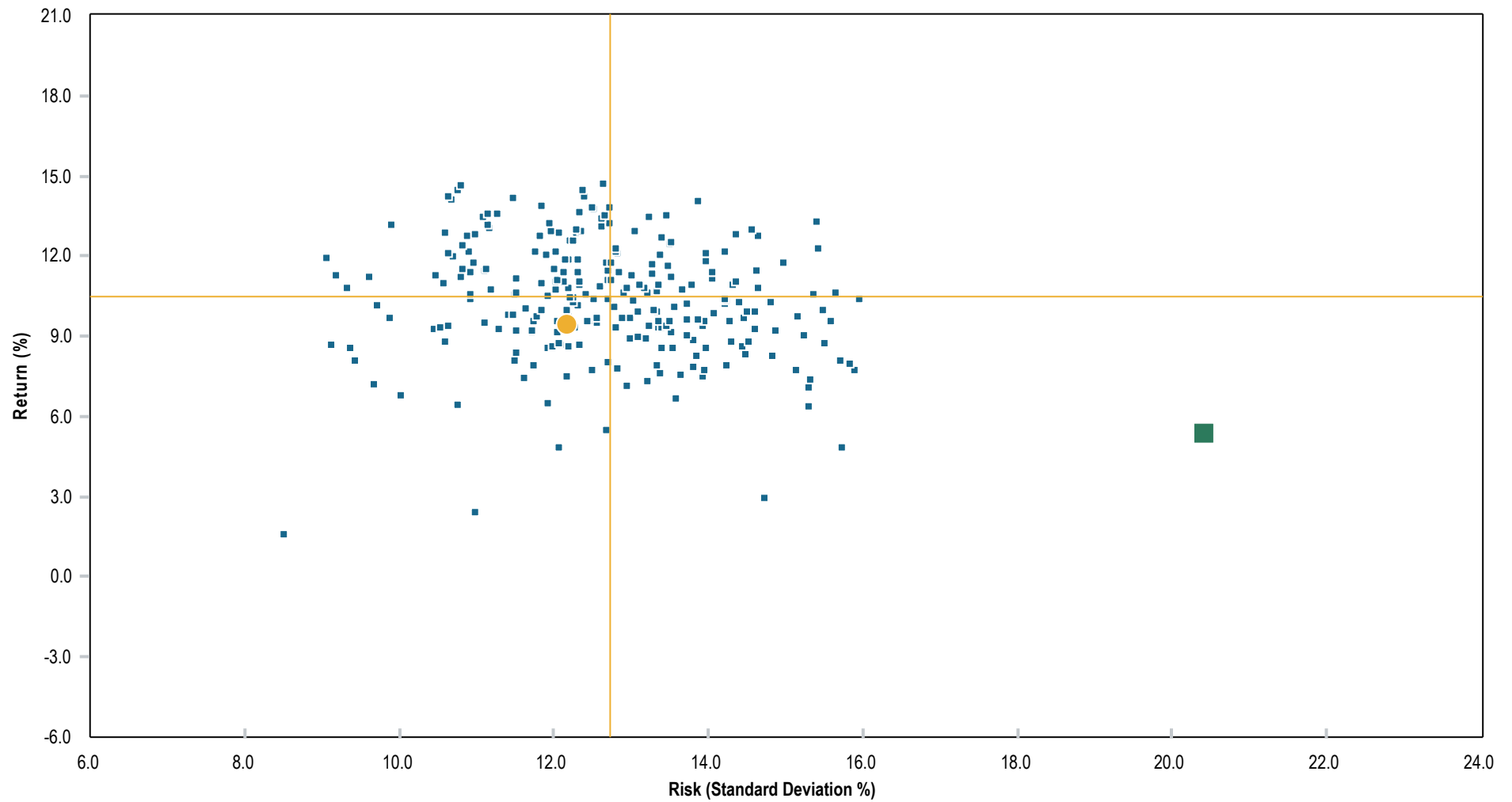
As of September 30, 2019



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ Lyrical	-20.80 (100)	19.32 (31)	15.33 (43)	-4.25 (72)	14.28 (23)	N/A	N/A	N/A	N/A	N/A
● Russell 1000 Value Index	-8.27 (49)	13.66 (88)	17.34 (26)	-3.83 (69)	13.45 (35)	32.53 (62)	17.51 (29)	0.39 (53)	15.51 (41)	19.69 (80)

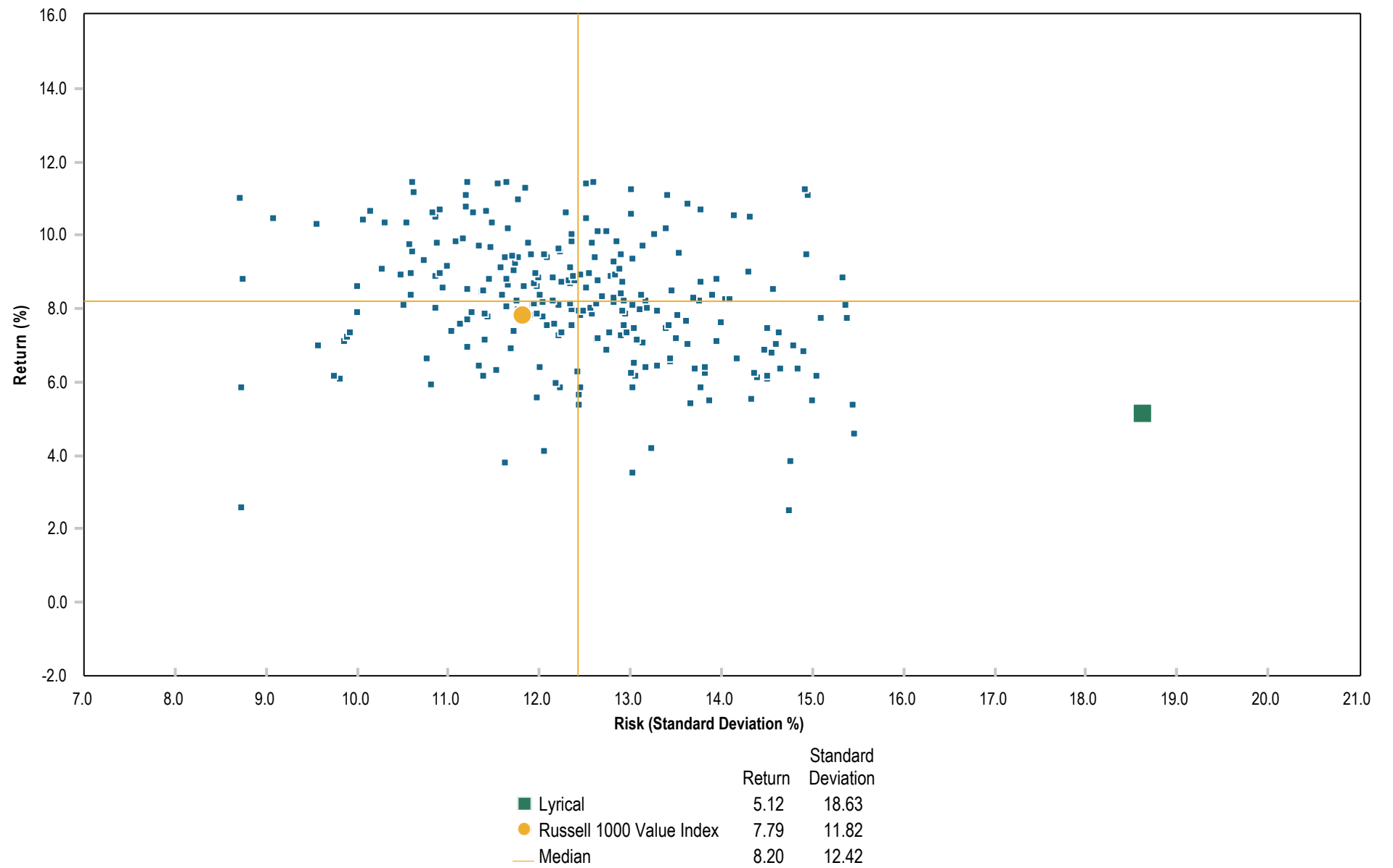
5th Percentile	-2.23	24.94	22.64	4.28	17.08	44.04	21.67	10.90	21.44	44.51
1st Quartile	-5.56	20.07	17.53	0.10	14.07	37.73	18.00	4.22	16.89	30.87
Median	-8.39	17.22	14.53	-2.25	12.17	34.22	15.66	0.62	14.63	25.24
3rd Quartile	-11.46	15.12	11.30	-4.74	10.31	31.08	12.94	-2.99	12.83	20.96
95th Percentile	-16.00	10.62	6.59	-9.70	5.18	24.83	8.91	-8.26	9.58	13.33

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Lyrical	5.33	20.42
● Russell 1000 Value Index	9.43	12.17
— Median	10.45	12.72

Calculation based on monthly periodicity.



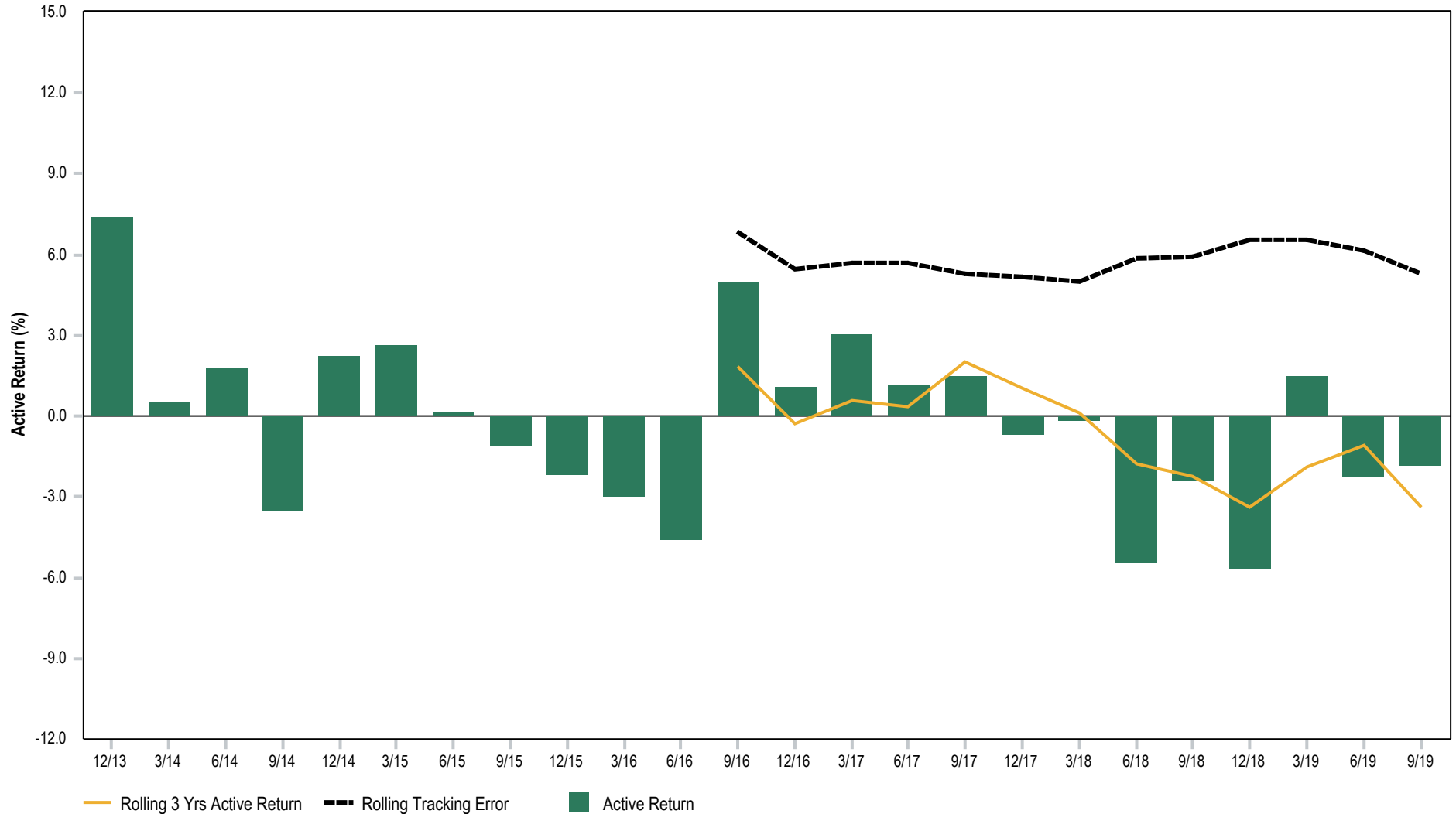
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Lyrical	-0.49	14.74	-5.24	5.33	5.12	N/A	N/A	-20.80	19.32	15.33	-4.25
Russell 1000 Value Index	1.36	17.81	4.00	9.43	7.79	11.30	11.46	-8.27	13.66	17.34	-3.83
Difference	-1.85	-3.07	-9.24	-4.10	-2.67	N/A	N/A	-12.53	5.66	-2.01	-0.42



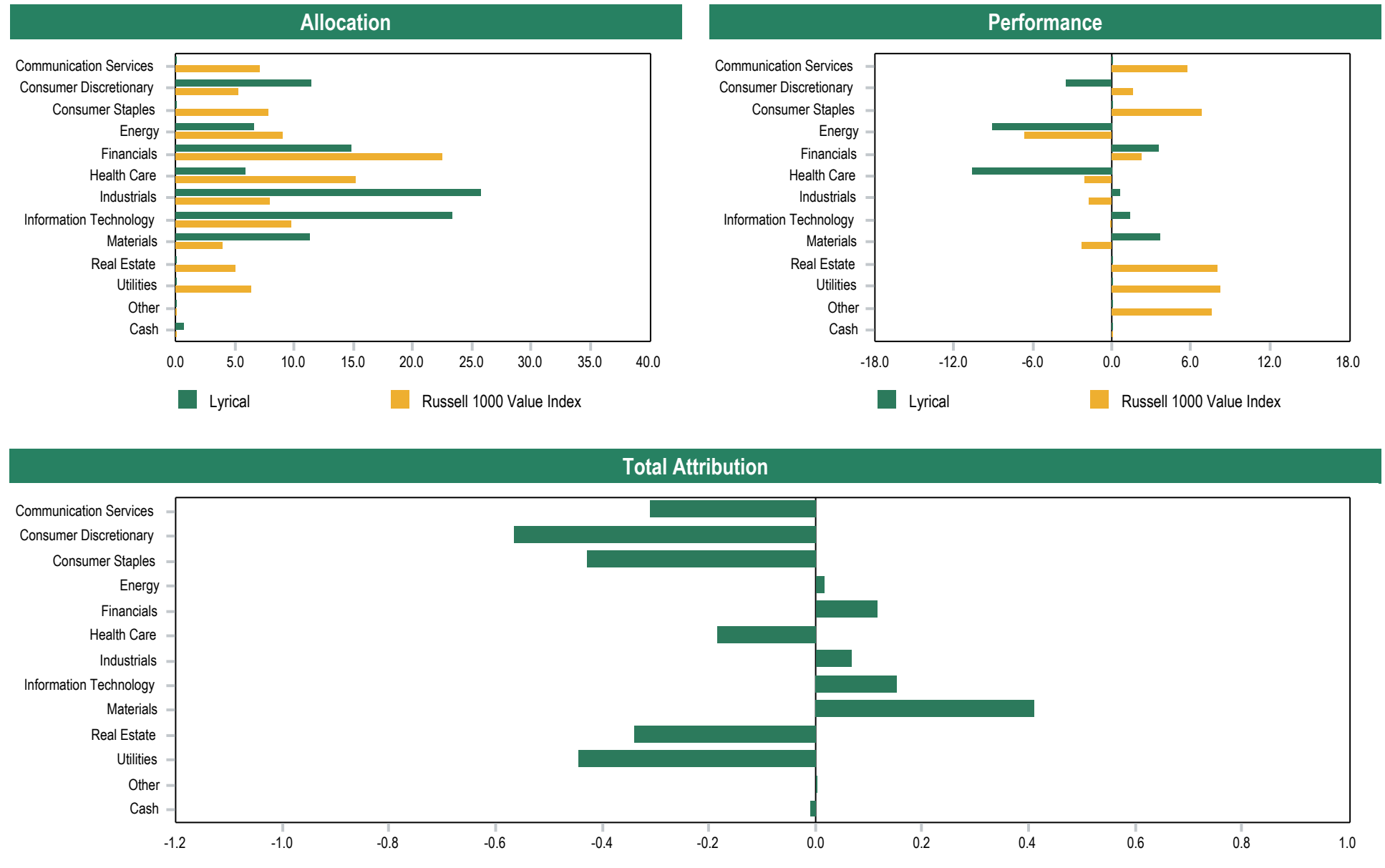
Buy-and-Hold Portfolio -0.17
 Portfolio Trading -0.33
 Actual Return -0.49
 Benchmark Return 1.36
 Actual Active Return -1.85

Stock Selection -0.93
 Sector Selection -2.09
 Interaction 1.50
 Total Selection -1.52

Portfolio Trading -0.33
 Benchmark Trading 0.01
 Active Trading Impact -0.33

Buy & Hold Active Return -1.85

	Allocation — 07/01/2019		Performance — 1 Quarter Ending September 30, 2019		Stock	Attribution		
	Portfolio	Benchmark	Portfolio	Benchmark		Sector	Interaction	Total
Communication Services	0.00	7.08	0.00	5.73	0.00	-0.31	0.00	-0.31
Consumer Discretionary	11.45	5.28	-3.46	1.65	-0.27	0.02	-0.31	-0.57
Consumer Staples	0.00	7.78	0.00	6.85	0.00	-0.43	0.00	-0.43
Energy	6.65	8.98	-9.10	-6.57	-0.23	0.18	0.06	0.02
Financials	14.86	22.50	3.61	2.32	0.29	-0.07	-0.10	0.12
Health Care	5.86	15.15	-10.62	-2.05	-1.30	0.32	0.80	-0.19
Industrials	25.83	8.00	0.66	-1.73	0.19	-0.55	0.43	0.07
Information Technology	23.36	9.73	1.41	-0.06	0.14	-0.19	0.20	0.15
Materials	11.31	4.03	3.70	-2.26	0.24	-0.26	0.43	0.41
Real Estate	0.00	5.04	0.00	8.07	0.00	-0.34	0.00	-0.34
Utilities	0.00	6.42	0.00	8.25	0.00	-0.44	0.00	-0.44
Other	0.00	0.00	0.00	7.61	0.00	0.00	0.00	0.00
Cash	0.68	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01
Total	100.00	100.00	-0.17	1.35	-0.93	-2.09	1.50	-1.52



Buy-and-Hold Portfolio -0.17
 Portfolio Trading -0.33
 Actual Return -0.49
 Benchmark Return 1.36
 Actual Active Return -1.85

Stock Selection -2.71
 Style Selection -0.71
 Interaction 1.90
 Total Selection -1.52

Portfolio Trading -0.33
 Benchmark Trading 0.01
 Active Trading Impact -0.33

Buy & Hold Active Return -1.85

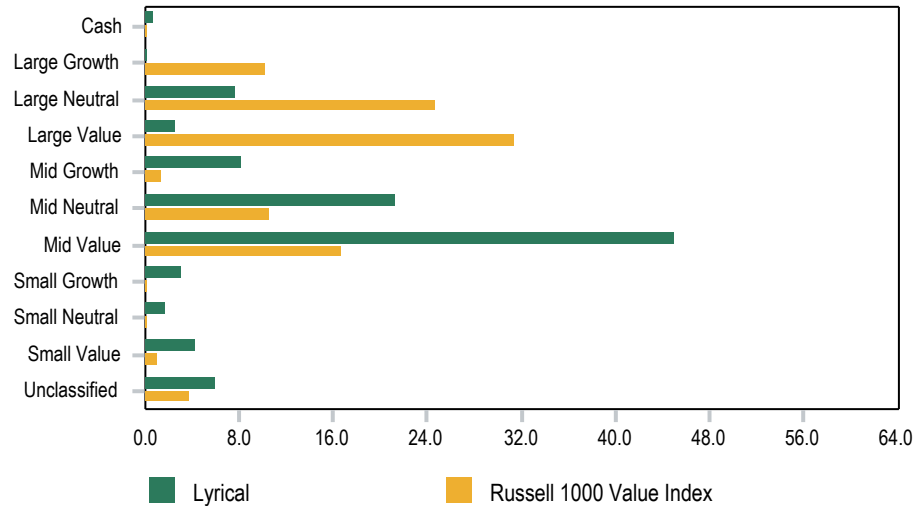
	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction	
Cash	0.68	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01
Large Growth	0.00	10.24	0.00	-2.56	0.00	0.40	0.00	0.40
Large Neutral	7.60	24.64	-10.03	2.45	-3.08	-0.19	2.13	-1.14
Large Value	2.49	31.42	2.46	1.77	0.22	-0.12	-0.20	-0.10
Mid Growth	8.22	1.41	-0.01	2.80	-0.04	0.10	-0.19	-0.13
Mid Neutral	21.15	10.59	4.71	3.22	0.16	0.20	0.16	0.51
Mid Value	44.99	16.69	4.26	0.88	0.56	-0.13	0.96	1.39
Small Growth	3.06	0.00	-19.62	-17.73	0.00	-0.58	-0.06	-0.64
Small Neutral	1.66	0.22	-40.23	-5.52	-0.08	-0.10	-0.50	-0.68
Small Value	4.29	1.03	-11.32	-6.40	-0.05	-0.25	-0.16	-0.46
Unclassified	5.86	3.77	-10.62	0.10	-0.40	-0.03	-0.22	-0.65
Total	100.00	100.00	-0.17	1.35	-2.71	-0.71	1.90	-1.52

Bristol County Retirement System

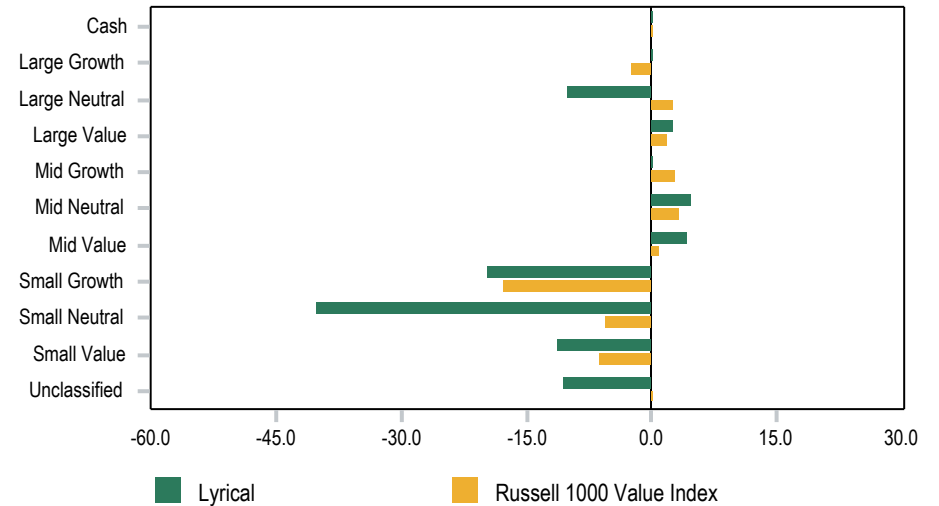
Buy and Hold Style Attribution Graph

1 Quarter Ending September 30, 2019

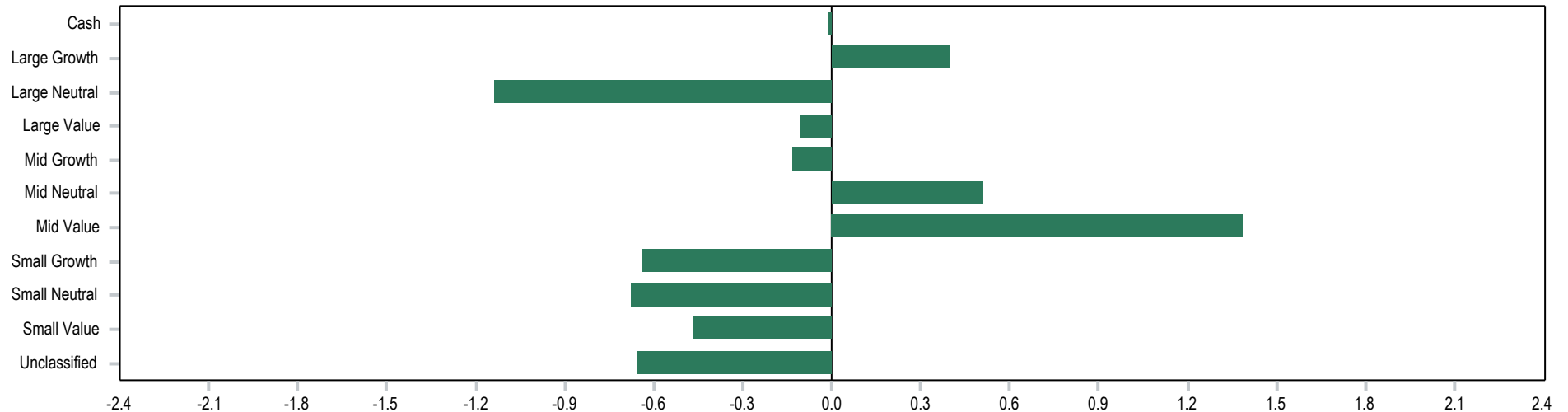
Allocation



Performance



Total Attribution



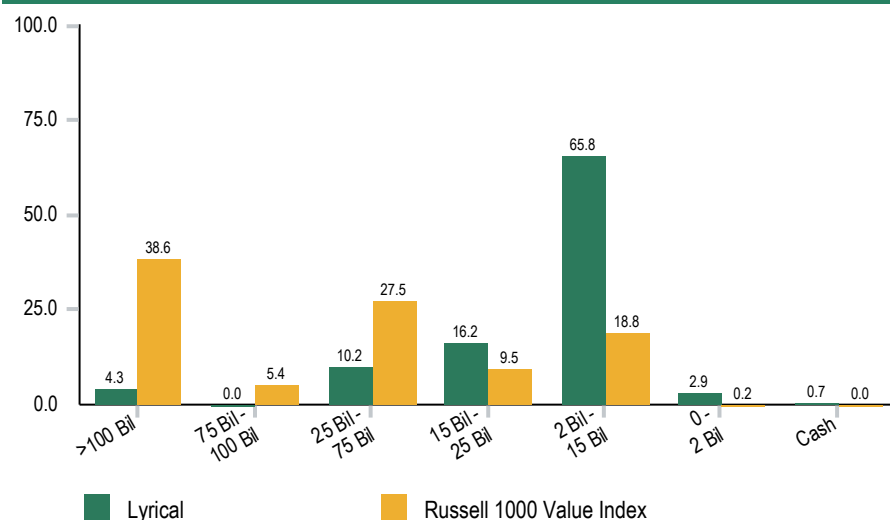
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Celanese Corp	5.62	0.11	5.51	14.07
AerCap Holdings NV	5.40	0.00	5.40	5.27
Assurant Inc.	5.37	0.06	5.31	18.87
HCA Healthcare Inc	5.10	0.10	5.00	-10.62
Crown Holdings Inc	4.82	0.03	4.79	8.12
Broadcom Inc	4.27	0.00	4.27	-3.20
Microchip Technology Inc	4.13	0.11	4.02	7.60
XPO Logistics Inc	4.06	0.02	4.04	23.80
Ameriprise Financial Inc	4.02	0.12	3.90	2.06
Lincoln National Corp	3.94	0.09	3.85	-5.88
% of Portfolio	46.73	0.64	46.09	

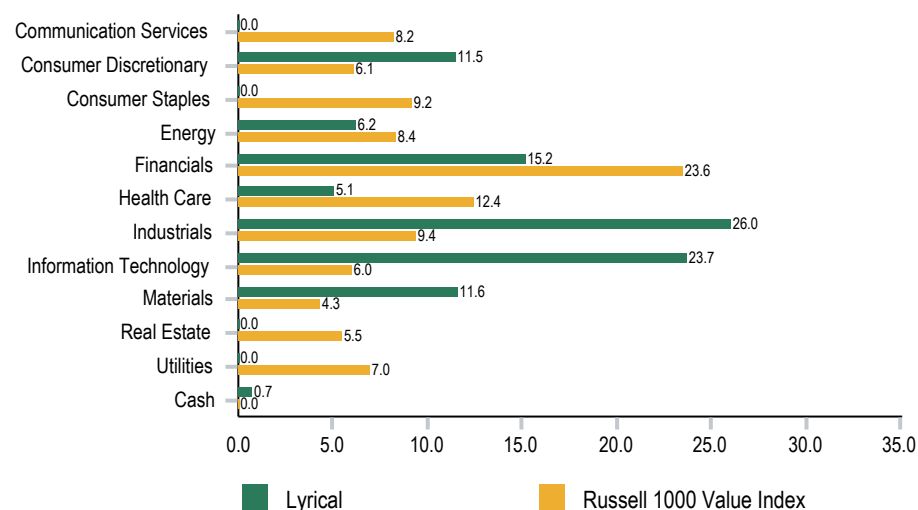
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	16,428,395,893	122,160,989,755
Median Mkt. Cap (\$)	6,547,186,740	9,460,342,920
Price/Earnings ratio	12.85	16.68
Price/Book ratio	2.19	2.17
5 Yr. EPS Growth Rate (%)	9.62	7.53
Current Yield (%)	1.41	2.65
Beta (5 Years, Monthly)	1.45	1.00
Number of Stocks	34	766

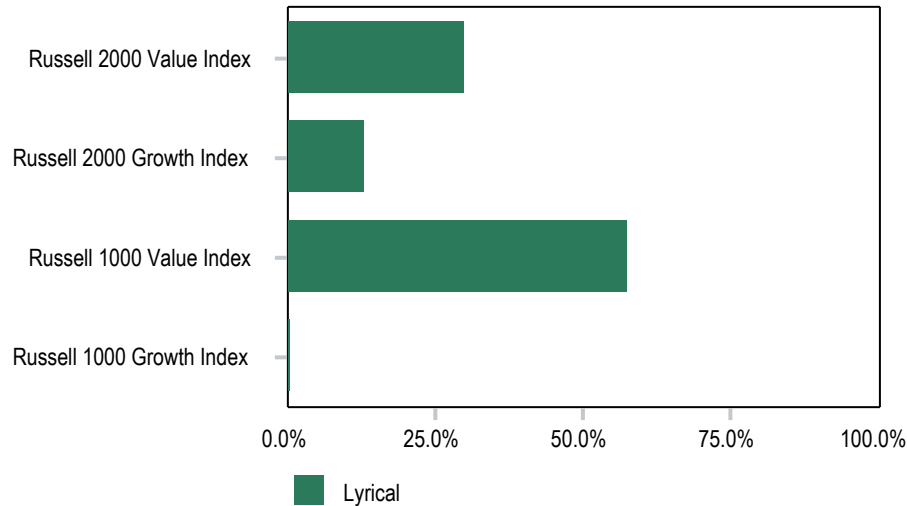
Distribution of Market Capitalization (%)



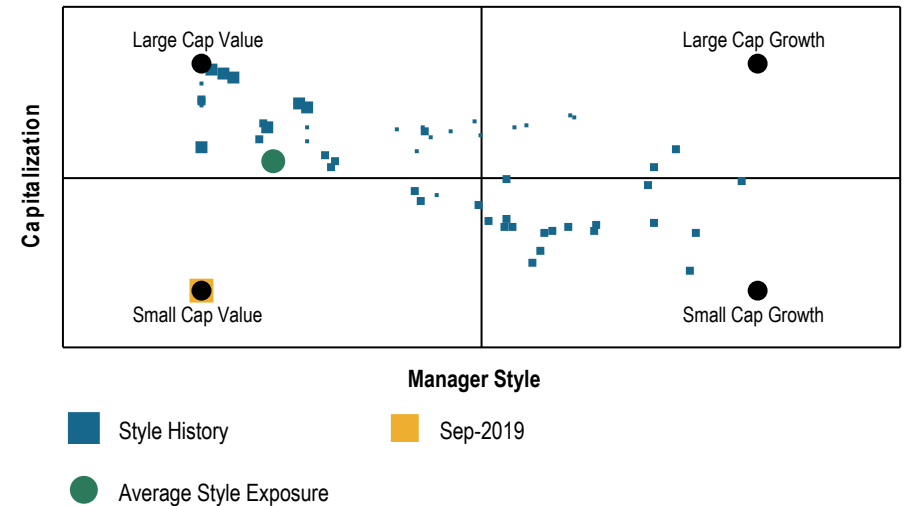
Sector Weights (%)



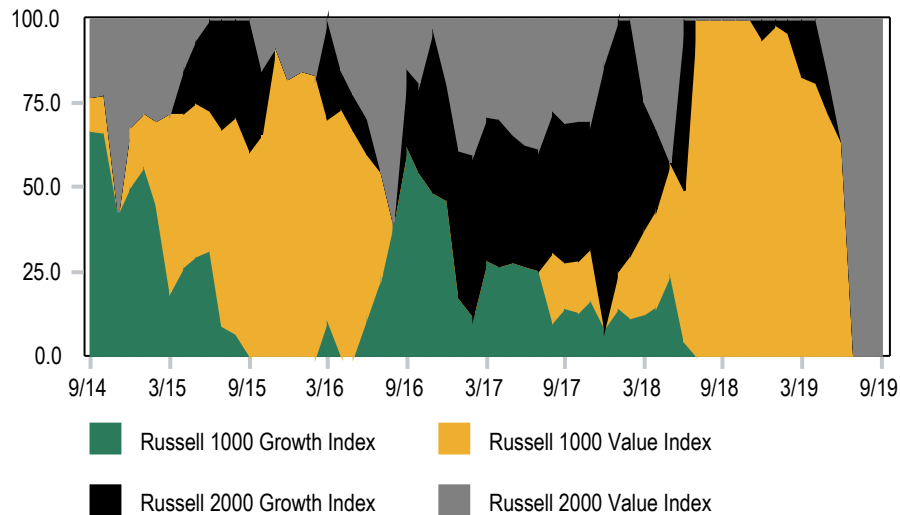
Investment Style Exposure



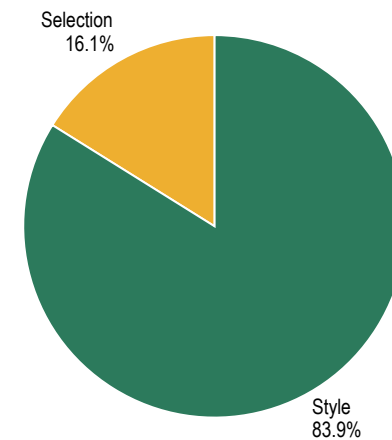
Style Map(ppp)



Style History(ppp)



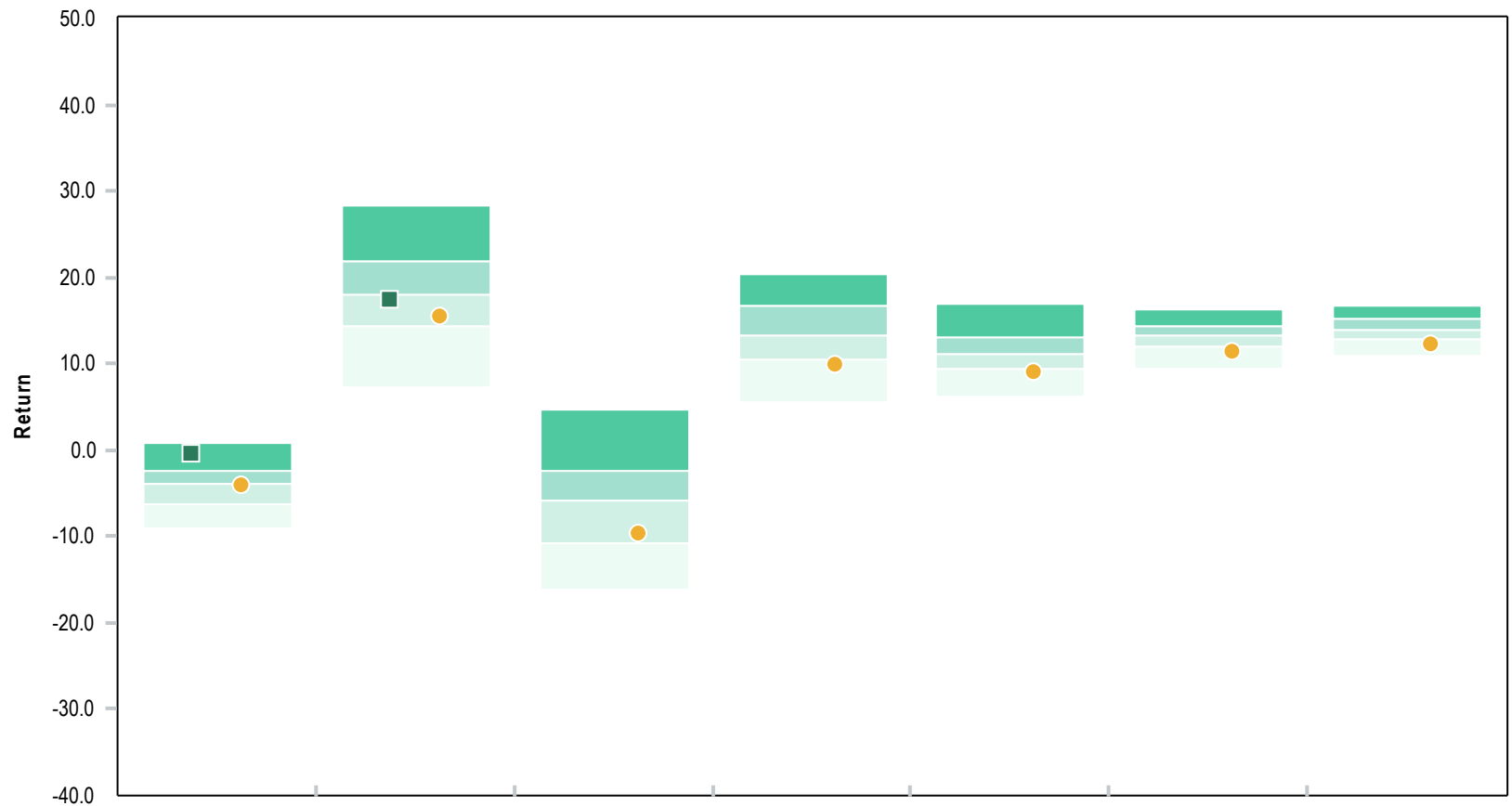
Return Variance



Bristol County Retirement System

IM U.S. Small Cap Growth Equity (SA+CF)

As of September 30, 2019



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Frontier Capital Appreciation	-0.54 (10)	17.30 (55)	N/A	N/A	N/A	N/A	N/A
Russell 2000 Growth Index	-4.17 (53)	15.34 (66)	-9.63 (72)	9.79 (77)	9.08 (78)	11.43 (83)	12.25 (83)
5th Percentile	0.80	28.28	4.64	20.29	16.99	16.32	16.66
1st Quartile	-2.45	21.96	-2.47	16.62	13.02	14.44	15.22
Median	-3.90	17.99	-5.91	13.28	11.17	13.33	13.94
3rd Quartile	-6.24	14.31	-10.77	10.38	9.42	11.94	12.88
95th Percentile	-8.97	7.32	-16.06	5.63	6.13	9.50	10.84

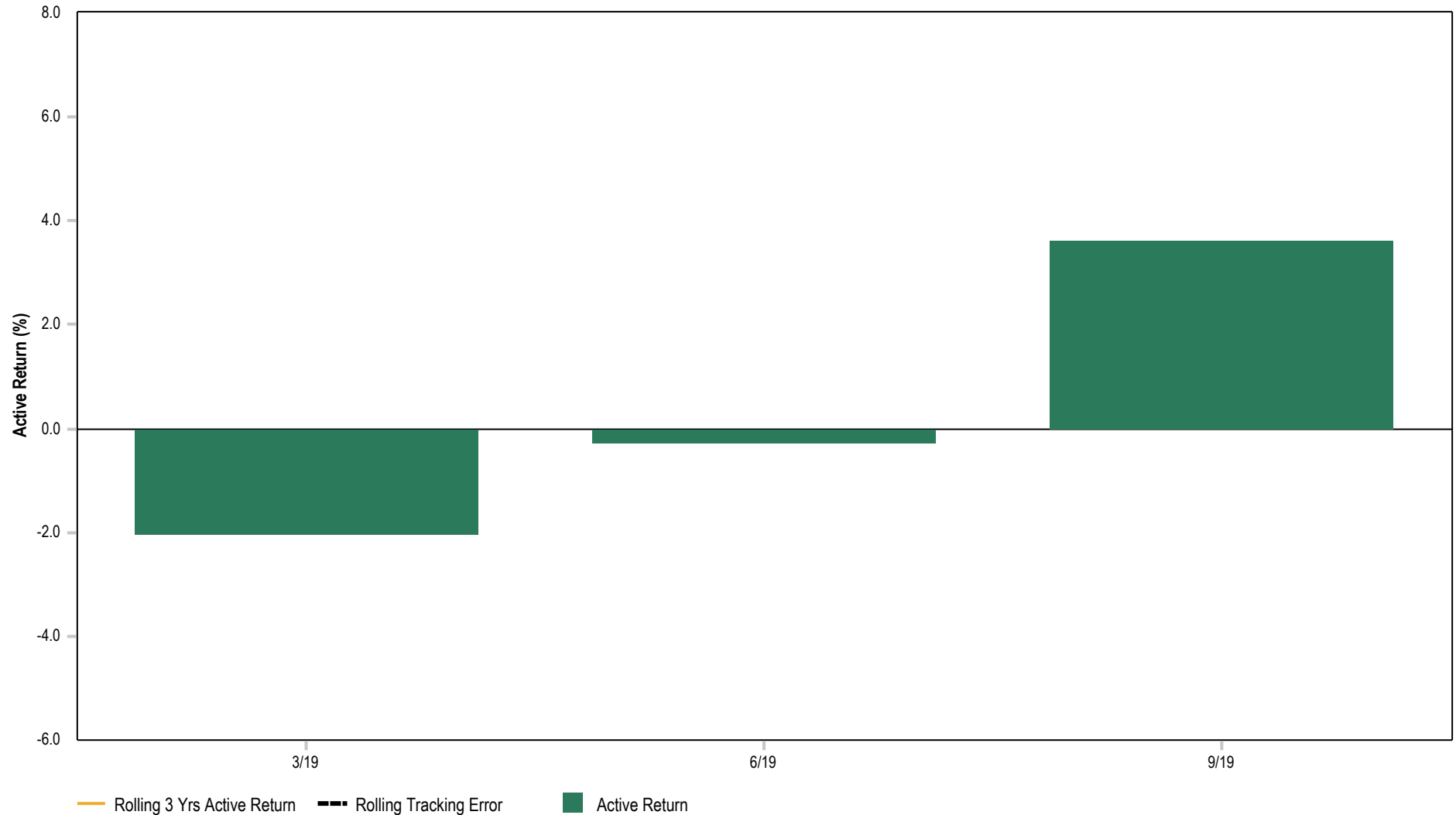
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Frontier Capital Appreciation	-0.54	17.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2000 Growth Index	-4.17	15.34	-9.63	9.79	9.08	11.43	12.25	-9.31	22.17	11.32	-1.38
Difference	3.63	1.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



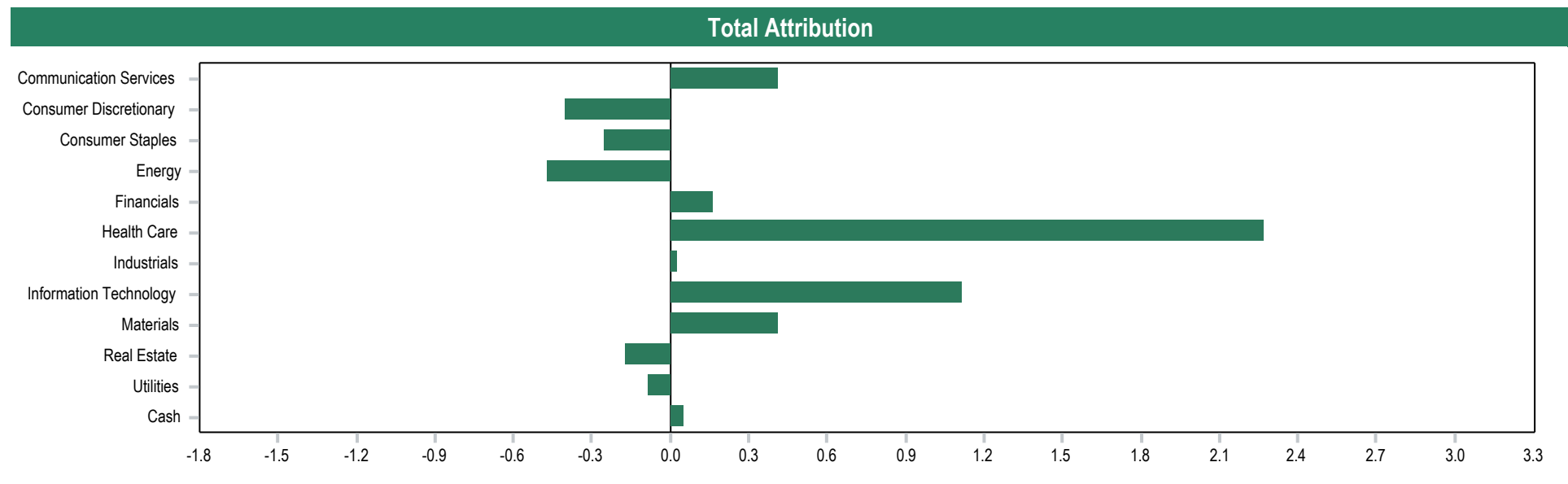
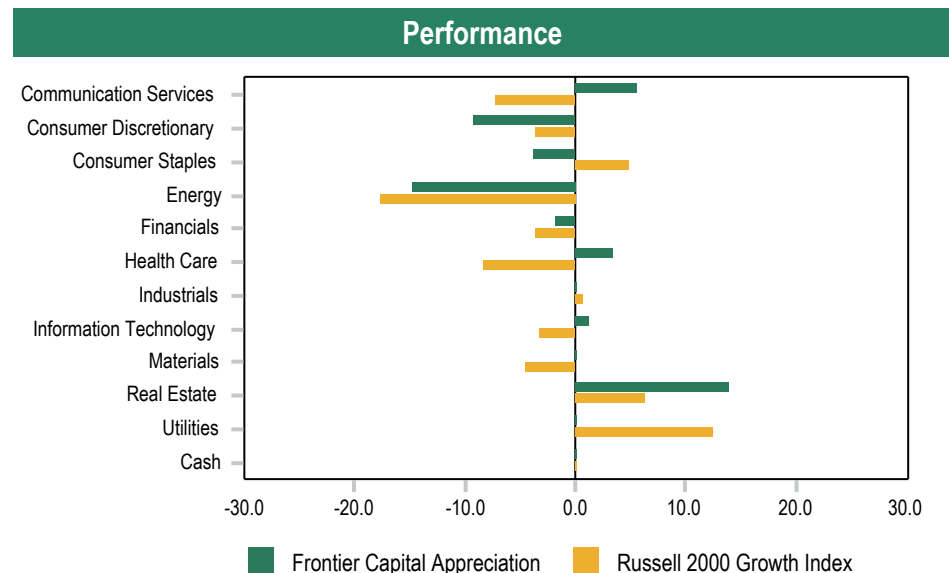
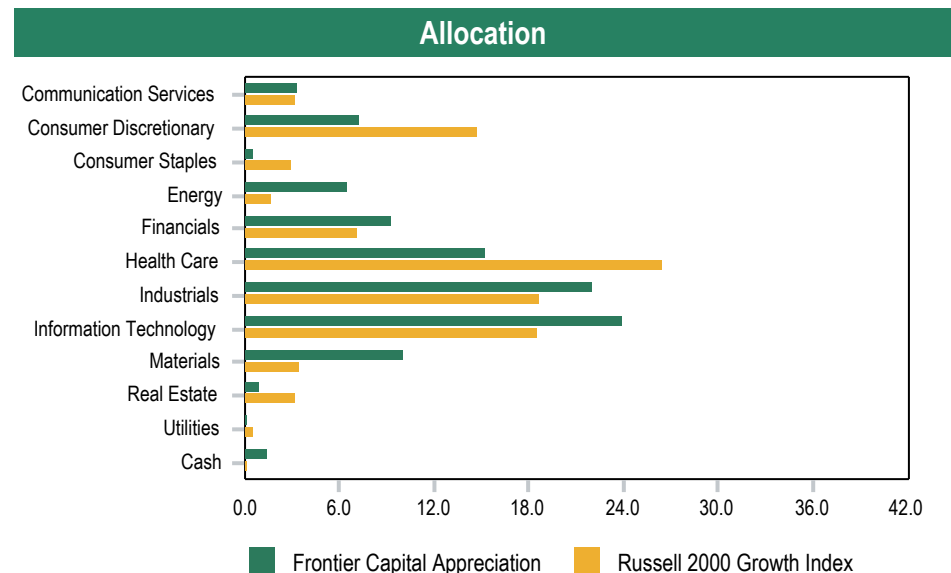
Buy-and-Hold Portfolio -0.67
 Portfolio Trading 0.12
 Actual Return -0.54
 Benchmark Return -4.17
 Actual Active Return 3.63

Stock Selection 3.71
 Sector Selection -0.53
 Interaction -0.12
 Total Selection 3.06

Portfolio Trading 0.12
 Benchmark Trading -0.44
 Active Trading Impact 0.57

Buy & Hold Active Return 3.63

	Allocation — 07/01/2019		Performance — 1 Quarter Ending September 30, 2019		Attribution			Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	
Communication Services	3.29	3.10	5.58	-7.16	0.40	-0.01	0.02	0.41
Consumer Discretionary	7.25	14.65	-9.20	-3.69	-0.81	0.00	0.41	-0.40
Consumer Staples	0.50	2.92	-3.82	4.92	-0.26	-0.21	0.21	-0.25
Energy	6.40	1.67	-14.76	-17.73	0.05	-0.66	0.14	-0.47
Financials	9.21	7.10	-1.85	-3.62	0.13	0.00	0.04	0.17
Health Care	15.18	26.44	3.35	-8.24	3.06	0.51	-1.31	2.27
Industrials	21.95	18.56	0.10	0.65	-0.10	0.15	-0.02	0.03
Information Technology	23.94	18.50	1.24	-3.32	0.84	0.02	0.25	1.11
Materials	10.05	3.36	0.06	-4.57	0.16	-0.06	0.31	0.41
Real Estate	0.84	3.17	13.98	6.37	0.24	-0.24	-0.18	-0.17
Utilities	0.00	0.53	0.00	12.40	0.00	-0.09	0.00	-0.09
Cash	1.40	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Total	100.00	100.00	-0.67	-3.73	3.71	-0.53	-0.12	3.06



Buy-and-Hold Portfolio -0.67
 Portfolio Trading 0.12
 Actual Return -0.54
 Benchmark Return -4.17
 Actual Active Return 3.63

Stock Selection 4.79
 Style Selection 2.09
 Interaction -3.82
 Total Selection 3.06

Portfolio Trading 0.12
 Benchmark Trading -0.44
 Active Trading Impact 0.57

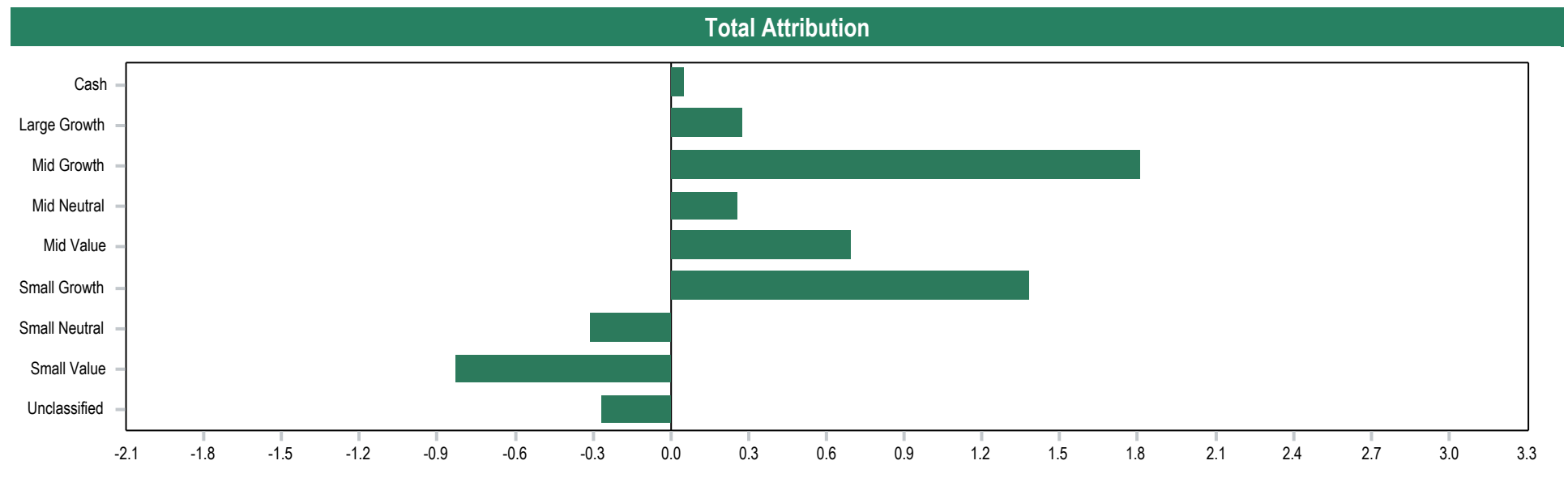
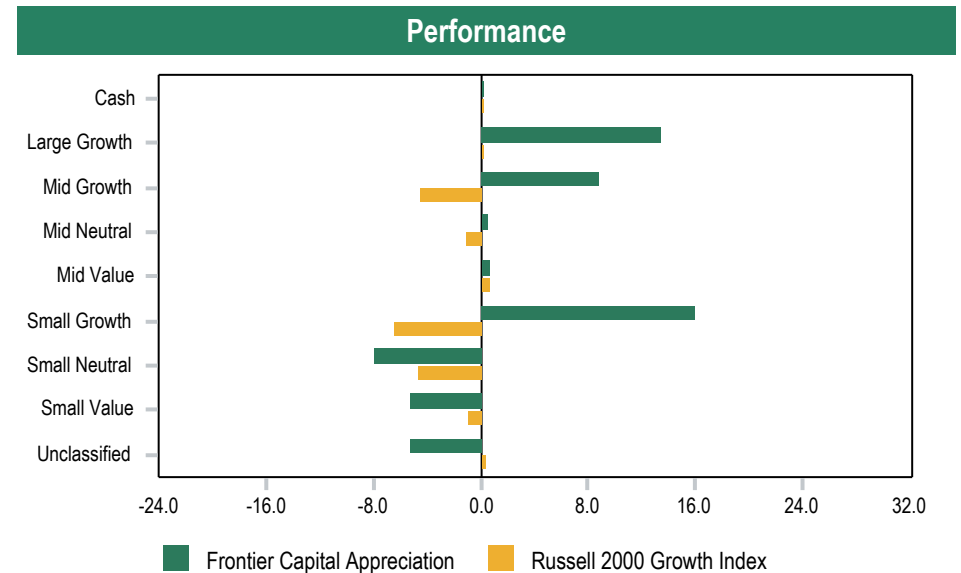
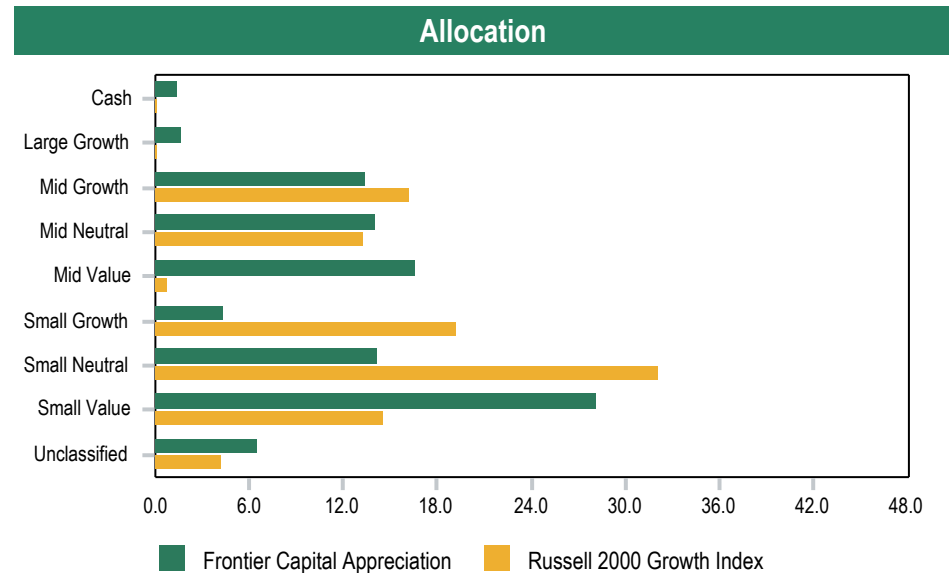
Buy & Hold Active Return 3.63

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Style	Interaction	Total
Cash	1.40	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Large Growth	1.62	0.00	13.37	0.00	0.00	0.28	0.00	0.28
Mid Growth	13.39	16.12	8.88	-4.50	2.16	0.02	-0.37	1.81
Mid Neutral	14.05	13.19	0.57	-1.11	0.22	0.02	0.01	0.26
Mid Value	16.49	0.77	0.67	0.61	0.00	0.68	0.01	0.69
Small Growth	4.29	19.22	16.01	-6.49	4.32	0.41	-3.36	1.38
Small Neutral	14.13	32.03	-7.93	-4.62	-1.06	0.16	0.59	-0.31
Small Value	28.12	14.52	-5.28	-1.02	-0.62	0.37	-0.58	-0.83
Unclassified	6.52	4.15	-5.25	0.29	-0.23	0.10	-0.13	-0.27
Total	100.00	100.00	-0.67	-3.73	4.79	2.09	-3.82	3.06

Bristol County Retirement System

Buy and Hold Style Attribution Graph

1 Quarter Ending September 30, 2019



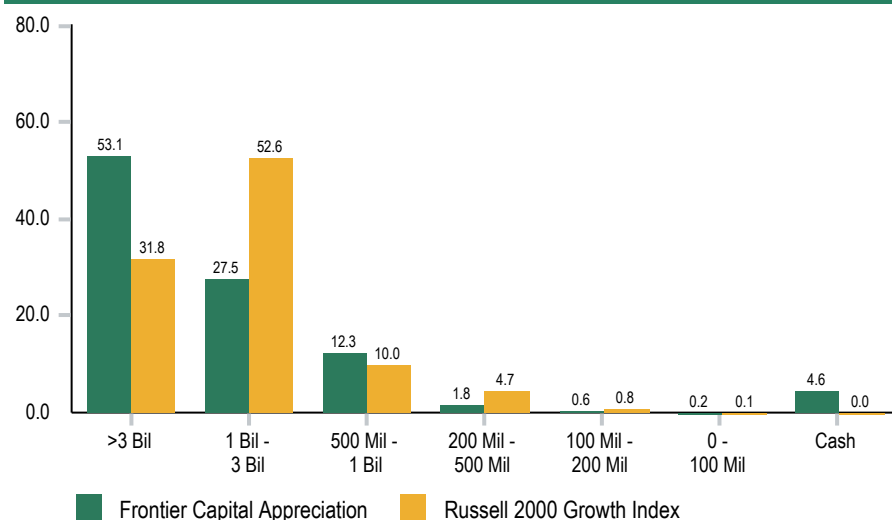
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
United Airlines Holdings Inc	3.17	0.00	3.17	0.98
Insulet Corp	2.64	0.00	2.64	38.16
Tutor Perini Corp	2.43	0.00	2.43	3.32
MasTec Inc.	1.78	0.40	1.38	26.00
Monolithic Power Systems Inc	1.75	0.00	1.75	14.91
Cooper Cos Inc (The)	1.71	0.00	1.71	-11.83
Allegheny Technologies Inc	1.64	0.00	1.64	-19.64
KBR Inc	1.60	0.00	1.60	-1.30
Cogent Communications Holdings Inc	1.54	0.24	1.30	-6.22
FMC Corp.	1.52	0.00	1.52	6.19
% of Portfolio	19.78	0.64	19.14	

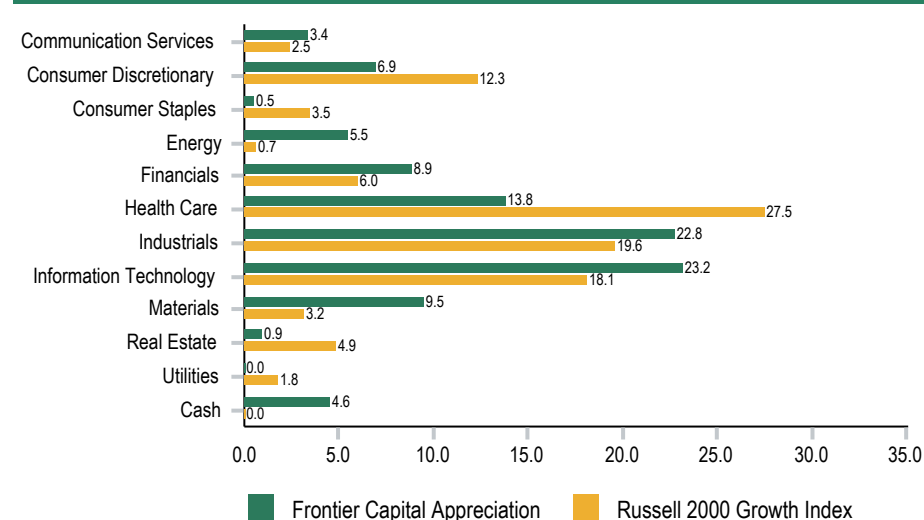
Portfolio Characteristics

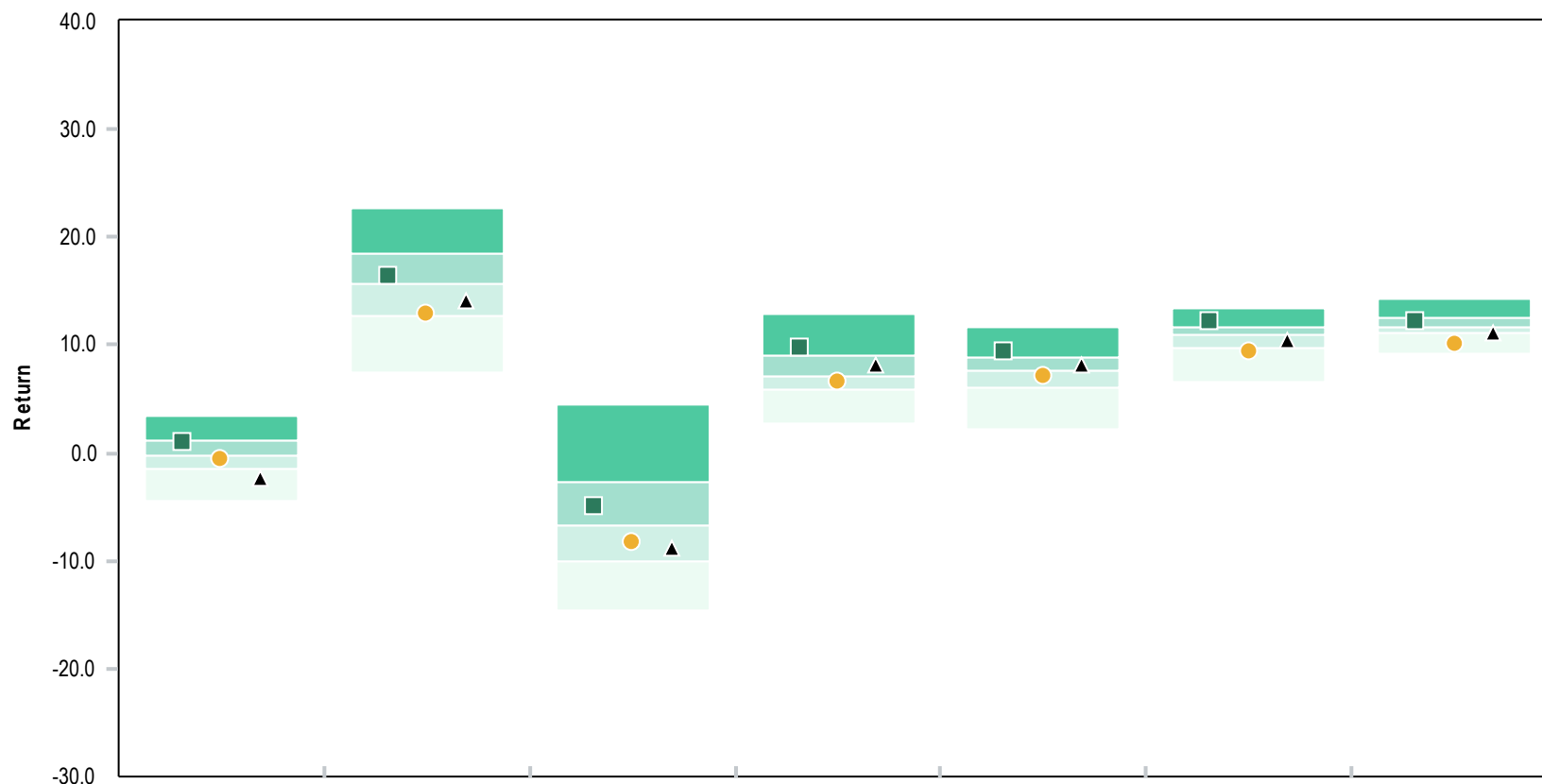
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	6,033,742,888	2,456,040,150
Median Mkt. Cap (\$)	2,686,632,000	857,164,570
Price/Earnings ratio	18.62	24.82
Price/Book ratio	2.50	3.87
5 Yr. EPS Growth Rate (%)	13.58	13.73
Current Yield (%)	0.87	0.78
Beta	N/A	1.00
Number of Stocks	140	1,164

Distribution of Market Capitalization (%)



Sector Weights (%)





■ Earnest Partners
● Russell 2000 Value Index
▲ Russell 2000 Index

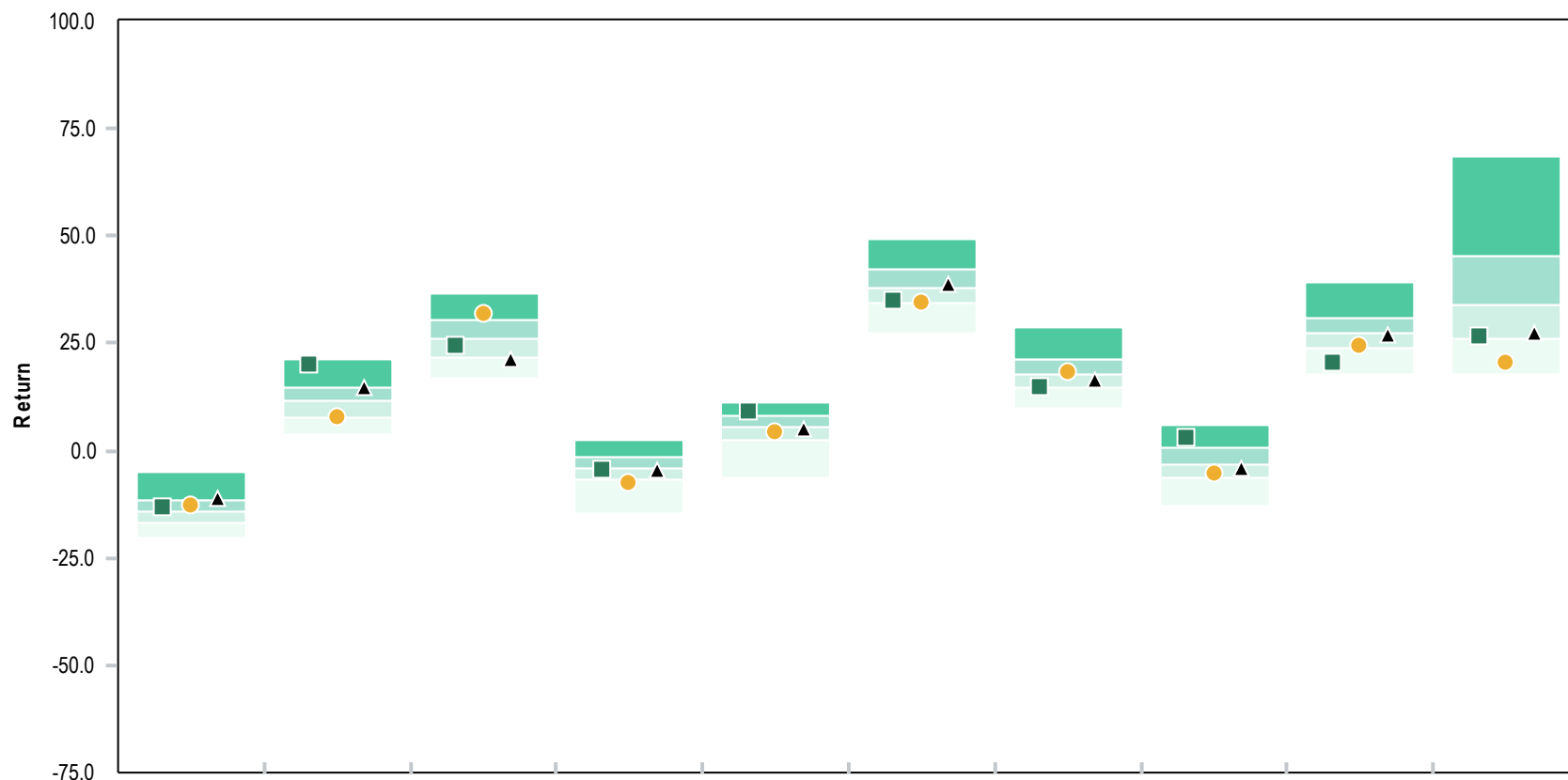
5th Percentile	3.34	22.70	4.51	12.88	11.67	13.46	14.33
1st Quartile	1.12	18.42	-2.71	9.05	8.80	11.71	12.59
Median	-0.26	15.73	-6.65	7.10	7.68	10.97	11.74
3rd Quartile	-1.51	12.69	-9.98	5.95	6.01	9.69	11.04
95th Percentile	-4.41	7.50	-14.66	2.73	2.23	6.62	9.21

Parentheses contain percentile rankings.
 Calculation based on monthly periodicity.

Bristol County Retirement System

IM U.S. Small Cap Value Equity (SA+CF)

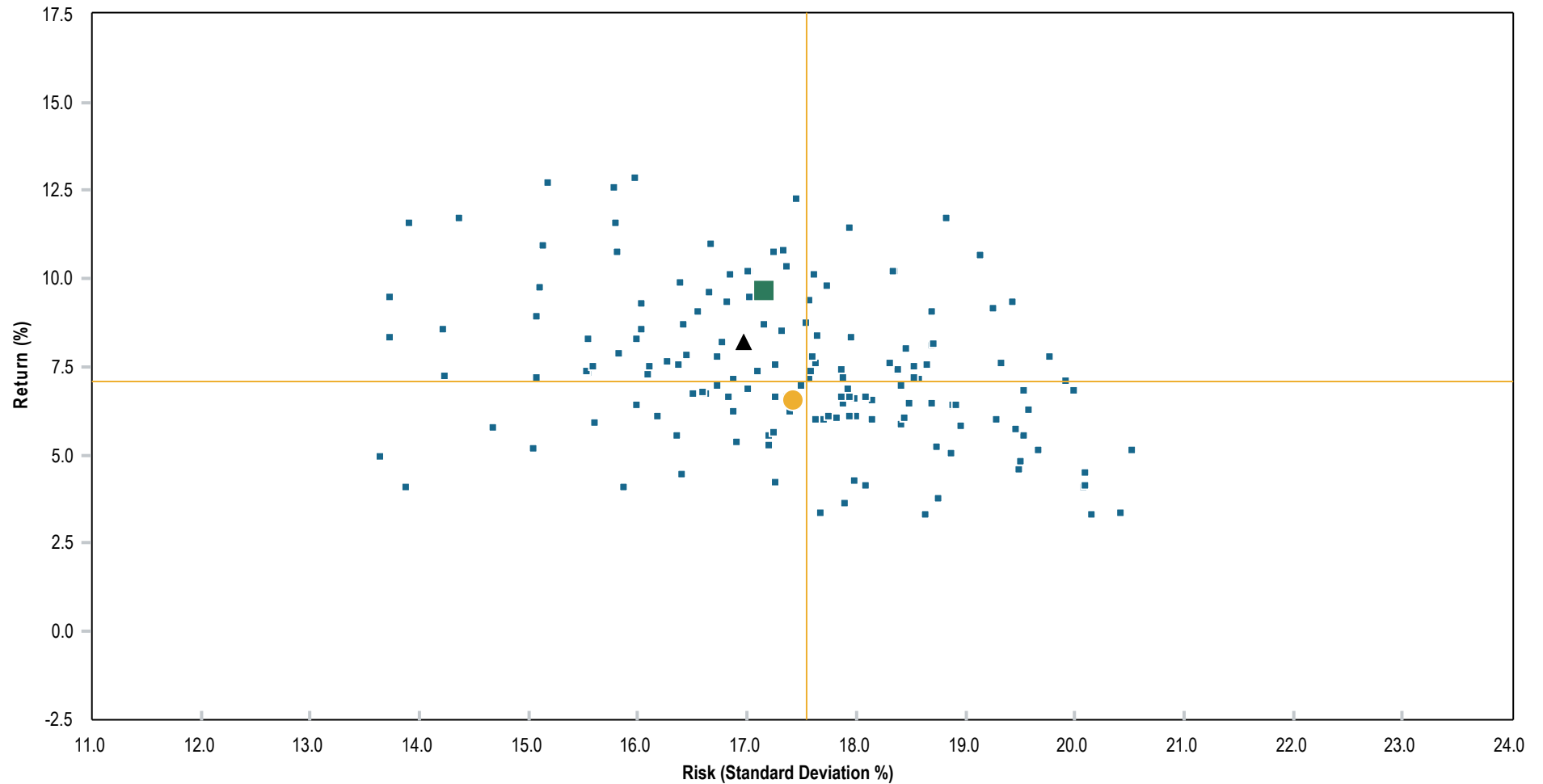
As of September 30, 2019



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ Earnest Partners	-13.38 (40)	20.01 (7)	24.39 (62)	-4.51 (54)	8.89 (14)	34.88 (74)	14.90 (74)	2.76 (12)	20.45 (90)	26.39 (74)
● Russell 2000 Value Index	-12.86 (37)	7.84 (75)	31.74 (16)	-7.47 (78)	4.22 (66)	34.52 (75)	18.05 (47)	-5.50 (69)	24.50 (71)	20.58 (87)
▲ Russell 2000 Index	-11.01 (23)	14.65 (25)	21.31 (78)	-4.41 (52)	4.89 (58)	38.82 (47)	16.35 (61)	-4.18 (60)	26.85 (55)	27.17 (71)

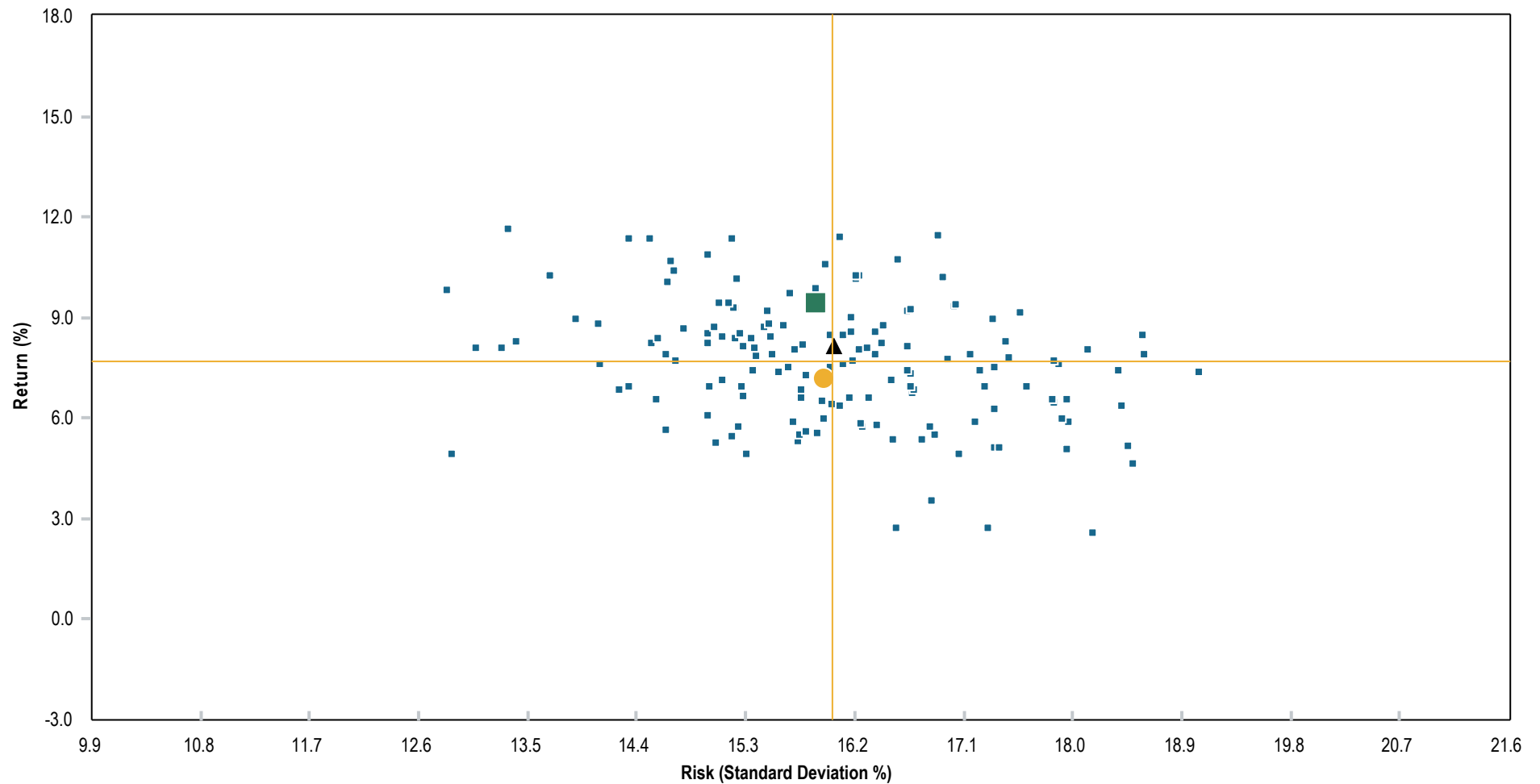
5th Percentile	-5.03	21.37	36.54	2.29	11.25	49.30	28.61	6.08	39.00	68.71
1st Quartile	-11.61	14.50	30.26	-1.71	7.93	42.29	21.19	0.71	31.03	45.10
Median	-14.26	11.56	26.14	-4.29	5.71	38.07	17.55	-3.20	27.51	34.11
3rd Quartile	-16.95	7.78	21.58	-6.97	2.27	34.49	14.72	-6.44	23.72	25.92
95th Percentile	-20.39	3.59	16.69	-14.58	-6.20	27.38	10.00	-13.09	17.68	17.54

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Earnest Partners	9.65	17.15
● Russell 2000 Value Index	6.54	17.43
▲ Russell 2000 Index	8.23	16.97
— Median	7.10	17.54

Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Earnest Partners	9.42	15.88
● Russell 2000 Value Index	7.17	15.94
▲ Russell 2000 Index	8.19	16.03
— Median	7.68	16.01

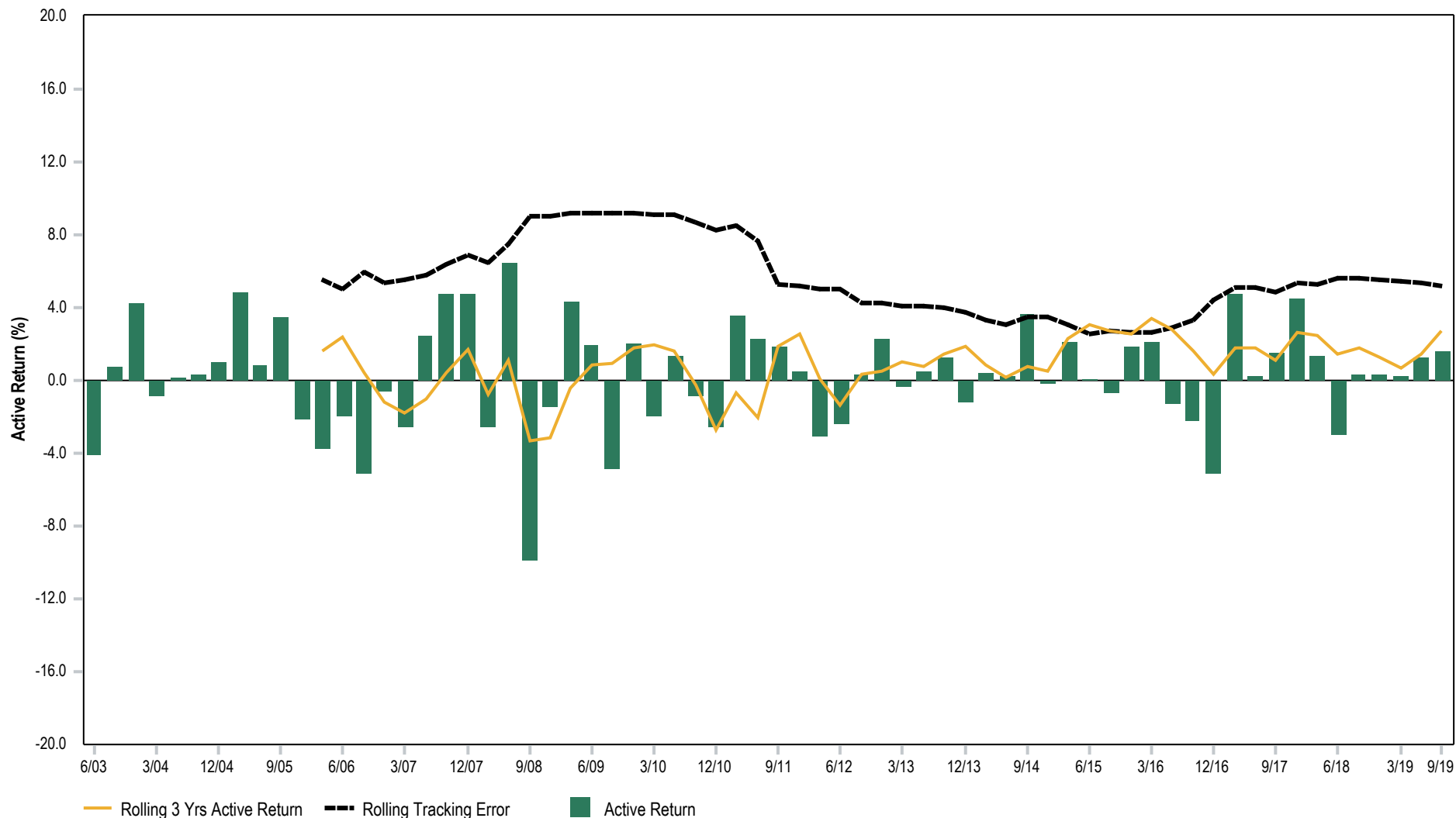
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Earnest Partners	1.03	16.34	-5.01	9.65	9.42	12.11	12.23	-13.38	20.01	24.39	-4.51
Russell 2000 Value Index	-0.57	12.82	-8.24	6.54	7.17	9.35	10.06	-12.86	7.84	31.74	-7.47
Difference	1.60	3.52	3.23	3.11	2.25	2.76	2.17	-0.52	12.17	-7.35	2.96



Buy-and-Hold Portfolio 1.57
 Portfolio Trading -0.54
 Actual Return 1.03
 Benchmark Return -0.57
 Actual Active Return 1.60

Stock Selection 2.80
 Sector Selection -1.17
 Interaction 0.03
 Total Selection 1.66

Portfolio Trading -0.54
 Benchmark Trading -0.48
 Active Trading Impact -0.06

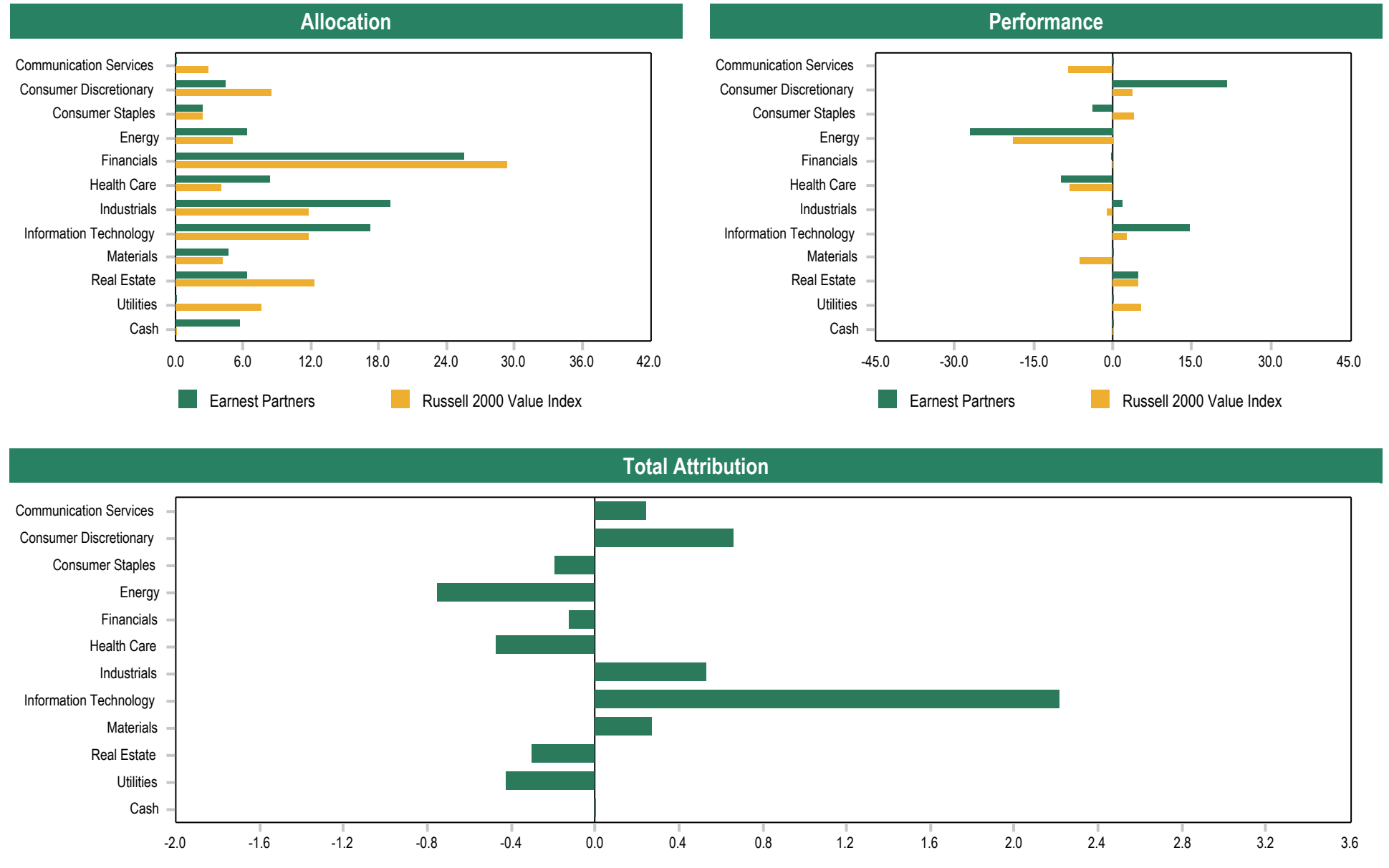
Buy & Hold Active Return 1.60

	Allocation — 07/01/2019		Performance — 1 Quarter Ending September 30, 2019		Attribution			Total
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	
Communication Services	0.00	2.93	0.00	-8.38	0.00	0.24	0.00	0.24
Consumer Discretionary	4.47	8.51	21.81	3.66	1.54	-0.15	-0.73	0.66
Consumer Staples	2.44	2.37	-3.82	4.13	-0.19	0.00	-0.01	-0.19
Energy	6.33	5.09	-27.11	-18.92	-0.42	-0.23	-0.10	-0.75
Financials	25.57	29.38	-0.14	0.28	-0.12	-0.01	0.02	-0.12
Health Care	8.30	4.05	-9.65	-8.07	-0.06	-0.34	-0.07	-0.47
Industrials	18.97	11.75	2.02	-1.18	0.38	-0.08	0.23	0.53
Information Technology	17.25	11.76	14.68	2.74	1.40	0.16	0.66	2.21
Materials	4.73	4.21	0.29	-6.14	0.27	-0.03	0.03	0.27
Real Estate	6.30	12.32	4.96	4.95	0.00	-0.30	0.00	-0.30
Utilities	0.00	7.64	0.00	5.45	0.00	-0.42	0.00	-0.42
Cash	5.65	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Total	100.00	100.00	1.57	-0.09	2.80	-1.17	0.03	1.66

Bristol County Retirement System

Buy and Hold Sector Attribution Graph

1 Quarter Ending September 30, 2019



Bristol County Retirement System

Buy and Hold Style Attribution

1 Quarter Ending September 30, 2019

Buy-and-Hold Portfolio 1.57
 Portfolio Trading -0.54
 Actual Return 1.03
 Benchmark Return -0.57
 Actual Active Return 1.60

Stock Selection 2.14
 Style Selection -1.82
 Interaction 1.34
 Total Selection 1.66

Portfolio Trading -0.54
 Benchmark Trading -0.48
 Active Trading Impact -0.06

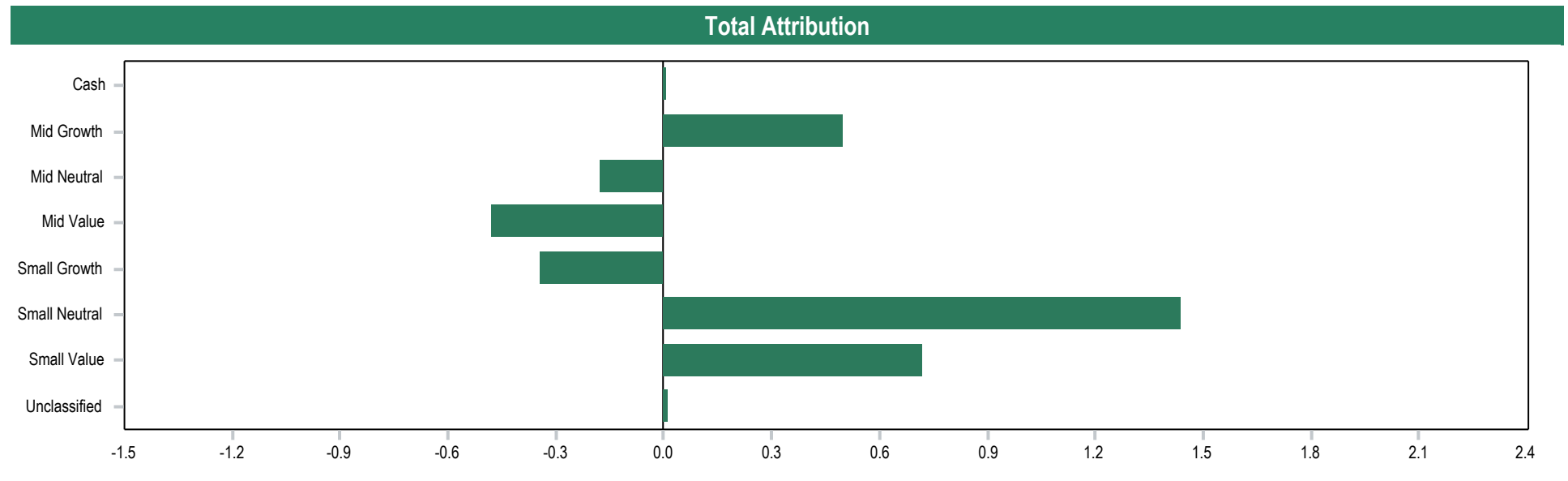
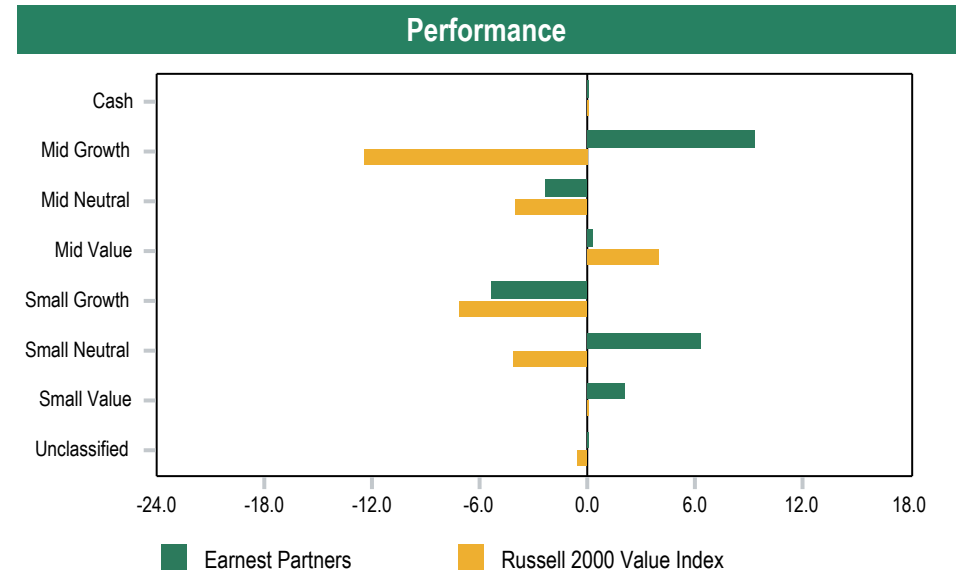
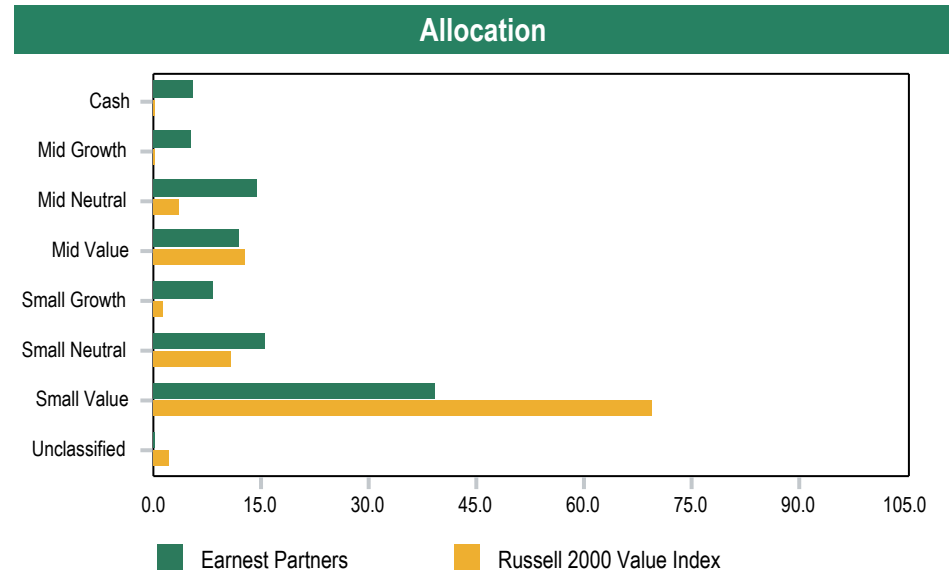
Buy & Hold Active Return 1.60

	Allocation-07/01/2019		Performance-1 Quarter Ending September 30, 2019		Stock	Attribution		Total
	Portfolio	Benchmark	Portfolio	Benchmark		Style	Interaction	
Cash	5.65	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Mid Growth	5.15	0.07	9.38	-12.50	0.02	-0.63	1.11	0.50
Mid Neutral	14.45	3.61	-2.31	-3.97	0.06	-0.42	0.18	-0.18
Mid Value	11.85	12.70	0.31	4.05	-0.48	-0.04	0.03	-0.48
Small Growth	8.20	1.26	-5.36	-7.07	0.02	-0.48	0.12	-0.34
Small Neutral	15.48	10.74	6.37	-4.16	1.13	-0.19	0.50	1.44
Small Value	39.22	69.45	2.13	0.13	1.39	-0.07	-0.61	0.72
Unclassified	0.00	2.17	0.00	-0.58	0.00	0.01	0.00	0.01
Total	100.00	100.00	1.57	-0.09	2.14	-1.82	1.34	1.66

Bristol County Retirement System

Buy and Hold Style Attribution Graph

1 Quarter Ending September 30, 2019



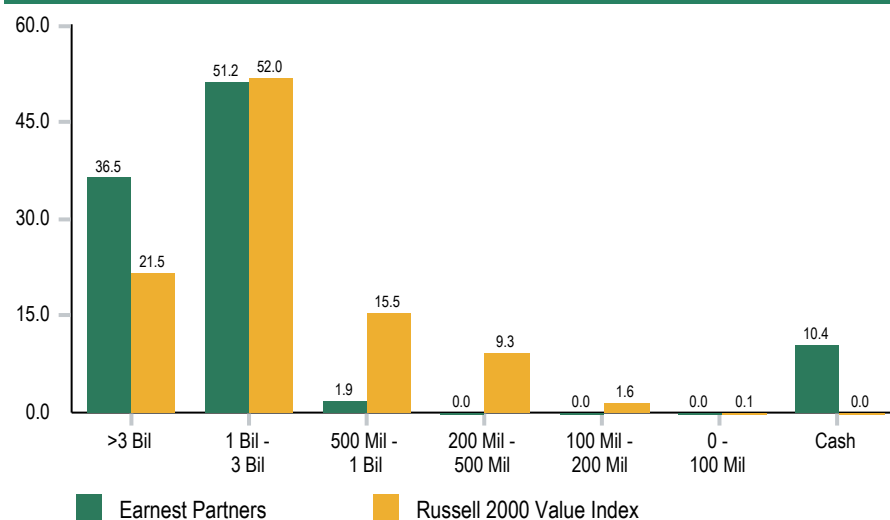
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Hexcel Corp	3.46	0.00	3.46	1.76
Cabot Microelectronics Corp	2.99	0.00	2.99	28.28
Franklin Electric Co Inc	2.83	0.01	2.82	0.96
Monolithic Power Systems Inc	2.71	0.00	2.71	14.91
Casella Waste Systems Inc	2.69	0.00	2.69	8.35
Emergent BioSolutions Inc	2.53	0.00	2.53	8.22
Corporate Office Properties Trust Inc	2.53	0.00	2.53	13.98
Scotts Miracle-Gro Co (The)	2.49	0.00	2.49	3.94
Entegris Inc	2.47	0.00	2.47	26.33
Catalent Inc	2.46	0.00	2.46	-12.08
% of Portfolio	27.16	0.01	27.15	

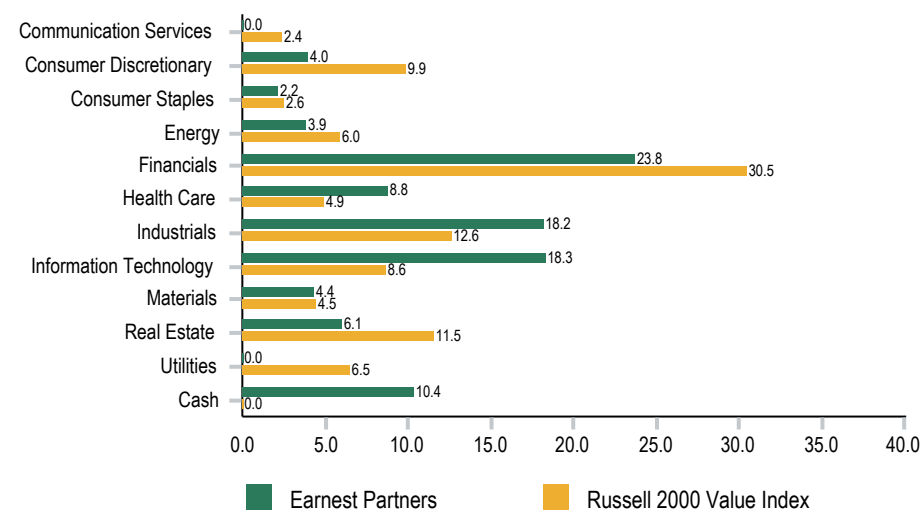
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	3,232,515,494	2,010,348,244
Median Mkt. Cap (\$)	2,490,297,090	650,338,405
Price/Earnings ratio	18.14	14.01
Price/Book ratio	2.20	1.59
5 Yr. EPS Growth Rate (%)	14.49	9.48
Current Yield (%)	1.52	2.23
Beta (5 Years, Monthly)	0.95	1.00
Number of Stocks	47	1,402

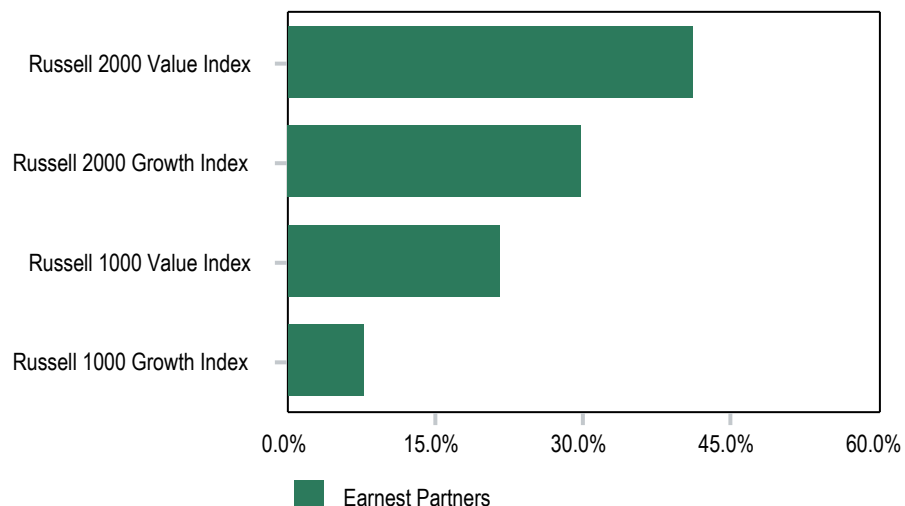
Distribution of Market Capitalization (%)



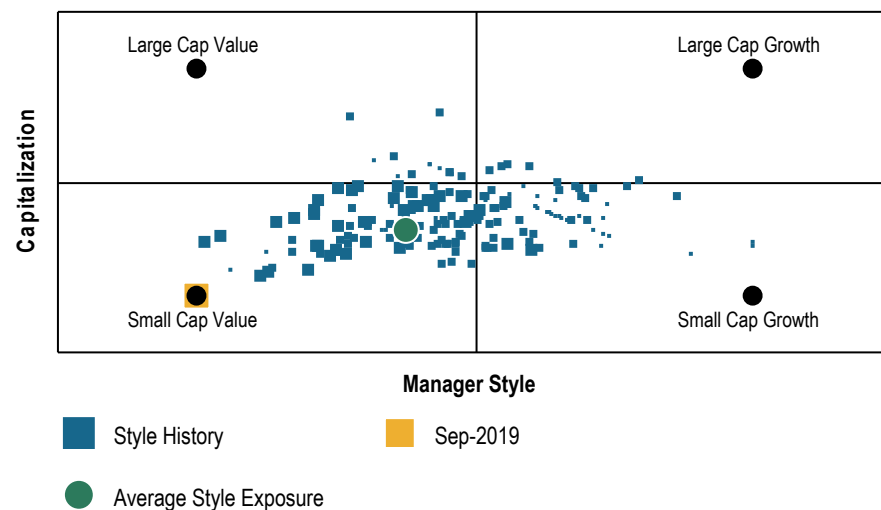
Sector Weights (%)



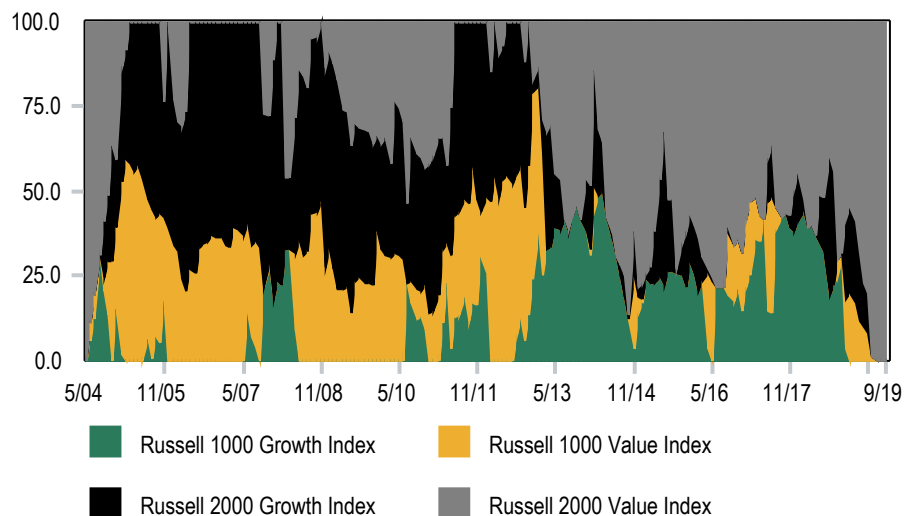
Investment Style Exposure



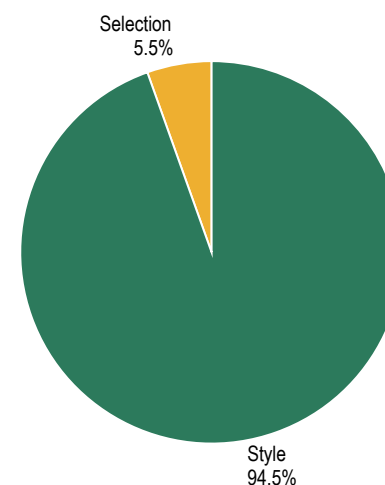
Style Map(ppp)



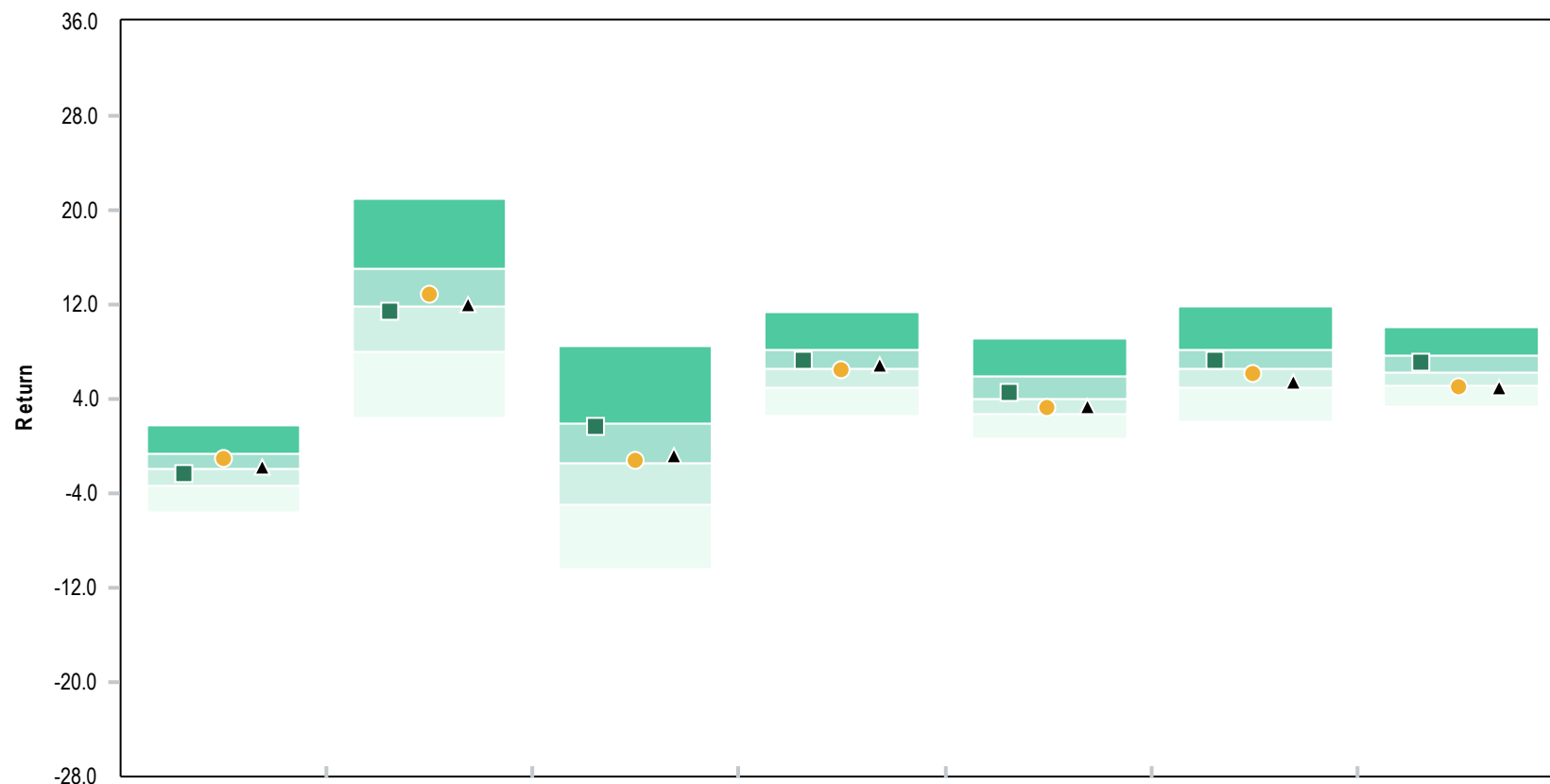
Style History(ppp)



Return Variance



International Equity

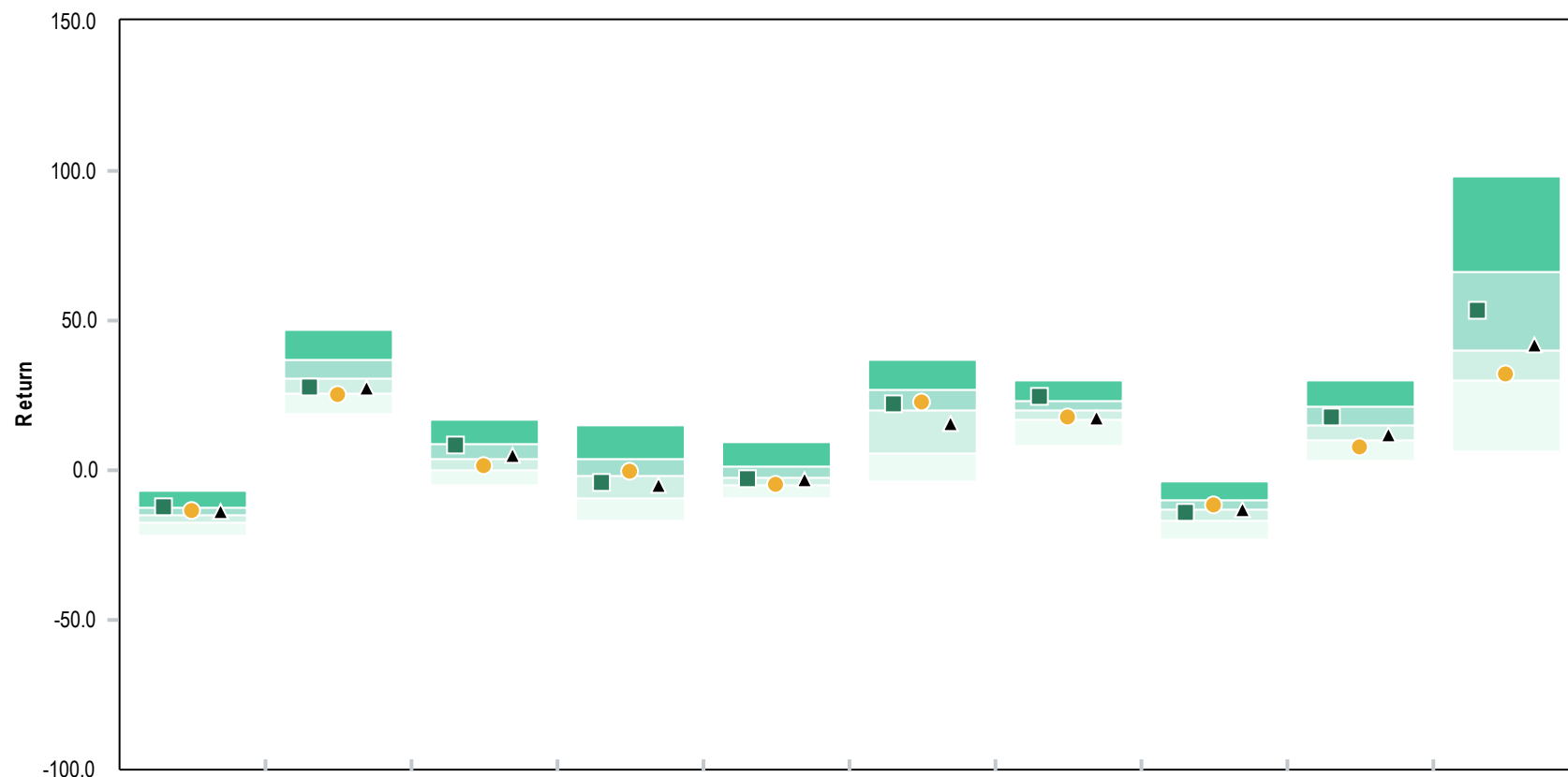


■ Total International Equity
 ● MSCI EAFE (net)
 ▲ MSCI AC World ex USA

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Total International Equity	-2.46 (64)	11.35 (52)	1.56 (27)	7.16 (39)	4.55 (43)	7.17 (40)	7.02 (39)
MSCI EAFE (net)	-1.07 (33)	12.80 (43)	-1.34 (50)	6.48 (51)	3.27 (64)	6.12 (60)	4.90 (80)
MSCI AC World ex USA	-1.70 (47)	12.06 (49)	-0.72 (43)	6.85 (44)	3.39 (62)	5.50 (69)	4.93 (79)

5th Percentile	1.78	20.95	8.46	11.31	9.13	11.91	10.11
1st Quartile	-0.70	15.10	1.87	8.22	5.99	8.15	7.74
Median	-1.84	11.83	-1.44	6.53	4.05	6.56	6.32
3rd Quartile	-3.29	7.97	-4.90	4.97	2.68	4.90	5.11
95th Percentile	-5.54	2.44	-10.45	2.52	0.71	2.16	3.44

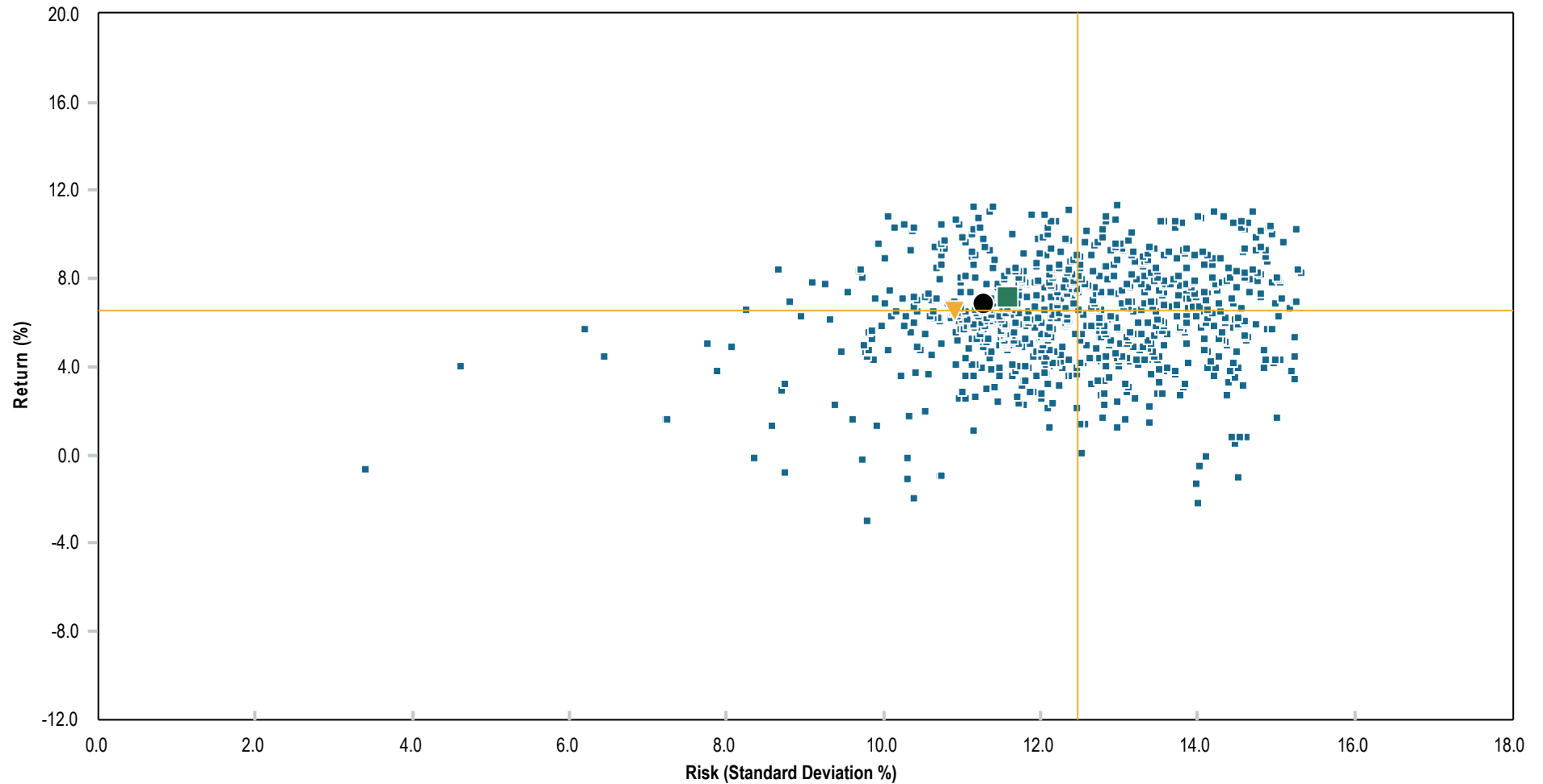
Parentheses contain percentile rankings.
 Calculation based on monthly periodicity.



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ Total International Equity	-12.74 (28)	27.74 (65)	8.40 (28)	-4.29 (62)	-3.24 (57)	21.81 (44)	24.35 (18)	-14.17 (59)	17.77 (39)	53.39 (32)
● MSCI EAFE (net)	-13.79 (38)	25.03 (80)	1.00 (70)	-0.81 (47)	-4.90 (74)	22.78 (41)	17.32 (70)	-12.14 (43)	7.75 (85)	31.78 (71)
▲ MSCI AC World ex USA	-13.78 (38)	27.77 (65)	5.01 (44)	-5.25 (65)	-3.44 (59)	15.78 (61)	17.39 (70)	-13.33 (52)	11.60 (67)	42.14 (46)

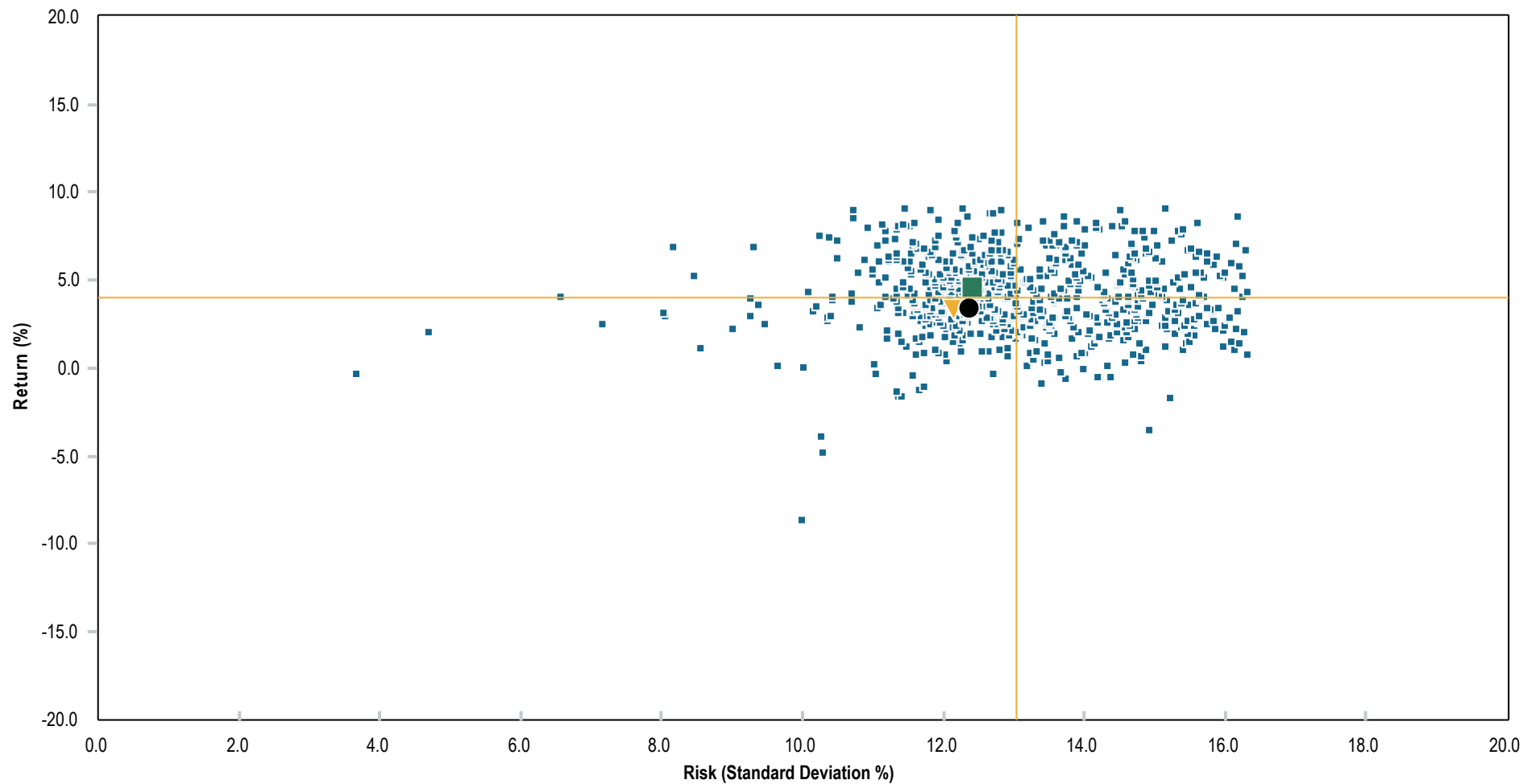
5th Percentile	-6.77	46.81	16.64	14.87	9.38	37.08	30.08	-3.59	29.74	98.36
1st Quartile	-12.39	36.90	8.88	3.54	0.98	26.61	22.99	-10.07	21.29	66.17
Median	-14.86	30.57	3.90	-1.72	-2.53	19.88	19.83	-13.11	15.19	39.83
3rd Quartile	-17.47	25.67	0.23	-9.29	-5.04	5.39	16.75	-16.83	9.80	30.02
95th Percentile	-21.87	18.80	-5.22	-16.89	-9.47	-3.91	8.27	-23.13	2.89	6.38

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total International Equity	7.16	11.59
▼ MSCI EAFE (net)	6.48	10.91
● MSCI AC World ex USA	6.85	11.29
— Median	6.53	12.47

Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total International Equity	4.55	12.43
▼ MSCI EAFE (net)	3.27	12.14
● MSCI AC World ex USA	3.39	12.38
— Median	4.05	13.03

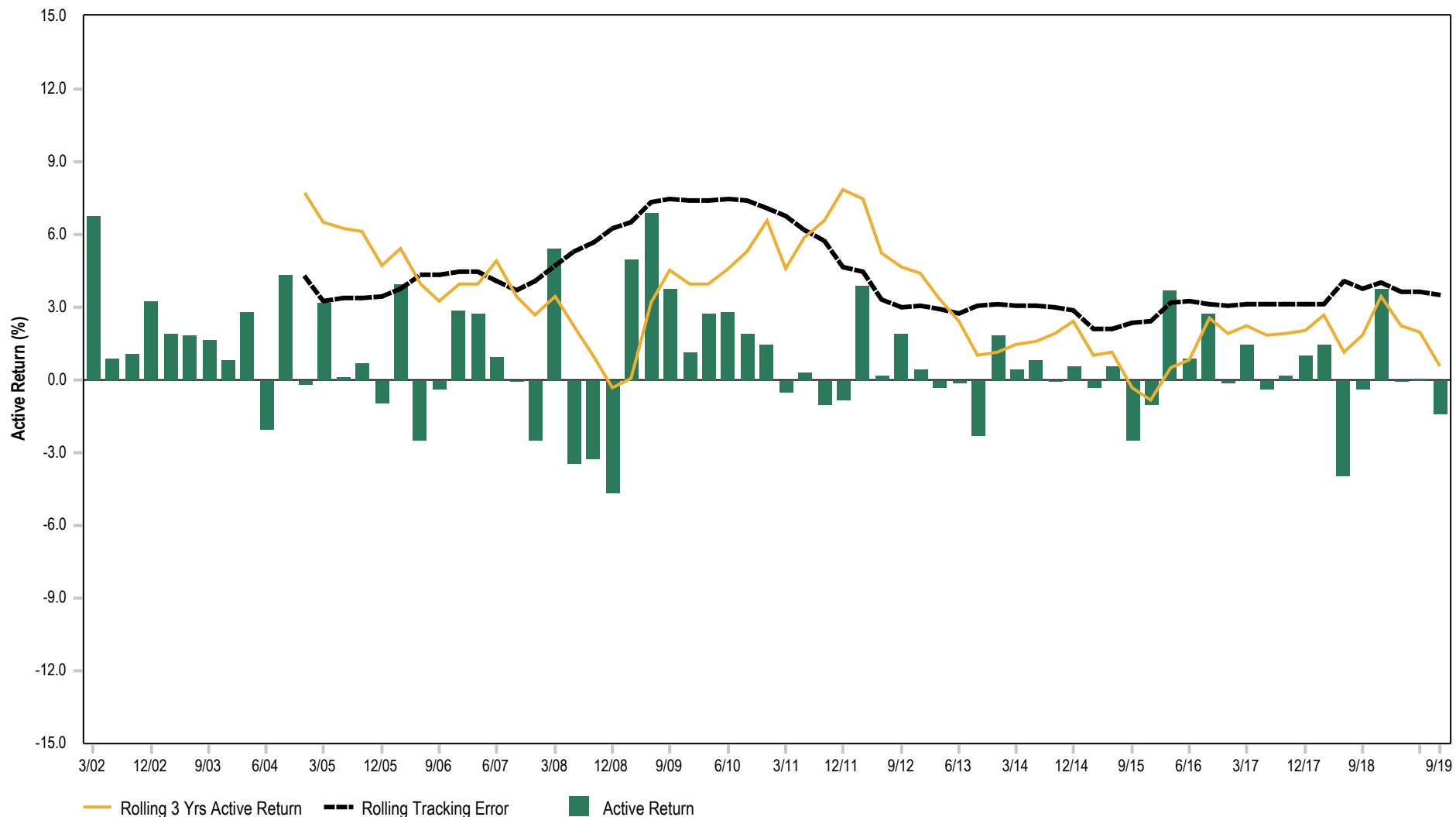
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Total International Equity	-2.46	11.35	1.56	7.16	4.55	7.17	7.02	-12.74	27.74	8.40	-4.29
MSCI EAFE (net)	-1.07	12.80	-1.34	6.48	3.27	6.12	4.90	-13.79	25.03	1.00	-0.81
Difference	-1.39	-1.45	2.90	0.68	1.28	1.05	2.12	1.05	2.71	7.40	-3.48



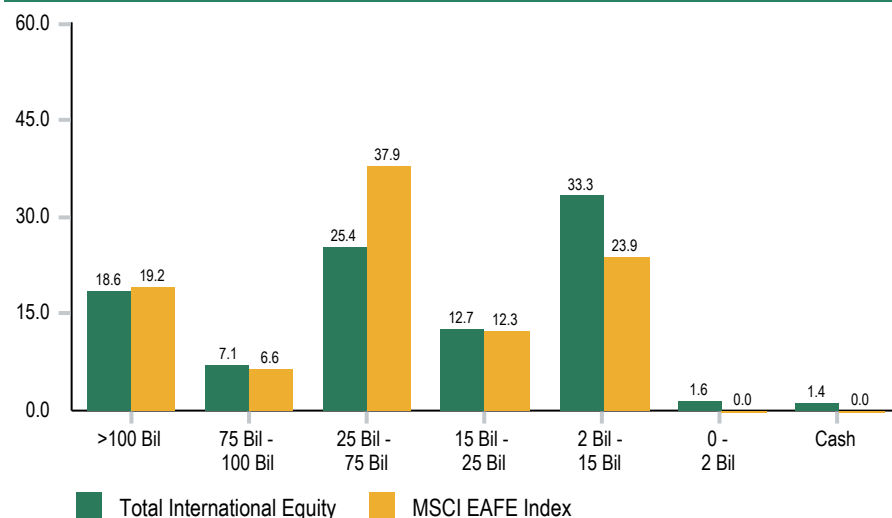
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Taiwan Semiconductor Manuf	1.93	0.00	1.93	14.45
Nestle SA, Cham Und Vevey	1.29	2.41	-1.12	4.79
Samsung Electronics Co Ltd	1.26	0.00	1.26	0.59
Keyence Corp	1.25	0.41	0.84	1.03
Tencent Holdings LTD	1.24	0.00	1.24	-6.71
Roche Holding AG	1.24	1.48	-0.24	3.42
China Construction Bank Corp	1.21	0.00	1.21	-6.65
SK Hynix Inc	1.07	0.00	1.07	14.17
Taiwan Semiconductor	0.98	0.00	0.98	19.51
Unilever PLC	0.98	0.48	0.50	-2.27
% of Portfolio	12.45	4.78	7.67	

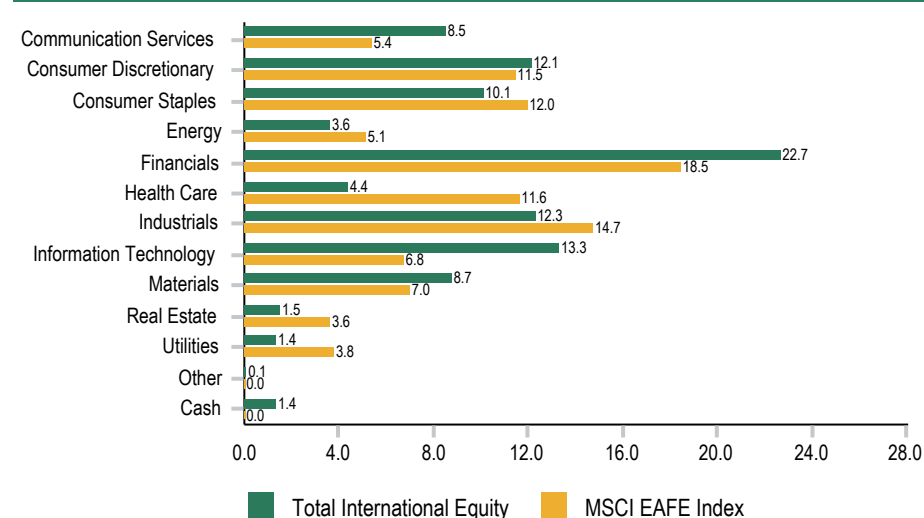
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	55,621,406,665	63,390,873,772
Median Mkt. Cap (\$)	8,067,787,819	10,158,726,312
Price/Earnings ratio	13.84	15.24
Price/Book ratio	2.54	2.30
5 Yr. EPS Growth Rate (%)	8.50	7.44
Current Yield (%)	3.23	3.52
Beta (5 Years, Monthly)	0.98	1.00
Number of Stocks	864	923

Distribution of Market Capitalization (%)



Sector Weights (%)



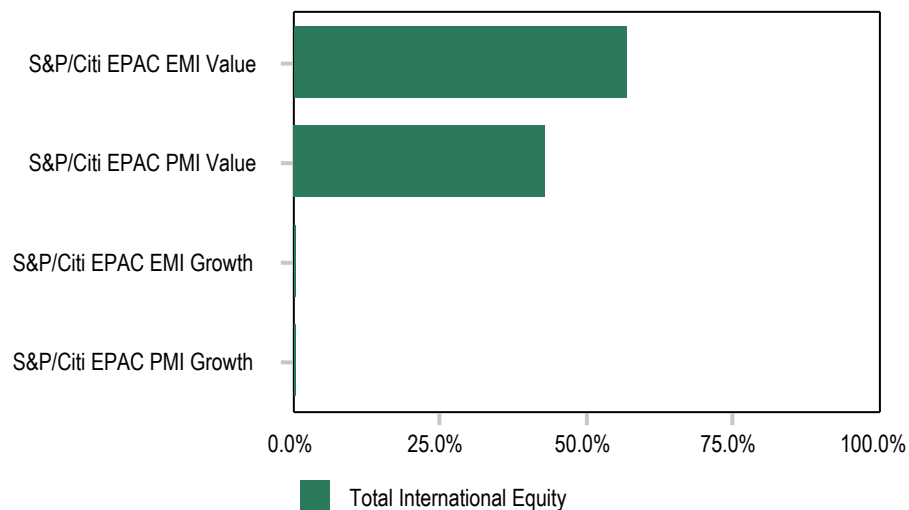
Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
IRB-Brasil Resseguros S.A	0.21	0.00	0.21	215.90
Advantest Corp	0.02	0.06	-0.04	61.59
Lasertec Corp	0.00	0.00	0.00	57.86
Guangzhou Kingmed Diagnostics Group Co Ltd	0.01	0.00	0.01	57.25
Altice Europe N.V.	0.03	0.00	0.03	45.60
Sunny Optical Technology Group Co Ltd	0.20	0.00	0.20	42.21
JBS SA	0.02	0.00	0.02	41.86
ASM International NV	0.04	0.00	0.04	41.37
Tokyo Electron Ltd	0.11	0.22	-0.11	36.89
NAVER Corp	0.01	0.00	0.01	32.95
% of Portfolio	0.65	0.28	0.37	

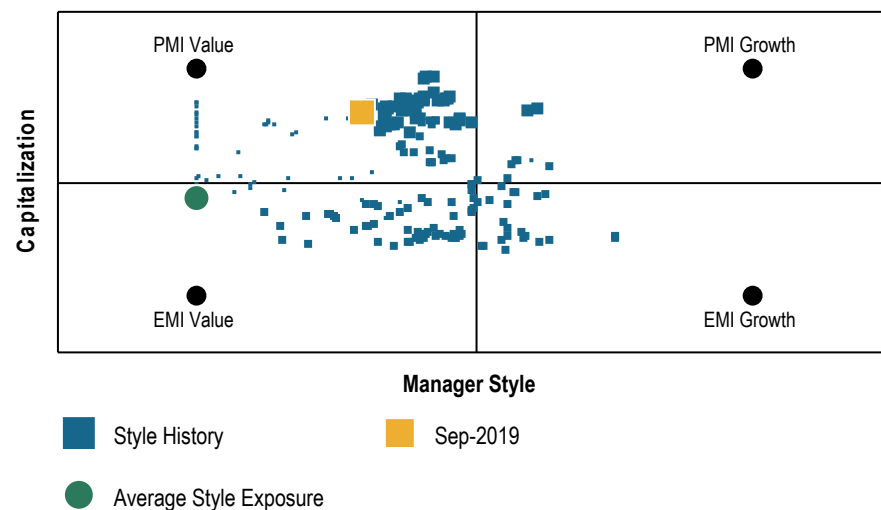
Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Micro Focus International PLC	0.01	0.03	-0.02	-44.40
Micro Focus International PLC	0.01	0.03	-0.02	-43.64
IGG Inc	0.00	0.00	0.00	-42.88
Salzgitter AG, Salzgitter	0.01	0.00	0.01	-41.40
Deutz AG, Koeln	0.00	0.00	0.00	-40.52
Yangzijiang Shipbuilding Holdings Ltd	0.00	0.01	-0.01	-38.62
Nearmap Ltd	0.00	0.00	0.00	-34.34
Massmart Holdings Ltd	0.03	0.00	0.03	-34.34
British American Tobacco (Malaysia) Berhad	0.10	0.00	0.10	-34.26
Sasol Ltd	0.19	0.00	0.19	-32.67
% of Portfolio	0.35	0.07	0.28	

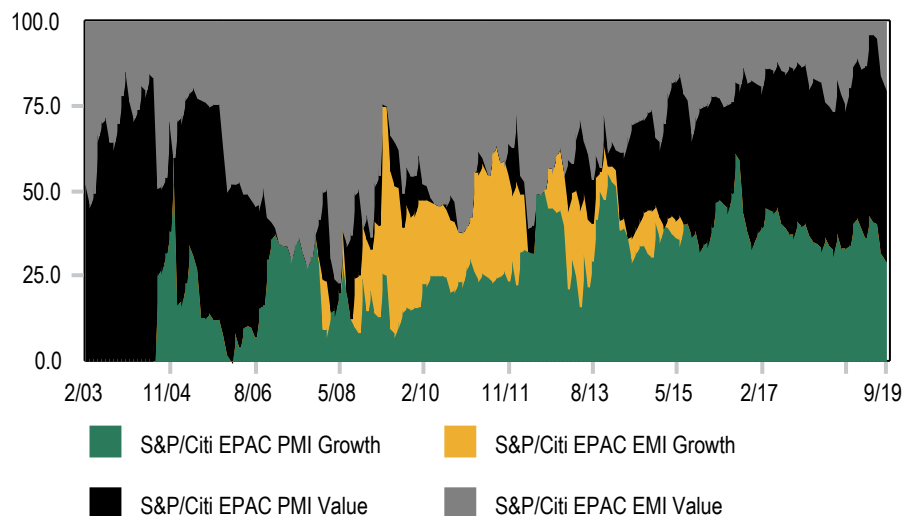
Investment Style Exposure



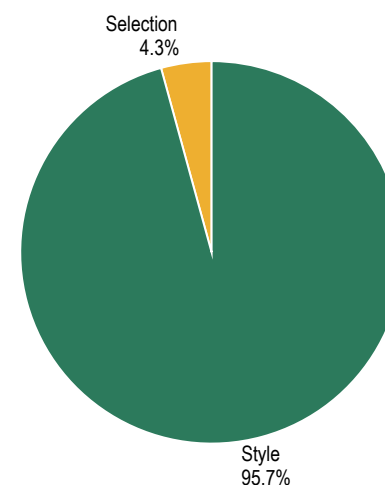
Style Map(ppp)

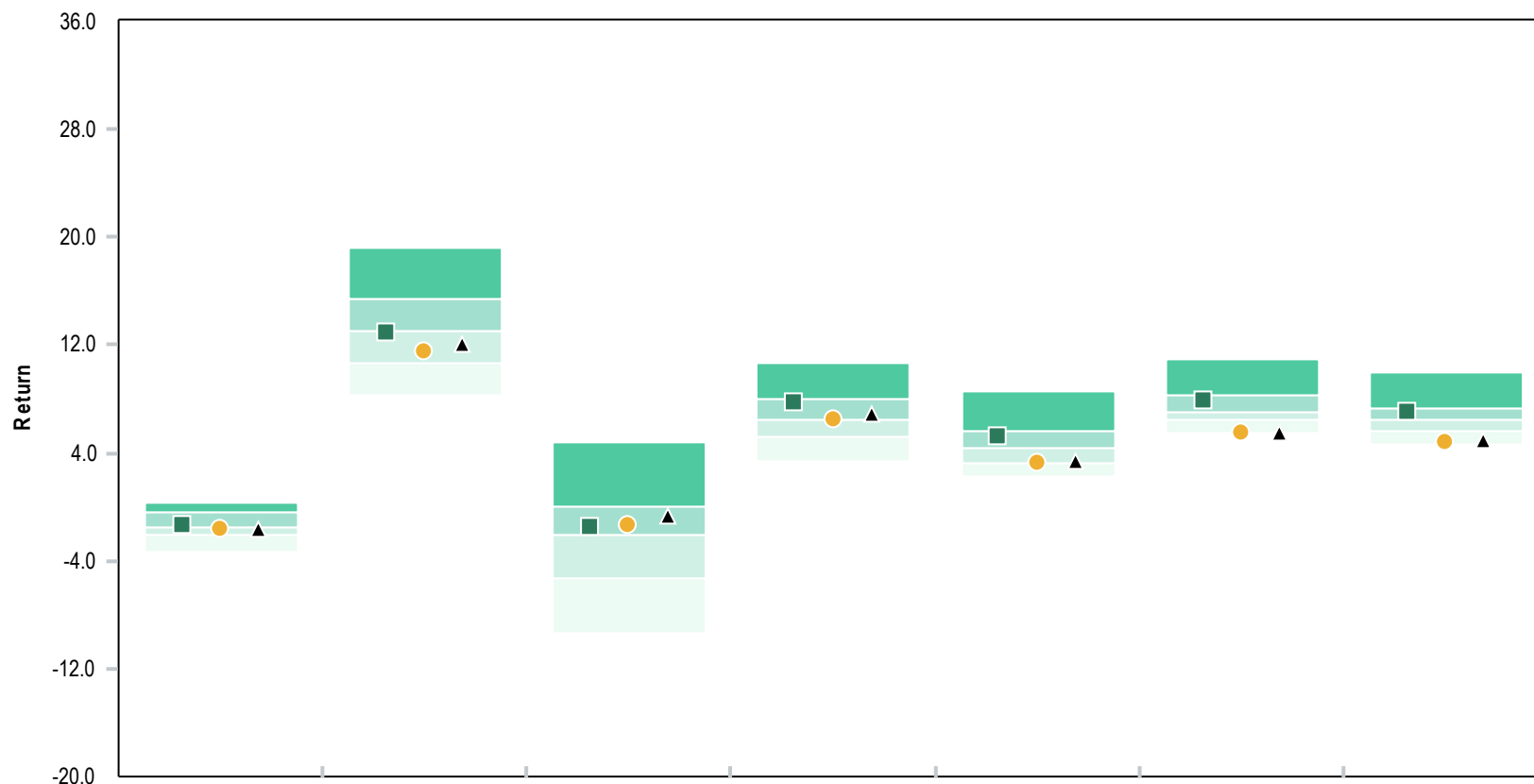


Style History(ppp)



Return Variance



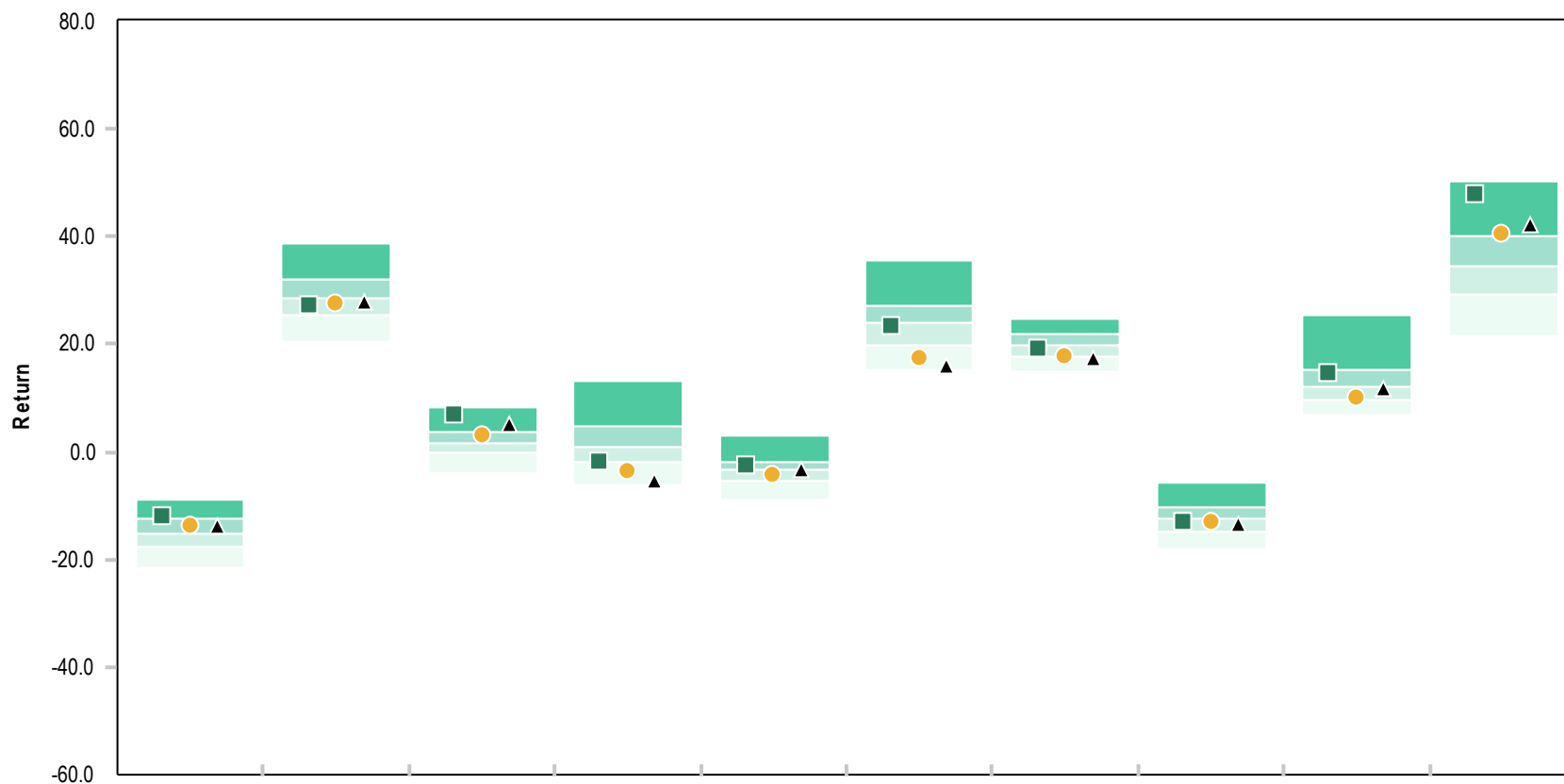


■ Arrowstreet Capital
● Arrowstreet Capital Index*
▲ MSCI AC World ex USA

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Arrowstreet Capital	-1.44 (50)	12.84 (56)	-1.57 (43)	7.79 (27)	5.17 (33)	7.93 (34)	7.01 (33)
Arrowstreet Capital Index*	-1.68 (59)	11.48 (69)	-1.36 (42)	6.50 (49)	3.22 (77)	5.51 (96)	4.74 (95)
MSCI AC World ex USA	-1.70 (61)	12.06 (65)	-0.72 (34)	6.85 (42)	3.39 (71)	5.50 (96)	4.93 (93)

5th Percentile	0.31	19.16	4.72	10.72	8.51	10.89	9.92
1st Quartile	-0.44	15.47	0.01	7.93	5.61	8.33	7.36
Median	-1.46	13.01	-2.14	6.45	4.29	7.08	6.49
3rd Quartile	-2.13	10.70	-5.25	5.23	3.25	6.51	5.67
95th Percentile	-3.28	8.22	-9.38	3.43	2.25	5.51	4.67

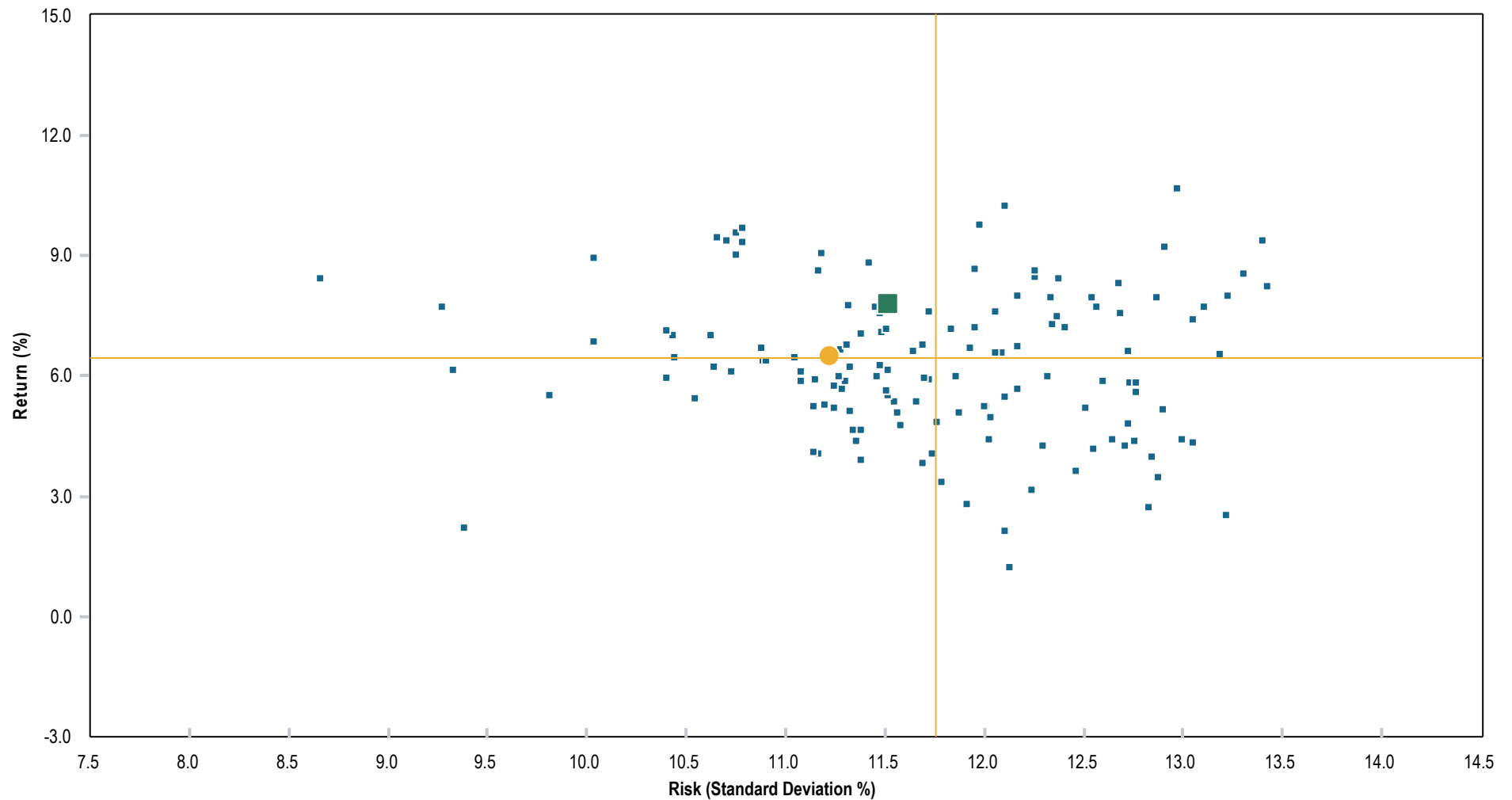
*80% MSCI EAFE/20% MSCI EME



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ Arrowstreet Capital	-11.98 (21)	27.26 (56)	6.87 (9)	-1.88 (75)	-2.74 (38)	23.44 (56)	19.10 (62)	-12.96 (57)	14.39 (31)	47.80 (9)
● Arrowstreet Capital Index*	-13.84 (35)	27.52 (56)	3.15 (33)	-3.64 (88)	-4.23 (59)	17.38 (85)	17.65 (76)	-13.27 (60)	9.98 (70)	40.33 (25)
▲ MSCI AC World ex USA	-13.78 (34)	27.77 (55)	5.01 (19)	-5.25 (93)	-3.44 (50)	15.78 (94)	17.39 (78)	-13.33 (61)	11.60 (55)	42.14 (19)

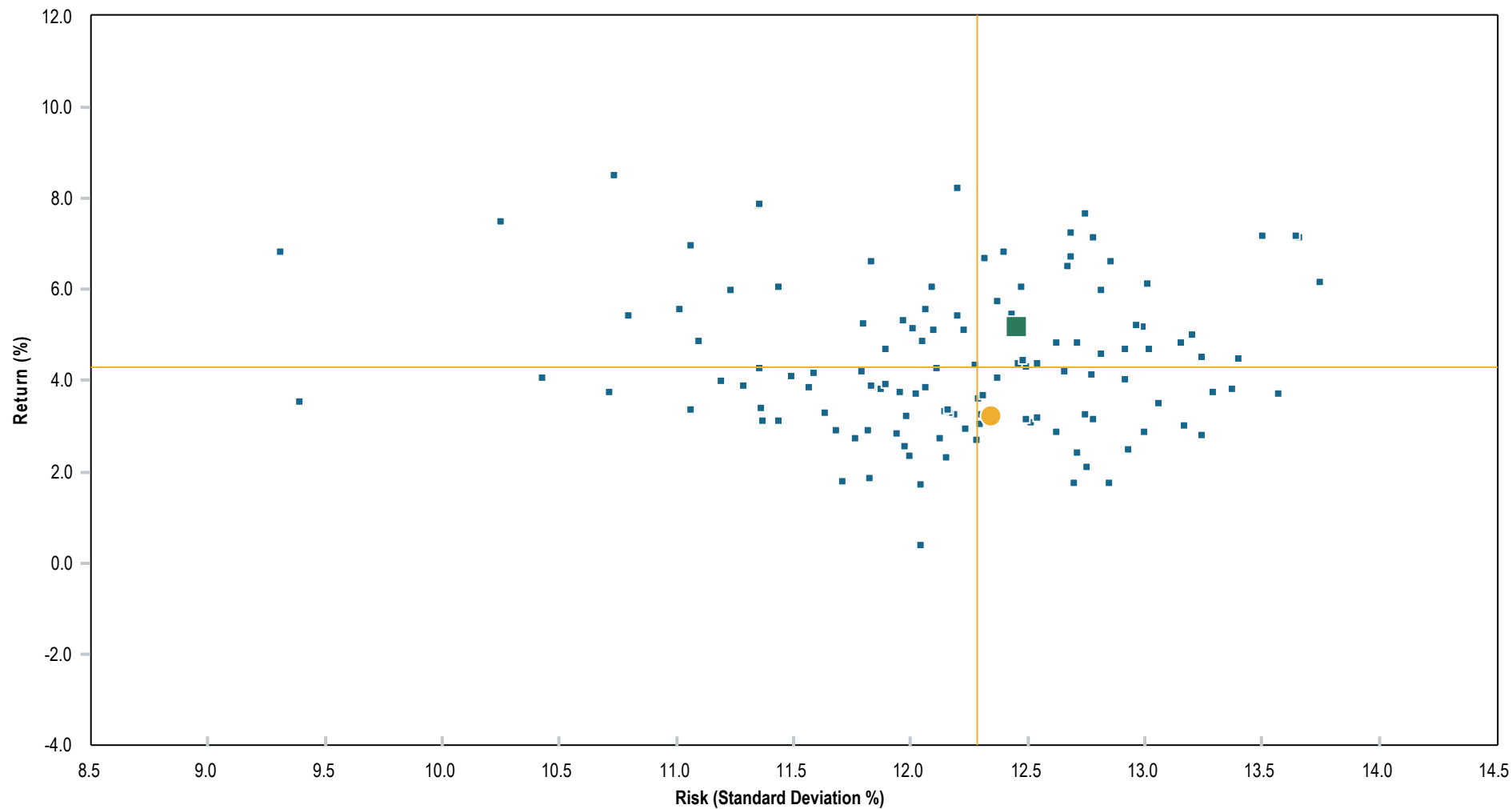
5th Percentile	-8.77	38.74	8.08	13.28	2.94	35.70	24.58	-5.62	25.49	50.08
1st Quartile	-12.40	32.14	3.76	4.60	-1.95	27.21	22.01	-10.40	15.30	40.08
Median	-15.12	28.46	1.63	1.07	-3.44	24.02	19.76	-12.41	12.06	34.43
3rd Quartile	-17.62	25.33	-0.28	-1.90	-5.26	19.95	17.67	-14.82	9.71	29.23
95th Percentile	-21.60	20.67	-3.91	-6.13	-8.99	15.23	14.94	-17.91	6.70	21.59

*80% MSCI EAFE/20% MSCI EME



	Return	Standard Deviation
■ Arrowstreet Capital	7.79	11.51
● Arrowstreet Capital Index*	6.50	11.23
— Median	6.45	11.75

*80% MSCI EAFE/20% MSCI EME.



	Return	Standard Deviation
■ Arrowstreet Capital	5.17	12.46
● Arrowstreet Capital Index*	3.22	12.35
— Median	4.29	12.28

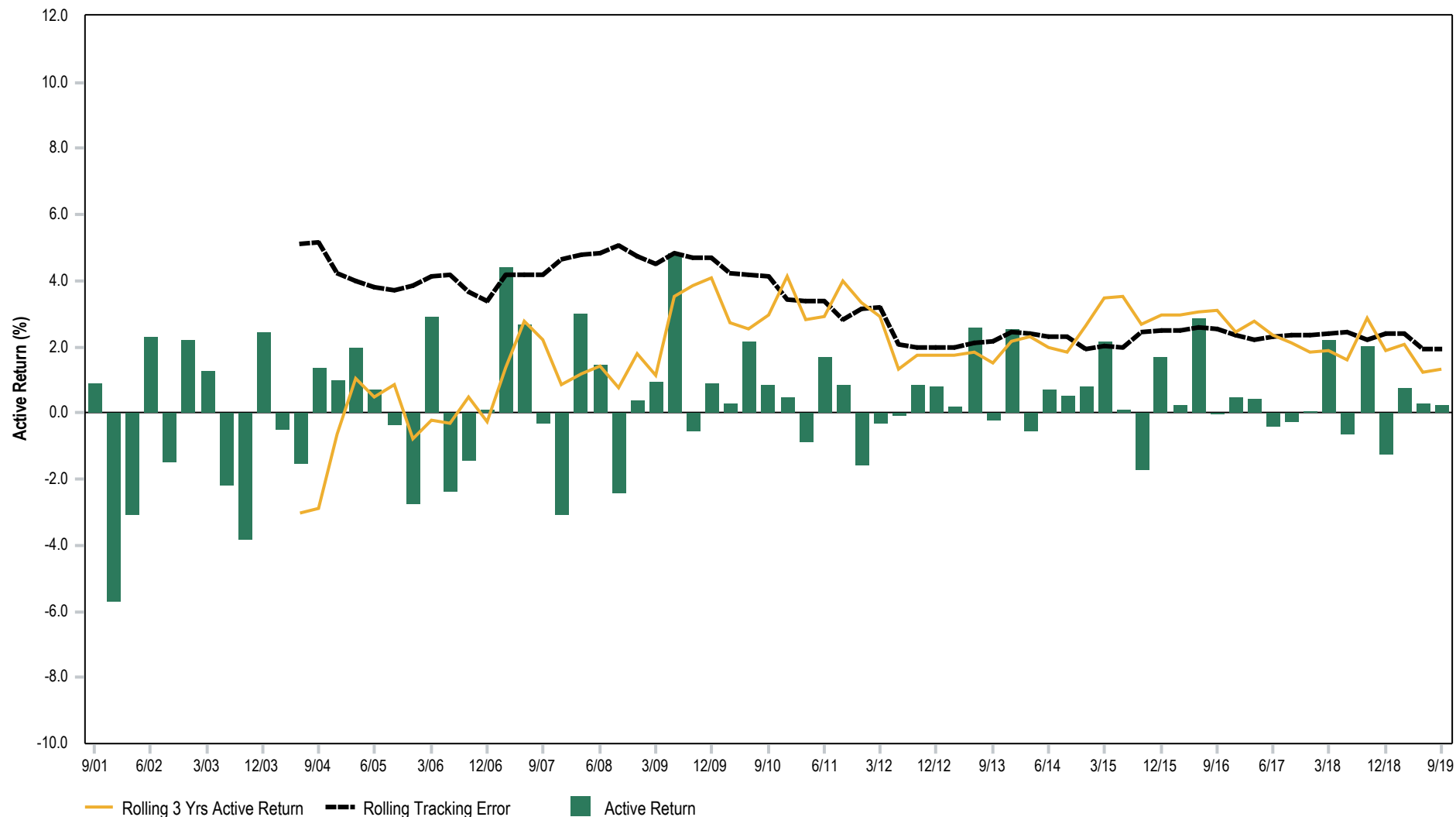
*80% MSCI EAFE/20% MSCI EME.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Arrowstreet Capital	-1.44	12.84	-1.57	7.79	5.17	7.93	7.01	-11.98	27.26	6.87	-1.88
Arrowstreet Capital Index*	-1.68	11.48	-1.36	6.50	3.22	5.51	4.74	-13.84	27.52	3.15	-3.64
Difference	0.24	1.36	-0.21	1.29	1.95	2.42	2.27	1.86	-0.26	3.72	1.76



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

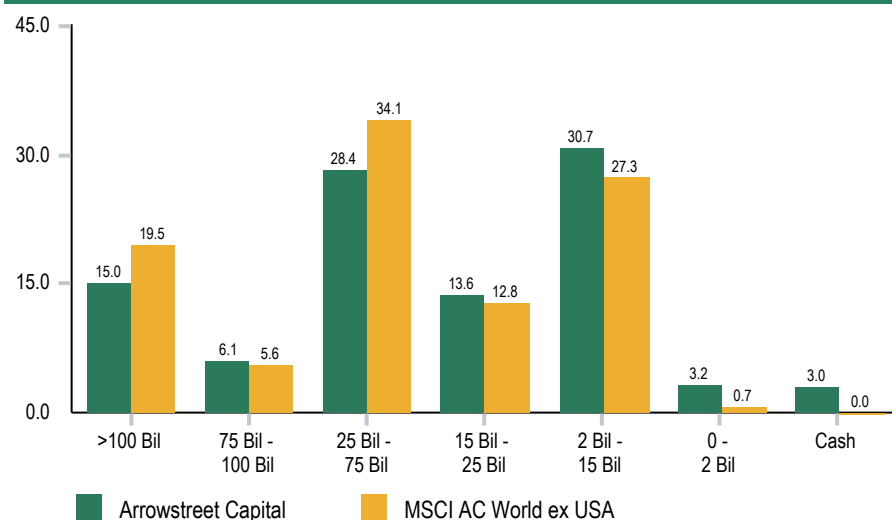
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Roche Holding AG	2.38	0.99	1.39	3.42
Samsung Electronics Co Ltd	2.16	0.95	1.21	1.48
Novartis AG	1.73	0.91	0.82	-5.12
Enel Ente Nazionale Per L'Energia Elettrica SPA, Roma	1.46	0.30	1.16	9.30
Koninklijke Philips NV	1.36	0.21	1.15	6.65
Nestle SA, Cham Und Vevey	1.21	1.62	-0.41	4.79
Allianz SE	1.09	0.48	0.61	-3.34
BHP Group Ltd	1.08	0.35	0.73	-11.48
Astrazeneca PLC	1.01	0.57	0.44	9.07
Kweichow Moutai Co Ltd	0.96	0.04	0.92	12.28
% of Portfolio	14.44	6.42	8.02	

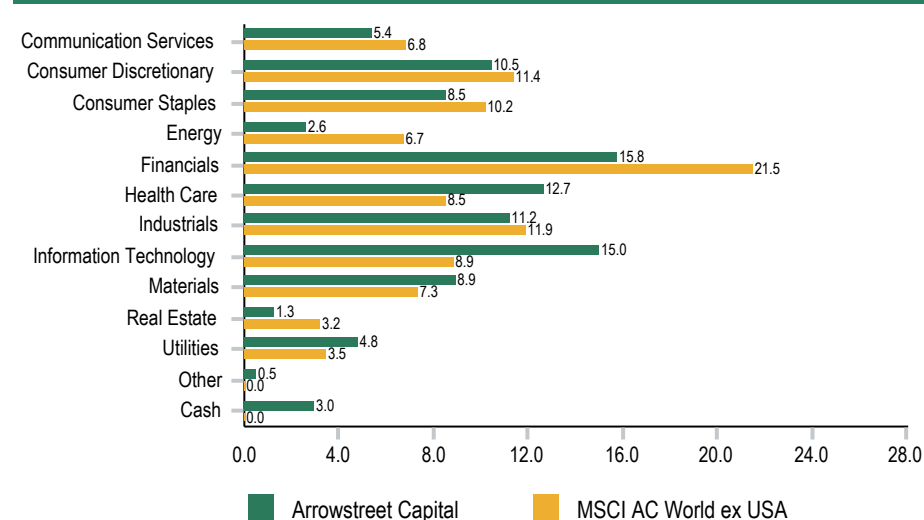
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	49,836,499,377	66,277,685,871
Median Mkt. Cap (\$)	7,428,073,440	7,597,324,438
Price/Earnings ratio	13.09	14.41
Price/Book ratio	2.31	2.27
5 Yr. EPS Growth Rate (%)	11.01	8.53
Current Yield (%)	3.62	3.36
Beta (5 Years, Monthly)	0.98	1.00
Number of Stocks	697	2,215

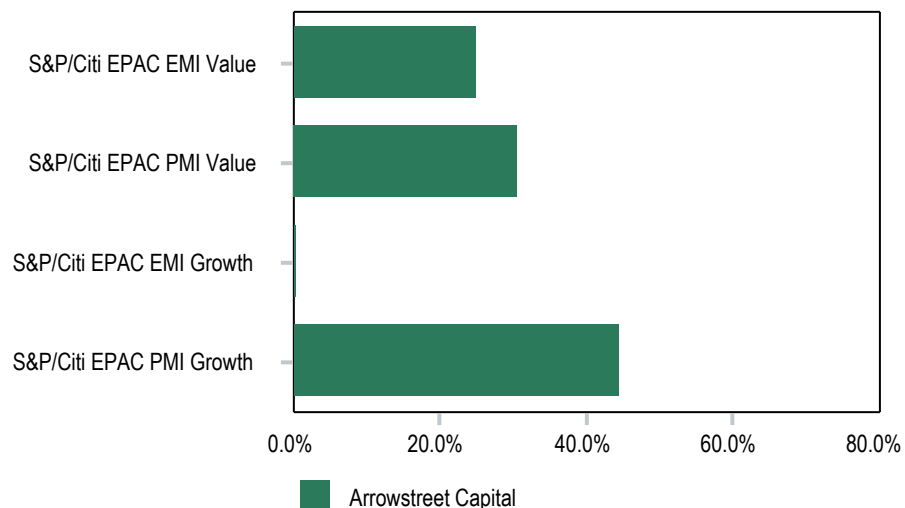
Distribution of Market Capitalization (%)



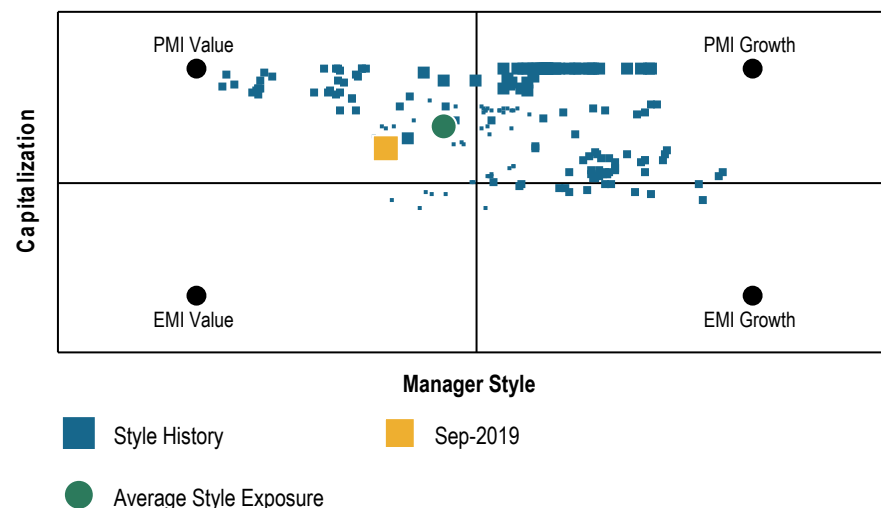
Sector Weights (%)



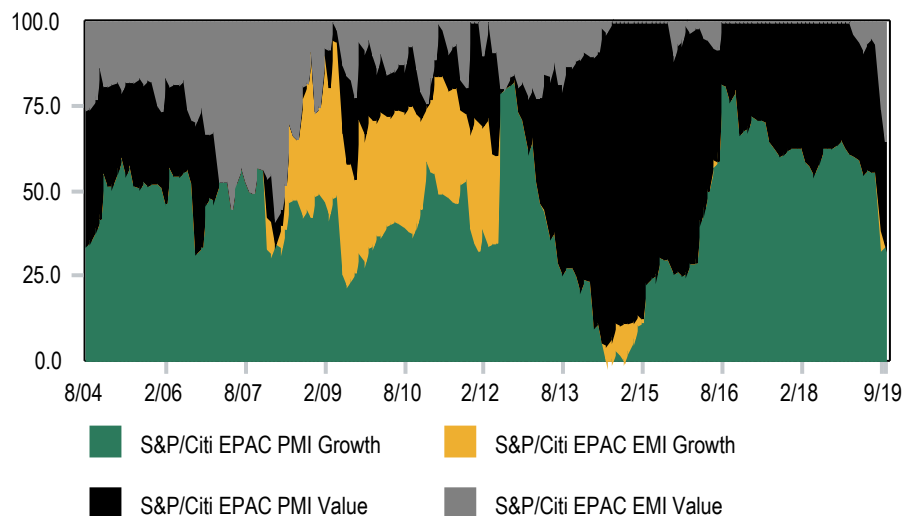
Investment Style Exposure



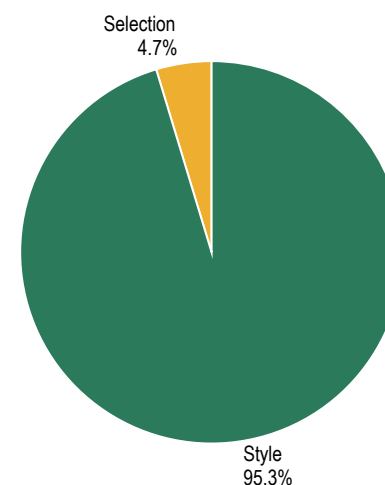
Style Map(ppp)

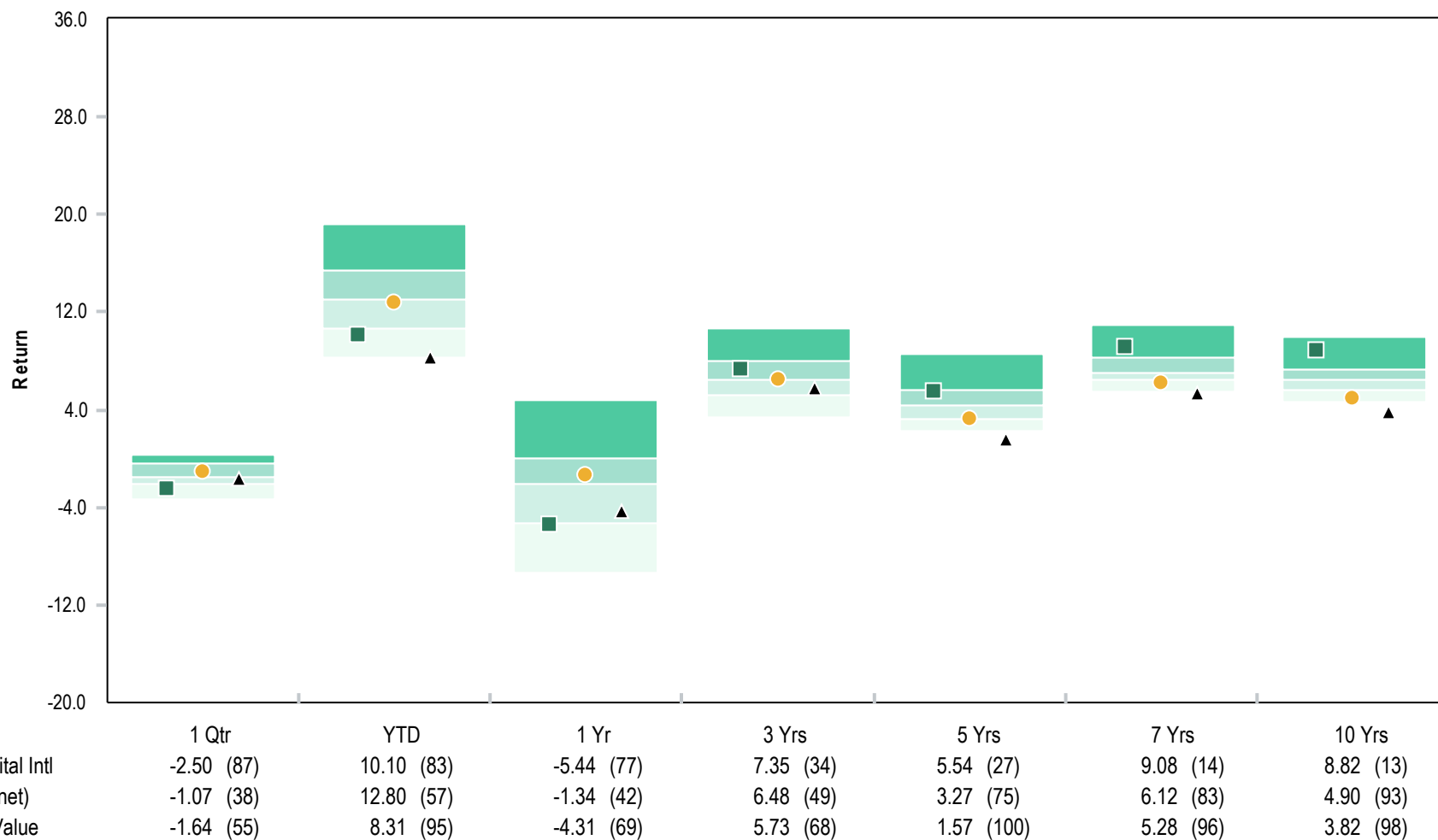


Style History(ppp)



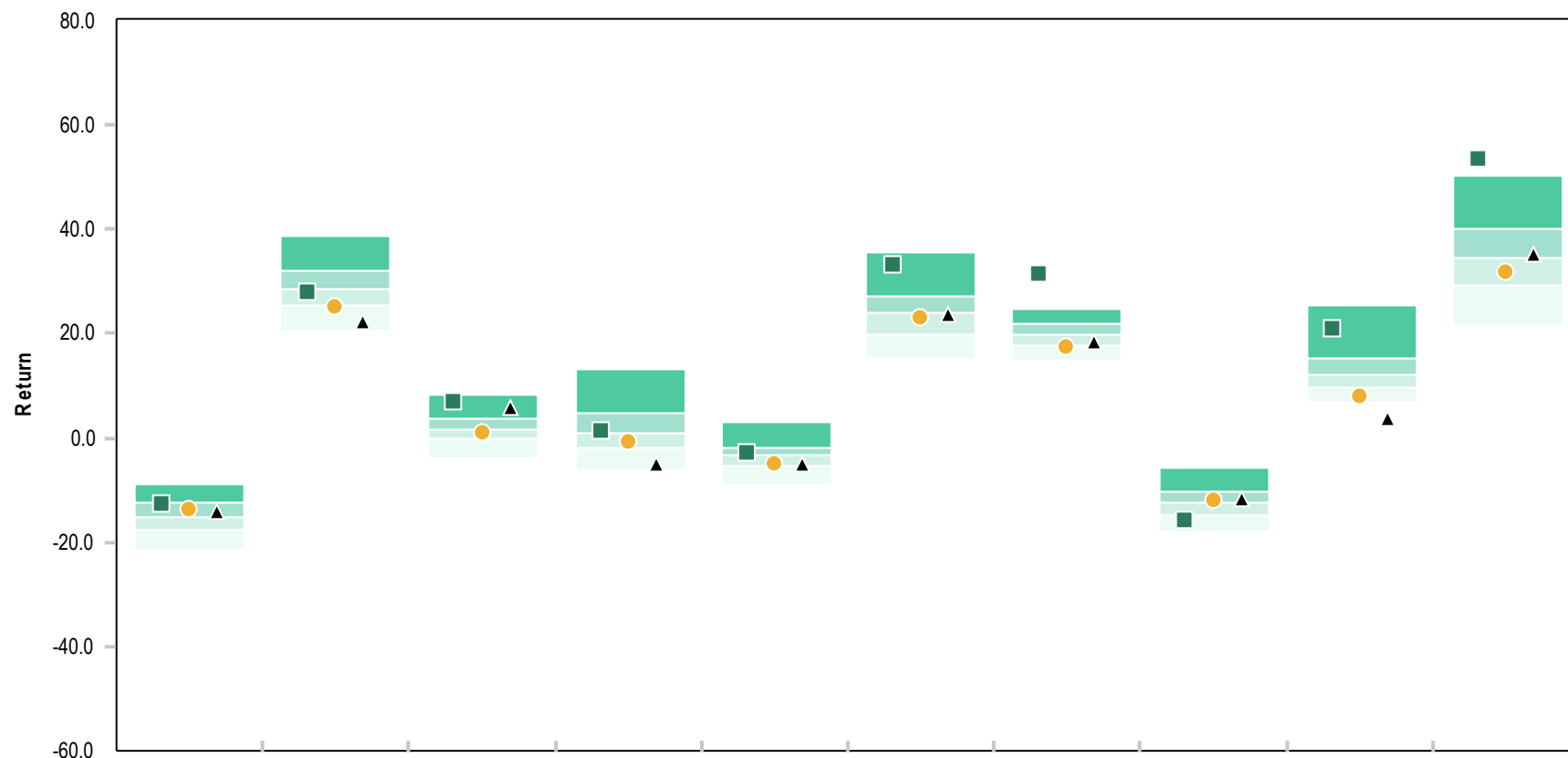
Return Variance





5th Percentile	0.31	19.16	4.72	10.72	8.51	10.89	9.92
1st Quartile	-0.44	15.47	0.01	7.93	5.61	8.33	7.36
Median	-1.46	13.01	-2.14	6.45	4.29	7.08	6.49
3rd Quartile	-2.13	10.70	-5.25	5.23	3.25	6.51	5.67
95th Percentile	-3.28	8.22	-9.38	3.43	2.25	5.51	4.67

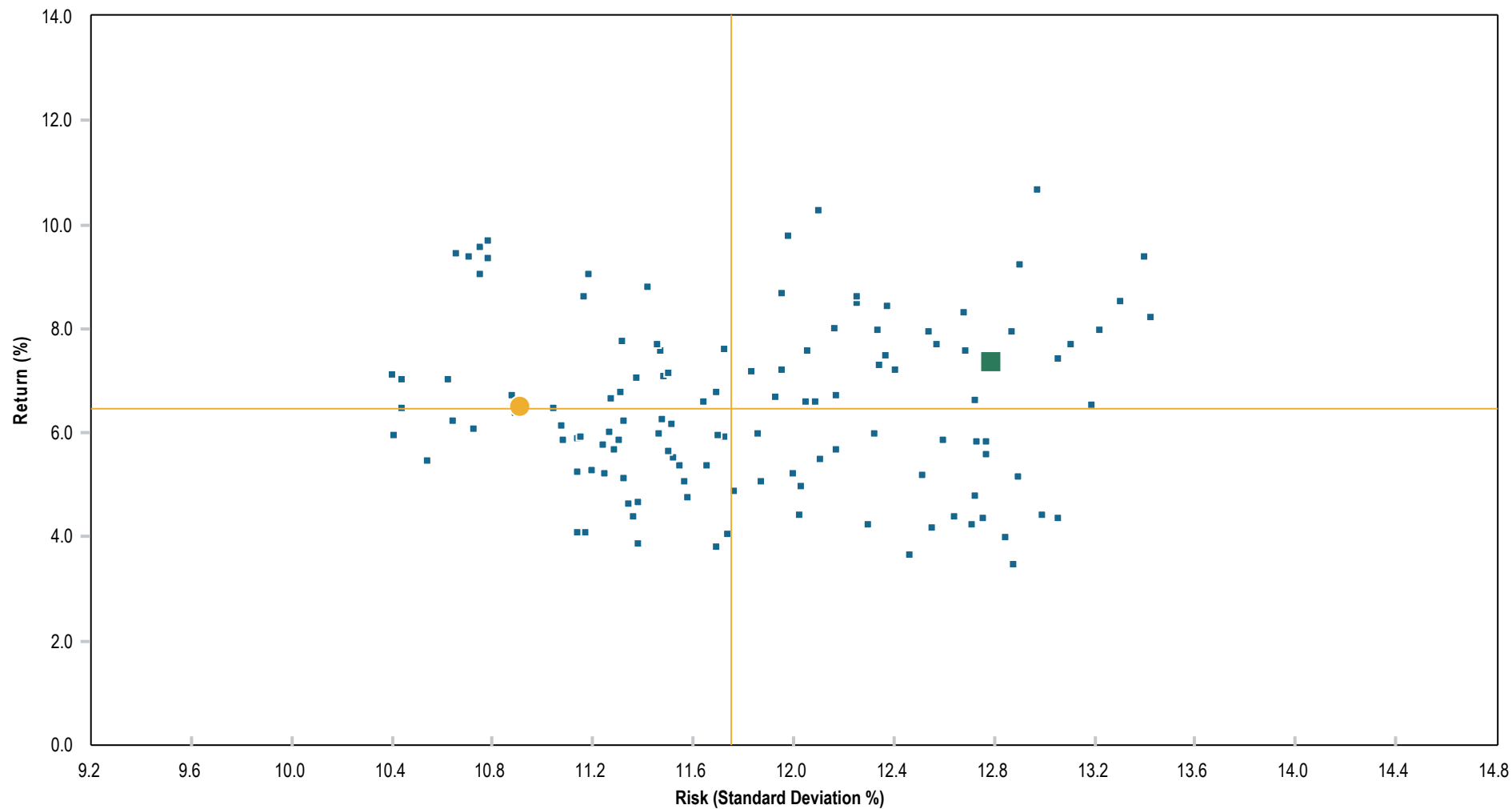
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ Freedom Capital Intl	-12.90 (28)	27.96 (54)	6.75 (10)	1.37 (47)	-2.88 (40)	33.24 (8)	31.46 (1)	-15.84 (87)	20.72 (13)	53.54 (3)
● MSCI EAFE (net)	-13.79 (34)	25.03 (78)	1.00 (59)	-0.81 (67)	-4.90 (69)	22.78 (60)	17.32 (78)	-12.14 (46)	7.75 (92)	31.78 (61)
▲ MSCI EAFE Value	-14.26 (42)	22.12 (94)	5.68 (15)	-5.22 (93)	-4.92 (69)	23.59 (54)	18.43 (70)	-11.65 (41)	3.81 (98)	35.06 (48)

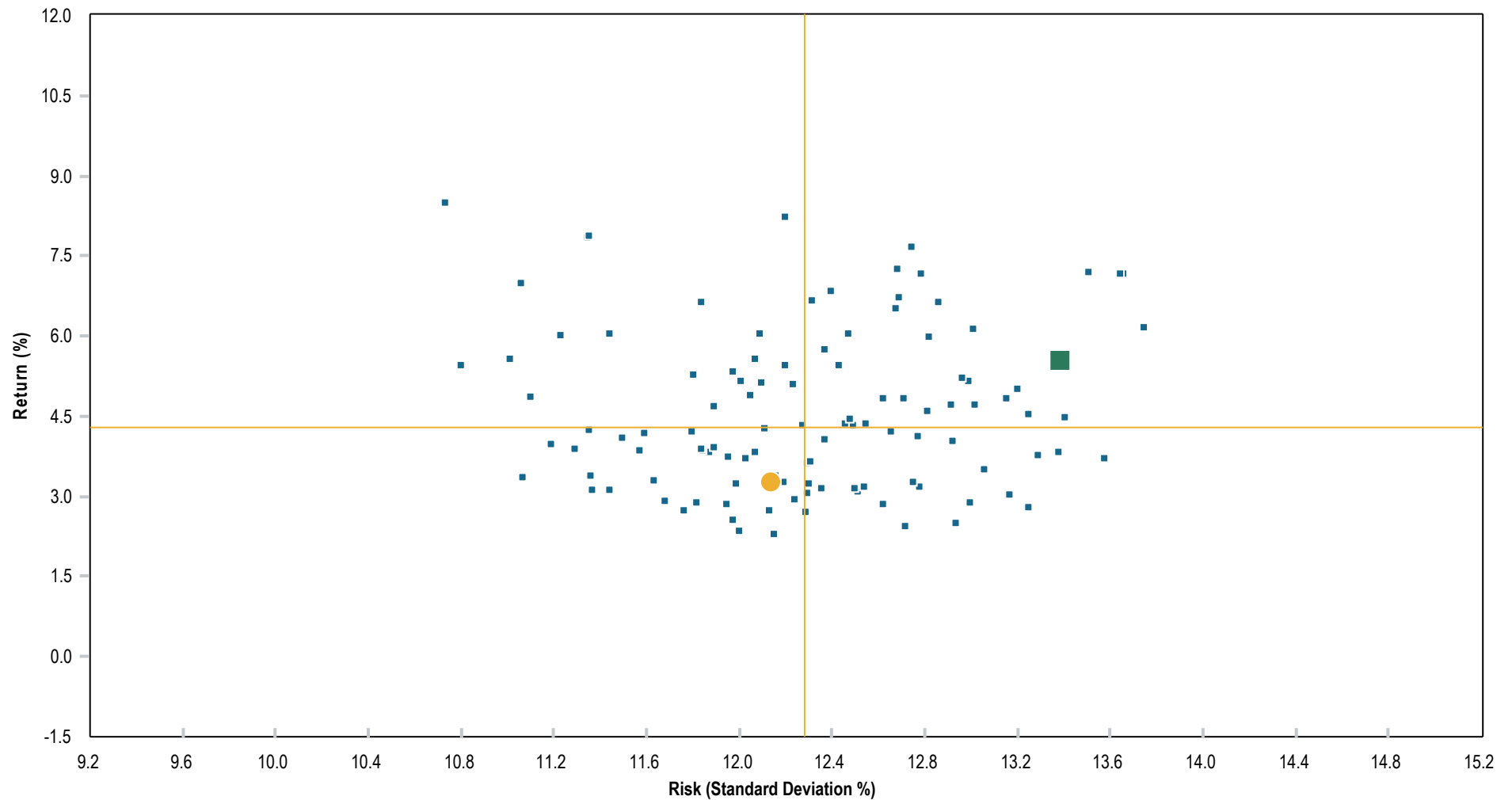
5th Percentile	-8.77	38.74	8.08	13.28	2.94	35.70	24.58	-5.62	25.49	50.08
1st Quartile	-12.40	32.14	3.76	4.60	-1.95	27.21	22.01	-10.40	15.30	40.08
Median	-15.12	28.46	1.63	1.07	-3.44	24.02	19.76	-12.41	12.06	34.43
3rd Quartile	-17.62	25.33	-0.28	-1.90	-5.26	19.95	17.67	-14.82	9.71	29.23
95th Percentile	-21.60	20.67	-3.91	-6.13	-8.99	15.23	14.94	-17.91	6.70	21.59

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Freedom Capital Intl	7.35	12.79
● MSCI EAFE (net)	6.48	10.91
— Median	6.45	11.75

Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Freedom Capital Intl	5.54	13.39
● MSCI EAFE (net)	3.27	12.14
— Median	4.29	12.28

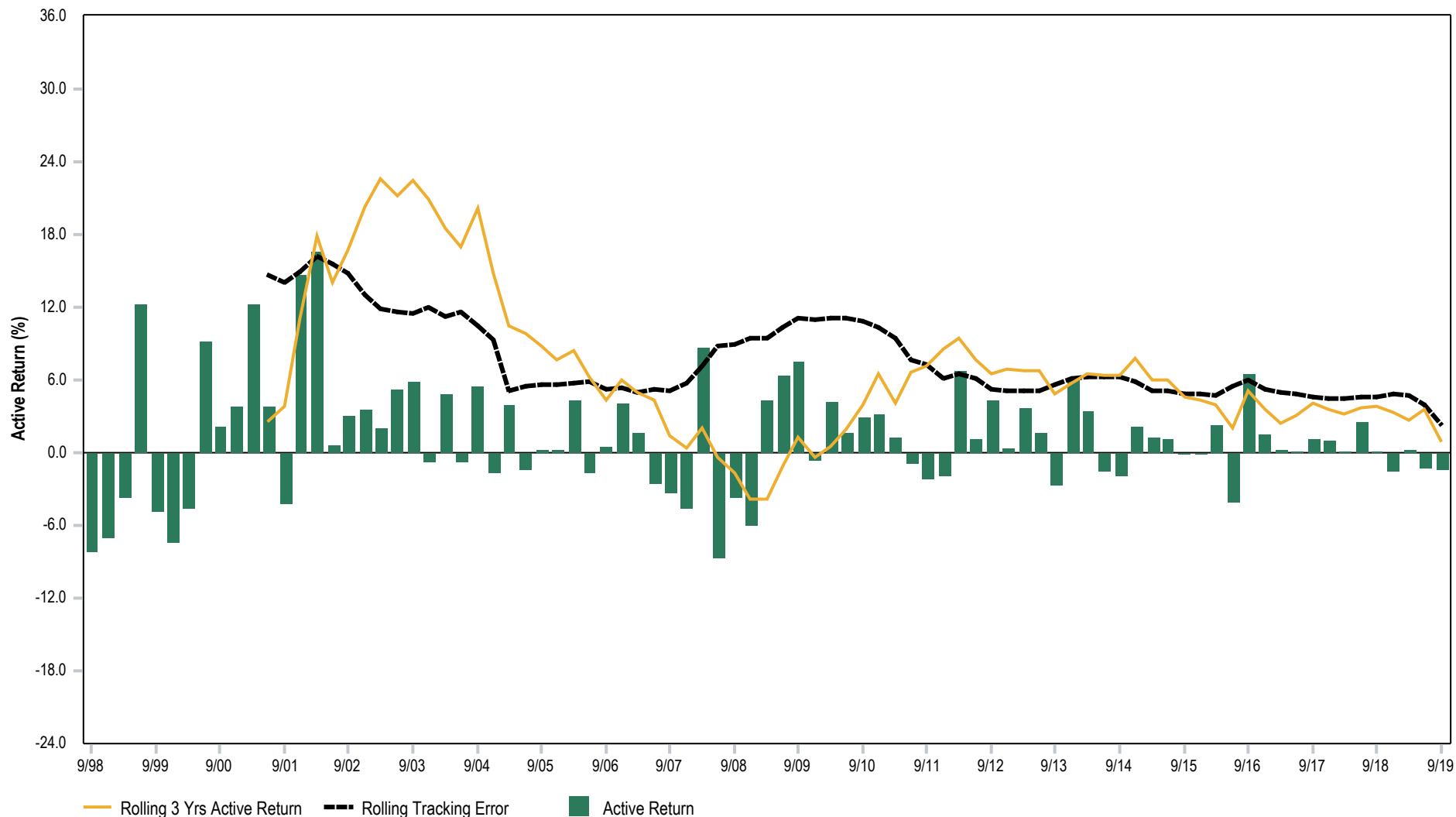
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Freedom Capital Intl	-2.50	10.10	-5.44	7.35	5.54	9.08	8.82	-12.90	27.96	6.75	1.37
MSCI EAFE (net)	-1.07	12.80	-1.34	6.48	3.27	6.12	4.90	-13.79	25.03	1.00	-0.81
Difference	-1.43	-2.70	-4.10	0.87	2.27	2.96	3.92	0.89	2.93	5.75	2.18



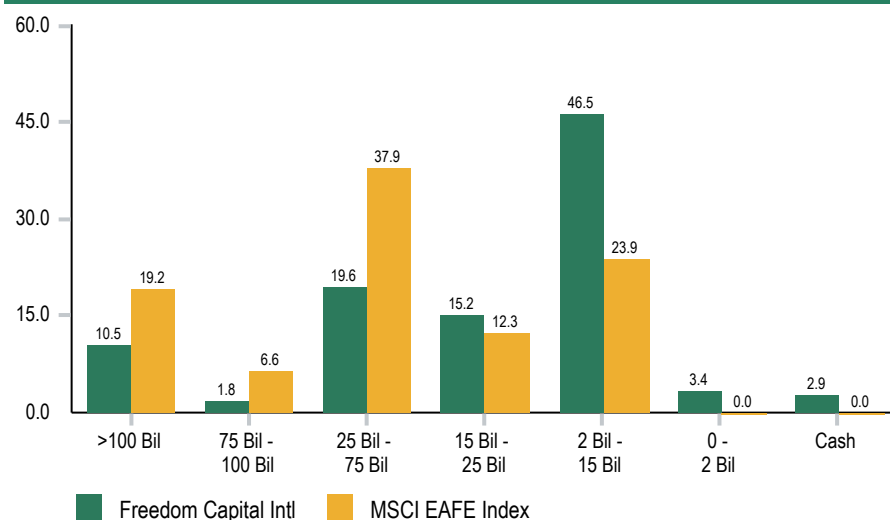
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Bellway PLC	2.80	0.00	2.80	16.29
Hannover Rueck SE	2.80	0.07	2.73	4.51
Next PLC	2.75	0.07	2.68	10.56
Babcock International Group PLC	2.62	0.00	2.62	23.95
Popular Inc	2.46	0.00	2.46	0.26
Magna International Inc.	2.42	0.00	2.42	7.89
DnB ASA	2.40	0.12	2.28	-5.20
BHP Group Ltd	2.40	0.53	1.87	-13.16
Taylor Wimpey PLC	2.30	0.05	2.25	-0.91
United Overseas Bank Ltd	2.30	0.17	2.13	-1.83
% of Portfolio	25.25	1.01	24.24	

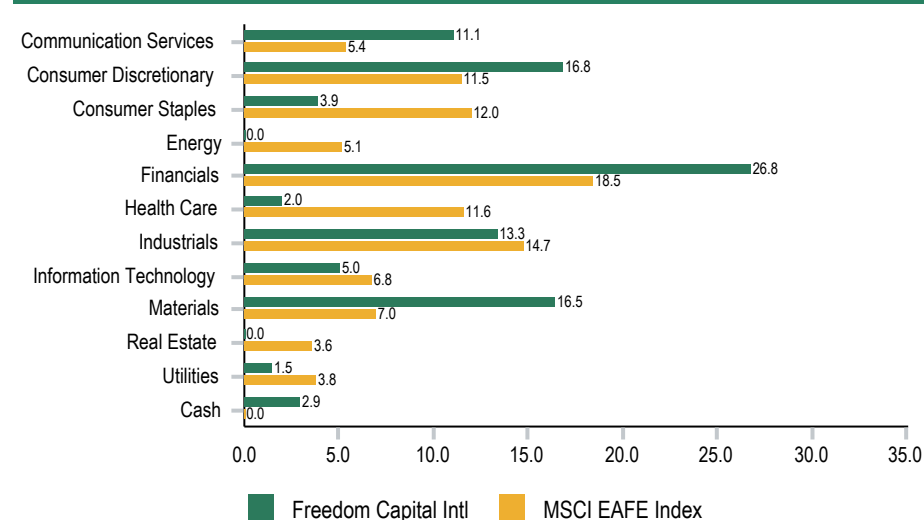
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	34,331,143,143	63,390,873,772
Median Mkt. Cap (\$)	11,789,912,495	10,158,726,312
Price/Earnings ratio	12.38	15.24
Price/Book ratio	1.82	2.30
5 Yr. EPS Growth Rate (%)	5.09	7.44
Current Yield (%)	3.96	3.52
Beta (5 Years, Monthly)	1.04	1.00
Number of Stocks	54	923

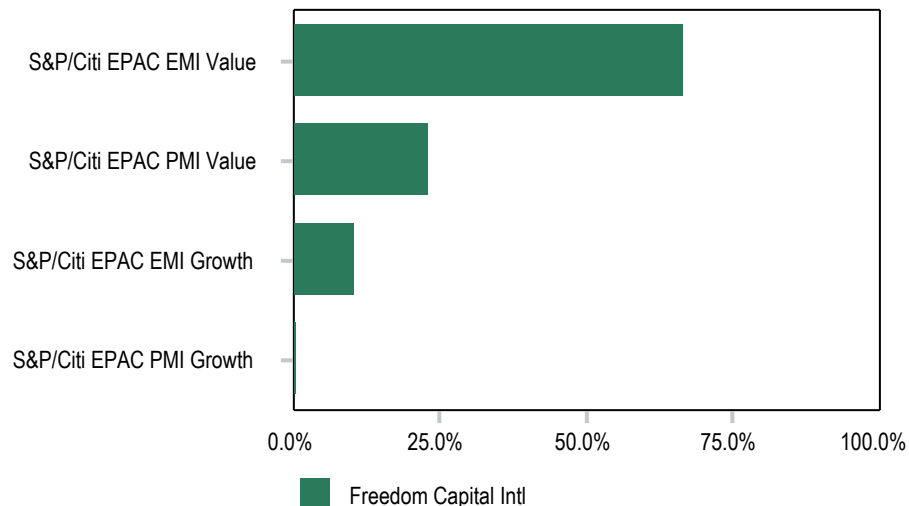
Distribution of Market Capitalization (%)



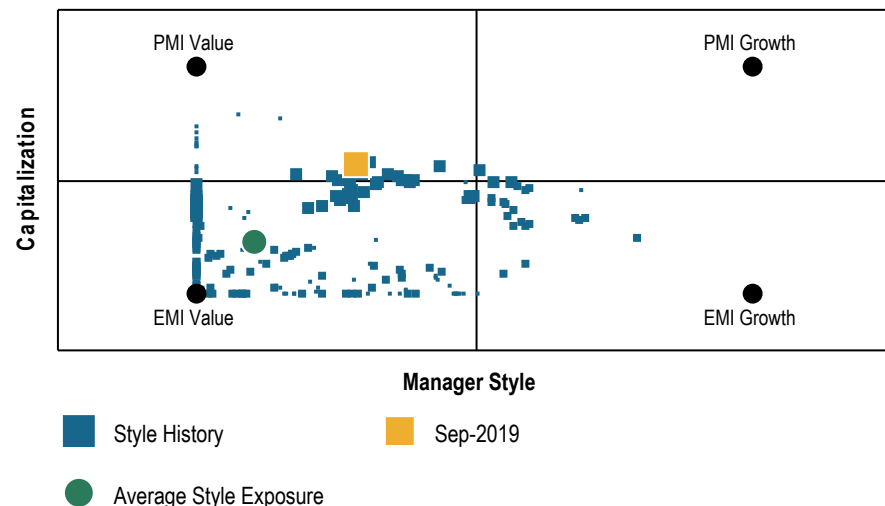
Sector Weights (%)



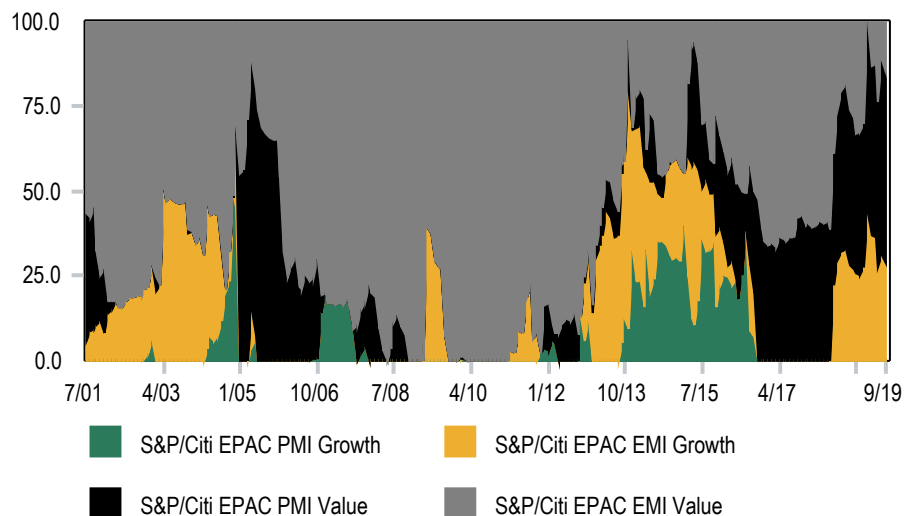
Investment Style Exposure



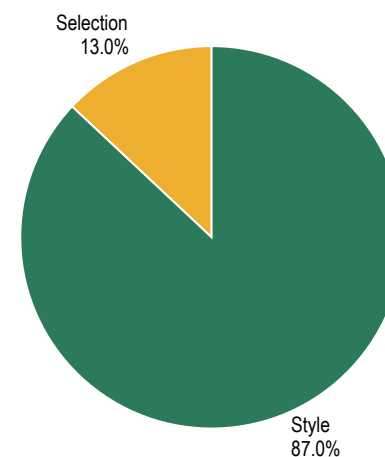
Style Map(ppp)

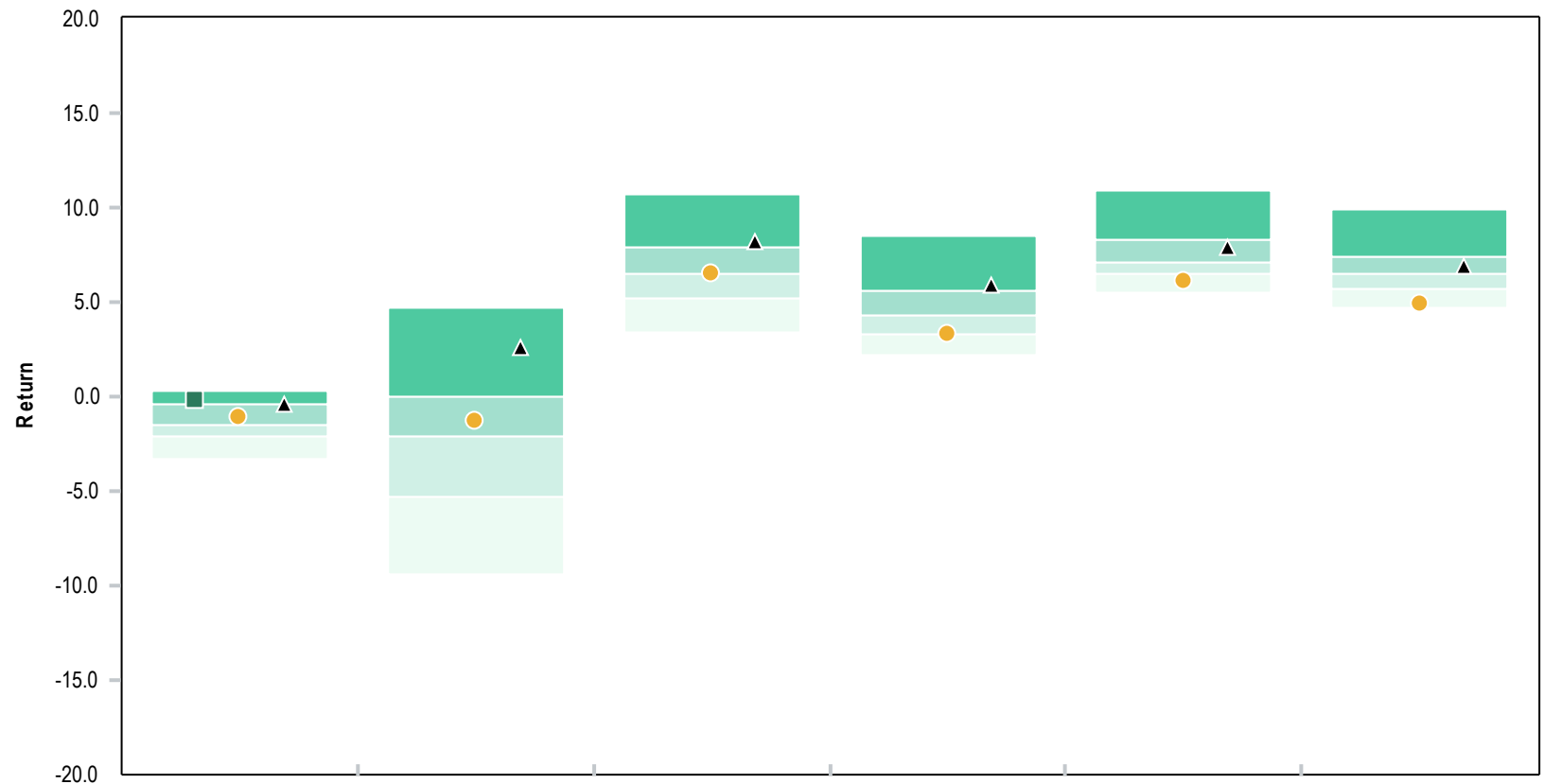


Style History(ppp)



Return Variance





	1 Qtr	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Fiera International Equity	-0.19 (19)	N/A	N/A	N/A	N/A	N/A
● MSCI EAFE (Net)	-1.07 (38)	-1.34 (42)	6.48 (49)	3.27 (75)	6.12 (83)	4.90 (93)
▲ MSCI EAFE Growth Index	-0.40 (25)	2.64 (11)	8.19 (23)	5.90 (24)	7.88 (34)	6.91 (34)

5th Percentile	0.31	4.72	10.72	8.51	10.89	9.92
1st Quartile	-0.44	0.01	7.93	5.61	8.33	7.36
Median	-1.46	-2.14	6.45	4.29	7.08	6.49
3rd Quartile	-2.13	-5.25	5.23	3.25	6.51	5.67
95th Percentile	-3.28	-9.38	3.43	2.25	5.51	4.67

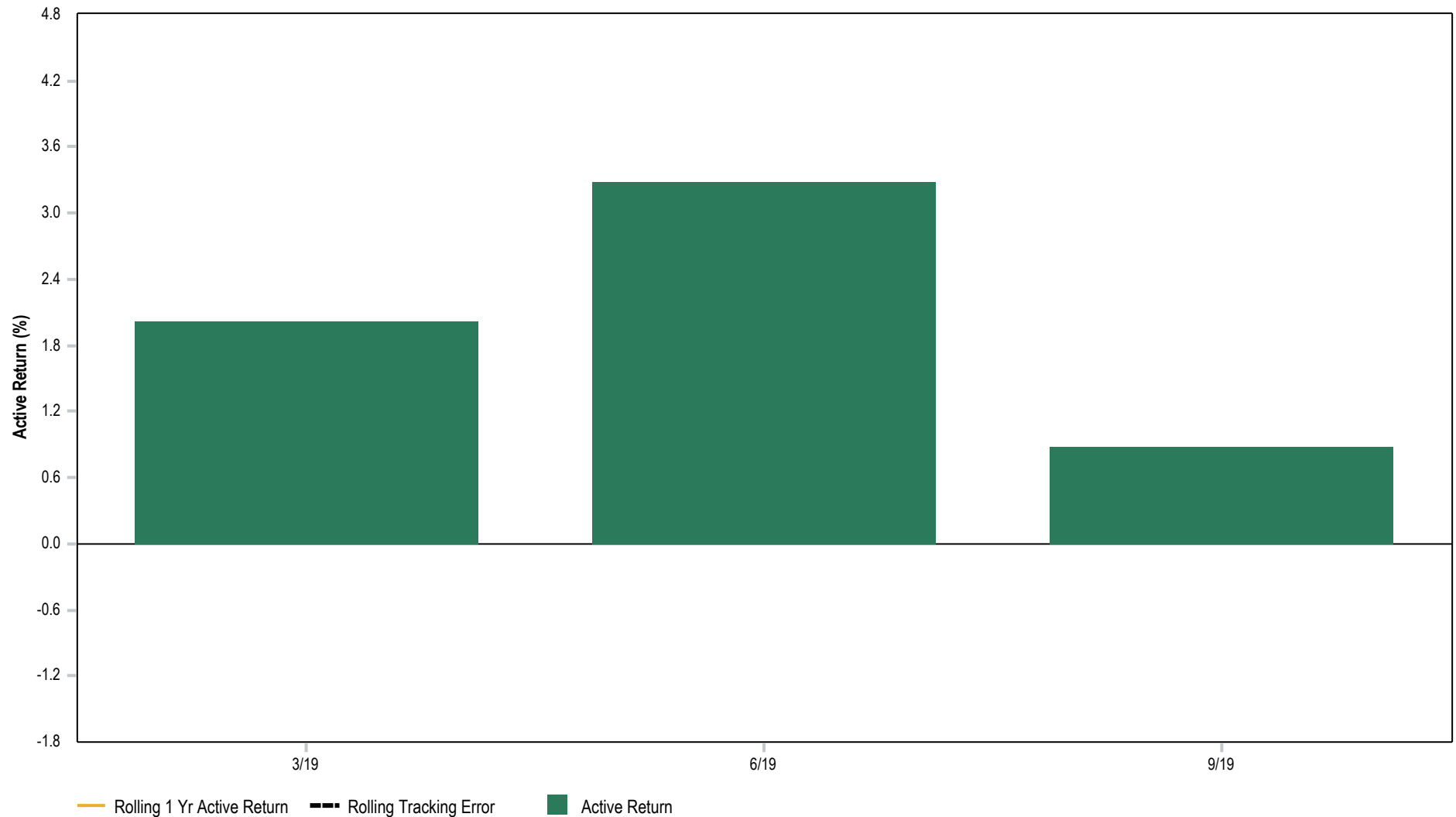
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Fiera International Equity	-0.19	19.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI EAFE (Net)	-1.07	12.80	-1.34	6.48	3.27	6.12	4.90	-13.79	25.03	1.00	-0.81
Difference	0.88	6.76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



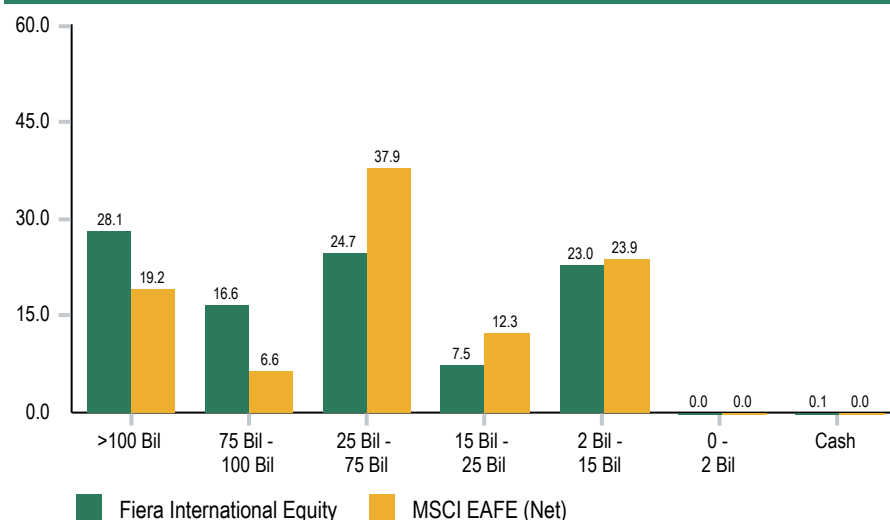
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Keyence Corp	6.28	0.41	5.87	1.03
Nestle SA, Cham Und Vevey	5.46	2.41	3.05	4.79
Unilever PLC	4.68	0.48	4.20	-2.27
L'Oreal S.A., Paris	4.38	0.51	3.87	-1.73
Taiwan Semiconductor	4.34	0.00	4.34	19.51
Roche Holding AG	4.25	1.48	2.77	3.42
Diageo PLC	4.20	0.71	3.49	-3.47
Intercontinental Hotels Group PLC	4.02	0.08	3.94	-4.41
IHS Markit Ltd	3.88	0.00	3.88	4.96
Schindler Holding AG, Hergiswil	3.78	0.07	3.71	0.45
% of Portfolio	45.27	6.15	39.12	

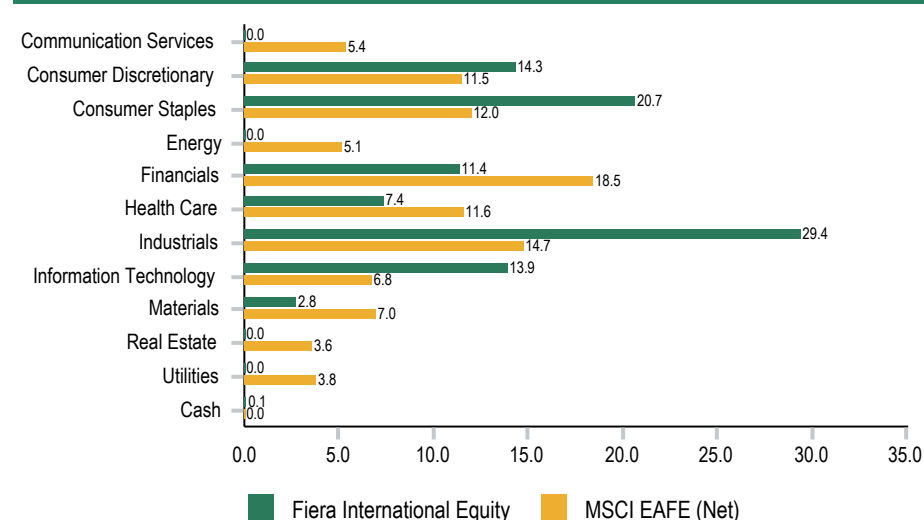
Portfolio Characteristics

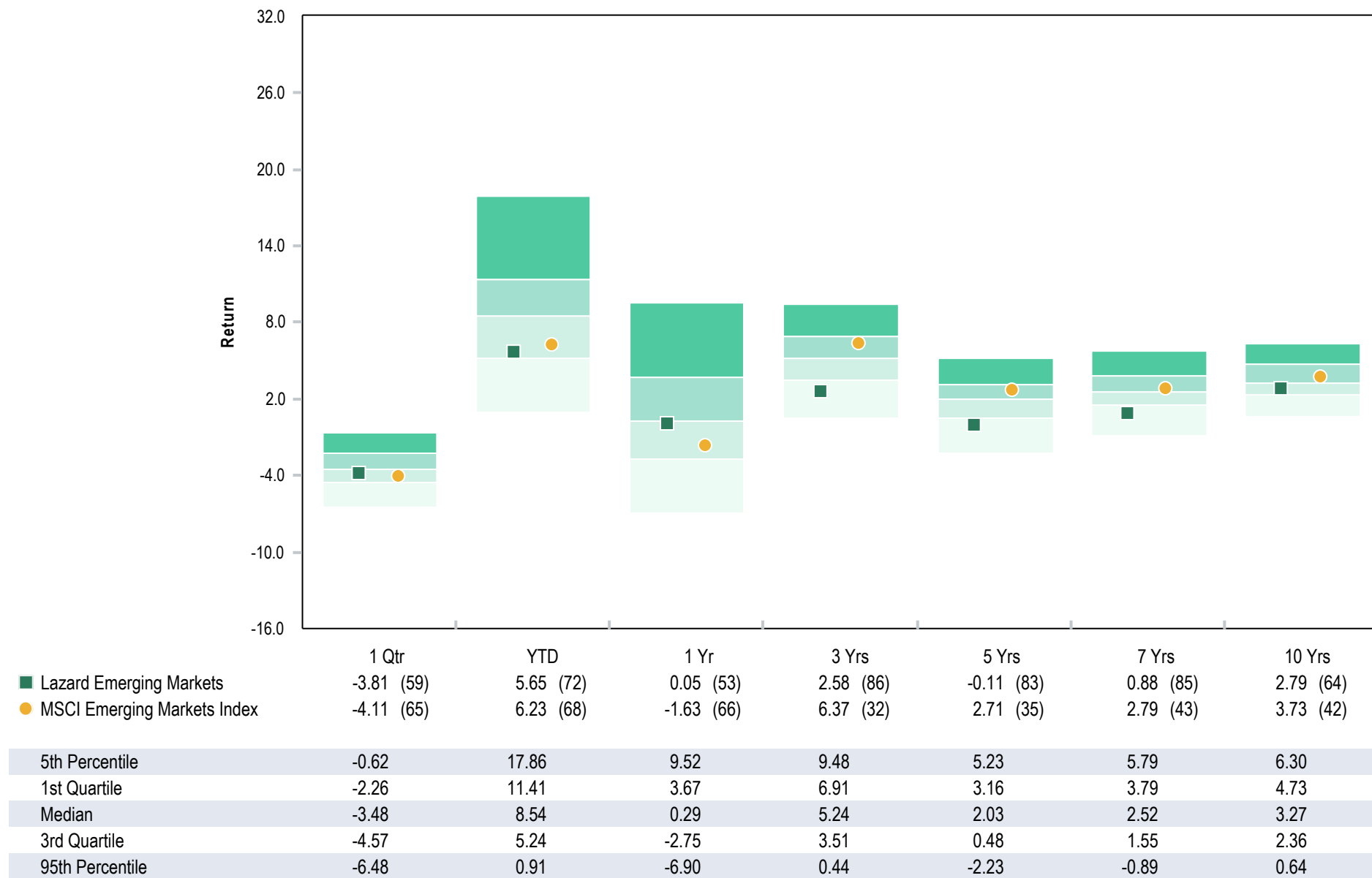
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	83,240,678,782	63,390,873,772
Median Mkt. Cap (\$)	33,973,934,522	10,158,726,312
Price/Earnings ratio	26.26	15.24
Price/Book ratio	4.40	2.30
5 Yr. EPS Growth Rate (%)	7.98	7.44
Current Yield (%)	2.17	3.52
Beta	N/A	1.00
Number of Stocks	33	923

Distribution of Market Capitalization (%)

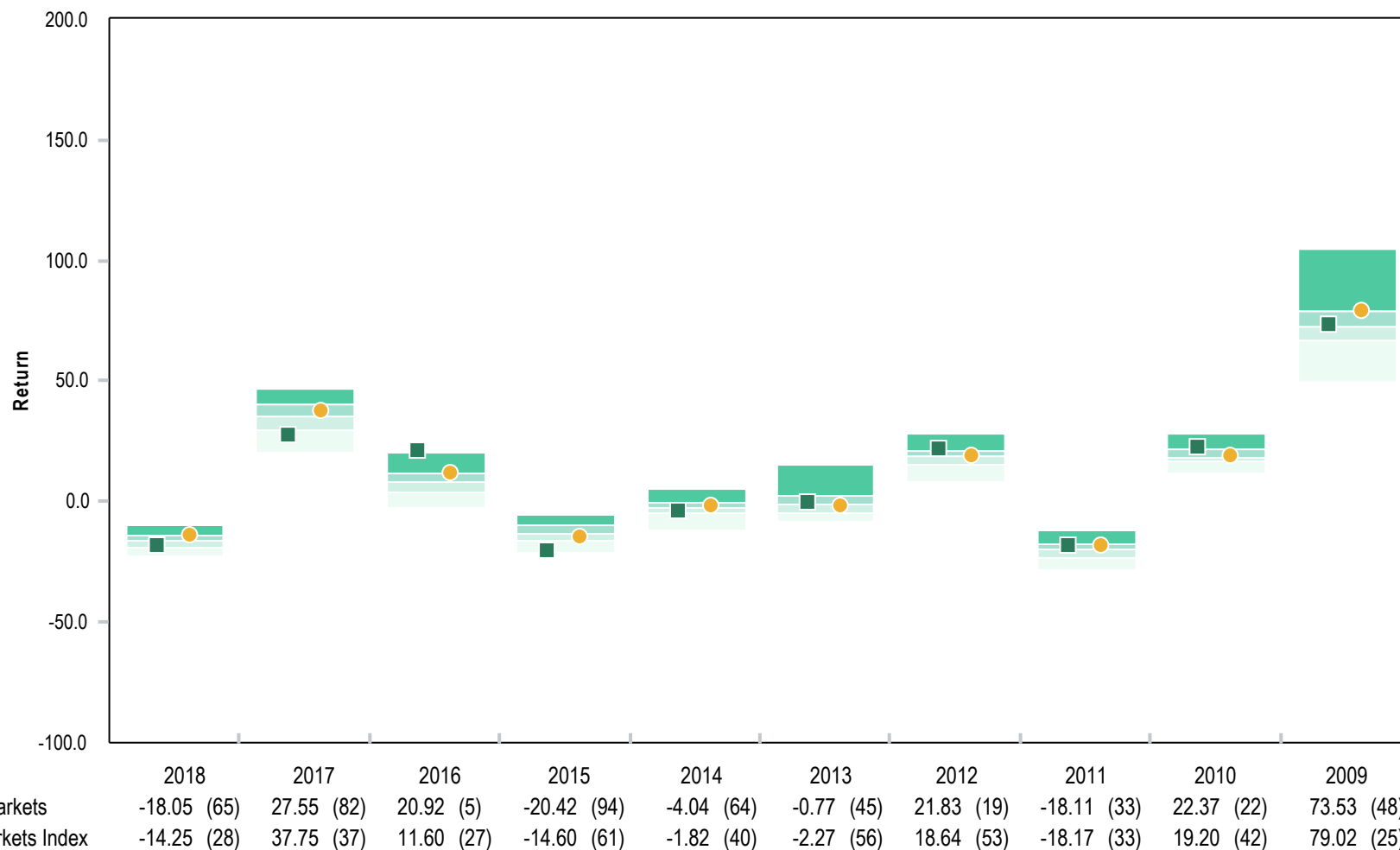


Sector Weights (%)



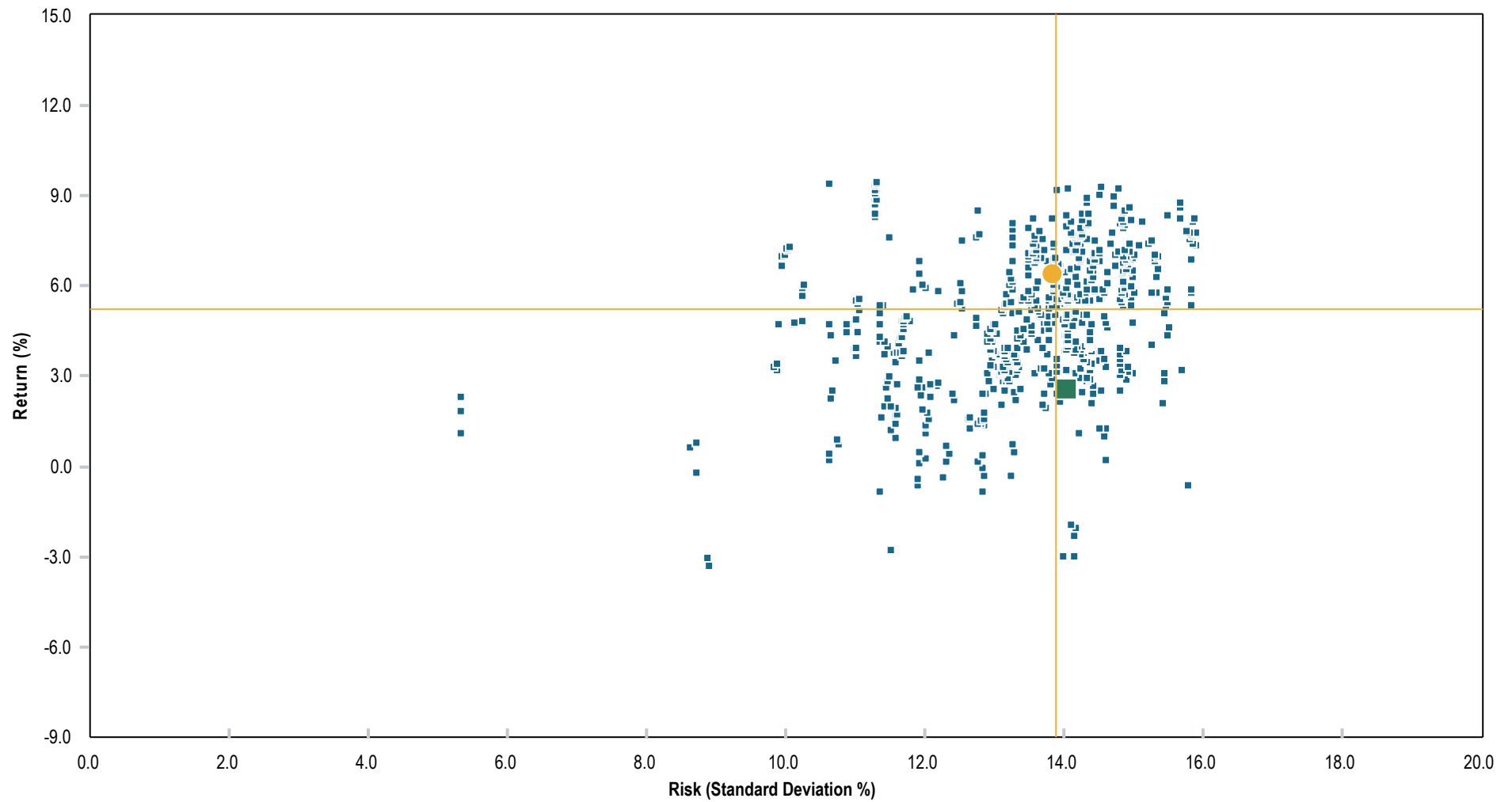


Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



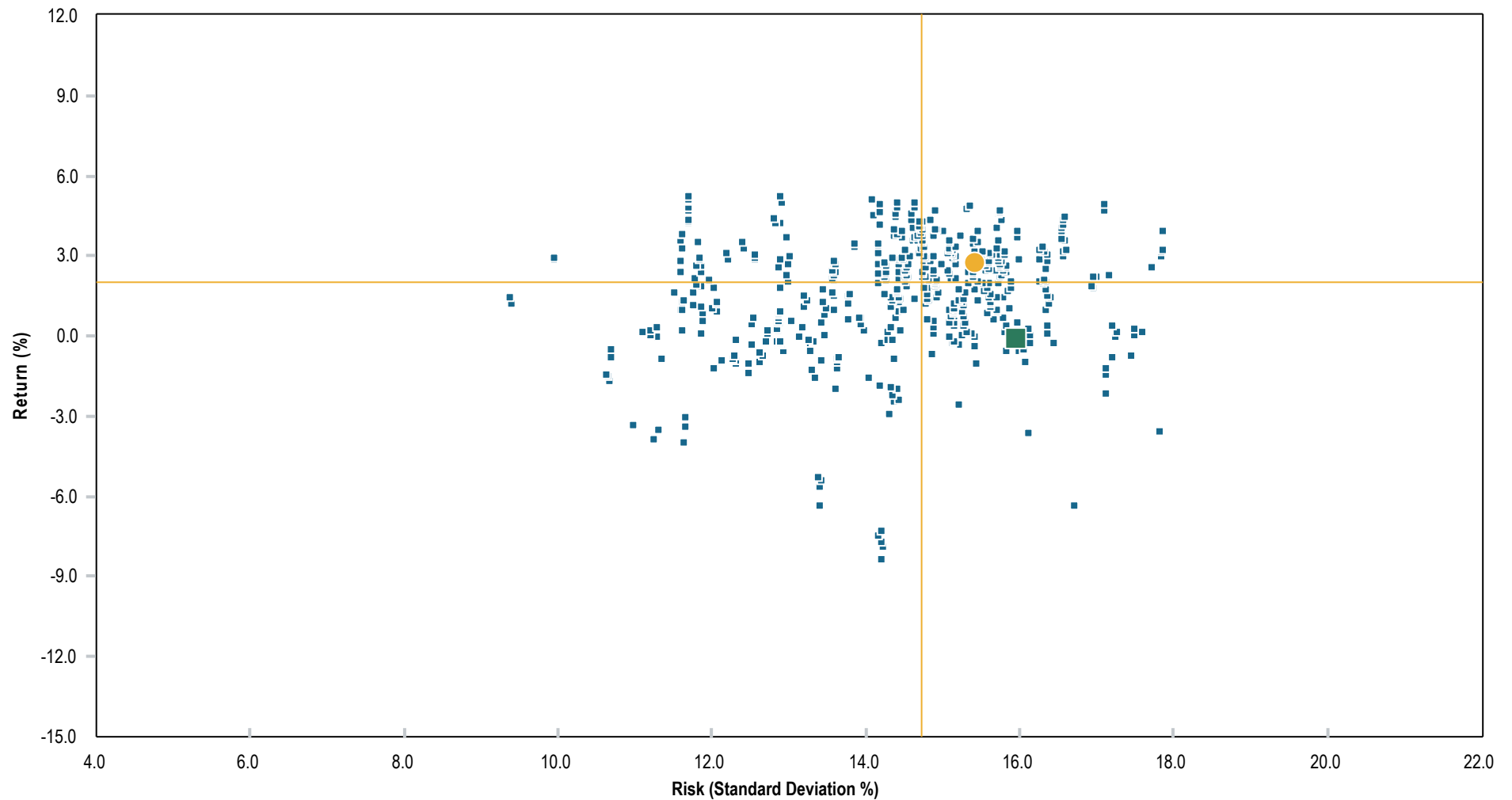
5th Percentile	-9.65	46.64	20.18	-5.77	5.49	15.49	28.18	-11.88	28.16	104.42
1st Quartile	-14.01	40.40	11.80	-9.95	-0.22	2.73	20.70	-17.42	21.85	78.94
Median	-16.40	35.37	8.35	-13.66	-2.92	-1.42	18.78	-19.51	18.32	72.67
3rd Quartile	-19.02	29.42	4.00	-16.19	-5.04	-4.73	15.35	-23.06	16.42	66.89
95th Percentile	-22.61	20.51	-2.69	-20.93	-11.68	-8.28	8.26	-28.12	11.42	49.83

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Lazard Emerging Markets	2.58	14.04
● MSCI Emerging Markets Index	6.37	13.85
— Median	5.24	13.89

Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Lazard Emerging Markets	-0.11	15.96
● MSCI Emerging Markets Index	2.71	15.43
— Median	2.03	14.73

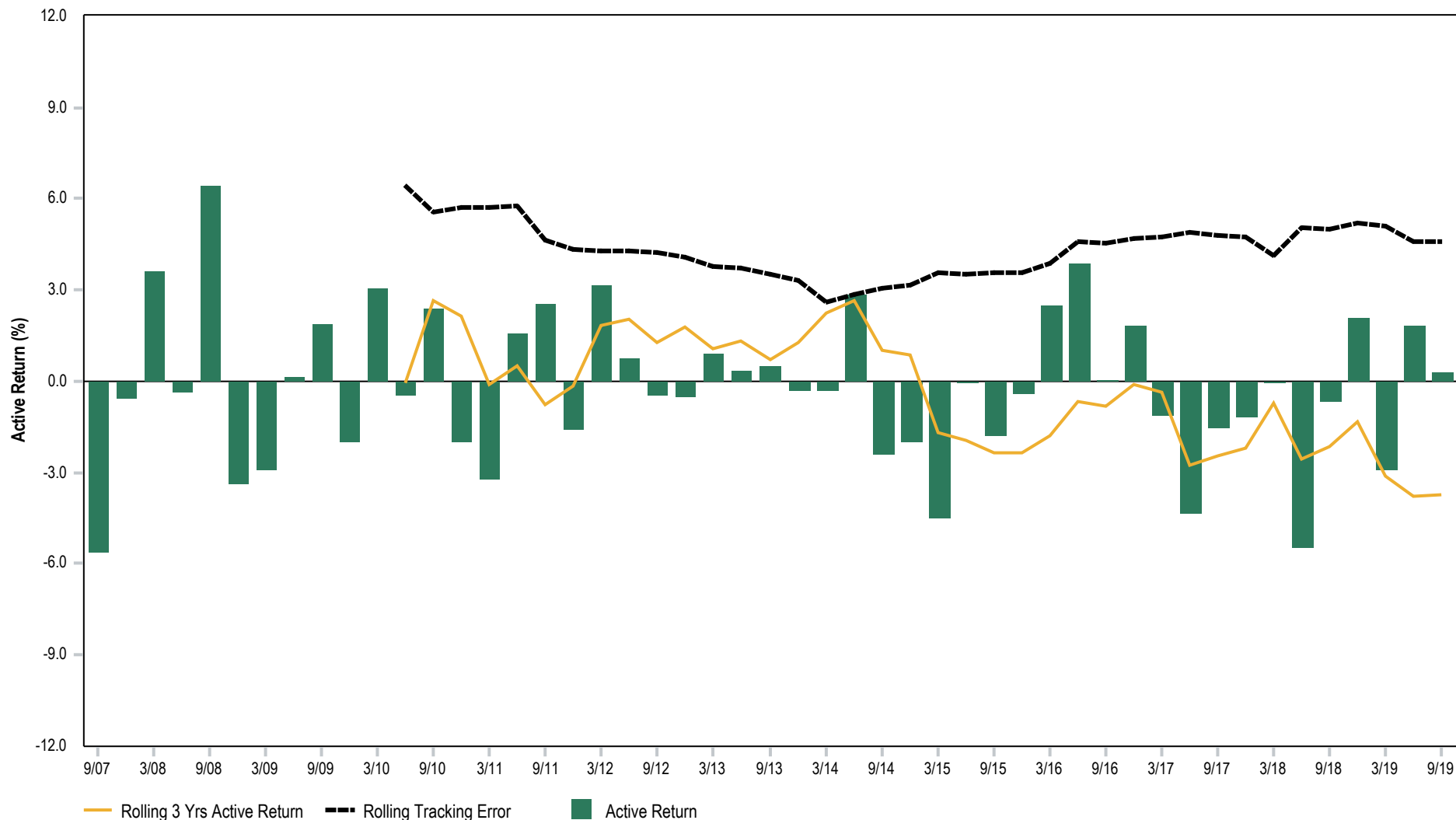
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Lazard Emerging Markets	-3.81	5.65	0.05	2.58	-0.11	0.88	2.79	-18.05	27.55	20.92	-20.42
MSCI Emerging Markets Index	-4.11	6.23	-1.63	6.37	2.71	2.79	3.73	-14.25	37.75	11.60	-14.60
Difference	0.30	-0.58	1.68	-3.79	-2.82	-1.91	-0.94	-3.80	-10.20	9.32	-5.82



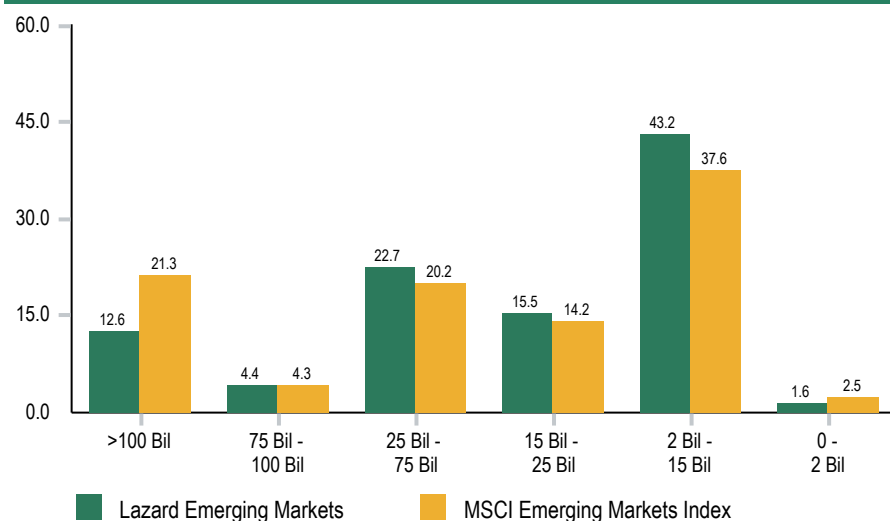
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
China Construction Bank Corp	5.54	1.37	4.17	-6.65
SK Hynix Inc	3.50	0.70	2.80	14.17
Netease Inc	3.36	0.35	3.01	4.51
Banco Do Brasil SA Bb Brasil	3.26	0.18	3.08	-21.46
Taiwan Semiconductor Manuf	3.26	4.03	-0.77	14.45
Sberbank of Russia OJSC	3.16	0.71	2.45	-7.29
America Movil SA De CV, Mexico	2.31	0.47	1.84	3.38
OTP Bank PLC	2.11	0.17	1.94	4.61
Shinhan Financial Group Co Ltd	2.04	0.29	1.75	-10.13
PT Bank Mandiri (Persero) TBK	2.04	0.17	1.87	-13.44
% of Portfolio	30.58	8.44	22.14	

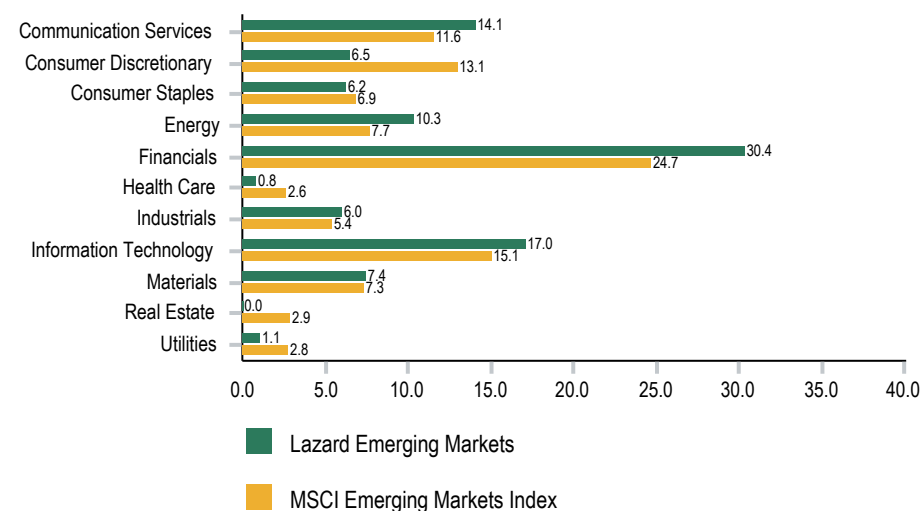
Portfolio Characteristics

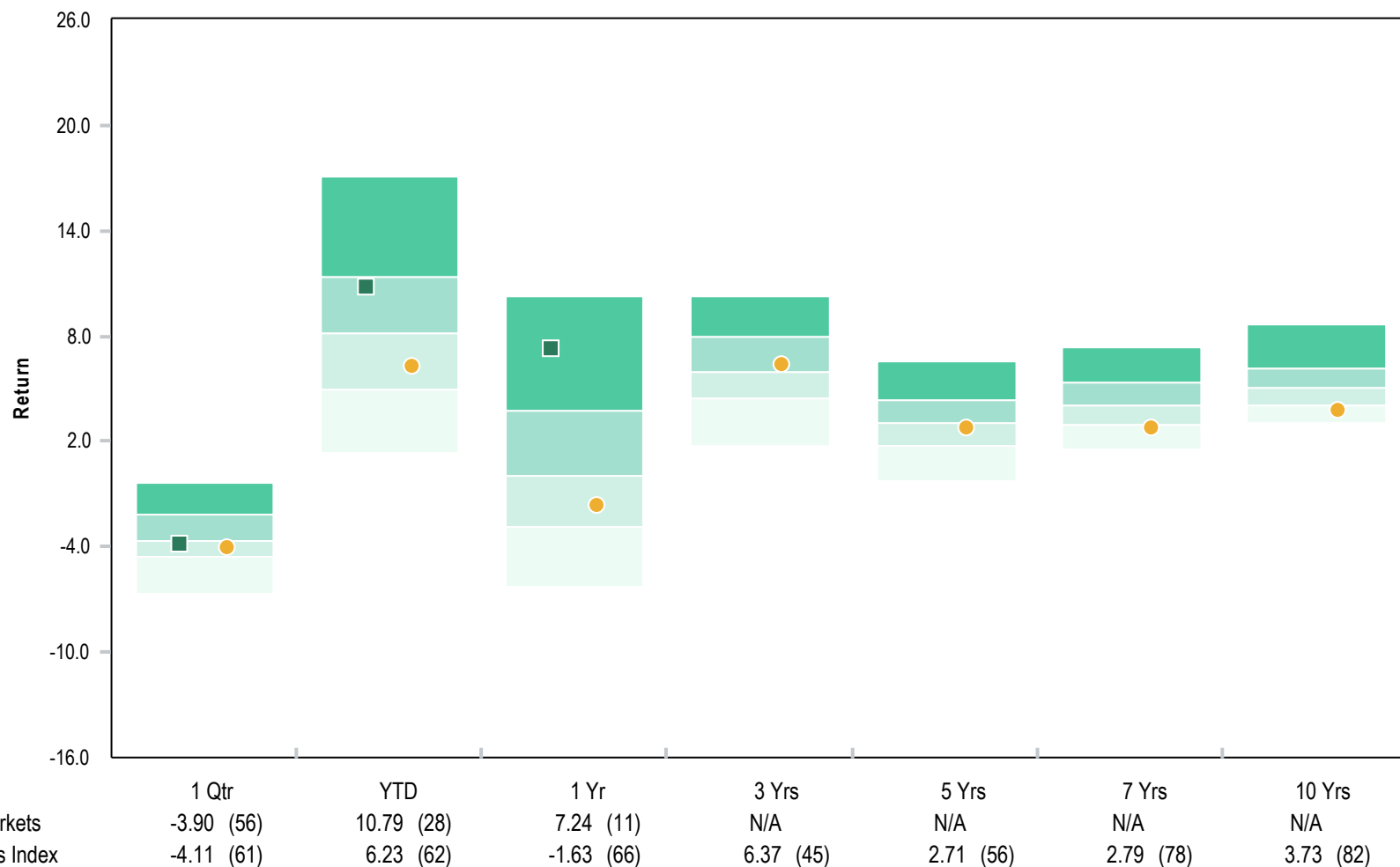
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	41,801,837,474	79,063,969,619
Median Mkt. Cap (\$)	11,898,060,490	5,158,258,199
Price/Earnings ratio	9.74	12.70
Price/Book ratio	2.28	2.32
5 Yr. EPS Growth Rate (%)	6.44	11.62
Current Yield (%)	4.29	3.01
Beta (5 Years, Monthly)	0.98	1.00
Number of Stocks	76	1,202

Distribution of Market Capitalization (%)



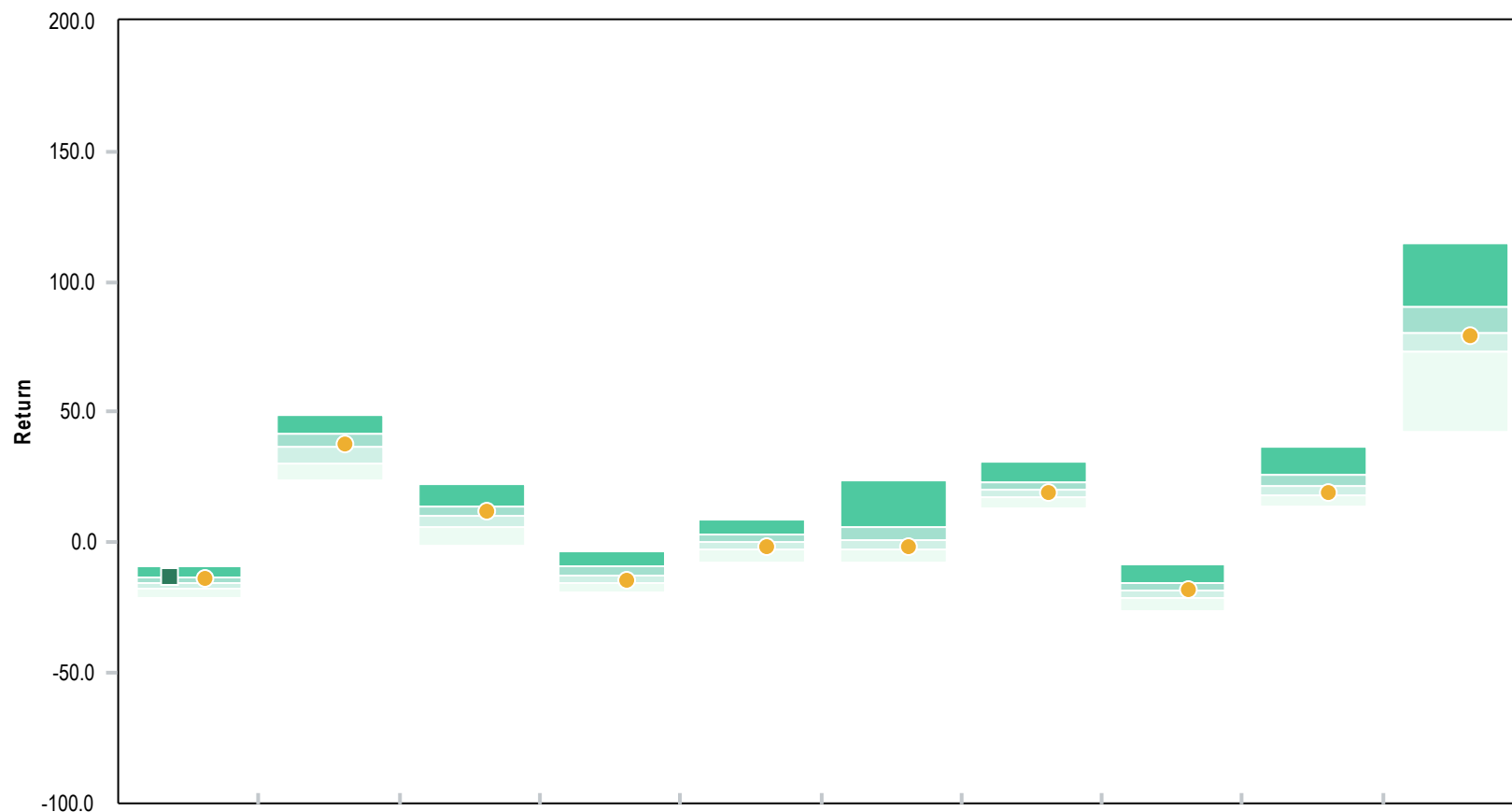
Sector Weights (%)





5th Percentile	-0.39	17.09	10.28	10.28	6.59	7.38	8.66
1st Quartile	-2.16	11.41	3.70	7.98	4.36	5.34	6.18
Median	-3.64	8.12	0.05	5.96	3.07	4.09	5.01
3rd Quartile	-4.58	4.94	-2.84	4.40	1.79	2.95	4.04
95th Percentile	-6.65	1.32	-6.31	1.73	-0.31	1.54	3.02

Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ Aberdeen Emerging Markets	-13.65 (30)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
● MSCI Emerging Markets Index	-14.25 (36)	37.75 (42)	11.60 (40)	-14.60 (67)	-1.82 (70)	-2.27 (74)	18.64 (68)	-18.17 (51)	19.20 (70)	79.02 (56)

5th Percentile	-9.00	49.15	22.50	-3.14	9.17	23.63	30.69	-8.18	36.52	114.71
1st Quartile	-13.34	41.78	13.57	-9.30	3.11	5.78	23.15	-15.65	25.82	90.14
Median	-15.24	36.81	10.32	-12.64	-0.09	0.98	20.52	-18.06	21.86	80.18
3rd Quartile	-17.48	30.33	6.32	-15.32	-2.46	-2.63	17.27	-21.45	18.32	73.12
95th Percentile	-21.45	23.82	-0.95	-19.08	-7.38	-7.34	12.83	-26.01	13.74	42.21

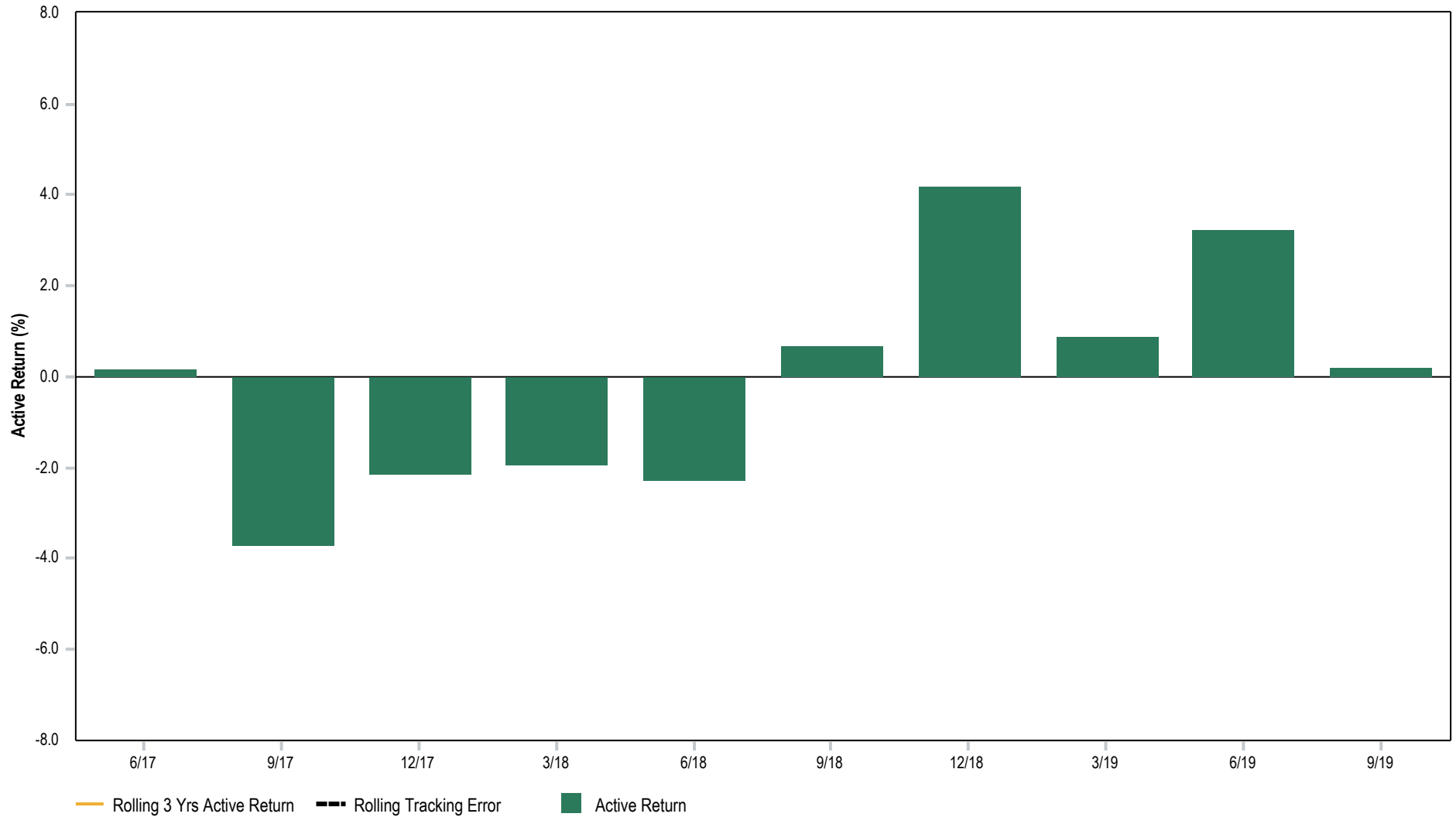
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Aberdeen Emerging Markets	-3.90	10.79	7.24	N/A	N/A	N/A	N/A	-13.65	N/A	N/A	N/A
MSCI Emerging Markets Index	-4.11	6.23	-1.63	6.37	2.71	2.79	3.73	-14.25	37.75	11.60	-14.60
Difference	0.21	4.56	8.87	N/A	N/A	N/A	N/A	0.60	N/A	N/A	N/A



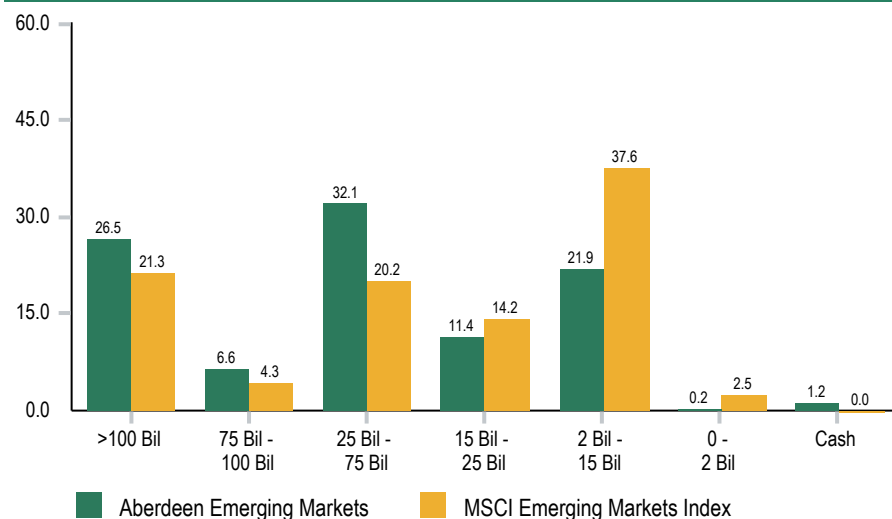
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Tencent Holdings LTD	5.89	4.49	1.40	-6.71
Samsung Electronics Co Ltd	5.79	0.51	5.28	0.59
Taiwan Semiconductor Manuf	5.79	4.03	1.76	14.45
Housing Development Finance Corp Ltd	4.13	0.86	3.27	-11.35
Ping An Insurance Group	3.89	1.20	2.69	-3.49
Banco Bradesco Sa Brad	3.35	0.17	3.18	-16.53
AIA Group Ltd	2.70	0.00	2.70	-12.08
Kotak Mahindra Bank Ltd	2.48	0.00	2.48	8.66
China Resources Land Ltd	2.22	0.22	2.00	-4.44
Fomento Economico Mexican SAB	2.13	0.33	1.80	-5.34
% of Portfolio	38.37	11.81	26.56	

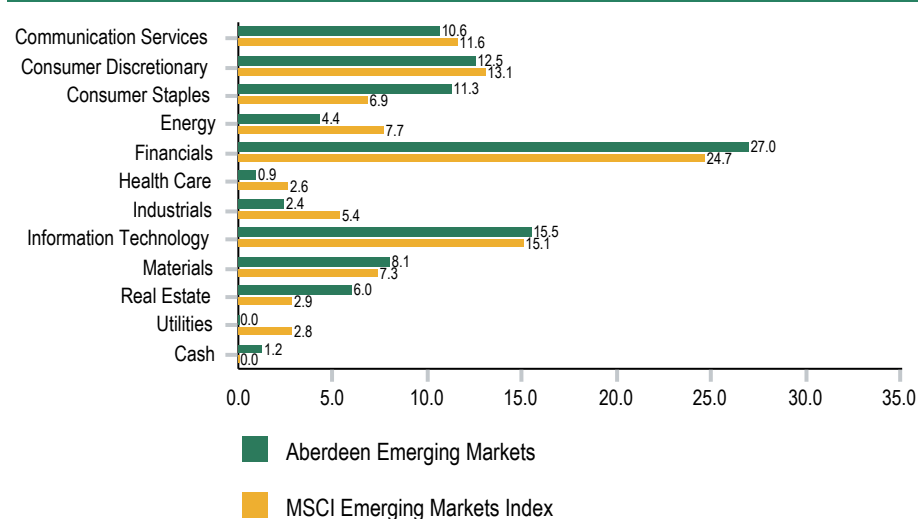
Portfolio Characteristics

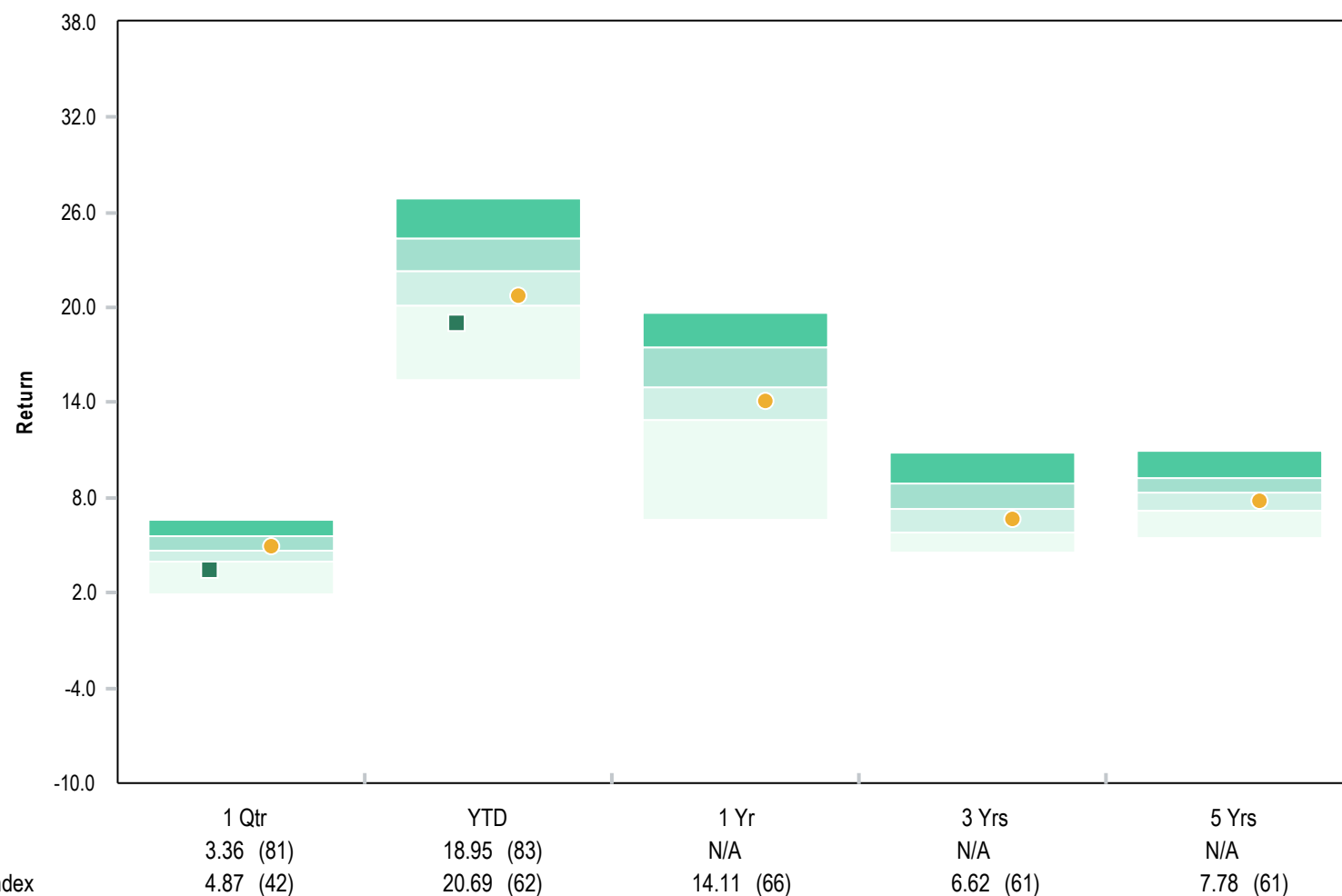
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	69,159,675,079	79,063,969,619
Median Mkt. Cap (\$)	19,318,487,133	5,158,258,199
Price/Earnings ratio	16.23	12.70
Price/Book ratio	2.69	2.32
5 Yr. EPS Growth Rate (%)	13.68	11.62
Current Yield (%)	2.10	3.01
Beta	N/A	1.00
Number of Stocks	63	1,202

Distribution of Market Capitalization (%)



Sector Weights (%)





5th Percentile	6.63	26.94	19.70	10.86	10.94
1st Quartile	5.63	24.38	17.47	8.87	9.25
Median	4.65	22.26	14.93	7.26	8.37
3rd Quartile	3.95	20.15	12.95	5.85	7.20
95th Percentile	1.86	15.38	6.55	4.50	5.48

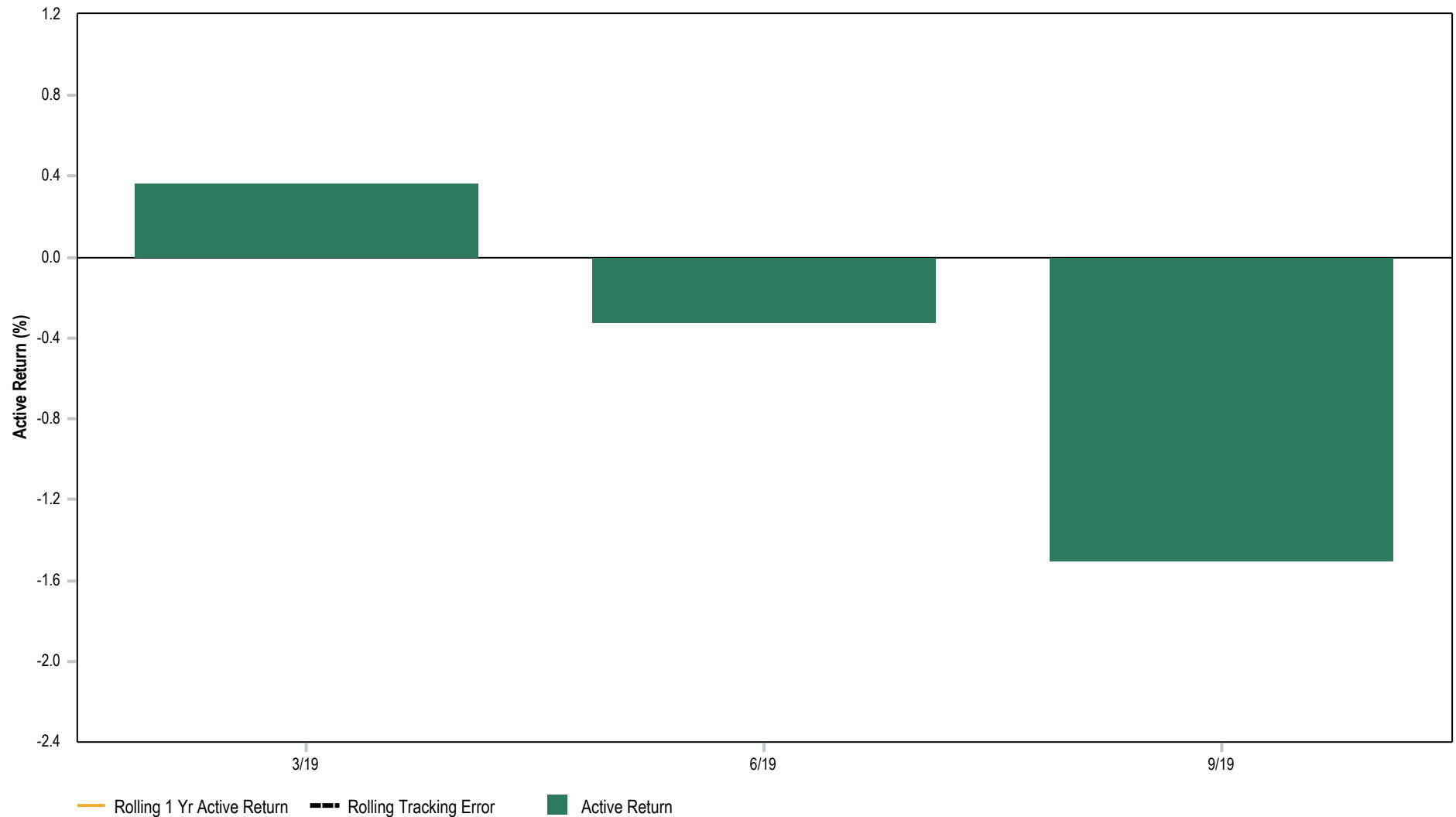
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

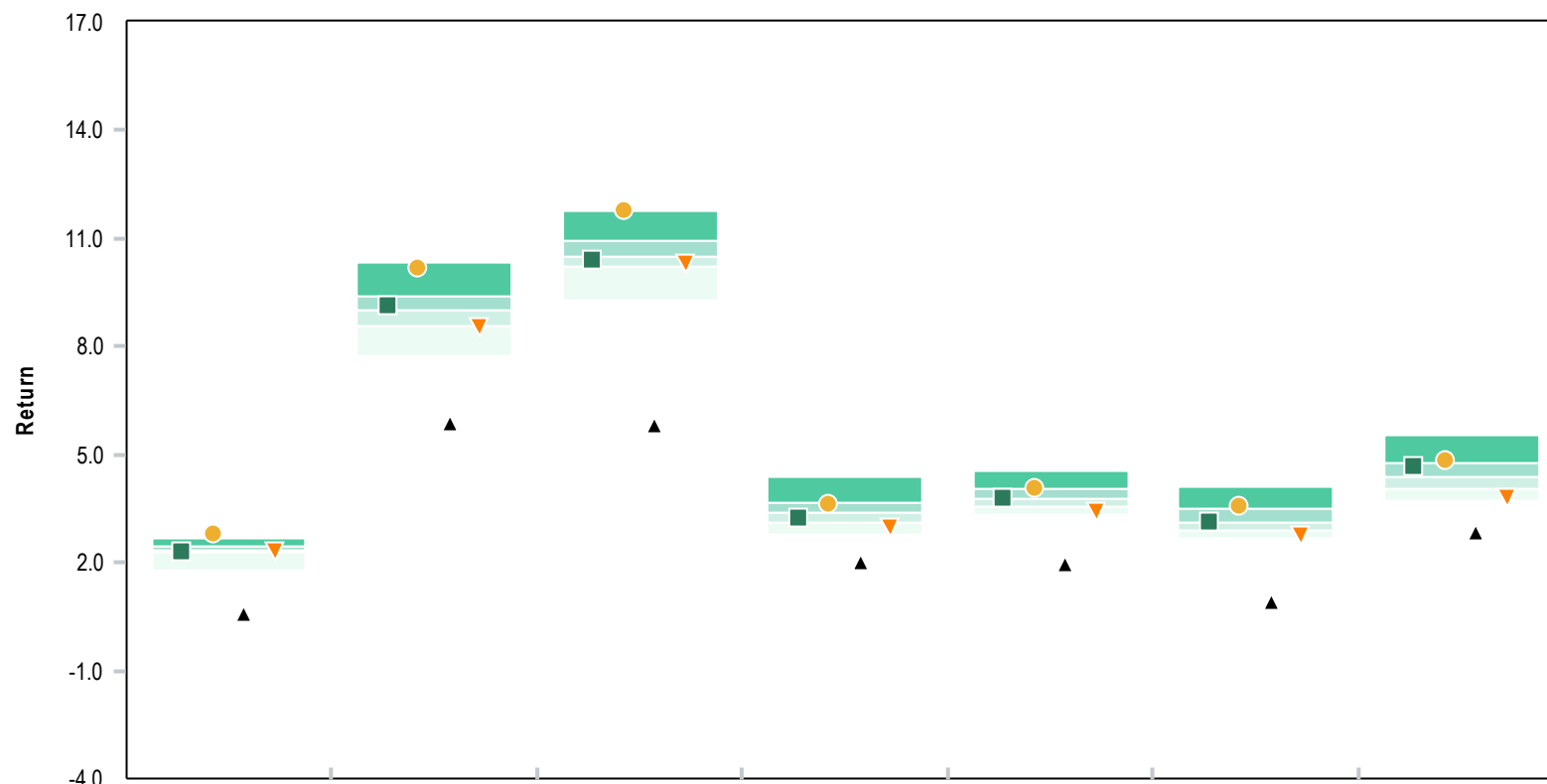
Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Brookfield Global Real Estate	3.36	18.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FTSE EPRA/NAREIT Developed Index	4.87	20.69	14.11	6.62	7.78	8.07	9.50	-4.74	11.42	4.99	0.05
Difference	-1.51	-1.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Domestic Fixed Income



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Domestic Fixed	2.26 (75)	9.14 (42)	10.39 (58)	3.22 (65)	3.77 (50)	3.12 (52)	4.65 (30)
● Income Research & Management	2.76 (4)	10.17 (6)	11.74 (5)	3.63 (29)	4.07 (22)	3.57 (19)	4.80 (22)
▲ IRM-TIPS	0.59 (99)	5.84 (99)	5.81 (99)	2.03 (100)	1.98 (100)	0.92 (100)	2.82 (100)
▼ Barclays Aggregate	2.27 (73)	8.52 (83)	10.30 (70)	2.92 (92)	3.38 (91)	2.72 (92)	3.75 (94)

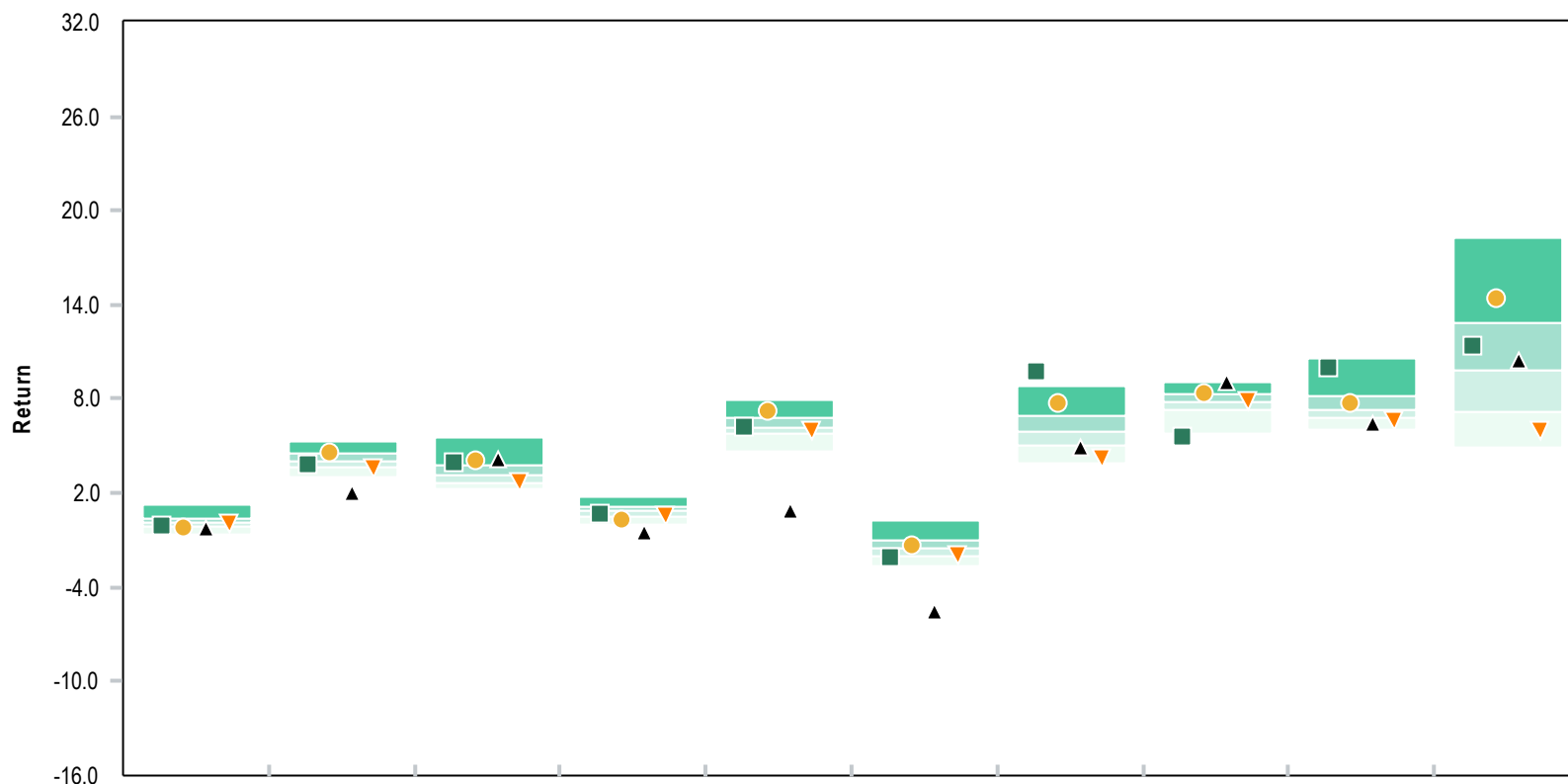
5th Percentile	2.68	10.30	11.74	4.35	4.54	4.08	5.55
1st Quartile	2.46	9.38	10.93	3.67	4.03	3.49	4.74
Median	2.34	9.01	10.48	3.38	3.76	3.13	4.37
3rd Quartile	2.26	8.58	10.24	3.09	3.53	2.87	4.04
95th Percentile	1.80	7.73	9.30	2.80	3.31	2.69	3.73

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

IM U.S. Broad Market Core Fixed Income (SA+CF)

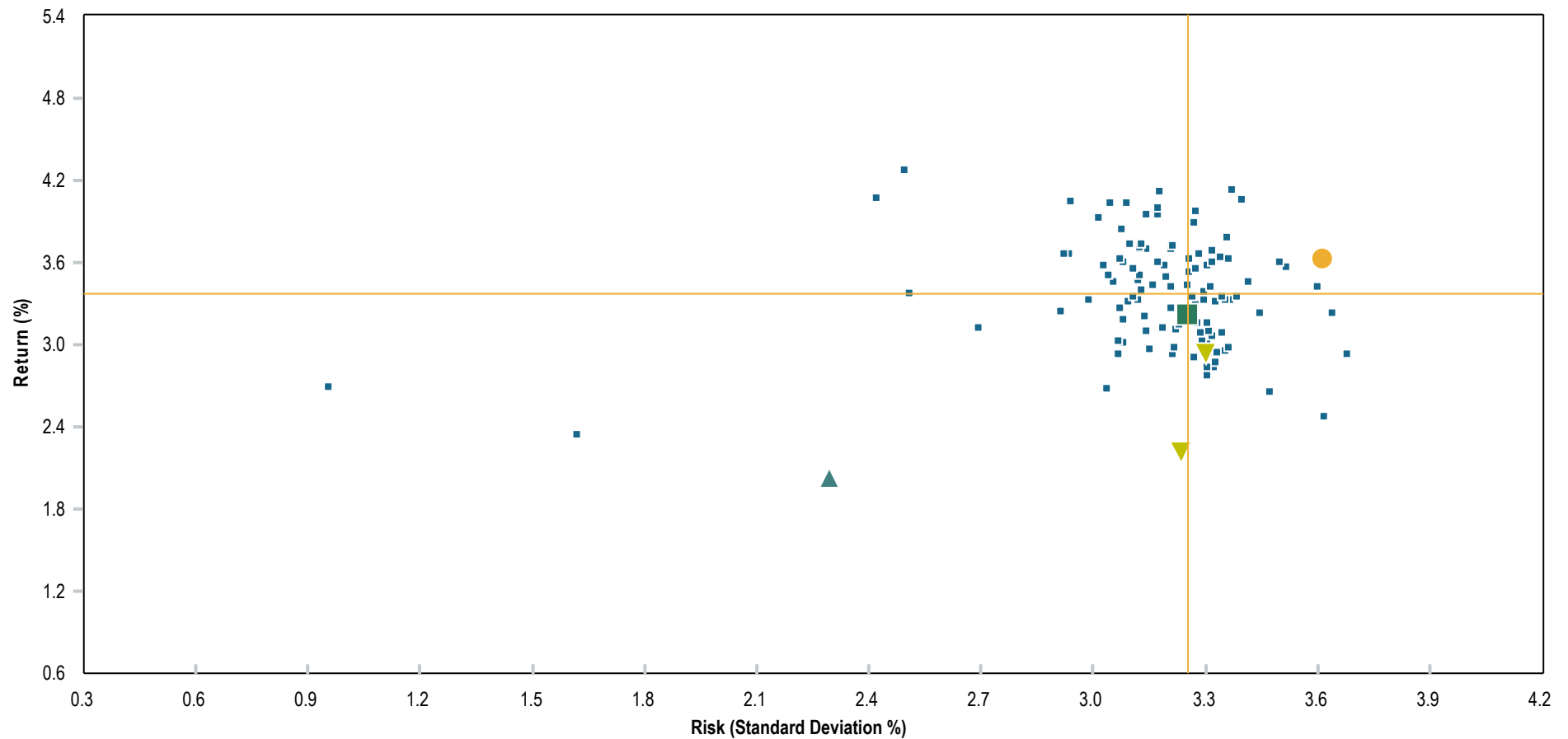
As of September 30, 2019



Total Domestic Fixed	-0.08 (69)	3.82 (63)	3.86 (25)	0.66 (65)	6.15 (52)	-2.14 (82)	9.73 (5)	5.49 (97)	9.95 (8)	11.40 (36)
Income Research & Management	-0.19 (79)	4.49 (28)	4.00 (21)	0.20 (87)	7.23 (10)	-1.39 (41)	7.70 (12)	8.31 (24)	7.71 (40)	14.40 (18)
IRM-TIPS	-0.26 (83)	1.97 (100)	4.11 (17)	-0.53 (98)	0.88 (100)	-5.54 (100)	4.96 (77)	9.08 (6)	6.41 (85)	10.49 (42)
Barclays Aggregate	0.01 (61)	3.54 (85)	2.65 (77)	0.55 (75)	5.97 (67)	-2.02 (74)	4.21 (91)	7.84 (51)	6.54 (83)	5.93 (89)

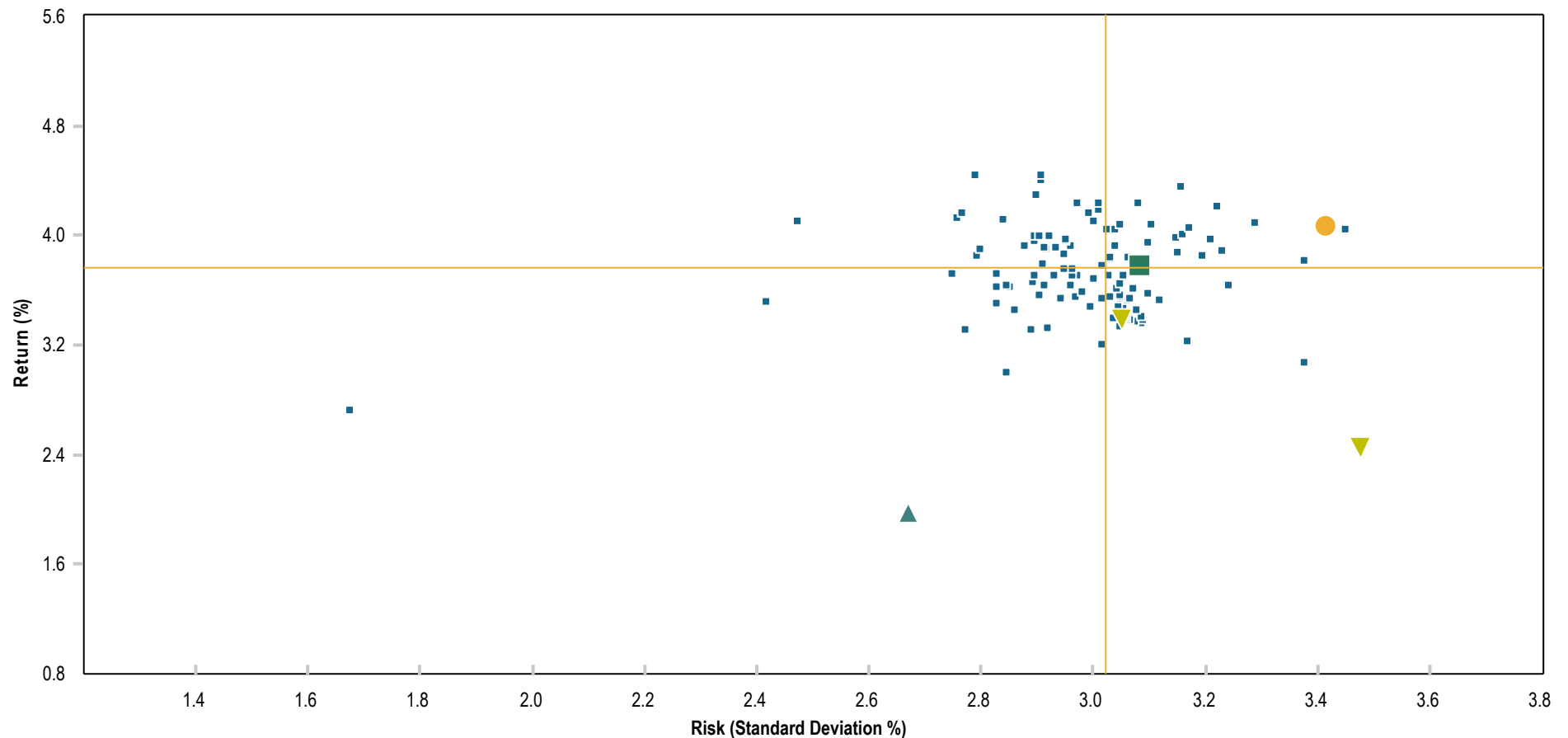
5th Percentile	1.21	5.29	5.60	1.74	7.90	0.21	8.80	9.12	10.60	18.28
1st Quartile	0.39	4.52	3.83	1.11	6.79	-1.01	6.95	8.25	8.16	12.85
Median	0.07	4.06	3.12	0.83	6.17	-1.56	5.90	7.84	7.25	9.88
3rd Quartile	-0.15	3.65	2.65	0.55	5.80	-2.05	5.09	7.25	6.75	7.19
95th Percentile	-0.67	3.07	2.23	-0.06	4.65	-2.65	3.85	5.75	6.03	4.86

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total Domestic Fixed	3.22	3.26
● Income Research & Management	3.63	3.62
▼ Barclays Aggregate	2.92	3.30
▲ IRM-TIPS	2.03	2.29
▼ Blmbg. Barc. U.S. TIPS	2.21	3.24
— Median	3.38	3.25

Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total Domestic Fixed	3.77	3.09
● Income Research & Management	4.07	3.41
▼ Barclays Aggregate	3.38	3.05
▲ IRM-TIPS	1.98	2.67
▼ Blmbg. Barc. U.S. TIPS	2.45	3.48
— Median	3.76	3.02

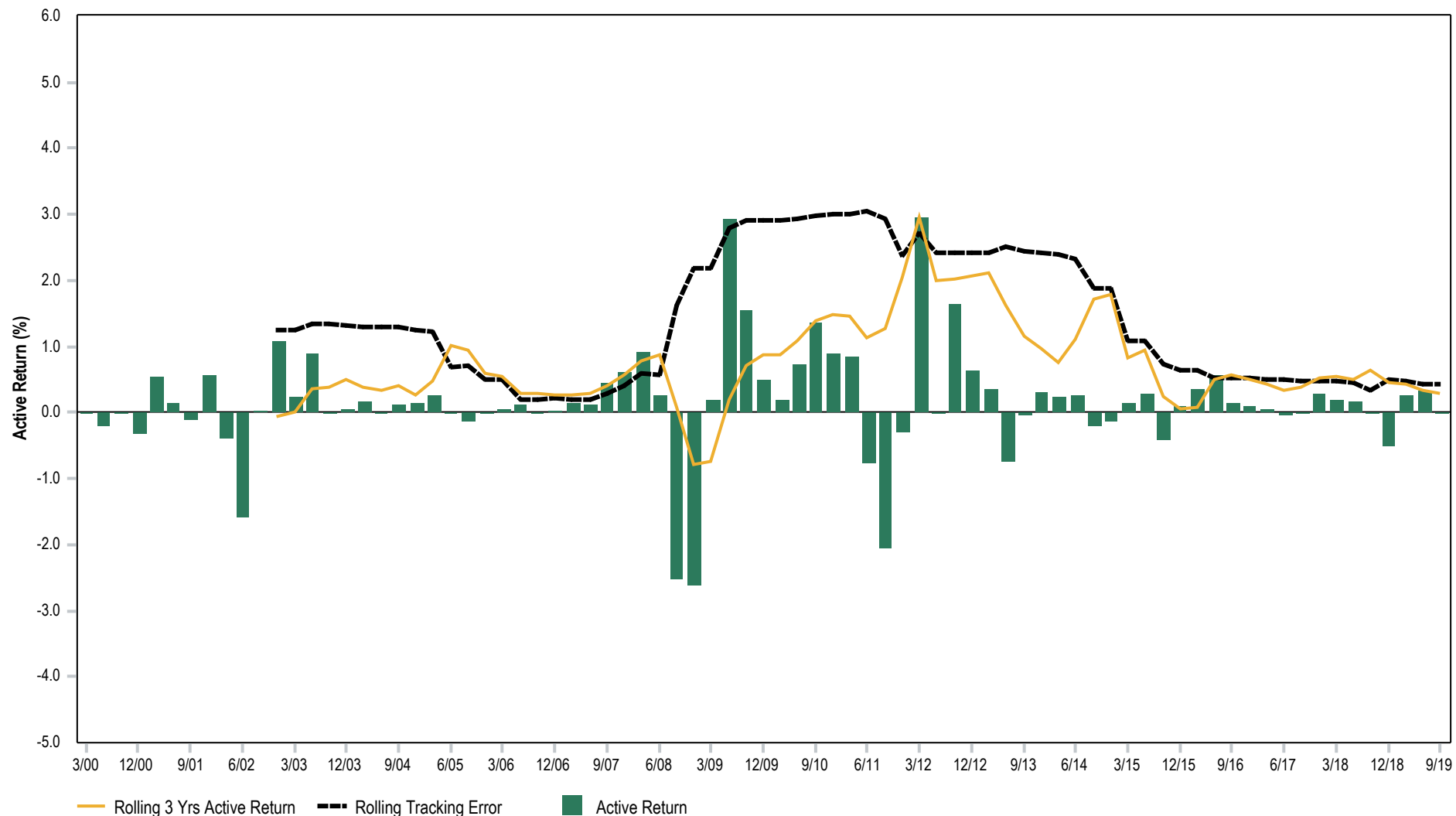
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Total Domestic Fixed	2.26	9.14	10.39	3.22	3.77	3.12	4.65	-0.08	3.82	3.86	0.66
Barclays Aggregate	2.27	8.52	10.30	2.92	3.38	2.72	3.75	0.01	3.54	2.65	0.55
Difference	-0.01	0.62	0.09	0.30	0.39	0.40	0.90	-0.09	0.28	1.21	0.11

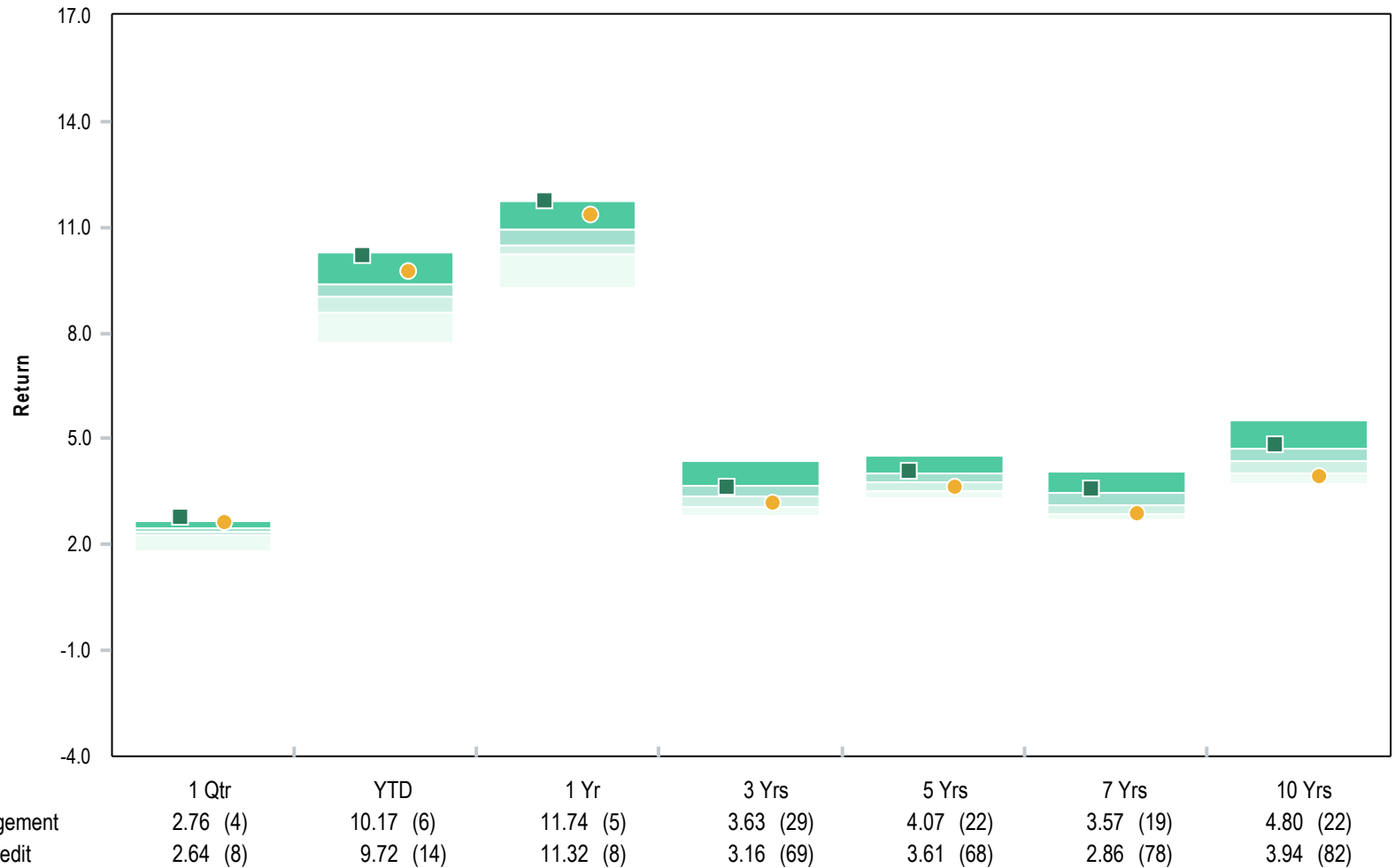


Gross of Fees

Bristol County Retirement System

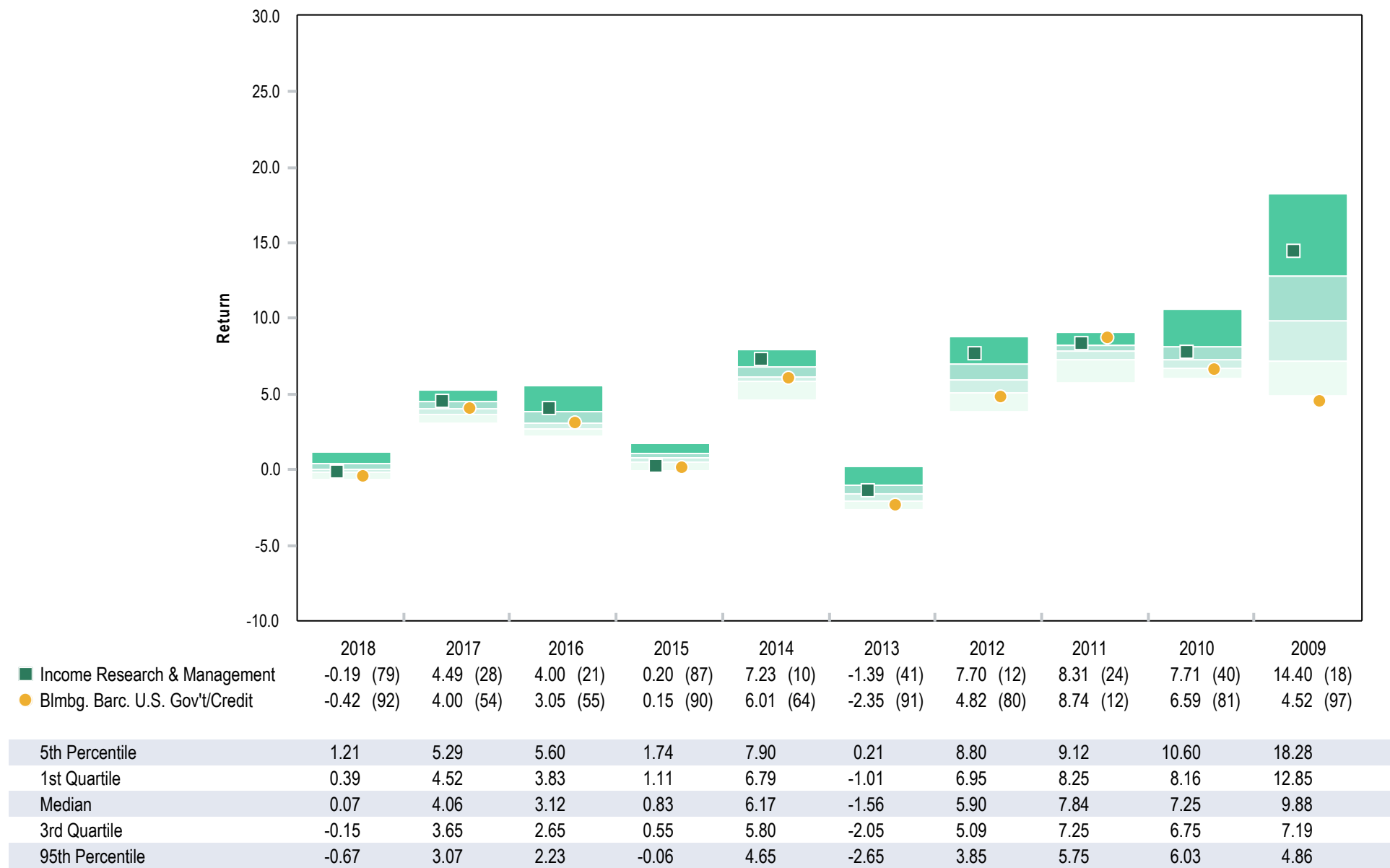
IM U.S. Broad Market Core Fixed Income (SA+CF)

As of September 30, 2019



5th Percentile	2.68	10.30	11.74	4.35	4.54	4.08	5.55
1st Quartile	2.46	9.38	10.93	3.67	4.03	3.49	4.74
Median	2.34	9.01	10.48	3.38	3.76	3.13	4.37
3rd Quartile	2.26	8.58	10.24	3.09	3.53	2.87	4.04
95th Percentile	1.80	7.73	9.30	2.80	3.31	2.69	3.73

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

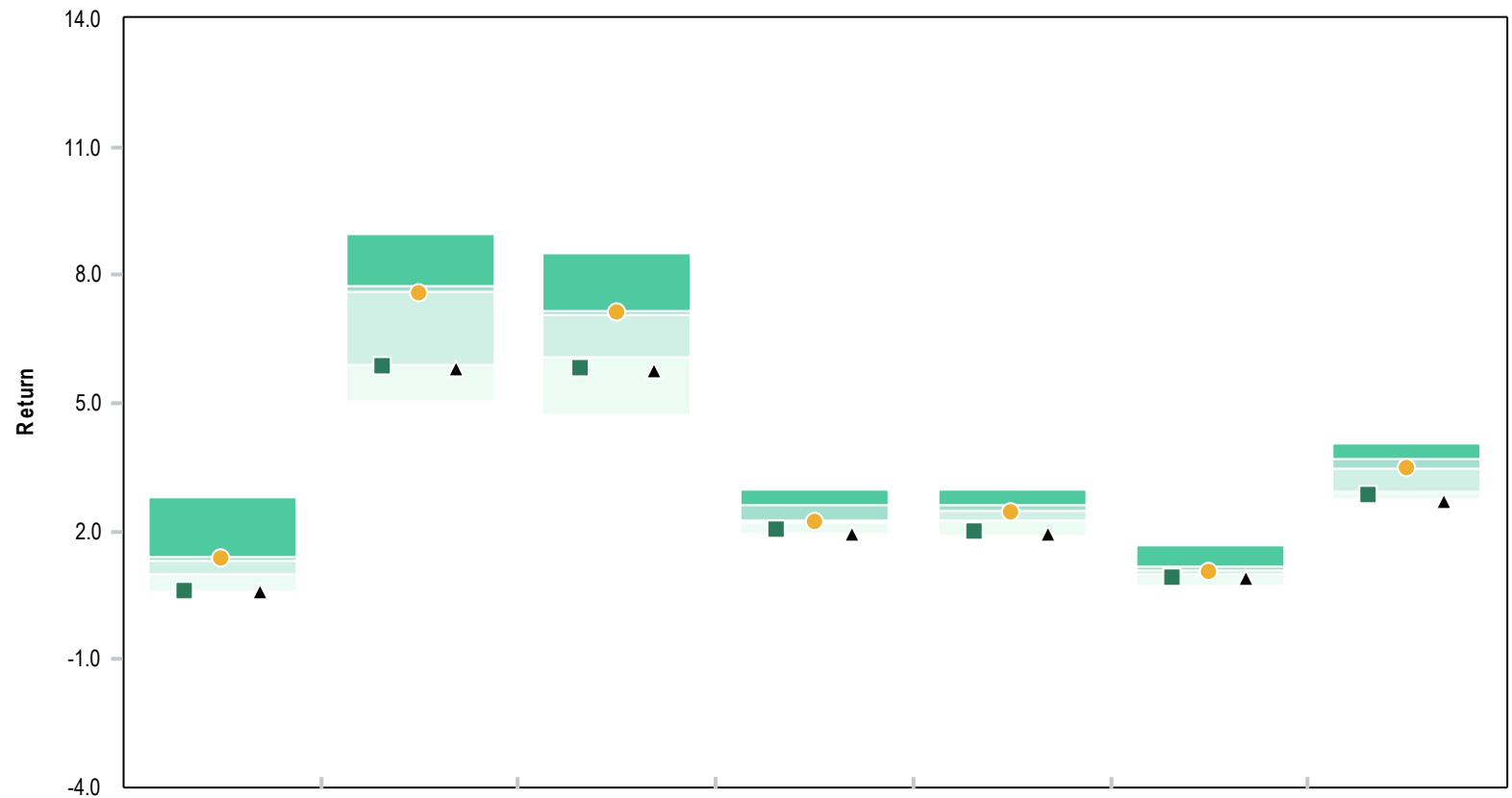
Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Income Research & Management	2.76	10.17	11.74	3.63	4.07	3.57	4.80	-0.19	4.49	4.00	0.20
Blmbg. Barc. U.S. Gov't/Credit	2.64	9.72	11.32	3.16	3.61	2.86	3.94	-0.42	4.00	3.05	0.15
Difference	0.12	0.45	0.42	0.47	0.46	0.71	0.86	0.23	0.49	0.95	0.05





IRM-TIPS

Blmbg. Barc. U.S. TIPS

Blmbg. Barc. U.S. TIPS 1-10 Year

1 Qtr

0.59 (96)

YTD

5.84 (80)

1 Yr

5.81 (80)

3 Yrs

2.03 (82)

5 Yrs

1.98 (89)

7 Yrs

0.92 (88)

10 Yrs

2.82 (84)

1.35 (44)

7.58 (61)

7.13 (43)

2.21 (74)

2.45 (62)

1.06 (70)

3.46 (56)

0.60 (90)

5.80 (89)

5.75 (86)

1.94 (94)

1.95 (94)

0.90 (92)

2.69 (100)

5th Percentile

2.80

8.97

8.52

2.96

3.00

1.65

4.06

1st Quartile

1.40

7.75

7.16

2.63

2.61

1.16

3.69

Median

1.30

7.60

7.09

2.25

2.47

1.09

3.49

3rd Quartile

1.00

5.89

6.07

2.20

2.23

1.00

2.91

95th Percentile

0.59

5.03

4.75

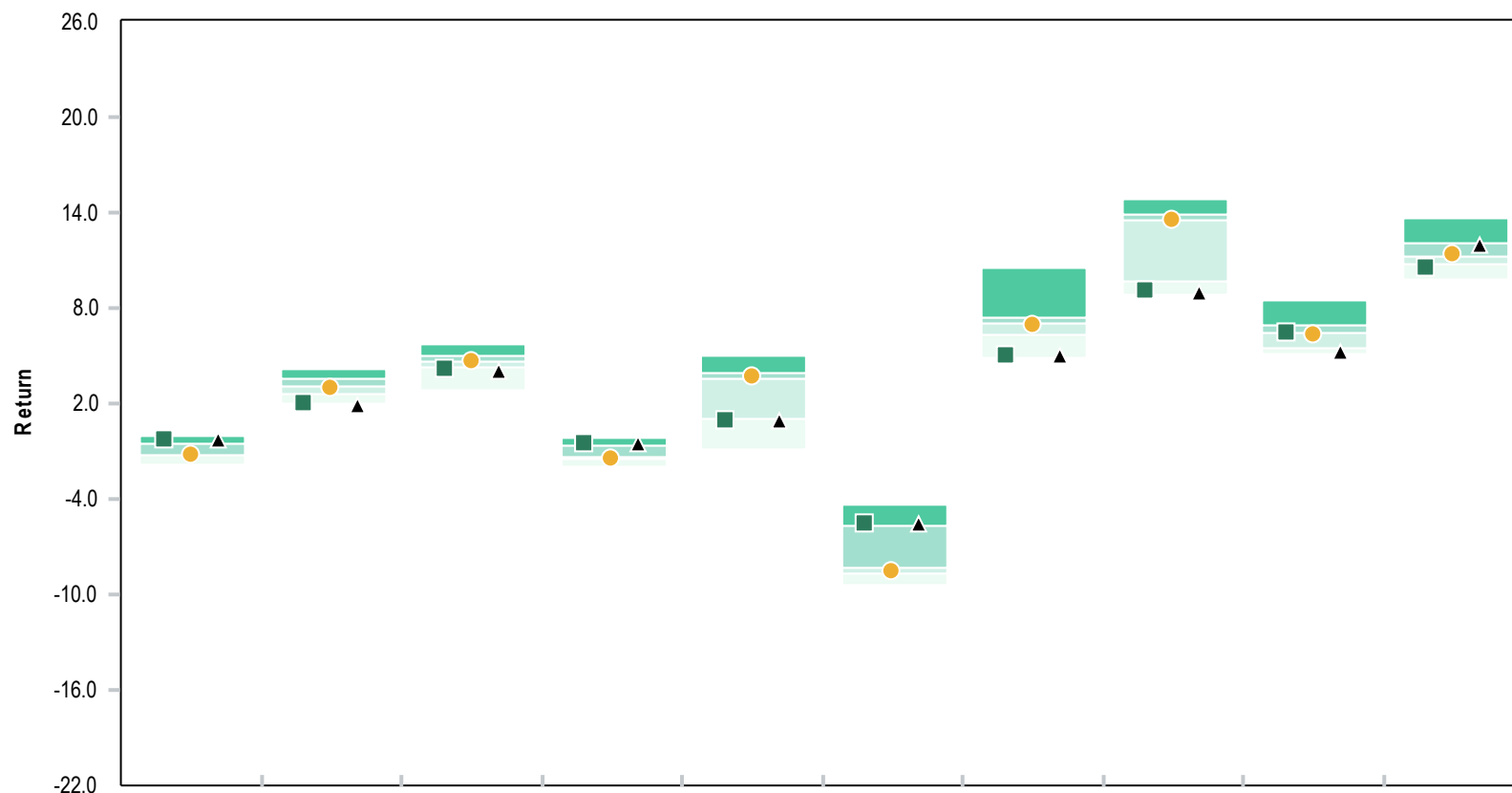
1.93

1.89

0.74

2.73

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
IRM-TIPS	-0.26 (22)	1.97 (96)	4.11 (81)	-0.53 (20)	0.88 (87)	-5.54 (18)	4.96 (89)	9.08 (82)	6.41 (50)	10.49 (81)
Blmbg. Barc. U.S. TIPS	-1.26 (57)	3.01 (67)	4.68 (46)	-1.44 (59)	3.64 (46)	-8.61 (70)	6.98 (51)	13.56 (46)	6.31 (56)	11.41 (41)
Blmbg. Barc. U.S. TIPS 1-10 Year	-0.25 (19)	1.90 (98)	4.01 (89)	-0.52 (20)	0.91 (83)	-5.58 (22)	5.04 (83)	8.93 (89)	5.22 (93)	12.02 (28)

5th Percentile	-0.09	4.18	5.77	-0.16	5.05	-4.34	10.53	14.80	8.50	13.67
1st Quartile	-0.46	3.51	4.94	-0.65	3.91	-5.68	7.44	13.87	6.89	12.08
Median	-1.22	3.10	4.66	-1.40	3.60	-8.33	6.99	13.52	6.40	11.24
3rd Quartile	-1.30	2.65	4.23	-1.52	1.04	-8.67	6.37	9.66	5.46	10.71
95th Percentile	-1.89	1.97	2.85	-1.91	-0.93	-9.43	4.92	8.87	5.08	9.75

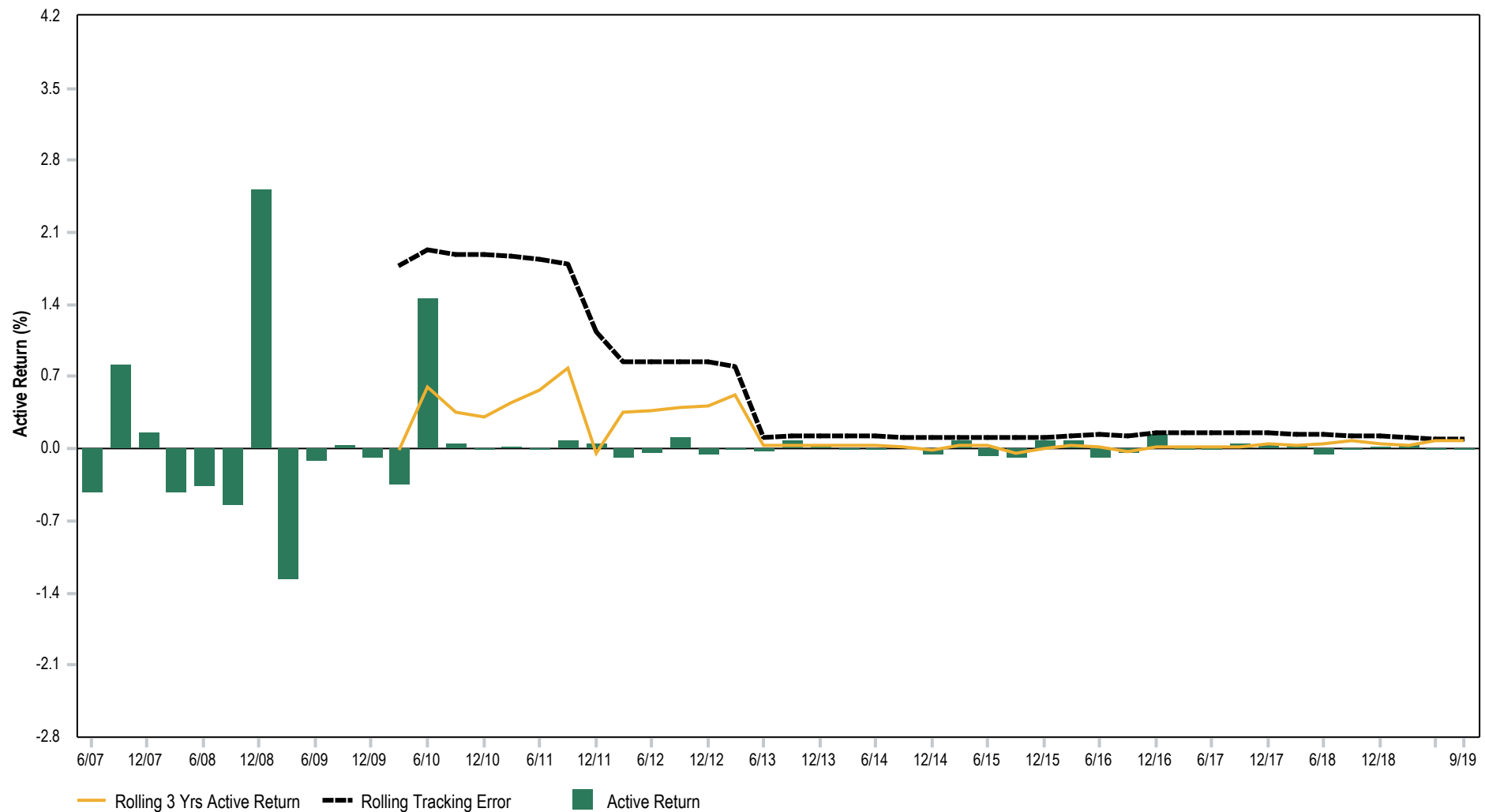
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

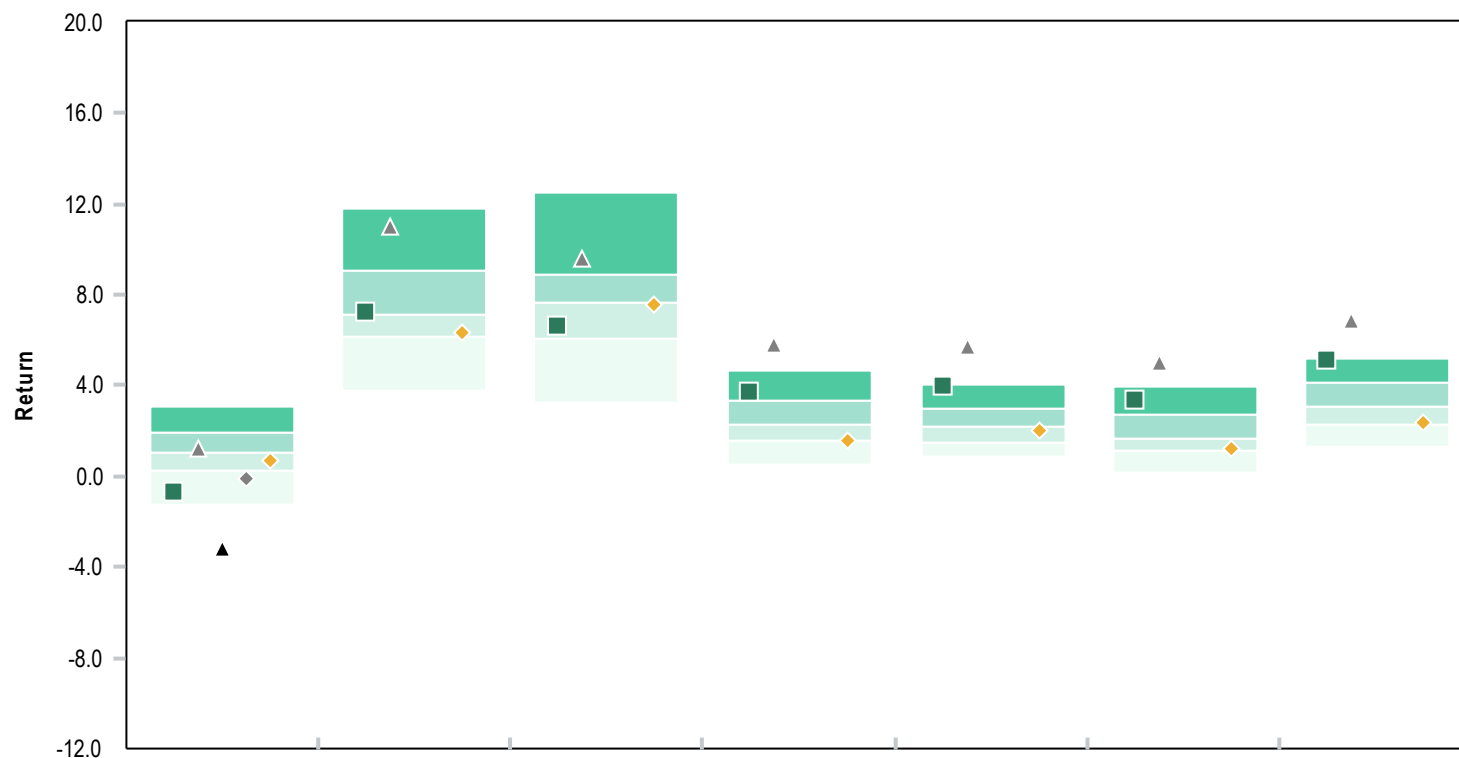
Comparative Performance & Rolling Return

As of September 30, 2019

	YTD	1 Yr	3 Yrs	5 Yrs	2018	2017	2016	Since Inception	Inception Date
IRM-TIPS	5.84	5.81	2.03	1.98	-0.26	1.97	4.11	3.65	02/01/2007
Blmbg. Barc. U.S. TIPS 1-10 Year	5.80	5.75	1.94	1.95	-0.25	1.90	4.01	3.53	
Difference	0.04	0.06	0.09	0.03	-0.01	0.07	0.10	0.12	



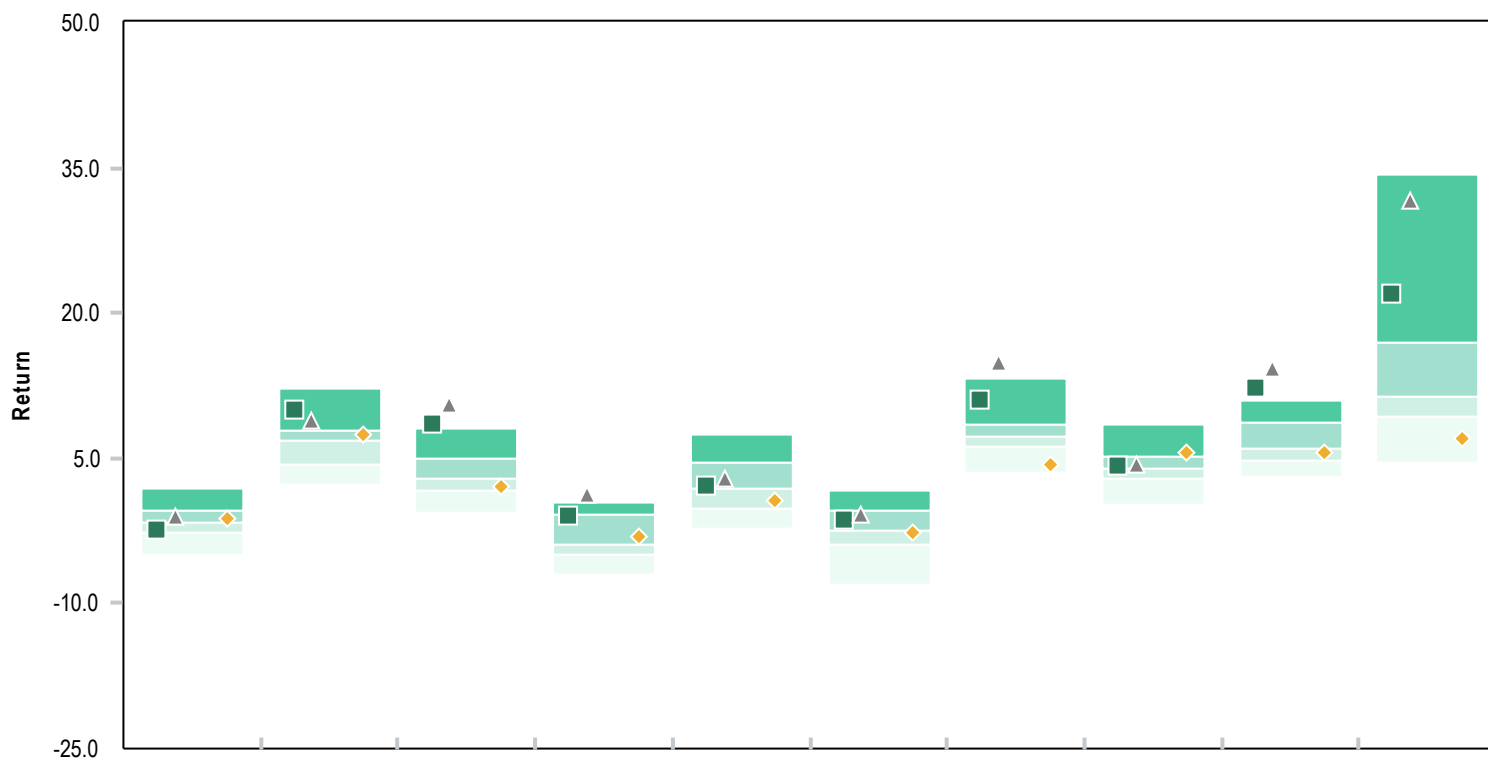
Global Fixed Income



■ Total Global Fixed	-0.68 (93)	7.18 (47)	6.56 (68)	3.71 (15)	3.94 (6)	3.33 (16)	5.11 (7)
▲ PIMCO Diversified Income	1.23 (46)	10.99 (8)	9.59 (19)	5.83 (1)	5.70 (1)	4.98 (1)	6.87 (1)
▲ Franklin Templeton Global Bond	-3.16 (100)	N/A	N/A	N/A	N/A	N/A	N/A
◆ GoldenTree Multi-Sector Opportunistic Fund	-0.07 (87)	N/A	N/A	N/A	N/A	N/A	N/A
◆ Blmbg. Barc. Global Aggregate	0.71 (55)	6.32 (71)	7.60 (51)	1.59 (75)	2.00 (54)	1.21 (74)	2.34 (71)

5th Percentile	3.06	11.78	12.51	4.64	4.02	3.92	5.21
1st Quartile	1.93	9.10	8.87	3.30	2.94	2.68	4.16
Median	1.01	7.12	7.65	2.29	2.16	1.70	3.03
3rd Quartile	0.21	6.13	6.08	1.59	1.49	1.14	2.31
95th Percentile	-1.27	3.81	3.25	0.51	0.86	0.19	1.34

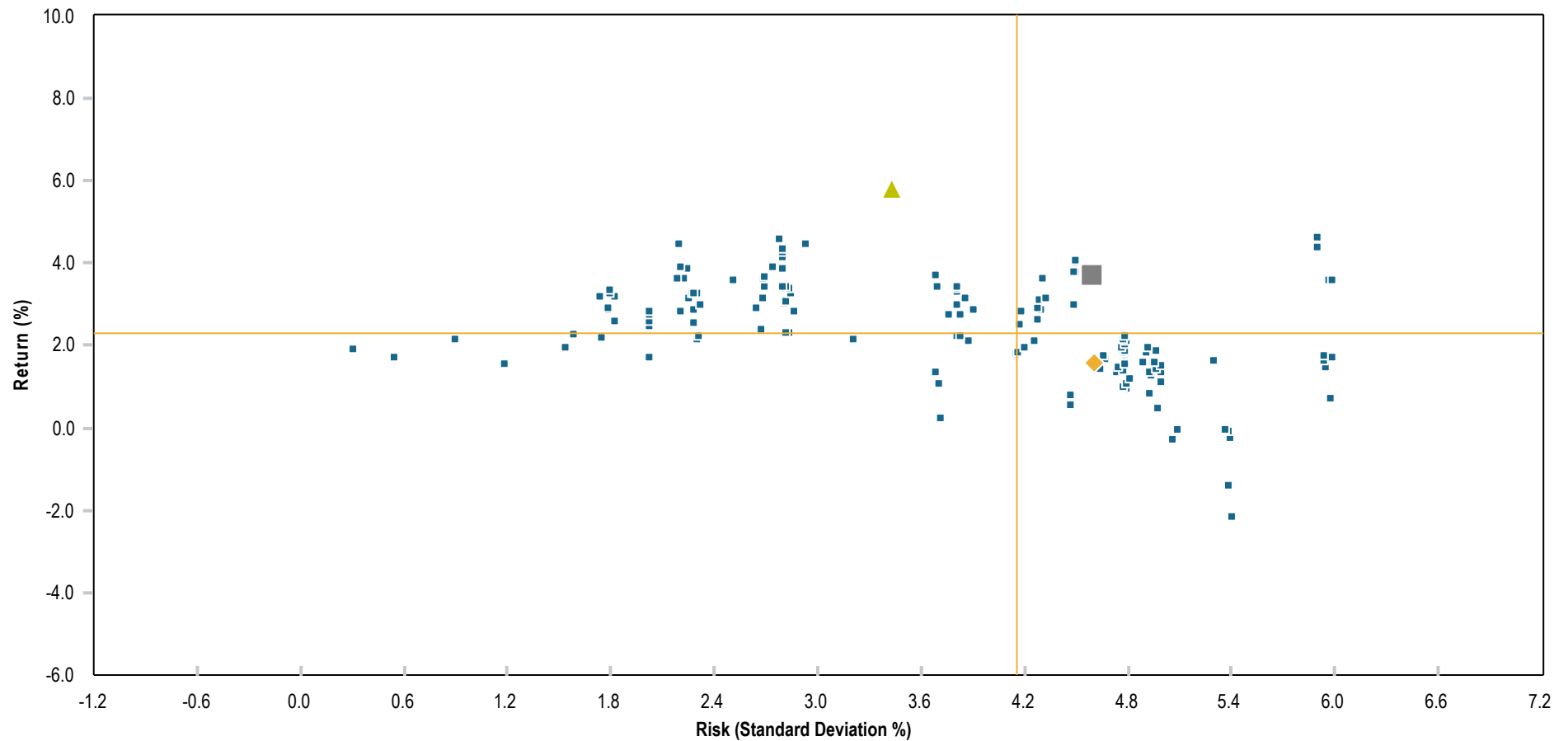
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ Total Global Fixed	-2.43 (70)	10.00 (9)	8.55 (3)	-1.05 (27)	2.13 (47)	-1.54 (38)	11.04 (14)	4.23 (46)	12.13 (4)	21.87 (17)
▲ PIMCO Diversified Income	-0.96 (36)	8.85 (16)	10.56 (2)	1.24 (1)	2.98 (38)	-0.91 (29)	14.97 (4)	4.44 (38)	14.27 (1)	31.57 (6)
▲ Franklin Templeton Global Bond	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
◆ GoldenTree Multi-Sector Opportunistic Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
◆ Blmbg. Barc. Global Aggregate	-1.19 (40)	7.39 (38)	2.09 (69)	-3.15 (41)	0.59 (62)	-2.60 (52)	4.32 (94)	5.64 (21)	5.54 (59)	6.93 (80)

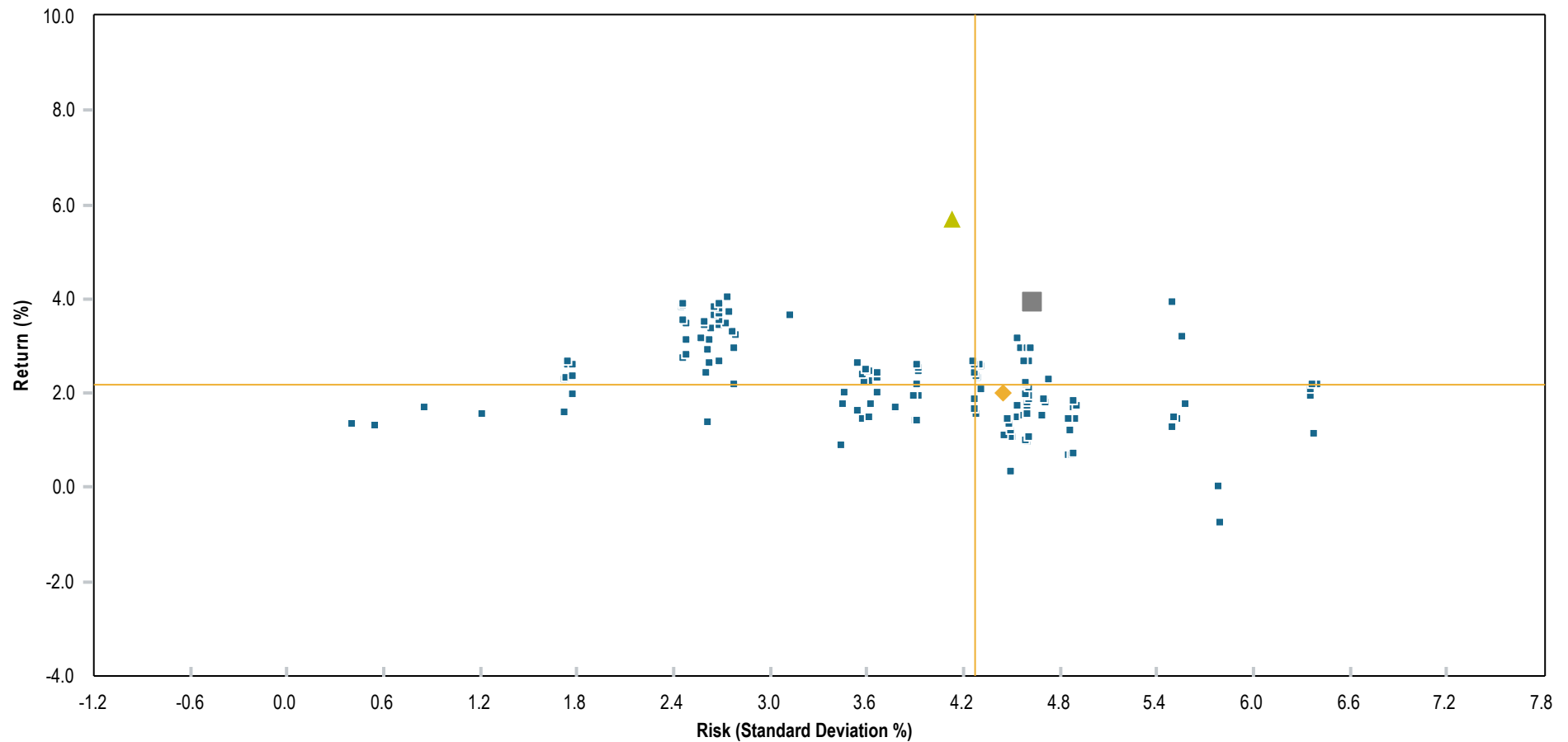
5th Percentile	1.84	12.27	7.96	0.40	7.36	1.66	13.22	8.48	11.05	34.25
1st Quartile	-0.44	7.86	4.95	-0.86	4.52	-0.49	8.43	5.14	8.64	16.98
Median	-1.75	6.81	2.92	-3.83	1.91	-2.52	7.33	4.01	5.97	11.42
3rd Quartile	-2.78	4.42	1.70	-4.94	-0.14	-3.90	6.27	2.81	4.72	9.32
95th Percentile	-4.98	2.21	-0.62	-7.00	-2.35	-8.15	3.48	0.26	3.08	4.45

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total Global Fixed	3.71	4.59
▲ PIMCO Diversified Income	5.83	3.43
▲ Franklin Templeton Global Bond	N/A	N/A
◆ GoldenTree Multi-Sector Opportunistic Fund	N/A	N/A
◆ Blmbg. Barc. Global Aggregate	1.59	4.60
— Median	2.29	4.16

Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total Global Fixed	3.94	4.63
▲ PIMCO Diversified Income	5.70	4.12
▲ Franklin Templeton Global Bond	N/A	N/A
◆ GoldenTree Multi-Sector Opportunistic Fund	N/A	N/A
◆ Blmbg. Barc. Global Aggregate	2.00	4.44
— Median	2.16	4.27

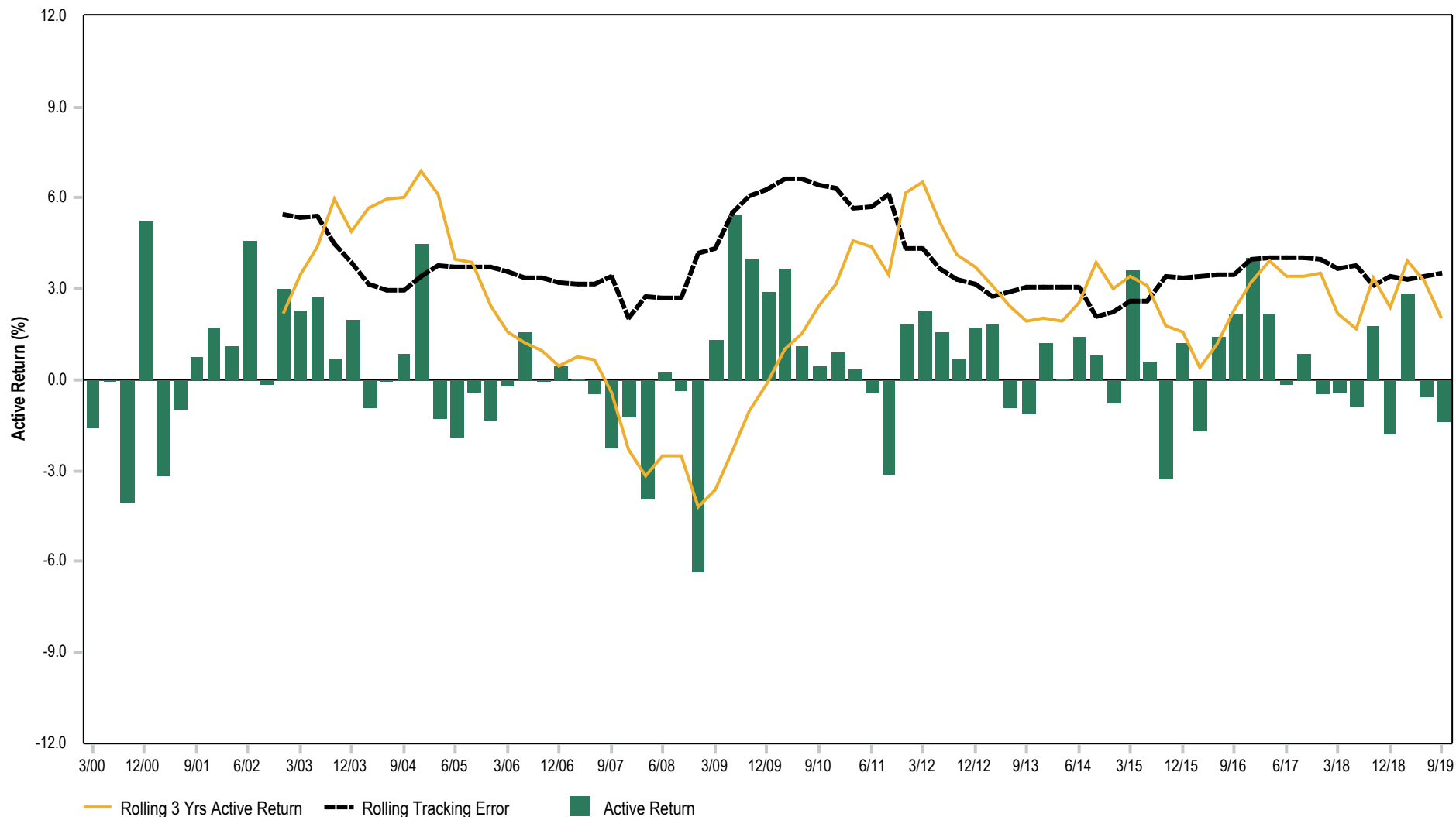
Calculation based on monthly periodicity.

Bristol County Retirement System

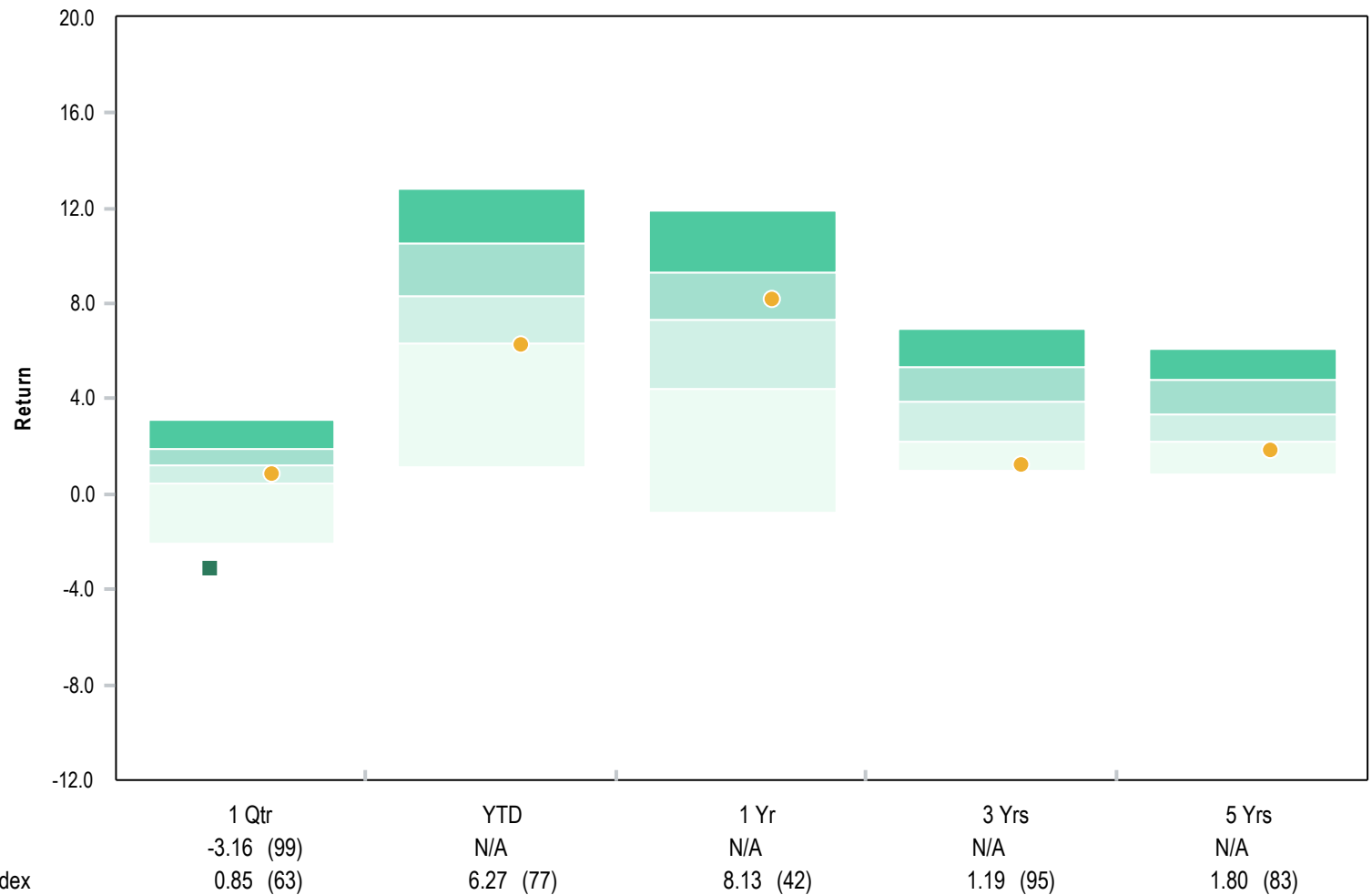
Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Total Global Fixed	-0.68	7.18	6.56	3.71	3.94	3.33	5.11	-2.43	10.00	8.55	-1.05
Blmbg. Barc. Global Aggregate	0.71	6.32	7.60	1.59	2.00	1.21	2.34	-1.19	7.39	2.09	-3.15
Difference	-1.39	0.86	-1.04	2.12	1.94	2.12	2.77	-1.24	2.61	6.46	2.10

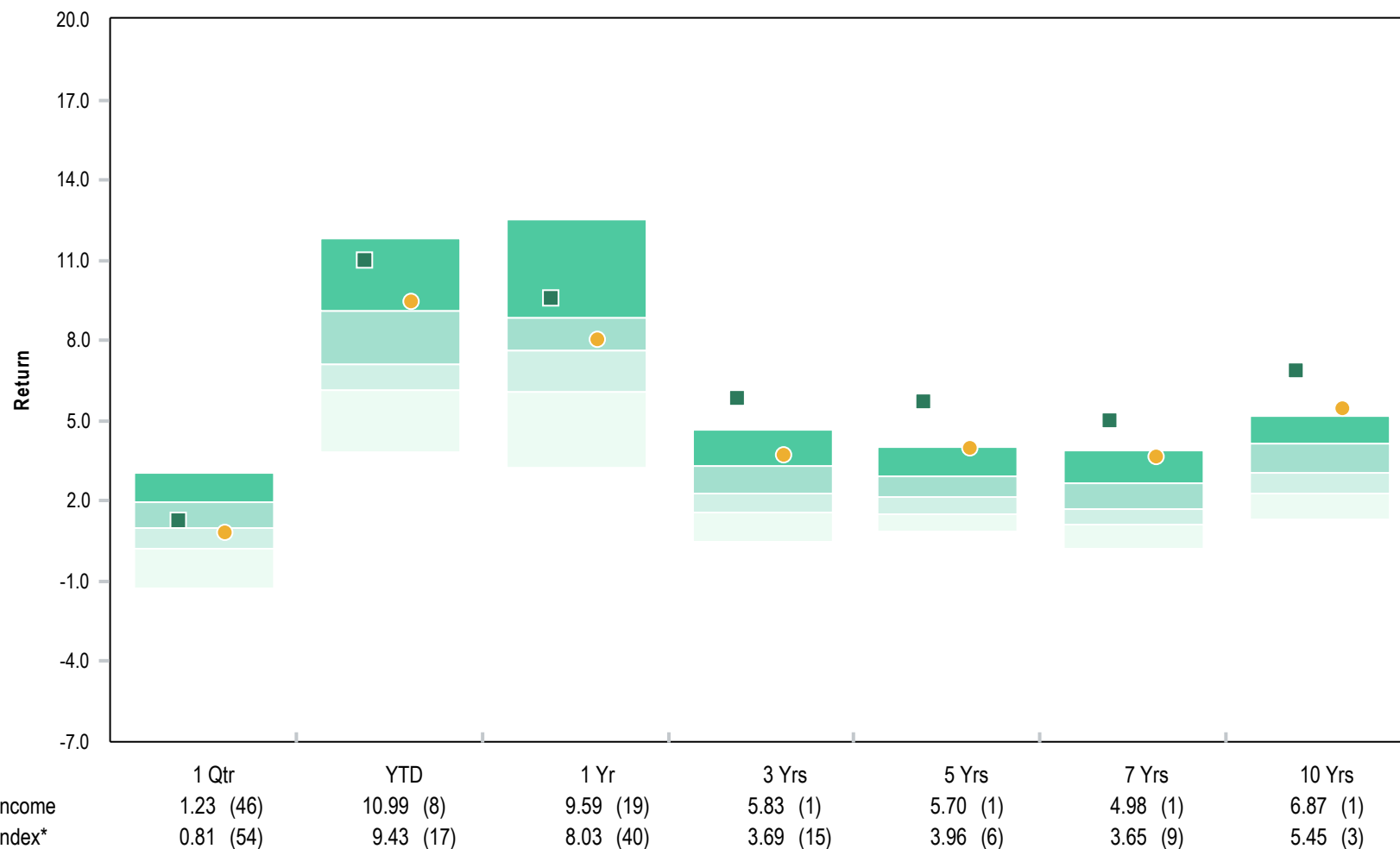


Net of fees.



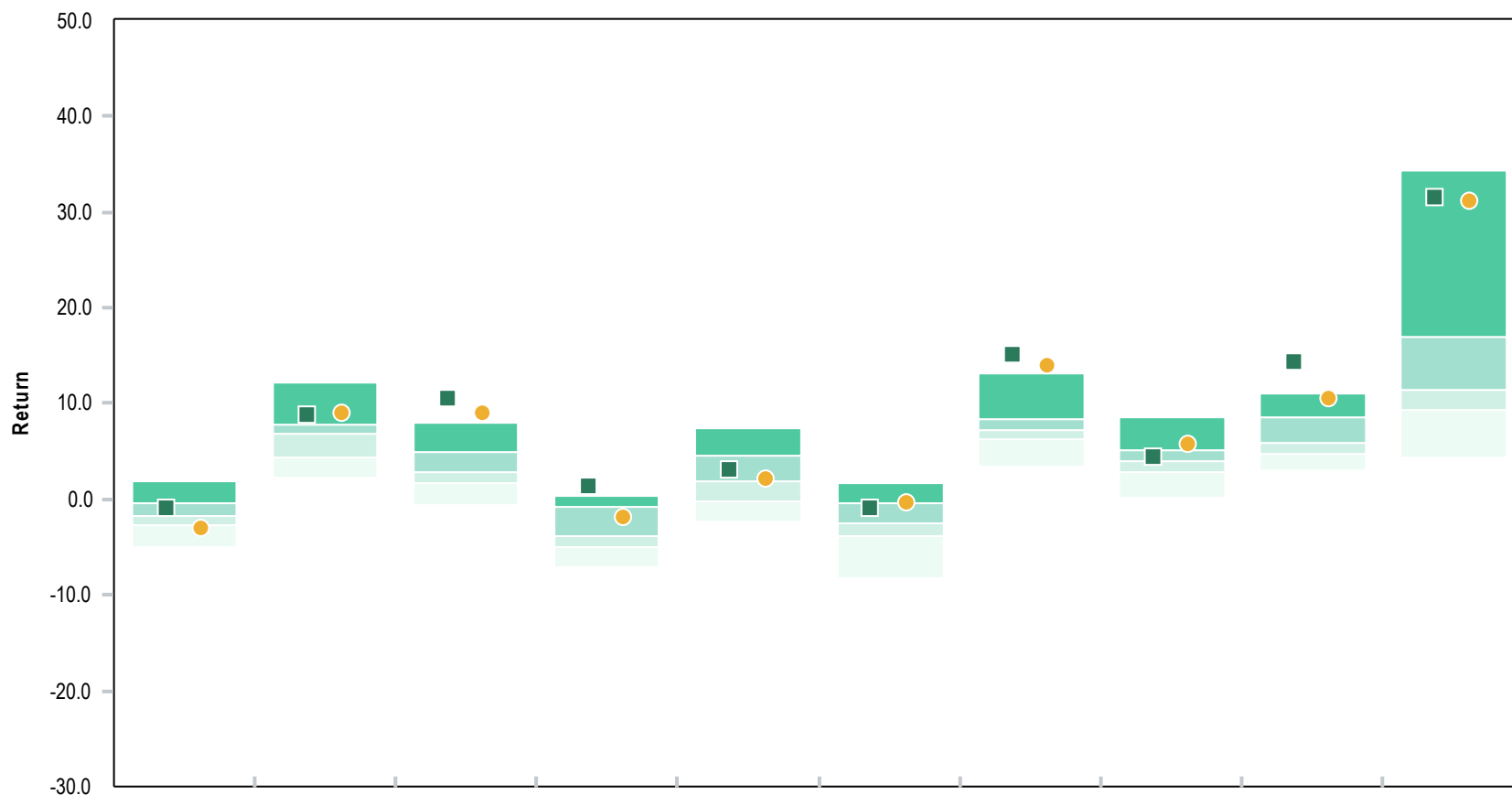
5th Percentile	3.09	12.81	11.89	6.95	6.13
1st Quartile	1.93	10.55	9.28	5.30	4.81
Median	1.24	8.32	7.34	3.90	3.39
3rd Quartile	0.44	6.37	4.44	2.22	2.18
95th Percentile	-2.10	1.15	-0.78	1.02	0.80

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



5th Percentile	3.06	11.78	12.51	4.64	4.02	3.92	5.21
1st Quartile	1.93	9.10	8.87	3.30	2.94	2.68	4.16
Median	1.01	7.12	7.65	2.29	2.16	1.70	3.03
3rd Quartile	0.21	6.13	6.08	1.59	1.49	1.14	2.31
95th Percentile	-1.27	3.81	3.25	0.51	0.86	0.19	1.34

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



	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
■ PIMCO Diversified Income	-0.96 (36)	8.85 (16)	10.56 (2)	1.24 (1)	2.98 (38)	-0.91 (29)	14.97 (4)	4.44 (38)	14.27 (1)	31.57 (6)
● PIMCO Diversified Index*	-3.03 (77)	8.97 (13)	8.97 (2)	-2.02 (34)	1.99 (48)	-0.49 (25)	13.86 (5)	5.68 (21)	10.39 (10)	31.15 (6)

5th Percentile	1.84	12.27	7.96	0.40	7.36	1.66	13.22	8.48	11.05	34.25
1st Quartile	-0.44	7.86	4.95	-0.86	4.52	-0.49	8.43	5.14	8.64	16.98
Median	-1.75	6.81	2.92	-3.83	1.91	-2.52	7.33	4.01	5.97	11.42
3rd Quartile	-2.78	4.42	1.70	-4.94	-0.14	-3.90	6.27	2.81	4.72	9.32
95th Percentile	-4.98	2.21	-0.62	-7.00	-2.35	-8.15	3.48	0.26	3.08	4.45

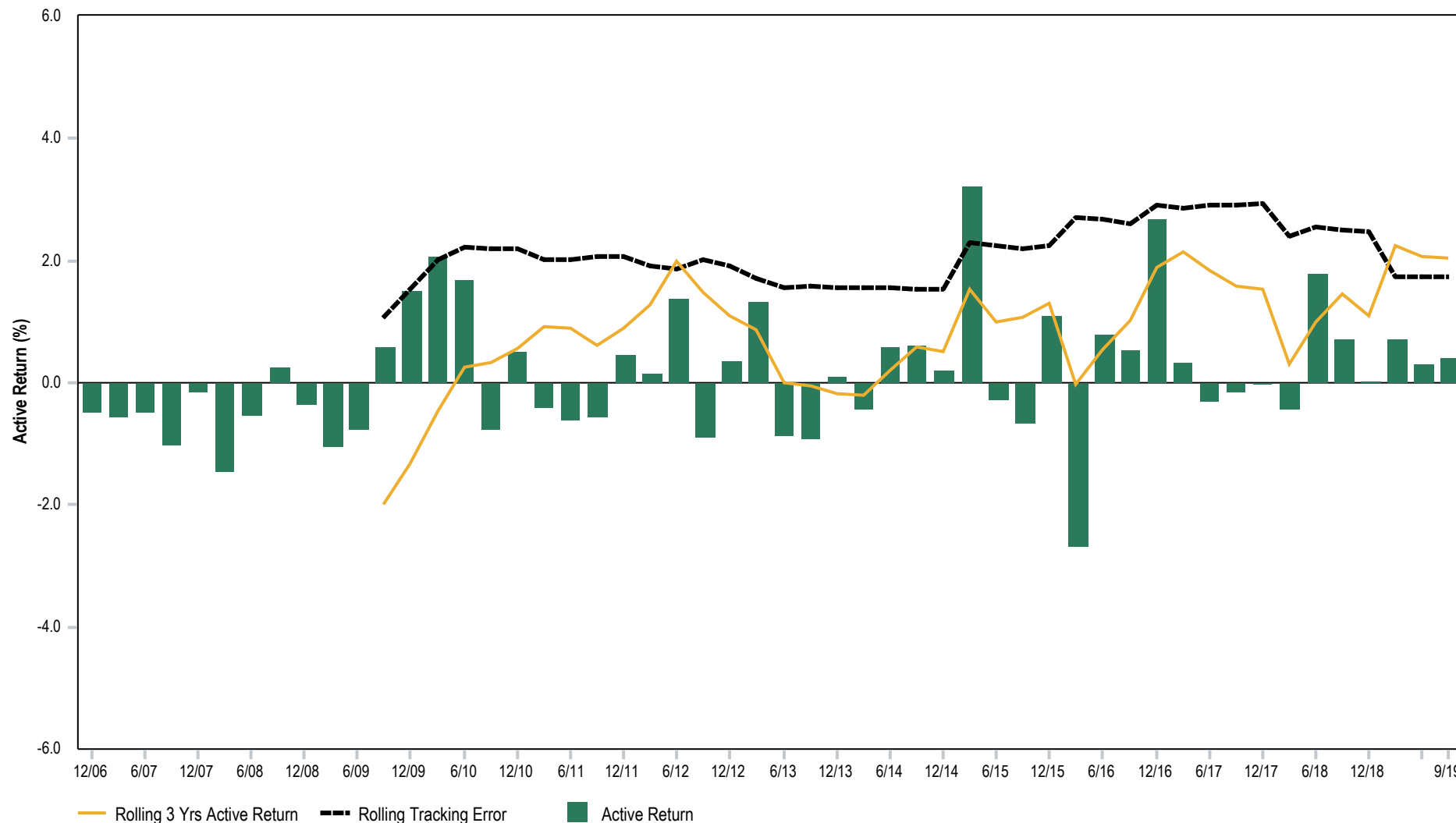
*33.3% ML Global HY/33.3% JPM EMBI Global/33.3% LB Global Agg

Bristol County Retirement System

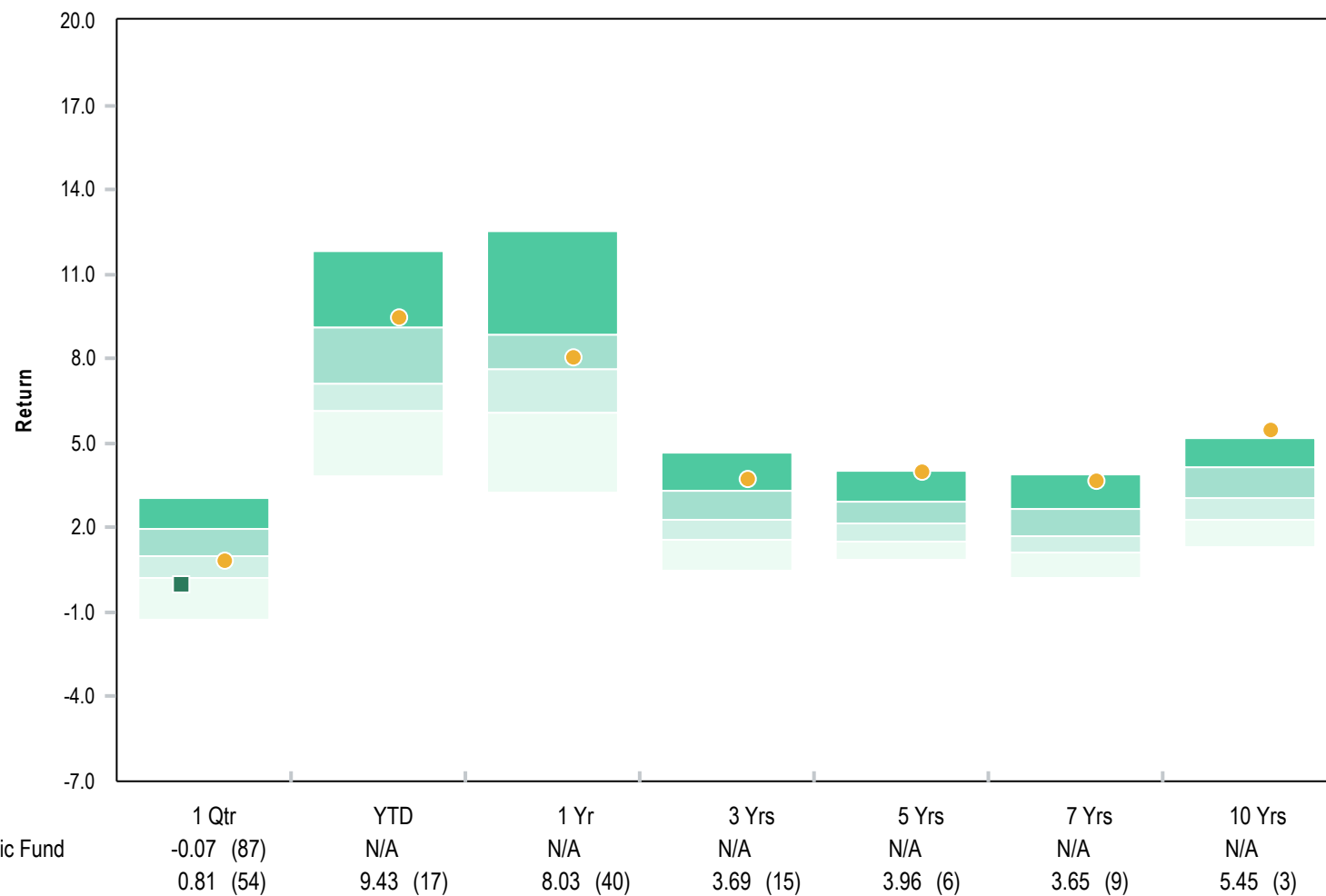
Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
PIMCO Diversified Income	1.23	10.99	9.59	5.83	5.70	4.98	6.87	-0.96	8.85	10.56	1.24
PIMCO Diversified Index*	0.81	9.49	8.03	3.69	3.96	3.65	5.45	-3.03	8.97	8.97	-2.02
Difference	0.42	1.50	1.56	2.14	1.74	1.33	1.42	2.07	-0.12	1.59	3.26

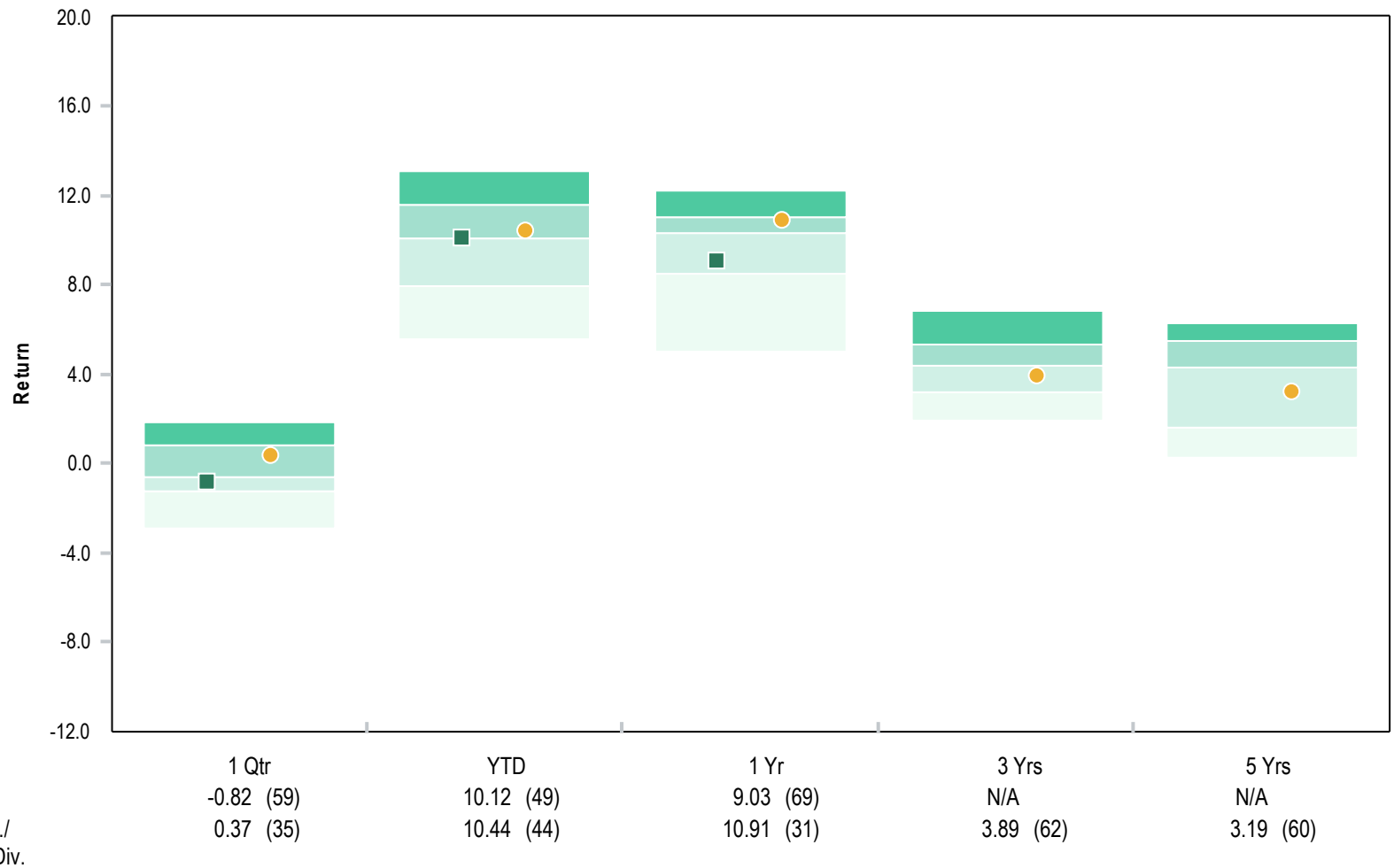


*PIMCO Index: 33% BC Global Agg/33% ML Global HY/33% JPM EMBI Global.



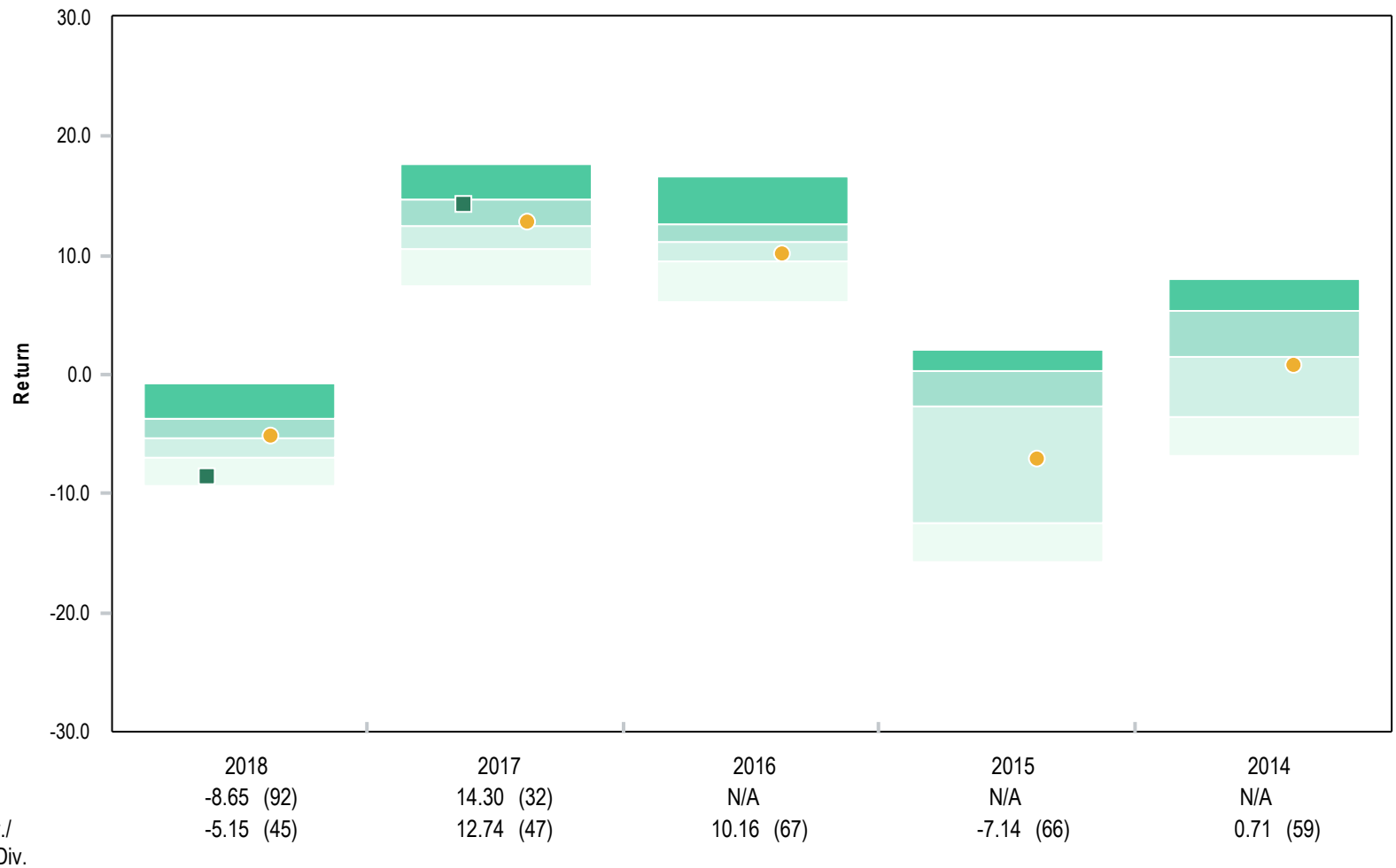
5th Percentile	3.06	11.78	12.51	4.64	4.02	3.92	5.21
1st Quartile	1.93	9.10	8.87	3.30	2.94	2.68	4.16
Median	1.01	7.12	7.65	2.29	2.16	1.70	3.03
3rd Quartile	0.21	6.13	6.08	1.59	1.49	1.14	2.31
95th Percentile	-1.27	3.81	3.25	0.51	0.86	0.19	1.34

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



5th Percentile	1.82	13.13	12.24	6.87	6.28
1st Quartile	0.86	11.63	11.05	5.36	5.50
Median	-0.58	10.10	10.33	4.38	4.29
3rd Quartile	-1.22	7.99	8.50	3.24	1.59
95th Percentile	-2.93	5.60	5.07	1.93	0.31

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



5th Percentile	-0.70	17.69	16.62	2.04	8.07
1st Quartile	-3.76	14.76	12.59	0.26	5.41
Median	-5.35	12.43	11.09	-2.67	1.52
3rd Quartile	-6.98	10.53	9.53	-12.49	-3.61
95th Percentile	-9.36	7.45	6.04	-15.77	-6.82

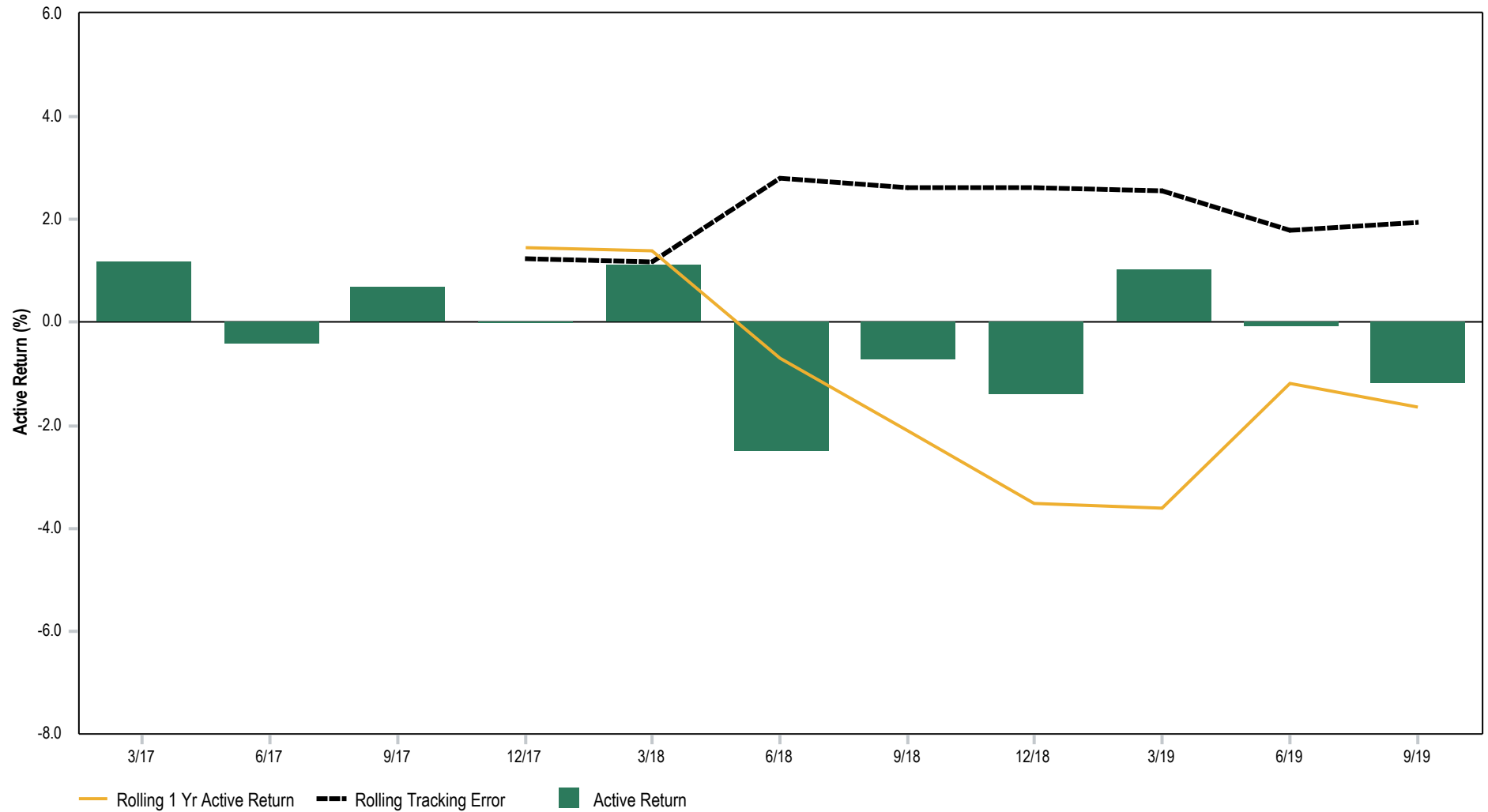
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

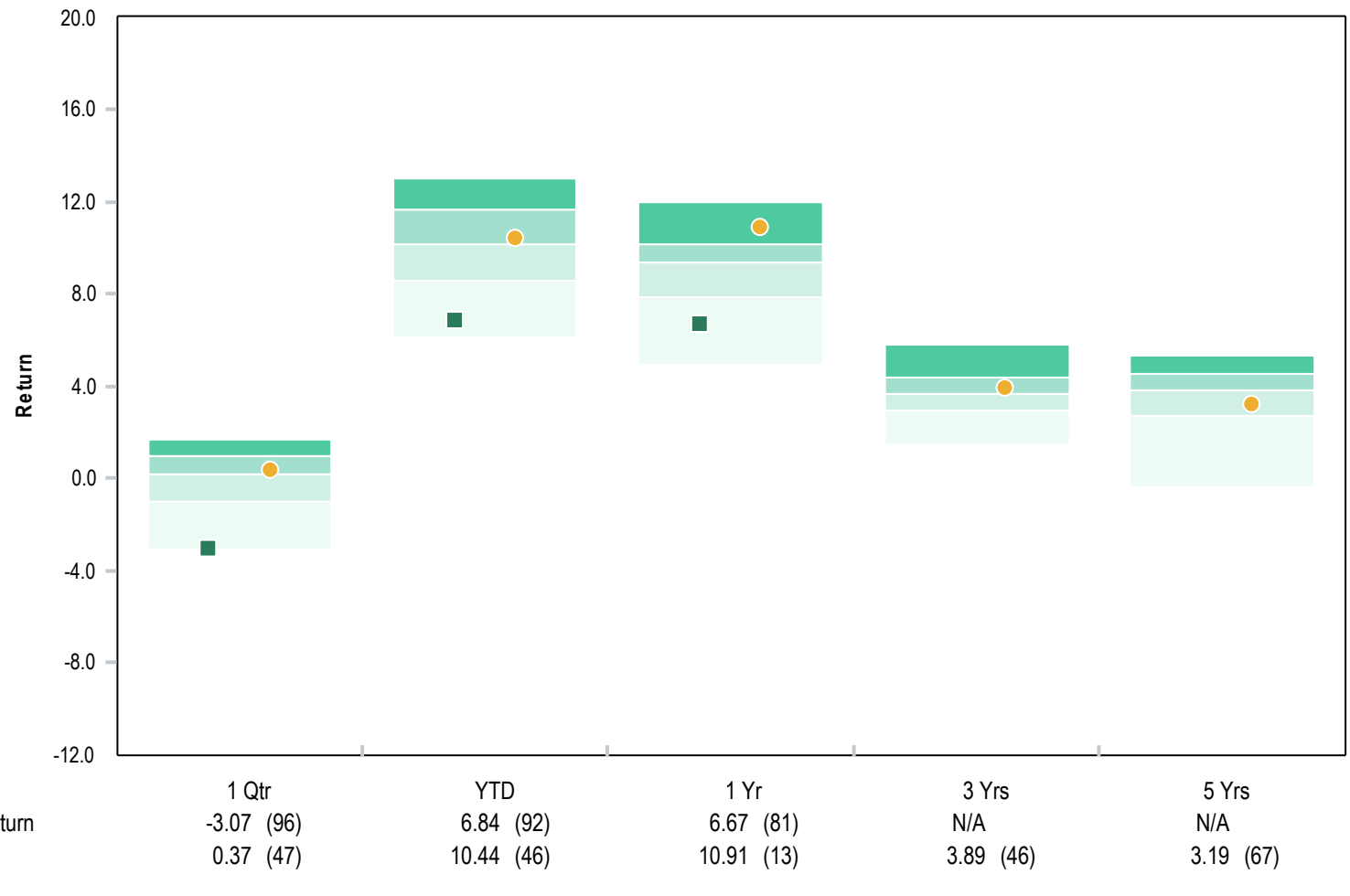
Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

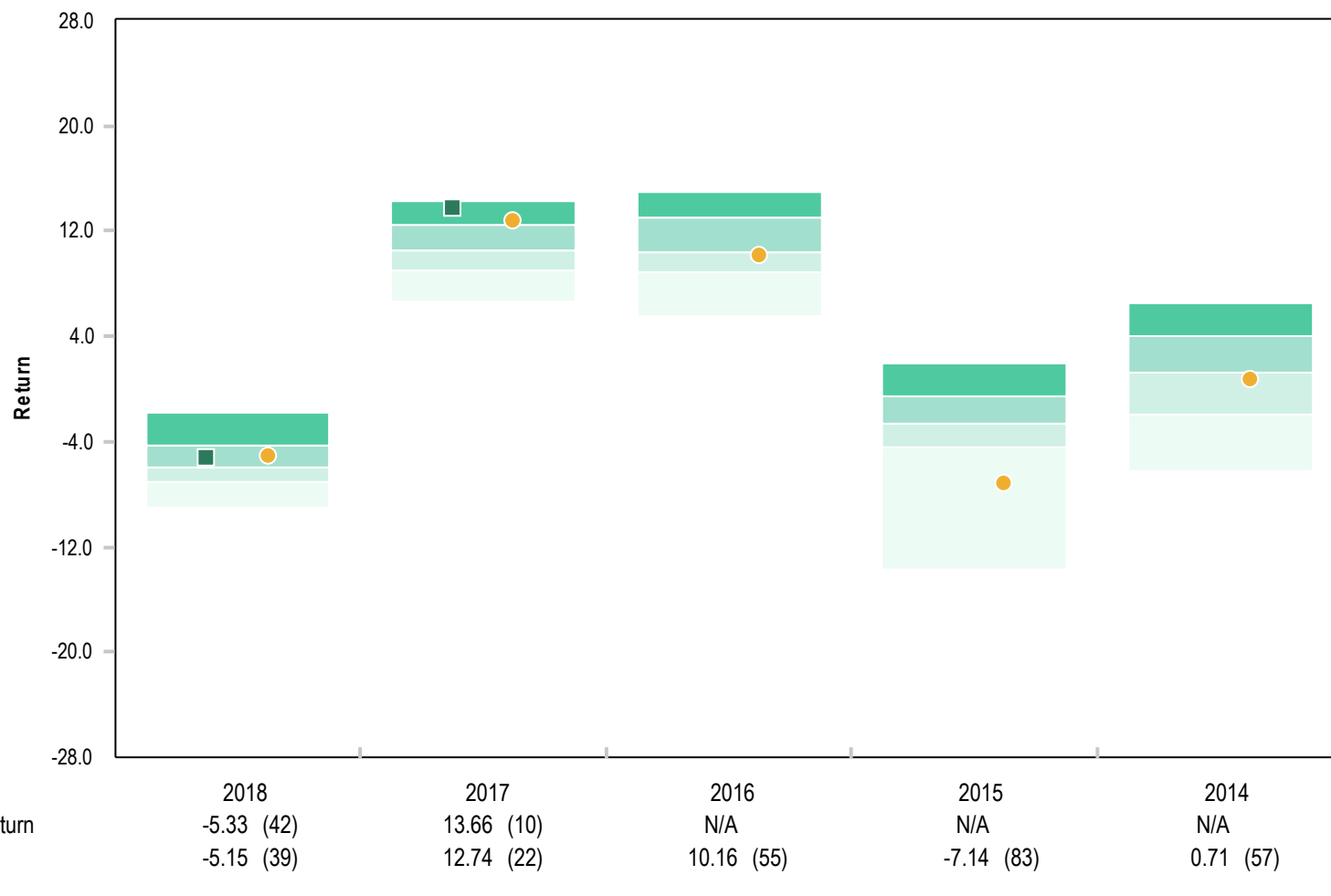
	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Stone Harbor EMD	-0.82	10.12	9.03	N/A	N/A	N/A	N/A	-8.65	14.30	N/A	N/A
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified US	0.37	10.44	10.91	3.89	3.19	2.26	4.73	-5.15	12.74	10.16	-7.14
Difference	-1.19	-0.32	-1.88	N/A	N/A	N/A	N/A	-3.50	1.56	N/A	N/A





5th Percentile	1.70	13.01	12.02	5.84	5.36
1st Quartile	1.00	11.67	10.16	4.41	4.55
Median	0.21	10.21	9.40	3.69	3.85
3rd Quartile	-0.99	8.57	7.90	2.99	2.77
95th Percentile	-3.07	6.15	4.93	1.44	-0.34

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



5th Percentile	-1.82	14.25	14.96	1.98	6.51
1st Quartile	-4.27	12.52	13.09	-0.60	4.05
Median	-5.91	10.49	10.42	-2.57	1.31
3rd Quartile	-7.08	9.02	8.88	-4.49	-1.88
95th Percentile	-8.99	6.67	5.57	-13.69	-6.22

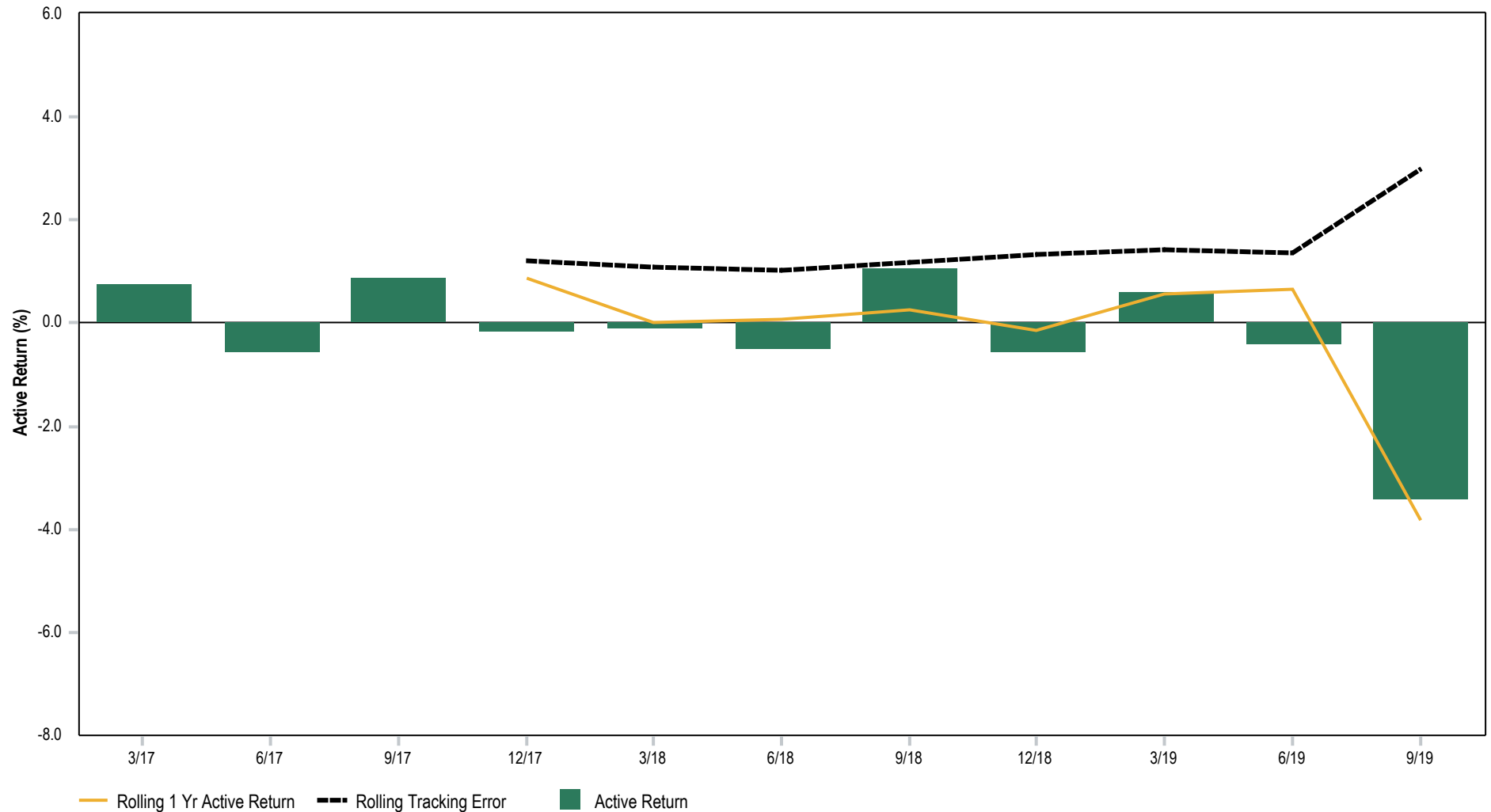
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Bristol County Retirement System

Comparative Performance & Rolling Return

As of September 30, 2019

	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2018	2017	2016	2015
Ashmore Emerging Markets Total Return	-3.07	6.84	6.67	N/A	N/A	N/A	N/A	-5.33	13.66	N/A	N/A
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified US	0.37	10.44	10.91	3.89	3.19	2.26	4.73	-5.15	12.74	10.16	-7.14
Difference	-3.44	-3.60	-4.24	N/A	N/A	N/A	N/A	-0.18	0.92	N/A	N/A



Other Fixed Income

Bristol County Retirement System

Comparative Performance - IRR

As of September 30, 2019

	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	251,398	0.04	0.00	1.45	7.79	-2.91	19.39	17.31	N/A	13.93	03/31/2010

Bristol County Retirement System

Schedule of Investable Assets

Invesco Mortgage Recovery Fund

Since Inception Ending September 30, 2019

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	5.74	105.74	27,307	0.00
Sep-2010	2,151,396	739,731	921,104	181,373	142,577	3,033,704	5.94	112.02	75,028	3.49
Dec-2010	3,033,704	-448,204	33,362	481,566	96,495	2,681,995	3.67	116.13	209,106	6.89
Mar-2011	2,681,995	-265,432	215,509	480,941	114,718	2,531,281	4.31	121.13	206,684	7.71
Jun-2011	2,531,281	-248,483	200,172	448,655	-37,226	2,245,572	-1.67	119.11	33,871	1.34
Sep-2011	2,245,572	1,186,159	1,302,619	116,460	-15,163	3,416,568	-0.67	118.31	8,310	0.37
Dec-2011	3,416,568	-974,627	-	974,627	7,383	2,449,324	0.24	118.60	38,619	1.13
Mar-2012	2,449,324	-880,764	-	880,764	106,038	1,674,598	4.64	124.10	18,649	0.76
Jun-2012	1,674,598	-3,746	159,003	162,749	44,872	1,715,724	2.45	127.14	75,013	4.48
Sep-2012	1,715,724	-10,305	-	10,305	37,498	1,742,917	2.19	129.92	-	0.00
Dec-2012	1,742,917	-510,562	-	510,562	85,492	1,317,847	5.91	137.60	-	0.00
Mar-2013	1,317,847	-65,326	-	65,326	22,847	1,275,368	1.74	140.00	-	0.00
Jun-2013	1,275,368	-59,917	20,152	80,069	26,281	1,241,732	2.19	143.07	-	0.00
Sep-2013	1,241,732	221,939	221,939	-	2,024	1,465,695	0.14	143.27	-	0.00
Dec-2013	1,465,695	132,967	329,829	196,862	124,547	1,723,209	8.11	154.89	-	0.00
Mar-2014	1,723,209	-97,979	-	97,979	39,216	1,664,446	2.35	158.54	-	0.00
Jun-2014	1,664,446	-64,464	70,551	135,015	53,465	1,653,447	3.34	163.84	-	0.00
Sep-2014	1,653,447	-38,489	40,092	78,581	82,363	1,697,321	5.10	172.19	-	0.00
Dec-2014	1,697,321	53,602	88,065	34,463	315,116	2,066,039	18.00	203.18	-	0.00
Mar-2015	2,066,039	-338,868	42,571	381,439	49,102	1,776,273	2.88	209.03	-	0.00
Jun-2015	1,776,273	28,704	28,704	-	67,010	1,871,987	3.91	217.20	-	0.00
Sep-2015	1,871,987	-239,366	44,631	283,997	184,643	1,817,264	11.31	241.76	-	0.00
Dec-2015	1,817,264	-255,351	-	255,351	107,519	1,669,432	6.88	258.40	-	0.00
Mar-2016	1,669,432	9,080	57,199	48,119	-204	1,678,308	-0.01	258.37	-	0.00
Jun-2016	1,678,308	-423,449	-	423,449	62,718	1,317,577	5.00	271.28	-	0.00
Sep-2016	1,317,577	-175,341	-	175,341	1,890	1,144,126	0.17	271.73	-	0.00
Dec-2016	1,144,126	-1,965	-	1,965	-85,161	1,057,000	-7.44	251.51	-	0.00
Mar-2017	1,057,000	-	-	-	-25,343	1,031,657	-2.40	245.48	-	0.00
Jun-2017	1,031,657	-559,332	-	559,332	-399	471,926	-0.08	245.27	-	0.00
Sep-2017	471,926	-80,808	-	80,808	-25,848	365,270	-6.61	229.06	-	0.00

*% return represents a time weighted return.

Bristol County Retirement System

Schedule of Investable Assets

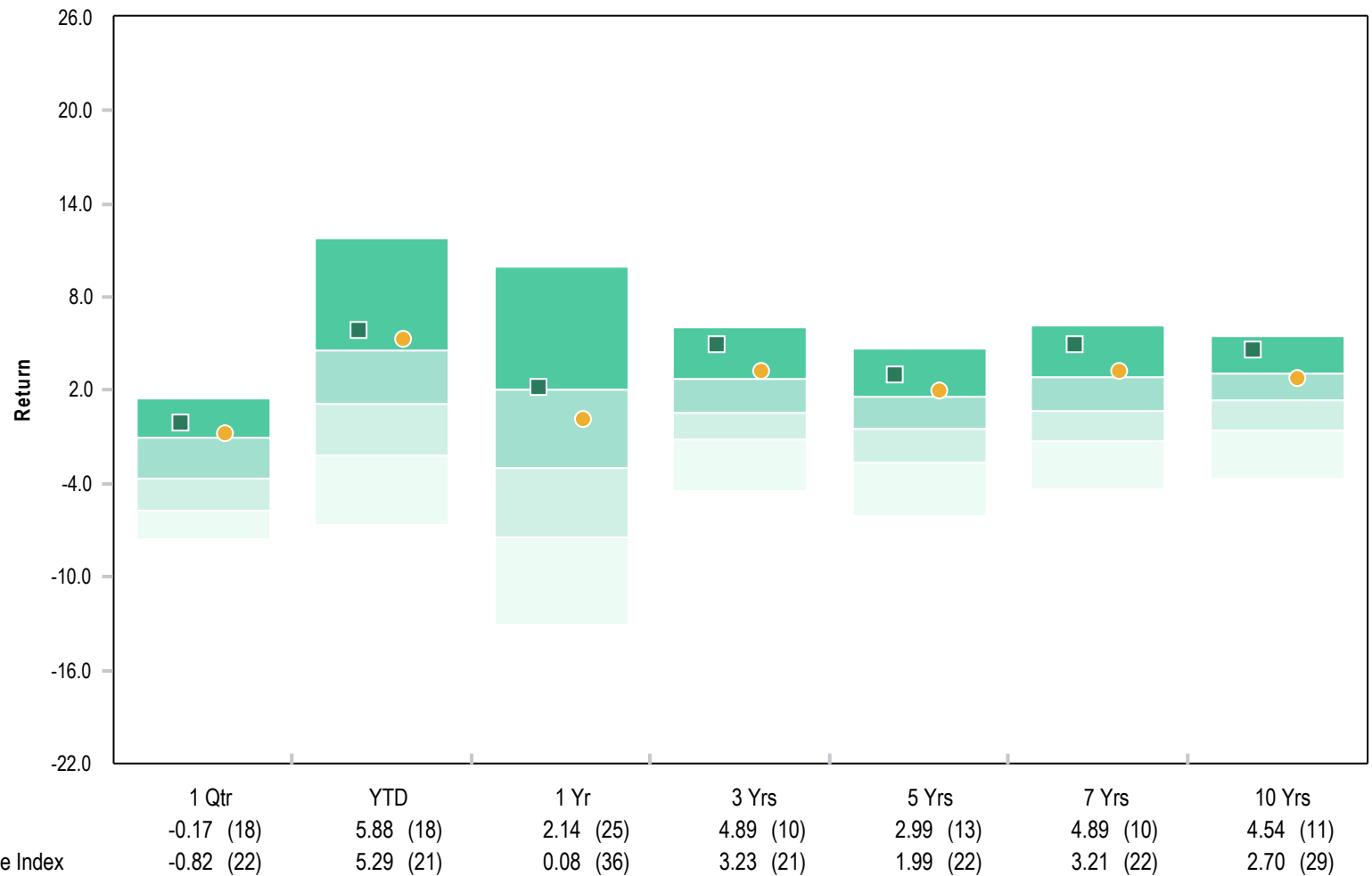
Invesco Mortgage Recovery Fund

Since Inception Ending September 30, 2019

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	4.95	240.40	-	0.00
Mar-2018	383,358	840	840	-	12,252	396,450	3.36	248.49	-	0.00
Jun-2018	396,450	-76,638	-	76,638	22,664	342,476	5.75	262.78	-	0.00
Sep-2018	342,476	-	-	-	13,122	355,598	3.83	272.85	-	0.00
Dec-2018	355,598	-	-	-	18,584	374,182	5.23	287.11	-	0.00
Mar-2019	374,182	-126,979	-	126,979	5,019	252,222	1.37	291.05	-	0.00
Jun-2019	252,222	-	-	-	-824	251,398	-0.33	290.10	-	0.00
Sep-2019	251,398	-	-	-	-	251,398	0.00	290.10	-	0.00
	-	-1,525,574	5,866,186	7,391,760	1,673,375	251,398	11.86	290.10	692,587	0.00

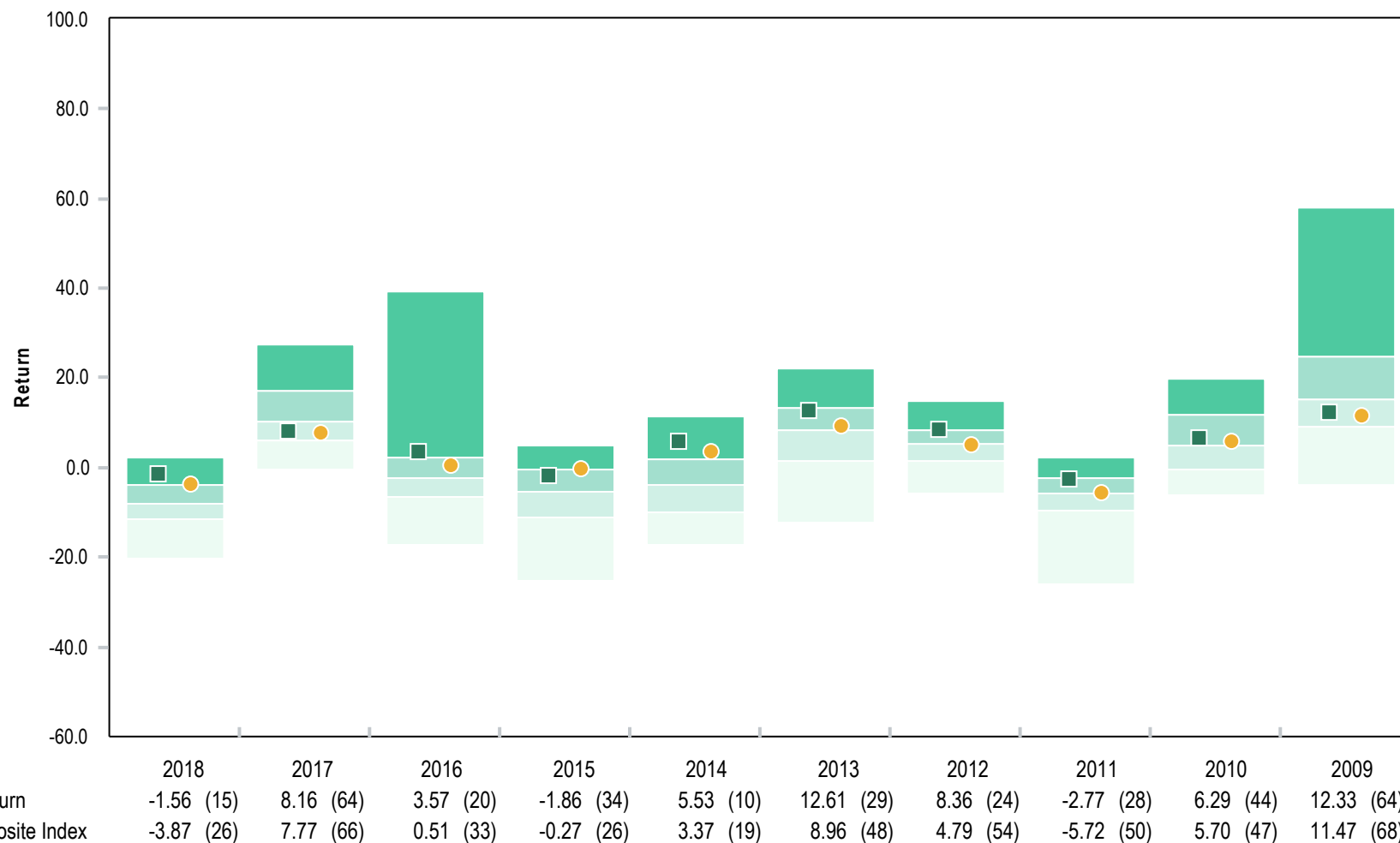
*% return represents a time weighted return.

Alternatives



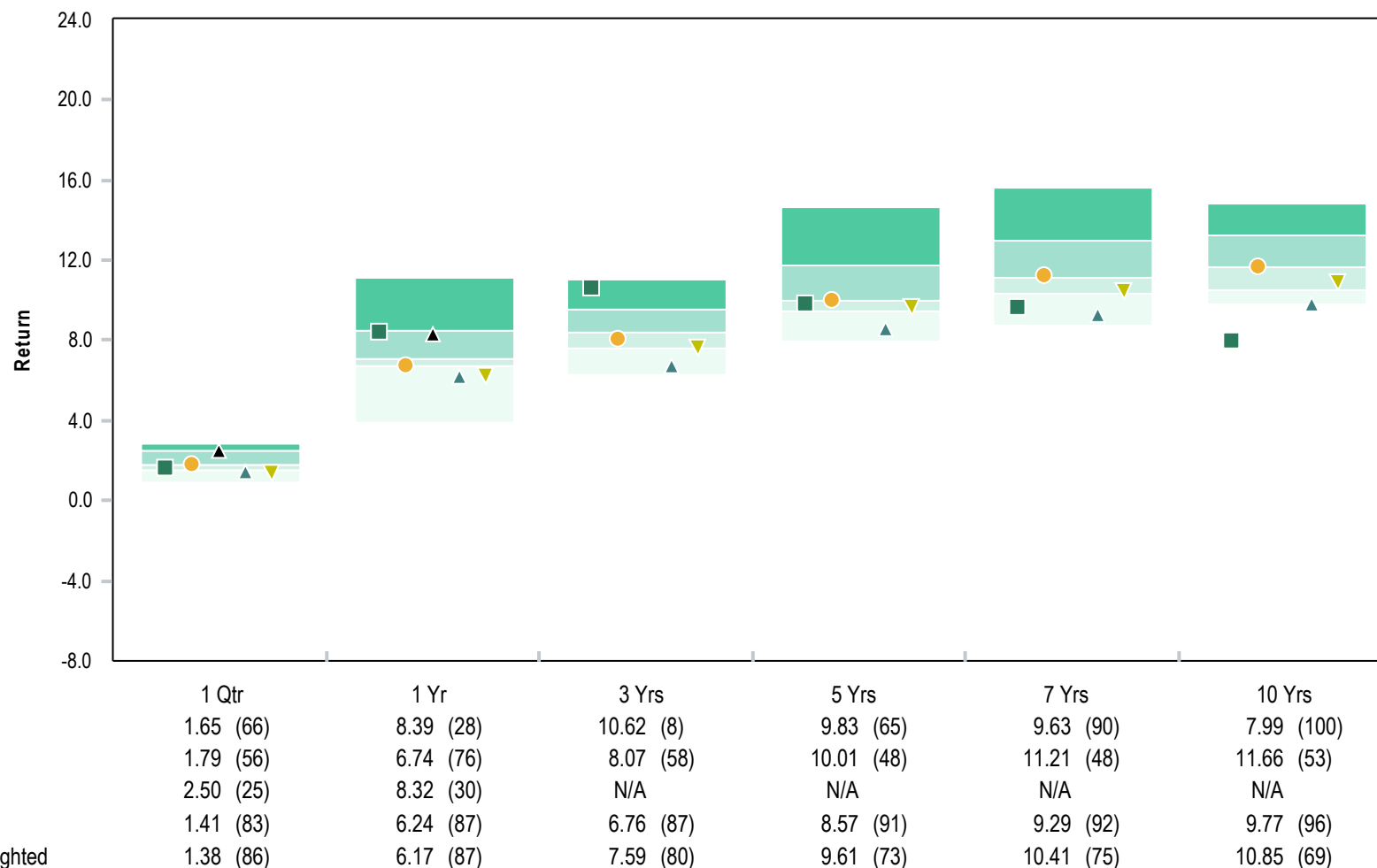
5th Percentile	1.46	11.78	9.94	6.09	4.71	6.13	5.53
1st Quartile	-1.03	4.60	2.04	2.80	1.63	2.81	3.12
Median	-3.68	1.11	-2.98	0.62	-0.49	0.63	1.35
3rd Quartile	-5.70	-2.13	-7.42	-1.12	-2.64	-1.22	-0.58
95th Percentile	-7.56	-6.69	-13.09	-4.52	-6.11	-4.41	-3.67

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



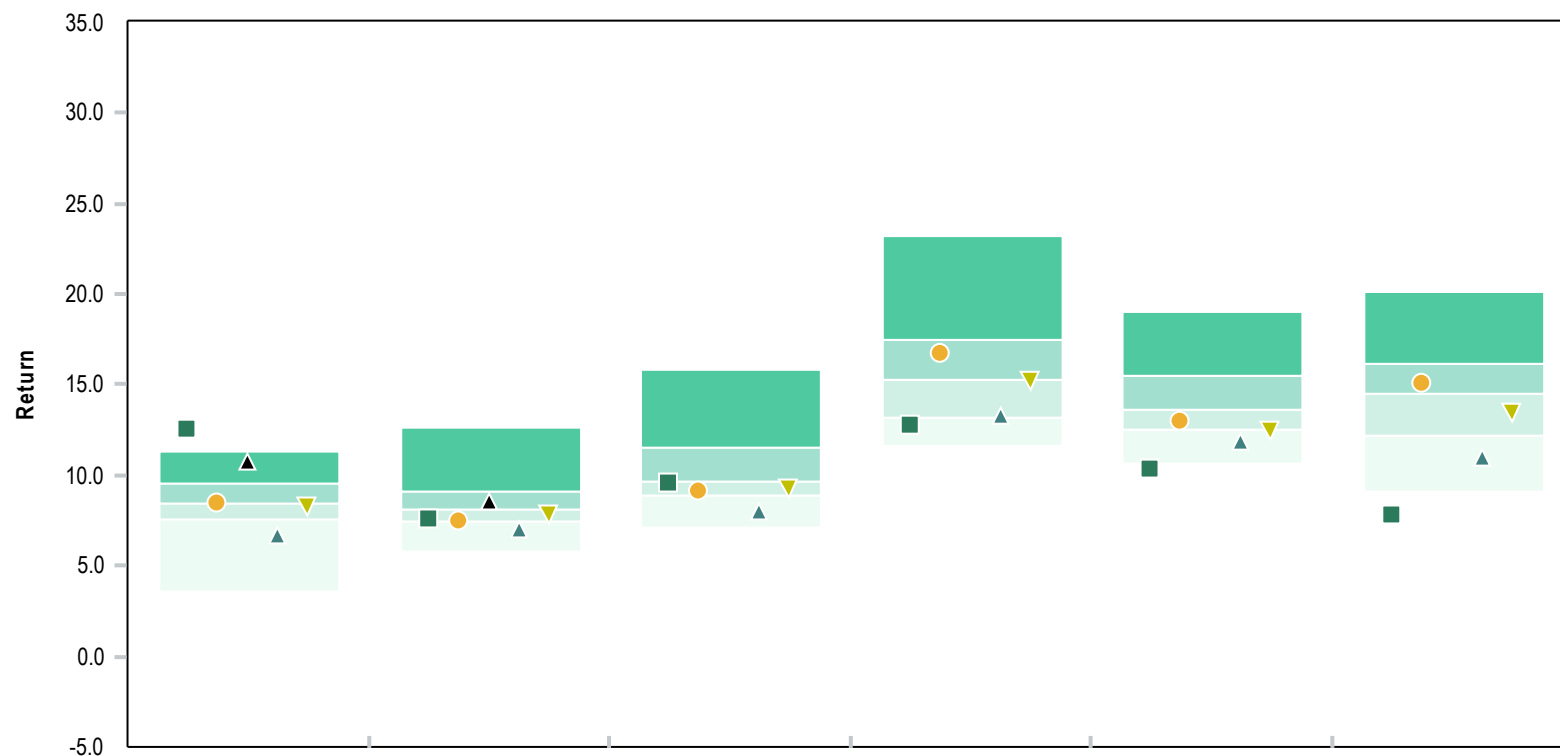
5th Percentile	2.08	27.32	39.30	4.99	11.24	22.22	15.00	2.30	19.71	58.03
1st Quartile	-3.77	17.15	2.12	-0.26	1.92	13.45	8.25	-2.40	11.90	24.87
Median	-8.04	10.19	-2.32	-5.48	-3.84	8.39	5.23	-5.79	5.04	15.32
3rd Quartile	-11.47	6.03	-6.65	-11.14	-10.15	1.37	1.67	-9.56	-0.55	9.24
95th Percentile	-20.12	-0.40	-17.04	-25.21	-17.33	-12.16	-5.84	-25.92	-6.07	-4.06

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



5th Percentile	2.88	11.12	11.06	14.70	15.67	14.83
1st Quartile	2.50	8.51	9.55	11.76	12.94	13.26
Median	1.80	7.05	8.43	9.97	11.13	11.67
3rd Quartile	1.54	6.75	7.62	9.45	10.35	10.53
95th Percentile	0.91	3.92	6.31	7.93	8.72	9.81

Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.



■ Total Real Estate
 ● RREEF America REIT II
 ▲ Intercontinental
 ▲ NCREIF Property Index
 ▼ NCREIF ODCE Equal Weighted

	2018	2017	2016	2015	2014	2013
Total Real Estate	12.55 (4)	7.60 (63)	9.60 (51)	12.77 (86)	10.35 (97)	7.79 (99)
RREEF America REIT II	8.43 (50)	7.44 (70)	9.14 (62)	16.70 (35)	12.99 (68)	15.01 (37)
Intercontinental	10.74 (15)	8.53 (43)	N/A	N/A	N/A	N/A
NCREIF Property Index	6.72 (85)	6.96 (82)	7.97 (88)	13.33 (75)	11.82 (82)	10.98 (86)
NCREIF ODCE Equal Weighted	8.25 (55)	7.80 (57)	9.27 (55)	15.17 (51)	12.38 (78)	13.36 (60)

5th Percentile	11.32	12.62	15.83	23.17	18.98	20.08
1st Quartile	9.57	9.12	11.50	17.53	15.54	16.14
Median	8.42	8.08	9.63	15.23	13.59	14.47
3rd Quartile	7.51	7.42	8.90	13.23	12.57	12.23
95th Percentile	3.64	5.85	7.15	11.60	10.68	9.07

Parentheses contain percentile rankings.
 Calculation based on quarterly periodicity.

Bristol County Retirement System

Total Active Hard Assets and Real Estate Composite Overview

As of September 30, 2019

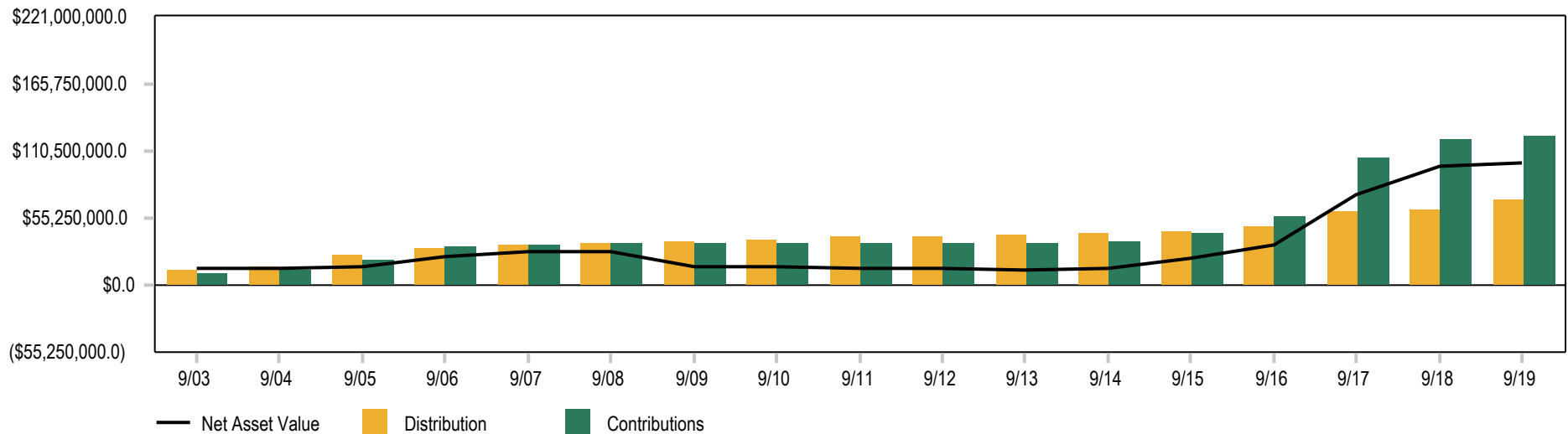
Cash Flow Summary

Capital Committed: \$138,427,501
Total Contributions: \$131,237,267
Remaining Capital Commitment: \$15,857,055

Total Distributions: \$70,699,989
Market Value: \$100,524,817

Inception Date: 01/01/1995
Inception IRR: 15.82
TVPI: 1.32

Cash Flow Analysis



Bristol County Retirement System

Total Active Hard Assets and Real Estate

As of September 30, 2019

Partnerships	Vintage Year	Investment Strategy	Capital Commitment (\$)	Drawn Down (\$)	Distributed (\$)	Market Value (\$)	IRR (%)	TVPI Multiple
Brookfield Timberlands Fund V	2013	Timber	5,000,000	1,140,859	533,435	1,144,262	8.89	1.47
Eastern Timberland Opportunities II	2014	Timber	2,500,000	2,258,324	393,893	3,002,999	8.97	1.50
GCM Customized Infrastructures Strategies II, LP	2015	Infrastructure	13,000,000	10,498,558	4,381,565	7,742,690	9.51	1.15
Invesco Mortgage Recovery II	2016	Real Estate	15,000,000	13,845,087	12,631,781	4,994,437	14.03	1.33
TerraCap Partners IV			10,000,000	10,566,939	603,363	10,629,264	5.30	1.12
Total Hard Assets			138,427,501	131,237,267	70,699,989	100,524,817	15.82	1.32

	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Brookfield Timberlands Fund V	1,144,262	0.16	0.00	5.61	-3.64	8.91	8.74	N/A	N/A	8.89	12/23/2013
Eastern Timberland Opportunities II	3,002,999	0.42	1.96	7.42	6.36	7.63	9.25	N/A	N/A	8.97	07/03/2014
GCM Customized Infrastructures Strategies II, LP	7,742,690	1.09	0.00	5.53	11.78	10.04	N/A	N/A	N/A	9.51	03/10/2016
Invesco Mortgage Recovery II	4,994,437	0.70	0.00	8.45	20.14	19.49	N/A	N/A	N/A	14.03	05/20/2016
TerraCap Partners IV	10,629,264	1.49	0.00	-1.40	2.82	N/A	N/A	N/A	N/A	5.30	07/17/2018

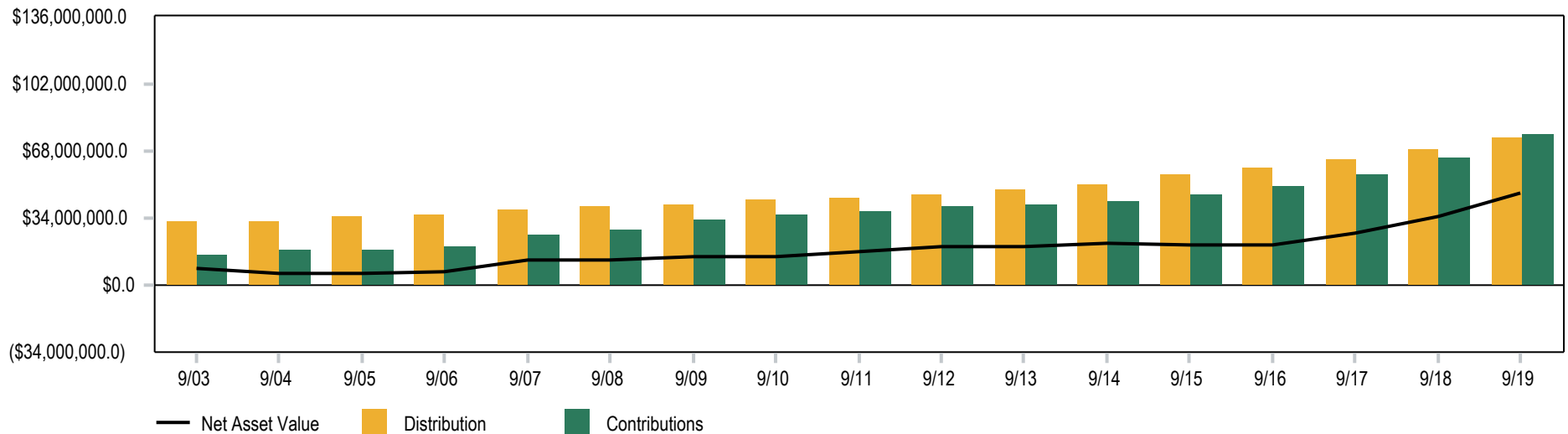
Cash Flow Summary

Capital Committed: \$119,343,419
 Total Contributions: \$76,385,357
 Remaining Capital Commitment: \$45,229,038

Total Distributions: \$74,907,045
 Market Value: \$47,166,878

Inception Date: 01/05/1995
 Inception IRR: 177.68
 TVPI: 1.60

Cash Flow Analysis



Bristol County Retirement System

Private Equity Summary of Partnership

As of September 30, 2019

Partnerships	Vintage Year	Capital Commitment (\$)	Contributions (\$)	Distributions (\$)	Market Value (\$)	IRR (%)	DPI Multiple	TVPI Multiple	Remaining Commitment (\$)
DuPont Capital Management II	2005	5,000,000	3,658,032	3,233,602	582,371	0.56	0.89	1.05	1,586,923
BlackRock Vesey Street Fund III	2005	5,000,000	4,433,304	5,651,598	337,272	4.14	1.28	1.35	650,000
DN Partners II	2005	6,000,000	2,829,275	-	1,939,453	-4.26	-	0.69	3,170,725
BlackRock Vesey Street Fund IV	2007	10,000,000	9,265,251	11,045,893	3,798,485	8.06	1.20	1.61	2,329,560
Mesirow PE Fund V	2008	5,000,000	4,122,431	4,050,658	3,999,834	14.47	0.98	1.96	881,700
PRIT Vintage 2014	2014	9,090,291	7,352,726	2,743,542	9,117,110	19.63	0.37	1.61	1,749,294
PRIT Vintage 2015	2015	12,290,670	10,007,150	2,033,960	13,852,920	24.54	0.20	1.59	2,380,665
PRIT Vintage 2016	2016	8,302,928	5,373,104	589,928	5,194,158	5.01	0.11	1.08	2,939,676
PRIT Vintage 2017	2017	15,535,926	4,606,917	119,429	4,907,489	9.18	0.03	1.09	10,937,610
PRIT Vintage 2018	2018	14,323,604	2,902,158	279,262	2,578,667	-2.44	0.10	0.99	11,427,633
PRIT Vintage 2019	2019	10,000,000	701,414	1,869	714,002	4.44	0.00	1.02	9,300,101
Total Private Equity		119,343,419	76,385,357	74,907,045	47,166,878	177.68	0.98	1.60	45,229,038

*Active Private Equity managers shown

Bristol County Retirement System

Active Private Equity Funds

As of September 30, 2019

Internal Rates of Return

	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total Private Equity	47,166,878	6.61	6.71	13.11	17.49	17.82	11.23	11.11	9.71	177.68	01/05/1995
BlackRock Vesey Street Fund III	337,272	0.05	0.00	-2.34	-8.31	-5.23	4.52	9.08	10.83	4.14	07/17/2006
DuPont Capital Management II	582,371	0.08	0.00	-2.33	-6.74	-1.34	-3.66	0.96	4.13	0.56	08/14/2006
DN Partners II	1,939,453	0.27	-0.41	-1.03	78.15	40.78	-3.89	-3.36	-2.87	-4.26	01/11/2007
BlackRock Vesey Street Fund IV	3,798,485	0.53	0.00	2.01	2.08	8.27	6.32	9.65	9.90	8.06	02/24/2009
Mesirow PE Fund V	3,999,834	0.56	0.00	11.44	14.50	16.09	15.40	16.31	14.86	14.47	04/09/2009
PRIT Vintage 2014	9,117,110	1.28	5.86	12.85	19.19	26.54	20.13	N/A	N/A	19.63	05/01/2014
PRIT Vintage 2015	13,852,920	1.94	11.93	21.41	32.14	29.46	N/A	N/A	N/A	24.54	03/01/2015
PRIT Vintage 2016	5,194,158	0.73	4.01	3.57	4.62	6.99	N/A	N/A	N/A	5.01	03/01/2016
PRIT Vintage 2017	4,907,489	0.69	10.33	31.66	10.06	N/A	N/A	N/A	N/A	9.18	04/30/2017
PRIT Vintage 2018	2,578,667	0.36	14.17	12.68	-1.24	N/A	N/A	N/A	N/A	-2.44	05/30/2018
PRIT Vintage 2019	714,002	0.10	3.33	N/A	N/A	N/A	N/A	N/A	N/A	4.44	03/31/2019