

Investment Performance Review
Period Ending June 30, 2022

Employees' Retirement System of the City of Norfolk



As you may recall from our Client Letter at the beginning of the year, AndCo remains steadfast in our belief and conviction that the best way to service our valued clients is within a model that is independent, singularly focused, customized, and passionately delivered. We continue to reinvest 100% of our net profits back into the organization to enhance our customized service model and provide the appropriate resources for all our team members to serve our valued clients at a high level.

To that end, we are thrilled to share that AndCo is the recipient of a Greenwich Quality Leader Award for mid-sized consulting firms!

Coalition Greenwich is a leading global provider of data, analytics, and insights to the financial services industry, and the Greenwich Exchange provides institutional investors with robust and actionable data to inform their decision-making. Research participants receive regional and global industry insights, as well as peers' perceptions of asset managers and investment consultants.

Outlined below are the award criteria research participants answer that determines Quality Leader Awards each year. To qualify as a research participant you must have at least \$150MM in investable assets.

2021 was the first year we launched an initiative to participate in this research opportunity and the experience helped glean key insights into what is important for our clients and how we can better serve them going forward. We deeply appreciate the client representatives that acted as research participants in the 2021 study.

While our consultants are the tip of the spear when servicing our clients, this award, and our overall client service experience, would not have been possible without the work of our entire AndCo team. We greatly appreciate their ongoing work and efforts that made this award possible.

As we have stated since our rebrand in 2017, our name, AndCo, reminds us of who we work for every day - "Our Client" &Co. You will always be first in our service model and at the forefront of each team member's efforts to serve, earn your trust, and add value.

Thank you again for your valued partnership and the opportunity to serve you. We share this award with you and will continue to work hard to earn your trust as we move forward in these challenging market environments.

GREENWICH QUALITY LEADER AWARD CRITERIA

Understanding of Client Goals and Objectives	Client Satisfaction with Manager Recommendations	Timeliness in Providing Written Reports
Advice on DC Plan Structure and Design	Communication of Philosophy and Investment Beliefs	Capability of Consultants Assigned to Clients
Credibility with Investment Committee	Advice on Long-Term Asset Allocation and Liability Issues	Usefulness of Personal Meetings
Proactive Advice and Innovative Ideas	Responsiveness and Prompt Follow-Up on Client Requests	Sufficient Professional Resources
	Usefulness of Written Investment Reviews	

IMPORTANT DISCLOSURE INFORMATION RE GREENWICH QUALITY LEADER AWARD: This communication is intended for informational purposes only and should not be regarded as investment advice or as a recommendation regarding any particular course of action. AndCo Consulting is an investment adviser registered with the U.S. Securities and Exchange Commission ("SEC"). Registration as an investment adviser does not constitute an endorsement of the firm by securities regulators nor does it indicate that the adviser has attained a particular level of skill or ability.

These ratings are not indicative of AndCo's future performance. These awards or any other rankings and/or recognition by unaffiliated rating services and/or publications should not be construed as a guarantee that a client will experience a certain level of results or satisfaction if they invest with AndCo, nor should it be construed as a current or past endorsement by any of our clients. AndCo did not pay a fee to participate in this award survey. Coalition Greenwich and AndCo are not affiliated entities.

METHODOLOGY FOR THIS AWARD: Between July and October 2021, Coalition Greenwich conducted interviews with 811 individuals from 661 of the largest tax-exempt funds in the United States. These U.S.-based institutional investors are corporate and union funds, public funds, and endowment and foundation funds, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset management and investment consulting providers, including qualitative assessments of those firms soliciting their business and detailed information on important market trends.



2nd Quarter 2022 Market Environment



The Economy

- Global economic growth continued to slow during the 2nd quarter as global central banks tightened monetary policy in order to fight persistently high inflation. Additionally, rising geopolitical concerns related to Russia's continued action in Ukraine, China's zero-Covid policy, and social unrest in emerging markets all contributed to the slowdown.
- The US Federal Reserve Bank (the Fed) increased interest rates twice during the quarter by a total of 1.25%. June's rate increase of 0.75% was the largest interest rate increase since the early 1990s. The Fed indicated that its primary focus is arresting the increase in inflation which could require additional rate increases.
- The US labor market continues to be a source of strength with the unemployment rate holding steady at 3.6% in June. The pace of job growth remains above the market's expectations with 390,000 and 372,000 new jobs created in May and June, respectively. Despite these gains, the number of available workers entering the workforce remains significantly below the pre-pandemic high.
- The US housing market showed signs of cooling as higher mortgage rates pushed many buyers out of the market. Importantly, housing starts and new building permits continued their downward trend which suggests future new inventory may fall short of demand. Finally, home price appreciation continued to increase as measured by the Cash-Shiller Home Price Index.

Equity (Domestic and International)

- US equities declined broadly during the 2nd quarter as worries regarding inflation, sharply higher interest rates, rising recession risk, and continued geopolitical events weighed on the equity market. Large cap value was the least negative (-12.2%) segment of the domestic equity market relative to other styles and capitalizations for the second consecutive quarter. Mid-cap growth was the worst performing style, falling 21.1% for the period.
- International stocks also struggled during the 2nd quarter as the continuing conflict in Ukraine and persistently high inflation drove markets lower. Western Europe was negatively affected by rising energy prices due to continued restrictions on purchases from Russia. Additionally, both the Euro and Yen currencies fell against the US dollar (USD) because of increasing uneasiness over future economic growth.

Fixed Income

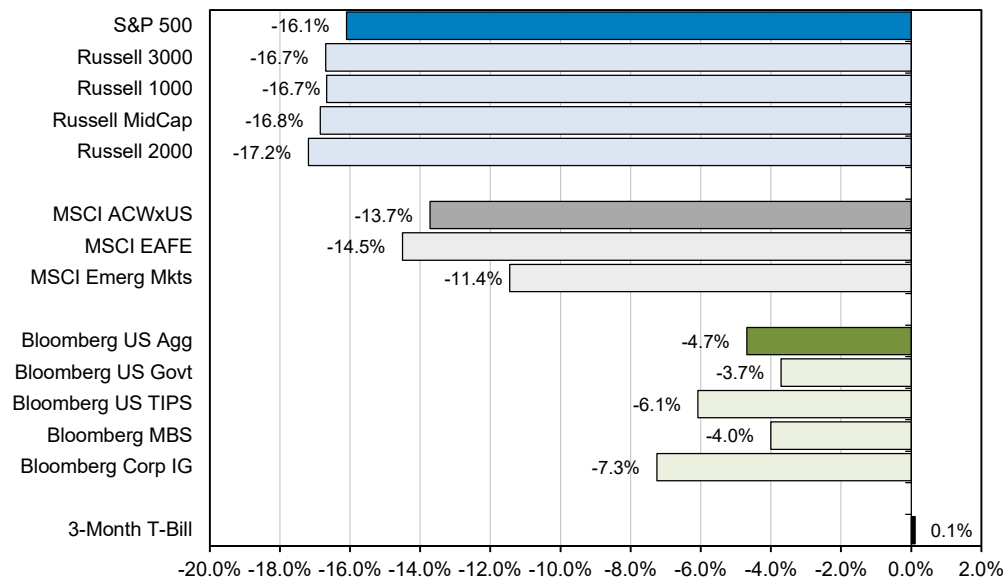
- Concerns about current inflation levels, combined with the Fed's stated commitment to continue raising interest rates, were the primary drivers of return during the 2nd quarter. US interest rates moved significantly higher during the quarter with the US 10-Year Treasury bond rising 63 basis points to close at a yield of 2.98%.
- Performance was broadly negative across all bond market sectors during the quarter with US Treasury bonds holding up the most as market volatility increased.
- Investment grade corporate bonds underperformed higher quality mortgage-backed and US Treasury bonds during the quarter. High yield bonds also lagged their peers as fears over future economic growth and weaker corporate earnings drove credit spreads wider.
- Counterintuitively, TIPS underperformed nominal US Treasury bonds during the quarter as the bond market's future expectation for inflation declined.

Market Themes

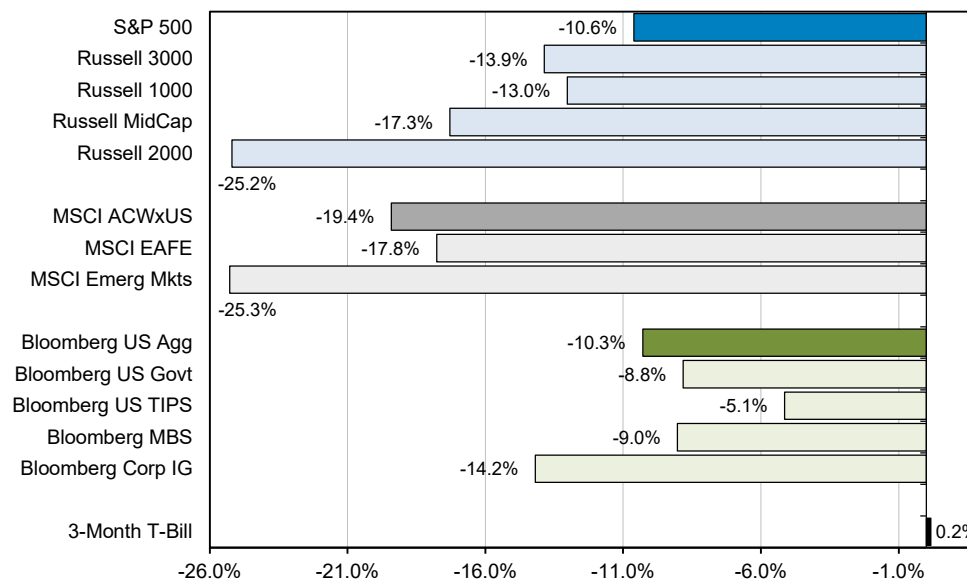
- The pace of global central bank monetary tightening increased during the quarter with the both the Fed and Bank of England raising interest rates. The European Central Bank also hinted it would begin raising rates during the 3rd quarter.
- The crisis in Ukraine continues to negatively impact global economic growth. Specifically, recently imposed restrictions will likely result in higher energy costs in Europe just as economic growth begins to slow.
- US equity markets experienced their second consecutive negative quarter of performance and their worst start to a calendar year since the 1970s. Growth-oriented stocks significantly underperformed value stocks as investors' fears about rising inflation and future economic growth carried through to asset prices. Historically, growth stocks have underperformed value stocks as the economy slows.
- Interest rates continued to rise across the Treasury yield curve during the quarter as investors believe the Fed will continue to raise interest rates to fight inflation. The shape of the yield curve remained relatively flat between two- and ten-year maturities. Historically, the yield curve has been used as a leading indicator to predict the market's expectations of a recession.

- Broad US equity markets continued their recent trend delivering negative returns during the 2nd quarter of 2022. A variety of factors contributed to performance including persistently high inflation, the potential for future interest rate increases, geopolitical events in Ukraine, and concerns related to slower economic growth. For the period, the S&P 500 large cap benchmark returned -16.1%, compared to -16.8% for mid-cap and -17.2% for small cap indices.
- Developed market international equities also suffered negative results for the 2nd quarter. Europe continues to be negatively impacted by the ongoing crisis in Ukraine. Recently, restrictions related to Russian energy imports were imposed leading to further energy cost increases. For the quarter, the MSCI EAFE Index declined by -14.5%.
- Emerging markets were also under pressure due to the continued conflict in Ukraine and China's "Zero Covid" policy. During the period, the MSCI Emerging Markets Index fell by -11.4%
- Bond market performance was broadly negative for the quarter due to rising inflation and the prospect of additional interest rate increases. The Bloomberg (BB) US Aggregate Index returned -4.7% for the period while Investment Grade Corporate bonds posted a return of -7.3%. US Treasury bonds held up the most for the period, but still declined by -3.7%.
- The quarter's negative performance added to challenged returns of developed equity markets over the trailing 1-year period. The primary drivers of returns during the period were rising inflation, the path of interest rates, and future economic growth. The S&P 500 large cap stock index led relative equity market performance for the year but still returned a disappointing -10.6%. The downside outlier was the Russell 2000 small cap index, which declined by -25.3% for the year.
- Similar to domestic equities, the developed international and emerging markets suffered negative returns over the trailing 1-year period. The developed market MSCI EAFE Index posted a return of -17.8% while the MSCI Emerging Markets Index pulled back by -25.3%. Economic growth slowed throughout the year as monetary stimulus wore off and it became increasingly clear that high inflation levels were not transitory.
- Bond market returns also disappointed over the trailing 1-year period with the BB US Aggregate Index dropping by -10.3%.

Quarter Performance



1-Year Performance

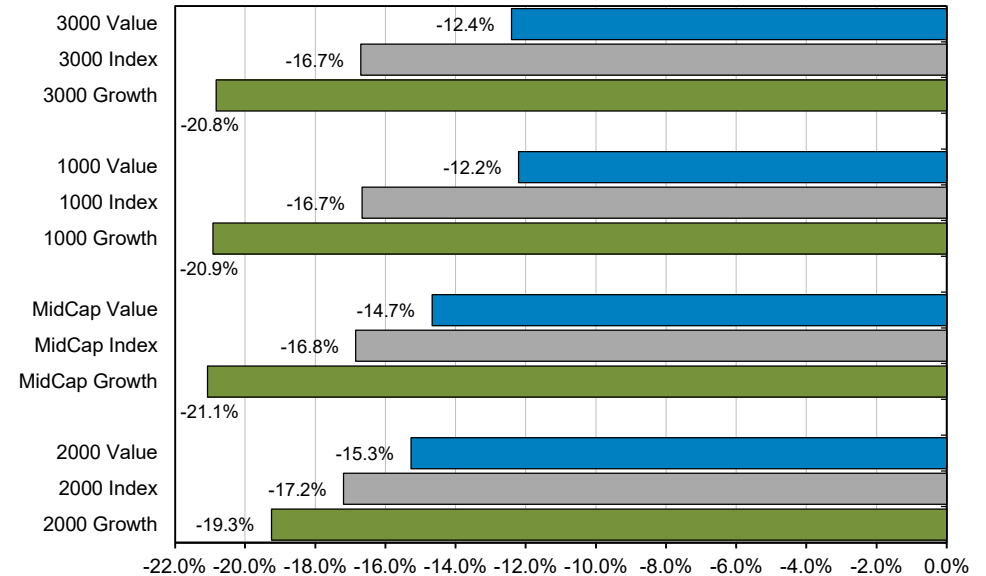


Source: Investment Metrics

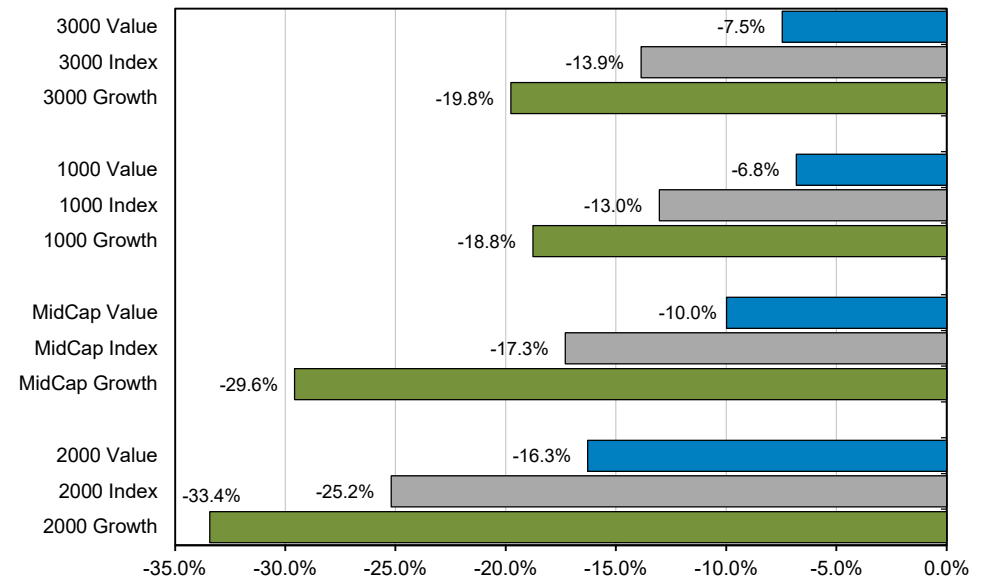


- Volatility increased during the 2nd quarter as each broad US equity benchmark posted negative results across both the style and market capitalization spectrums. Large cap stocks continued their leadership, followed by mid and small cap issues. The Russell 1000 Index declined by -16.7% for the quarter while the Russell Mid Cap Index and the Russell 2000 Index fell by -16.8% and -17.2%, respectively.
- Performance across styles and market capitalizations was disparate during the quarter. Value stocks handily outpaced their growth counterparts across market capitalizations. For the period, the Russell 1000 Value Index was the least negative performing style index, posting a weak return of -12.2%. Mid cap and large cap growth stocks fell even further with the Mid Cap Growth Index declining by -21.1% and the Russell 1000 Growth Index posting a return of -20.9%.
- Performance across all market capitalizations and styles were also negative over the trailing 1-year period. Much like the 2nd quarter, large cap stocks were down less than mid and small cap stocks for the 1-year period. The Russell 1000 Index returned -13.0% for the year but was down significantly less than both its mid and small cap growth index counterparts. The downside outlier during the period was the Russell 2000 Index which fell by -25.2%.
- The return dispersion across market styles was also wide for the trailing 1-year period and value stocks were down less than growth stocks by a two-to-one margin across large, mid and small style-based indexes. The return dispersion was extreme with the Russell 1000 Value Index returning -6.8%, and at the other end of the spectrum, the Russell 2000 Growth Index posting a return of -33.4%.

Quarter Performance - Russell Style Series



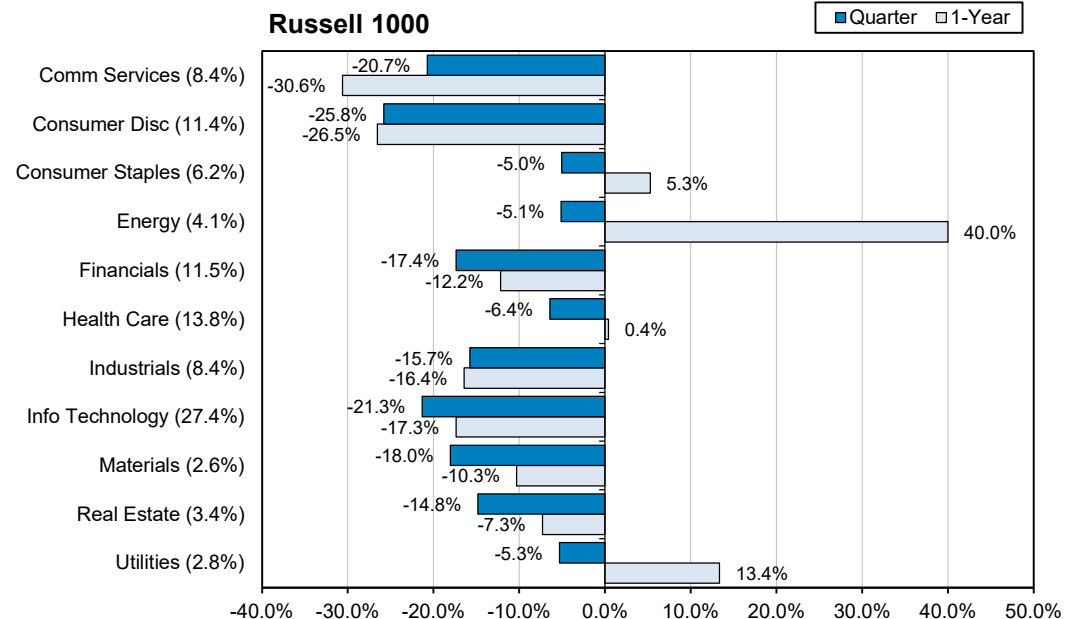
1-Year Performance - Russell Style Series



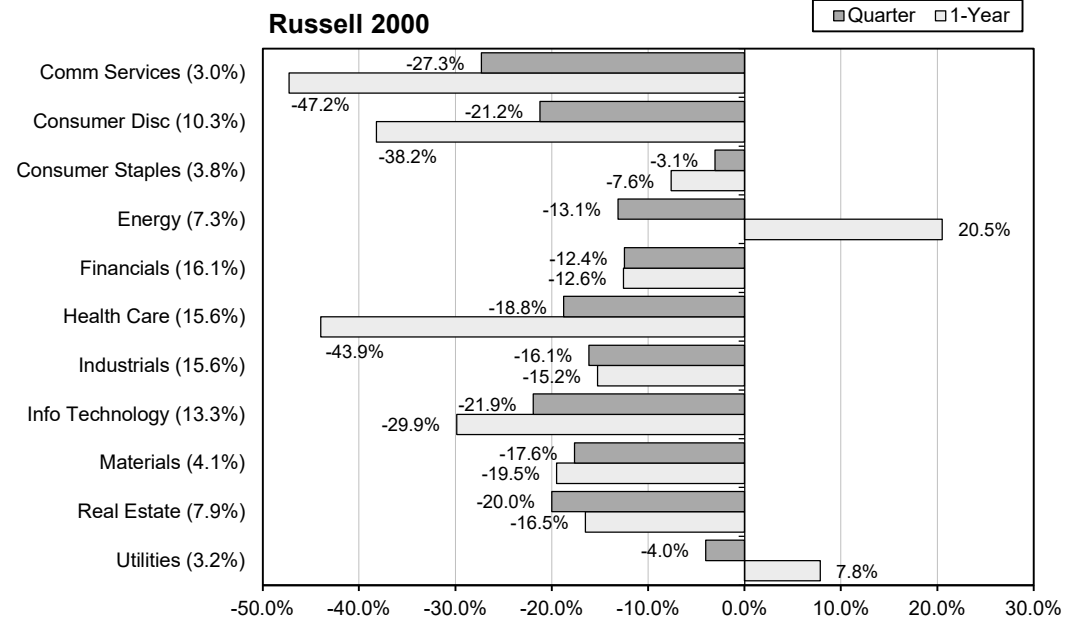
Source: Investment Metrics



- Economic sector performance was negative across all eleven large cap economic sectors for the 2nd quarter. Only four sectors were down less than the return of the broader Russell 1000 Index (-16.7%) on a relative basis during the period.
- Defensive sectors including consumer staples (-5.0%) energy (-5.1%), and utilities (-5.3%) were the least negative performing sectors for the quarter. Concerns about a potential economic slowdown drove the performance of consumer staples during the period. Energy prices remained elevated which acted as a tailwind for the sector. Economically sensitive sectors such as consumer discretionary (-25.8%), information technology (-21.3%), and communication services (-20.7%), significantly underperformed the broader index for the quarter.
- For the full year, seven sectors exceeded the return of the broad large cap benchmark: energy (40.0%), utilities (13.4%), consumer staples (5.3%), health care (0.4%), real estate (-7.3%), materials (-10.3%), and financials (-12.2%). The weakest economic sector performance in the Russell 1000 for the year was communication services (-30.6%).



- Small cap sector performance was also broadly negative for the 2nd quarter with all sectors posting negative performance. Five sectors were down less than the return of the broader Russell 2000 Index (-17.2%) on a relative basis. The consumer staples (-3.1%) sector held up the most for the quarter and the communication services (-27.3%) sector the was the weakest.
- For the trailing 1-year period, seven of the eleven small sectors outpaced the broad benchmark's return (-25.2%). However, only two defensive sectors posted positive performance for the year: energy (20.5%) and utilities (7.8%). The weakest sector over the trailing year was communication services (-47.2%).



Source: Morningstar Direct
As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.



The Market Environment
Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000
As of June 30, 2022

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	5.92%	-21.6%	0.4%	Information Technology
Microsoft Corp	5.44%	-16.5%	-4.4%	Information Technology
Amazon.com Inc	2.67%	-34.8%	-38.3%	Consumer Discretionary
Alphabet Inc Class A	1.85%	-21.6%	-10.8%	Communication Services
Alphabet Inc Class C	1.70%	-21.7%	-12.7%	Communication Services
Tesla Inc	1.62%	-37.5%	-0.9%	Consumer Discretionary
Berkshire Hathaway Inc Class B	1.39%	-22.6%	-1.8%	Financials
UnitedHealth Group Inc	1.36%	1.1%	30.0%	Health Care
Johnson & Johnson	1.32%	0.8%	10.5%	Health Care
Meta Platforms Inc Class A	1.05%	-27.5%	-53.6%	Communication Services

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Ollie's Bargain Outlet Holdings Inc	0.01%	36.8%	-30.2%	Consumer Discretionary
H&R Block Inc	0.02%	36.6%	56.7%	Consumer Discretionary
United Therapeutics Corp	0.03%	31.3%	31.3%	Health Care
Grocery Outlet Holding Corp	0.01%	30.0%	23.0%	Consumer Staples
Pilgrims Pride Corp	0.00%	24.4%	40.8%	Consumer Staples
Seagen Inc Ordinary Shares	0.07%	22.8%	12.1%	Health Care
Lamb Weston Holdings Inc	0.03%	19.7%	-10.0%	Consumer Staples
Post Holdings Inc	0.01%	18.9%	14.1%	Consumer Staples
Monster Beverage Corp	0.10%	16.0%	1.5%	Consumer Staples
American Campus Communities Inc	0.03%	15.2%	41.8%	Real Estate

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Carvana Co Class A	0.01%	-81.1%	-92.5%	Consumer Discretionary
Coinbase Global Inc Ord Shrs - Class A	0.02%	-75.2%	-81.4%	Financials
Upstart Holdings Inc Ordinary Shares	0.01%	-71.0%	-74.7%	Financials
Lyft Inc Class A	0.01%	-65.4%	-78.0%	Industrials
Peloton Interactive Inc	0.01%	-65.3%	-92.6%	Consumer Discretionary
Cloudflare Inc	0.03%	-63.5%	-58.7%	Information Technology
Unity Software Inc Ordinary Shares	0.02%	-62.9%	-66.5%	Information Technology
Affirm Holdings Inc Ord Shrs - Class A	0.01%	-61.0%	-73.2%	Information Technology
Wayfair Inc Class A	0.01%	-60.7%	-86.2%	Consumer Discretionary
Royal Caribbean Group	0.02%	-58.3%	-59.1%	Consumer Discretionary

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Biohaven Pharmaceutical Hldg Co Ltd	0.40%	22.9%	50.1%	Health Care
ShockWave Medical Inc	0.30%	-7.8%	0.8%	Health Care
Chart Industries Inc	0.27%	-2.6%	14.4%	Industrials
Halozyme Therapeutics Inc	0.26%	10.3%	-3.1%	Health Care
SailPoint Technologies Holdings Inc	0.26%	22.5%	22.7%	Information Technology
SouthState Corp	0.25%	-4.8%	-3.3%	Financials
Southwest Gas Holdings Inc	0.25%	12.0%	35.9%	Utilities
Stag Industrial Inc	0.24%	-24.5%	-14.5%	Real Estate
Agree Realty Corp	0.24%	9.8%	6.4%	Real Estate
RBC Bearings Inc	0.23%	-4.6%	-7.3%	Industrials

Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Redbox Entertainment Inc Class A	0.00%	213.6%	N/A	Communication Services
Turning Point Therapeutics Inc	0.15%	180.3%	-3.6%	Health Care
Veru Inc	0.03%	134.0%	40.0%	Consumer Staples
GTY Technology Holdings Inc Class A	0.01%	93.8%	-12.0%	Information Technology
Day One Biopharmaceuticals Inc	0.02%	80.4%	-21.4%	Health Care
SIGA Technologies Inc	0.02%	73.3%	95.7%	Health Care
Sierra Oncology Inc	0.04%	71.6%	182.4%	Health Care
Scorpio Tankers Inc	0.08%	62.0%	60.1%	Energy
Lulus Fashion Lounge Holdings Inc	0.00%	60.0%	N/A	Consumer Discretionary
Convey Health Solutions Hldg Ord Shrs	0.01%	59.0%	-8.6%	Health Care

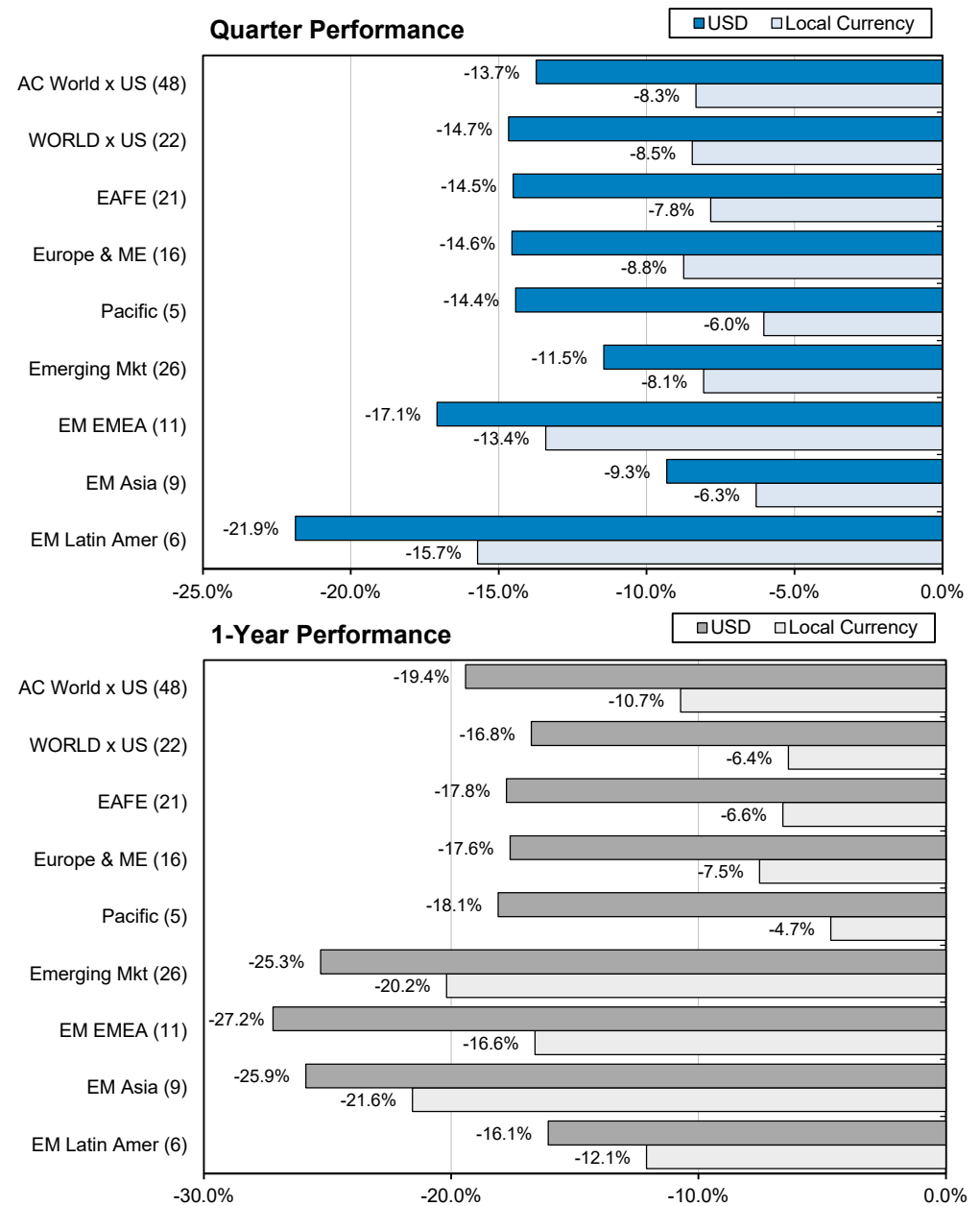
Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Applied Blockchain Inc	0.00%	-93.3%	-90.1%	Information Technology
TeraWulf Inc	0.00%	-85.7%	N/A	Information Technology
Velo3D Inc	0.00%	-85.2%	N/A	Industrials
Avaya Holdings Corp	0.01%	-82.3%	-91.7%	Information Technology
Bird Global Inc Class A	0.00%	-82.2%	N/A	Industrials
Core Scientific Inc Ord Shares - Class A	0.01%	-81.9%	N/A	Information Technology
Boxed Inc	0.00%	-81.8%	N/A	Consumer Discretionary
Marathon Digital Holdings Inc	0.02%	-80.9%	-83.0%	Information Technology
Riot Blockchain Inc	0.02%	-80.2%	-88.9%	Information Technology
Endo International PLC	0.00%	-79.8%	-90.0%	Health Care

Source: Morningstar Direct



- Performance across all developed and emerging international equity indexes tracked in the chart were negative during the quarter in both US dollar (USD) and local currency (LC) terms. The developed market MSCI EAFE Index returned -14.5% in USD and -7.8% in LC terms for the period, while the MSCI Emerging Markets Index declined by -11.5% in USD and -8.1% in LC terms. Developed markets were negatively impacted by rising inflation and tighter monetary policy. Emerging markets, especially those that export commodities, held up better.

- The trailing 1-year results for both international developed and emerging markets were broadly negative across all regions and currencies. The MSCI EAFE Index returned -17.8% in USD for the year and -6.6% in LC terms. Similarly, returns across emerging markets were broadly lower with the MSCI Emerging Markets Index falling by -25.3% in USD and -20.2% in LC terms. Within emerging markets, the EMEA region was the worst performing, declining by -27.2% in USD and -16.6% in LC terms. The region was negatively affected by the conflict in Ukraine.



Source: MSCI Global Index Monitor (Returns are Net)

The Market Environment
US Dollar International Index Attribution & Country Detail
As of June 30, 2022

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.0%	-10.9%	-20.7%
Consumer Discretionary	11.3%	-15.5%	-27.6%
Consumer Staples	10.9%	-8.4%	-14.0%
Energy	4.8%	-4.1%	21.4%
Financials	17.7%	-13.9%	-12.3%
Health Care	13.9%	-9.5%	-9.9%
Industrials	14.9%	-18.5%	-24.4%
Information Technology	7.8%	-23.5%	-30.0%
Materials	7.5%	-21.0%	-18.6%
Real Estate	2.9%	-15.8%	-20.9%
Utilities	3.5%	-11.8%	-12.2%
Total	100.0%	-14.5%	-17.8%

MSCI - ACWixUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	6.5%	-10.7%	-26.6%
Consumer Discretionary	11.7%	-8.4%	-31.1%
Consumer Staples	8.9%	-7.6%	-14.0%
Energy	6.0%	-4.7%	8.2%
Financials	20.3%	-14.3%	-10.4%
Health Care	9.8%	-9.6%	-15.8%
Industrials	11.8%	-17.1%	-22.1%
Information Technology	11.0%	-22.6%	-31.6%
Materials	8.0%	-21.4%	-19.1%
Real Estate	2.5%	-13.5%	-22.5%
Utilities	3.4%	-9.5%	-7.5%
Total	100.0%	-13.7%	-19.4%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	10.6%	-10.5%	-32.9%
Consumer Discretionary	14.9%	6.3%	-37.2%
Consumer Staples	6.1%	-4.6%	-17.7%
Energy	5.0%	-5.9%	-21.7%
Financials	21.2%	-14.1%	-8.7%
Health Care	4.0%	-8.8%	-42.3%
Industrials	5.6%	-9.5%	-17.8%
Information Technology	19.2%	-20.8%	-28.9%
Materials	8.4%	-20.6%	-24.2%
Real Estate	2.1%	-6.1%	-27.6%
Utilities	2.9%	-4.4%	3.3%
Total	100.0%	-11.5%	-25.3%

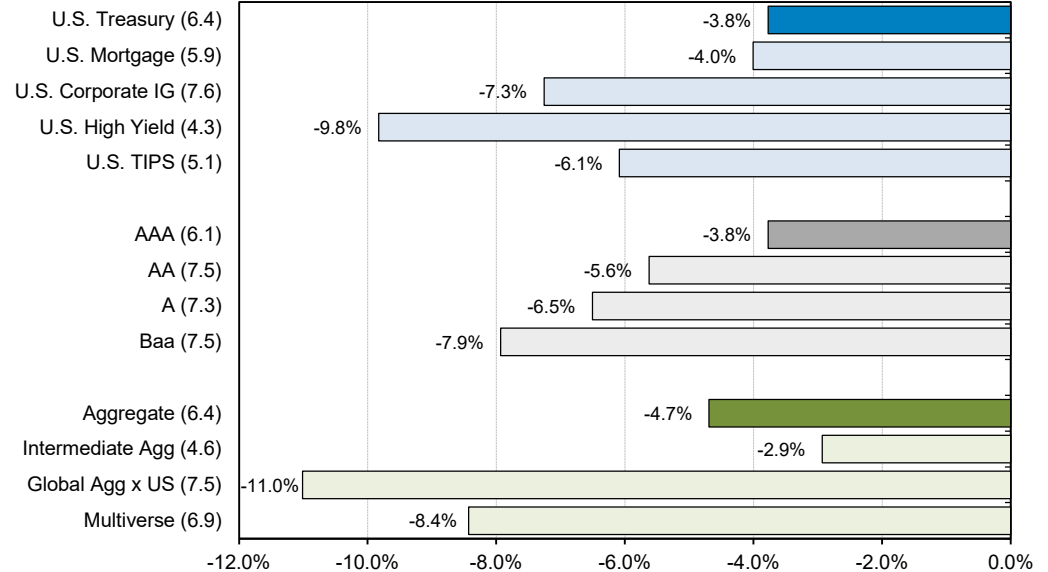
Country	MSCI-EAFE Weight	MSCI-ACWixUS Weight	Quarter Return	1-Year Return
Japan	22.3%	13.8%	-14.6%	-19.9%
United Kingdom	15.9%	9.9%	-10.5%	-4.0%
France	11.2%	7.0%	-14.8%	-18.3%
Switzerland	10.5%	6.5%	-14.5%	-12.7%
Australia	7.8%	4.9%	-18.1%	-13.1%
Germany	7.8%	4.8%	-18.1%	-31.2%
Netherlands	4.1%	2.6%	-19.0%	-28.4%
Sweden	3.4%	2.1%	-21.4%	-31.0%
Hong Kong	3.3%	2.1%	-1.1%	-15.2%
Denmark	2.8%	1.7%	-12.0%	-10.5%
Spain	2.5%	1.6%	-8.4%	-16.3%
Italy	2.3%	1.4%	-17.7%	-22.7%
Singapore	1.5%	0.9%	-16.8%	-21.0%
Belgium	1.0%	0.6%	-13.4%	-21.0%
Finland	1.0%	0.6%	-10.9%	-21.7%
Norway	0.8%	0.5%	-14.8%	-1.6%
Israel	0.8%	0.5%	-20.0%	-18.1%
Ireland	0.6%	0.4%	-19.6%	-35.4%
Portugal	0.2%	0.1%	-6.1%	1.4%
Austria	0.2%	0.1%	-17.2%	-23.1%
New Zealand	0.2%	0.1%	-16.9%	-25.8%
Total EAFE Countries	100.0%	62.2%	-14.5%	-17.8%
Canada		8.1%	-15.8%	-8.0%
Total Developed Countries		71.4%	-4.8%	3.0%
China		10.5%	3.4%	-31.8%
Taiwan		4.3%	-19.8%	-20.4%
India		3.8%	-13.7%	-4.8%
Korea		3.4%	-20.9%	-38.5%
Brazil		1.4%	-24.4%	-23.3%
Saudi Arabia		1.3%	-12.5%	10.3%
South Africa		1.1%	-23.0%	-13.2%
Mexico		0.6%	-15.2%	-0.7%
Thailand		0.6%	-10.6%	-7.5%
Indonesia		0.5%	-9.0%	16.1%
Malaysia		0.4%	-12.8%	-9.3%
United Arab Emirates		0.4%	-19.4%	14.7%
Qatar		0.3%	-10.8%	17.4%
Kuwait		0.2%	-7.7%	22.8%
Philippines		0.2%	-19.5%	-17.8%
Poland		0.2%	-27.1%	-35.1%
Chile		0.2%	-15.9%	-10.1%
Turkey		0.1%	-10.9%	-9.0%
Peru		0.1%	-30.2%	-7.5%
Greece		0.1%	-17.0%	-17.5%
Colombia		0.1%	-28.0%	3.3%
Czech Republic		0.1%	-3.7%	27.4%
Hungary		0.1%	-26.3%	-42.2%
Egypt		0.0%	-20.4%	-24.8%
Total Emerging Countries		29.7%	-11.5%	-25.3%
Total ACWixUS Countries		100.0%	-13.7%	-19.4%

Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)
As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.

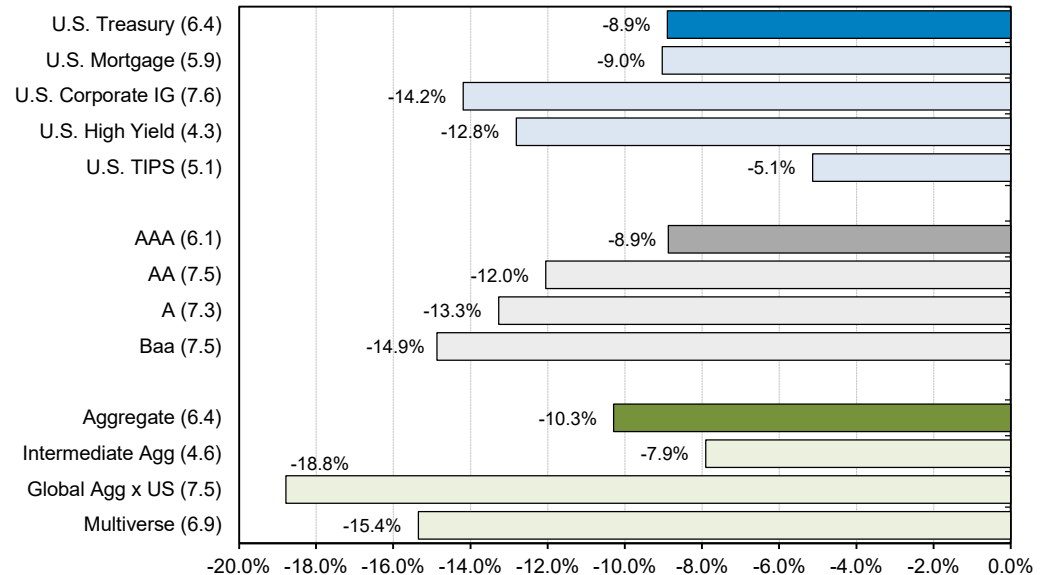


- Fixed income markets were broadly negative during the 2nd quarter. Investors remained focused on rising inflation and the potential of future Fed rate increases to combat it. As a result, US Treasury bond yields were higher across the maturity curve during the quarter.
- The return for the BB US Aggregate Bond Index, the bellwether investment grade benchmark, was down -4.7% for the period.
- Performance across the investment grade index's segments was also negative during the period with the US Corporate Investment Grade bonds declining -7.3% and the US Mortgage index component posting a return of -4.0%.
- US Treasury bonds were the quarter's least negative segment, returning -3.8% and high yield bonds were the worst performing, declining by -9.8%.
- Outside of domestic markets, the BB Global Aggregate ex US Index fell by -11.0% for the quarter. Like international stocks, global bond index performance was negatively impacted by the strengthening USD, which acted as a drag on USD index returns. Additionally, yields in both German and Japan, two of the largest issuers in the benchmark, moved markedly higher during the period.
- Over the trailing 1-year period, domestic investment grade benchmark performance was negative and led lower by investment grade corporate (-14.2%) and mortgage (-9.0%) bonds. US TIPS (-5.1%) were down less than nominal US Treasury bonds (-8.9%). The bellwether BB US Aggregate Bond Index declined by -10.3% for the year.
- Primarily due to their shorter maturity profile, lower quality high yield corporate bonds fell by less than their investment grade counterparts with the BB US High Yield Index returning -12.8% for the period.
- Non-US bonds have been under significant pressure over the past year with the developed market BB Global Aggregate ex US Index falling by -18.8%. The combination of rising inflation, higher interest rates, a longer maturity profile, and USD strength contributed to weak index performance for the year.

Quarter Performance



1-Year Performance

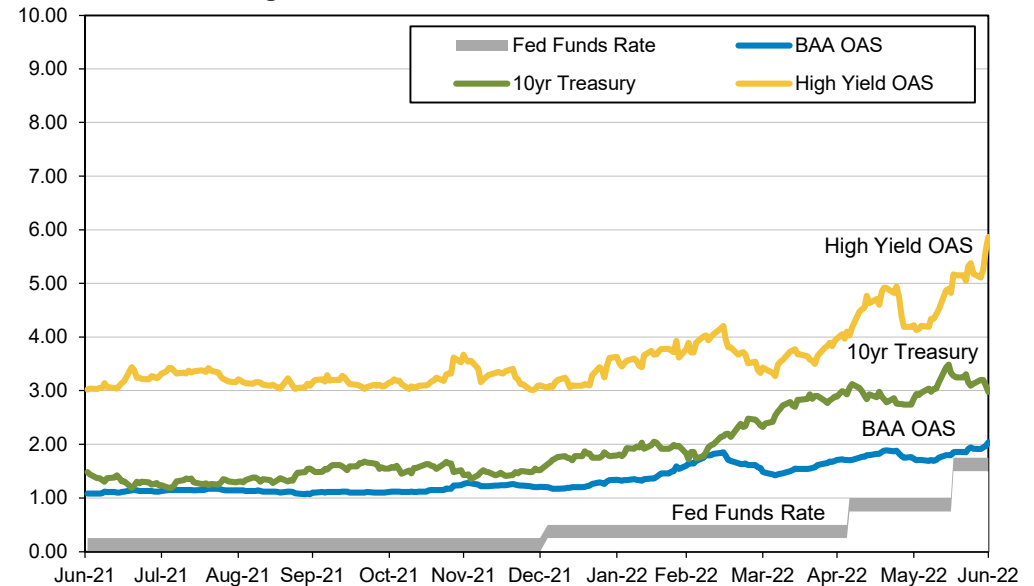


Source: Bloomberg

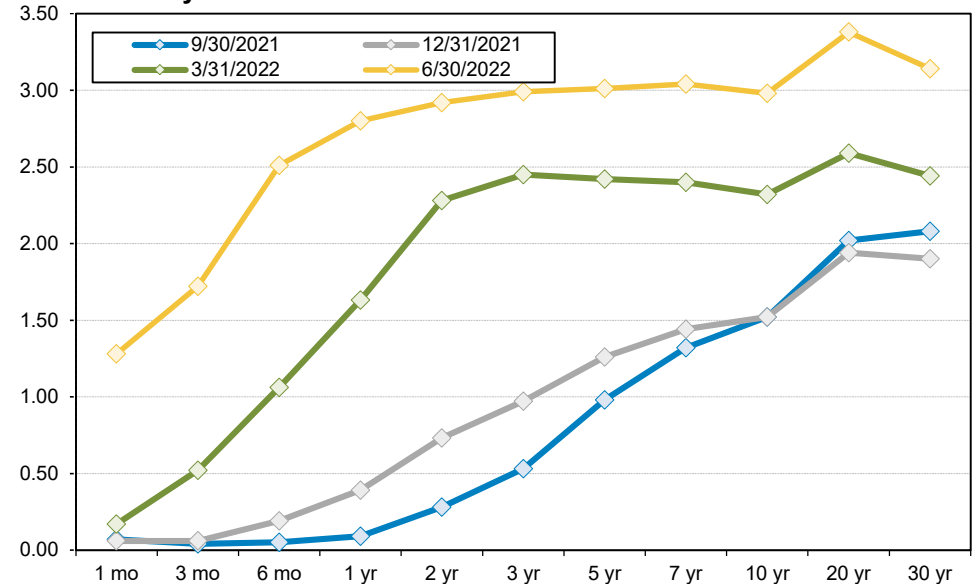


- The gray band across the graph illustrates the range of the current Fed Funds Rate. In the 2nd quarter this year, the Fed raised the upper end of its target rate range from 0.50% to 1.75%. During its recent June meeting, the Federal Open Market Committee (FOMC) stated that it remains committed to fighting higher inflation and will consider future interest rate increases. Importantly, the FOMC stated that it will begin lowering the size of the balance sheet by not reinvesting proceeds from maturing bonds.
- The yield on the US 10-year Treasury (green line) ended the period higher as concerns over the pace of inflation, combined with the Fed's announced rate increase, drove yields higher. After reaching a high of nearly 3.50% during June, interest rates traded fell for the remainder of the quarter. The yield on the US 10-year Treasury was 2.98% on June 30th.
- The blue line illustrates changes in the BAA OAS (Option Adjusted Spread). This measure quantifies the additional yield premium that investors require to purchase and hold non-US Treasury investment grade issues. For the full year, the spread widened to 2.04% from 1.07%. High Yield OAS moved significantly higher over the latter part of the year as spreads rose from 3.04% to 5.87%. High Yield spreads began moving wider during the year on concerns over slowing economic growth which raises the specter of a potential increase in defaults.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. The yield curve shifted significantly higher across all maturities during the 2nd quarter of 2022 following the Fed's decision to raise interest rates by 1.25%. The shape of the yield curve normalized during the quarter as longer-term interest rates moved above short-term rates. As of the end of the quarter, the spread between 2-year and 10-year rates was positive. Historically, market expectations for recession increase when longer-term interest rates trade below their short-term peers.

1-Year Trailing Market Rates



Treasury Yield Curve



Source: US Department of Treasury, FRED (Federal Reserve of St. Louis)

Annual Asset Class Performance

Strategic Policy

As of June 30, 2022

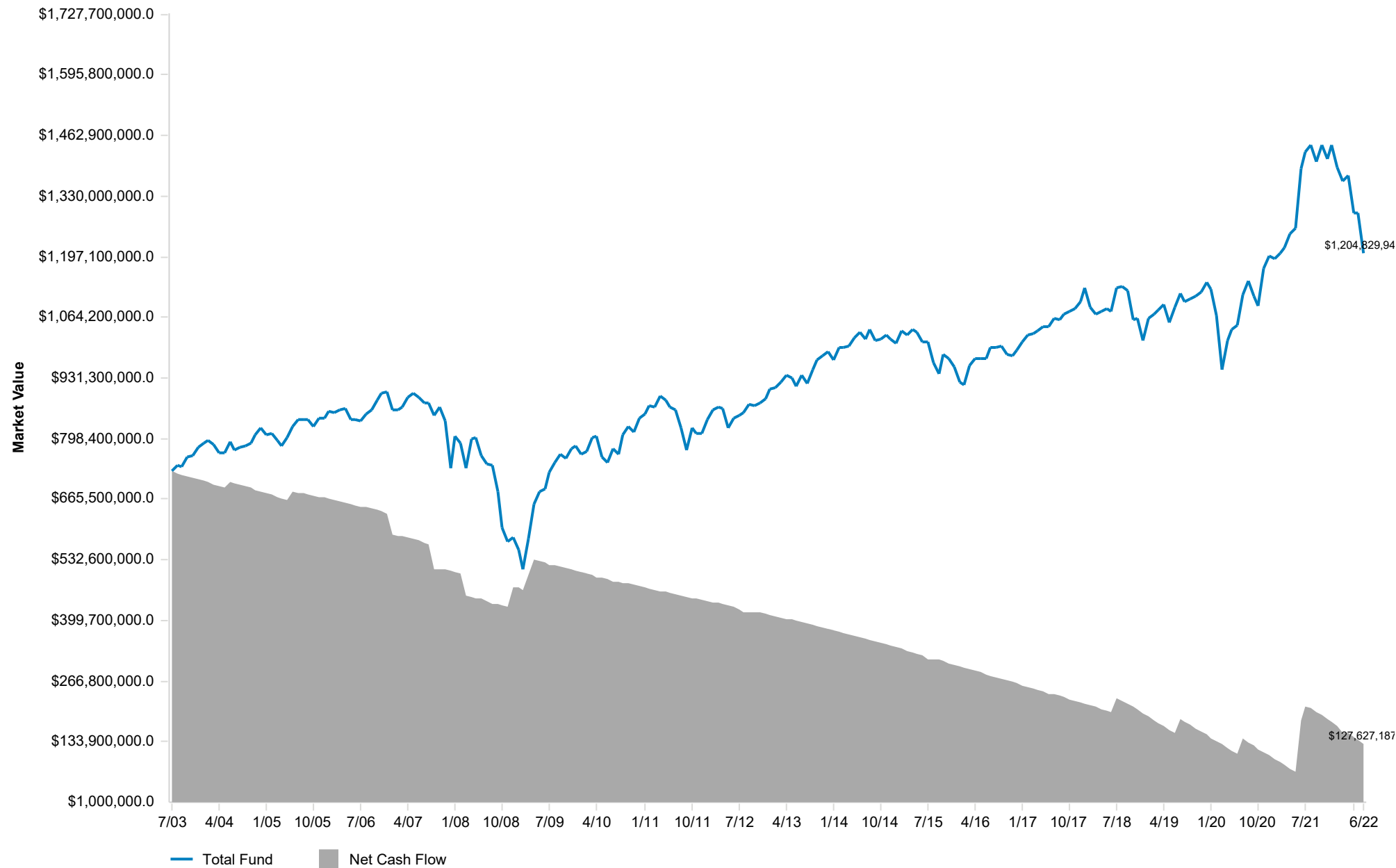
Annual Asset Class Performance

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD
Best	Blmbg Barc US Agg 5.2 %	MSCI Emerging Mkts (Net) 78.5 %	Russell 2000 Growth 29.1 %	NCREIF ODCE (EW) (Net) 15.0 %	MSCI Emerging Mkts (Net) 18.2 %	Russell 2000 Growth 43.3 %	S&P 500 13.7 %	NCREIF ODCE (EW) (Net) 14.2 %	Russell 2000 Value 31.7 %	MSCI Emerging Mkts (Net) 37.3 %	NCREIF ODCE (EW) (Net) 7.3 %	Russell 1000 Growth 36.4 %	Russell 1000 Growth 38.5 %	S&P 500 28.7 %	NCREIF ODCE (EW) (Net) 12.5 %
	Blmbg Barc Global Agg Ex USD 4.4 %	Blmbg Barc US Corp High Yield 58.2 %	Russell 2000 Value 24.5 %	Blmbg Barc US Agg 7.8 %	Russell 2000 Value 18.1 %	Russell 2000 Value 34.5 %	Russell 1000 Value 13.5 %	Russell 1000 Growth 5.7 %	Russell 1000 Value 17.3 %	Russell 1000 Growth 30.2 %	Blmbg Barc US Agg 0.0 %	S&P 500 31.5 %	Russell 2000 Growth 34.6 %	Russell 2000 Value 28.3 %	Blmbg Barc US Agg -10.3 %
	NCREIF ODCE (EW) (Net) -11.1 %	Russell 1000 Growth 37.2 %	MSCI Emerging Mkts (Net) 18.9 %	Blmbg Barc US Corp High Yield 5.0 %	Russell 1000 Value 17.5 %	Russell 1000 Growth 33.5 %	Russell 1000 Growth 13.1 %	S&P 500 1.4 %	Blmbg Barc US Corp High Yield 17.1 %	MSCI EAFE (Net) 25.0 %	Russell 1000 Growth -1.5 %	Russell 2000 Growth 28.5 %	S&P 500 18.4 %	Russell 1000 Growth 27.6 %	Russell 1000 Value -12.9 %
	Strategic Policy -23.5 %	Russell 2000 Growth 34.5 %	Russell 1000 Growth 16.7 %	Blmbg Barc Global Agg Ex USD 4.4 %	MSCI EAFE (Net) 17.3 %	Russell 1000 Value 32.5 %	NCREIF ODCE (EW) (Net) 11.4 %	Blmbg Barc US Agg 0.5 %	S&P 500 12.0 %	Russell 2000 Growth 22.2 %	Blmbg Barc US Corp High Yield -2.1 %	Russell 1000 Value 26.5 %	MSCI Emerging Mkts (Net) 18.3 %	Russell 1000 Value 25.2 %	Strategic Policy -13.0 %
	Blmbg Barc US Corp High Yield -26.2 %	MSCI EAFE (Net) 31.8 %	Russell 1000 Value 15.5 %	Russell 1000 Growth 2.6 %	S&P 500 16.0 %	S&P 500 32.4 %	Strategic Policy 6.2 %	MSCI EAFE (Net) -0.8 %	Russell 2000 Growth 11.3 %	S&P 500 21.8 %	Blmbg Barc Global Agg Ex USD -2.1 %	Russell 2000 Value 22.4 %	Strategic Policy 10.8 %	NCREIF ODCE (EW) (Net) 21.9 %	Blmbg Barc US Corp High Yield -14.2 %
	Russell 2000 Value -28.9 %	S&P 500 26.5 %	Blmbg Barc US Corp High Yield 15.1 %	S&P 500 2.1 %	Blmbg Barc US Corp High Yield 15.8 %	MSCI EAFE (Net) 22.8 %	Blmbg Barc US Agg 6.0 %	Russell 2000 Growth -1.4 %	MSCI Emerging Mkts (Net) 11.2 %	Strategic Policy 13.8 %	S&P 500 -4.4 %	MSCI EAFE (Net) 22.0 %	Blmbg Barc Global Agg Ex USD 10.1 %	Strategic Policy 13.8 %	Blmbg Barc Global Agg Ex USD -16.5 %
	Russell 1000 Value -36.8 %	Russell 2000 Value 20.6 %	NCREIF ODCE (EW) (Net) 15.1 %	Strategic Policy 0.7 %	Russell 1000 Growth 15.3 %	Strategic Policy 14.6 %	Russell 2000 Growth 5.6 %	Strategic Policy -1.9 %	NCREIF ODCE (EW) (Net) 8.4 %	Russell 1000 Value 13.7 %	Strategic Policy -5.8 %	MSCI Emerging Mkts (Net) 18.4 %	MSCI EAFE (Net) 7.8 %	MSCI EAFE (Net) 11.3 %	Russell 2000 Value -17.3 %
	S&P 500 -37.0 %	Strategic Policy 20.4 %	S&P 500 15.1 %	Russell 1000 Value 0.4 %	Russell 2000 Growth 14.6 %	NCREIF ODCE (EW) (Net) 12.4 %	Russell 2000 Value 4.2 %	Russell 1000 Value -3.8 %	Strategic Policy 7.9 %	Blmbg Barc Global Agg Ex USD 10.5 %	Russell 1000 Value -8.3 %	Strategic Policy 17.9 %	Blmbg Barc US Agg 7.5 %	Blmbg Barc US Corp High Yield 5.3 %	MSCI Emerging Mkts (Net) -17.6 %
	Russell 1000 Growth -38.4 %	Russell 1000 Value 19.7 %	Strategic Policy 12.0 %	Russell 2000 Growth -2.9 %	Strategic Policy 12.1 %	Blmbg Barc US Corp High Yield 7.4 %	Blmbg Barc US Corp High Yield 2.5 %	Blmbg Barc US Corp High Yield -4.5 %	Russell 1000 Growth 7.1 %	Russell 2000 Value 7.8 %	Russell 2000 Growth -9.3 %	Blmbg Barc US Corp High Yield 14.3 %	Blmbg Barc US Corp High Yield 7.1 %	Russell 2000 Growth 2.8 %	MSCI EAFE (Net) -19.6 %
	Russell 2000 Growth -38.5 %	Blmbg Barc Global Agg Ex USD 7.5 %	MSCI EAFE (Net) 7.8 %	Russell 2000 Value -5.5 %	NCREIF ODCE (EW) (Net) 9.9 %	Blmbg Barc US Agg -2.0 %	MSCI Emerging Mkts (Net) -2.2 %	Blmbg Barc Global Agg Ex USD -6.0 %	Blmbg Barc US Agg 2.6 %	Blmbg Barc US Corp High Yield 7.5 %	Russell 2000 Value -12.9 %	Blmbg Barc US Agg 8.7 %	Russell 2000 Value 4.6 %	Blmbg Barc US Agg -1.5 %	S&P 500 -20.0 %
	MSCI EAFE (Net) -43.4 %	Blmbg Barc US Agg 5.9 %	Blmbg Barc US Agg 6.5 %	MSCI EAFE (Net) -12.1 %	Blmbg Barc US Agg 4.2 %	MSCI Emerging Mkts (Net) -2.6 %	Blmbg Barc Global Agg Ex USD -3.1 %	Russell 2000 Value -7.5 %	Blmbg Barc Global Agg Ex USD 1.5 %	NCREIF ODCE (EW) (Net) 6.9 %	MSCI EAFE (Net) -13.8 %	NCREIF ODCE (EW) (Net) 5.2 %	Russell 1000 Value 2.8 %	MSCI Emerging Mkts (Net) -2.5 %	Russell 1000 Growth -28.1 %
Worst	MSCI Emerging Mkts (Net) -53.3 %	NCREIF ODCE (EW) (Net) -31.3 %	Blmbg Barc Global Agg Ex USD 4.9 %	MSCI Emerging Mkts (Net) -18.4 %	Blmbg Barc Global Agg Ex USD 4.1 %	Blmbg Barc Global Agg Ex USD -3.1 %	MSCI EAFE (Net) -4.9 %	MSCI Emerging Mkts (Net) -14.9 %	MSCI EAFE (Net) 1.0 %	Blmbg Barc US Agg 3.5 %	MSCI Emerging Mkts (Net) -14.6 %	Blmbg Barc Global Agg Ex USD 5.1 %	NCREIF ODCE (EW) (Net) 0.8 %	Blmbg Barc Global Agg Ex USD -7.1 %	Russell 2000 Growth -29.5 %

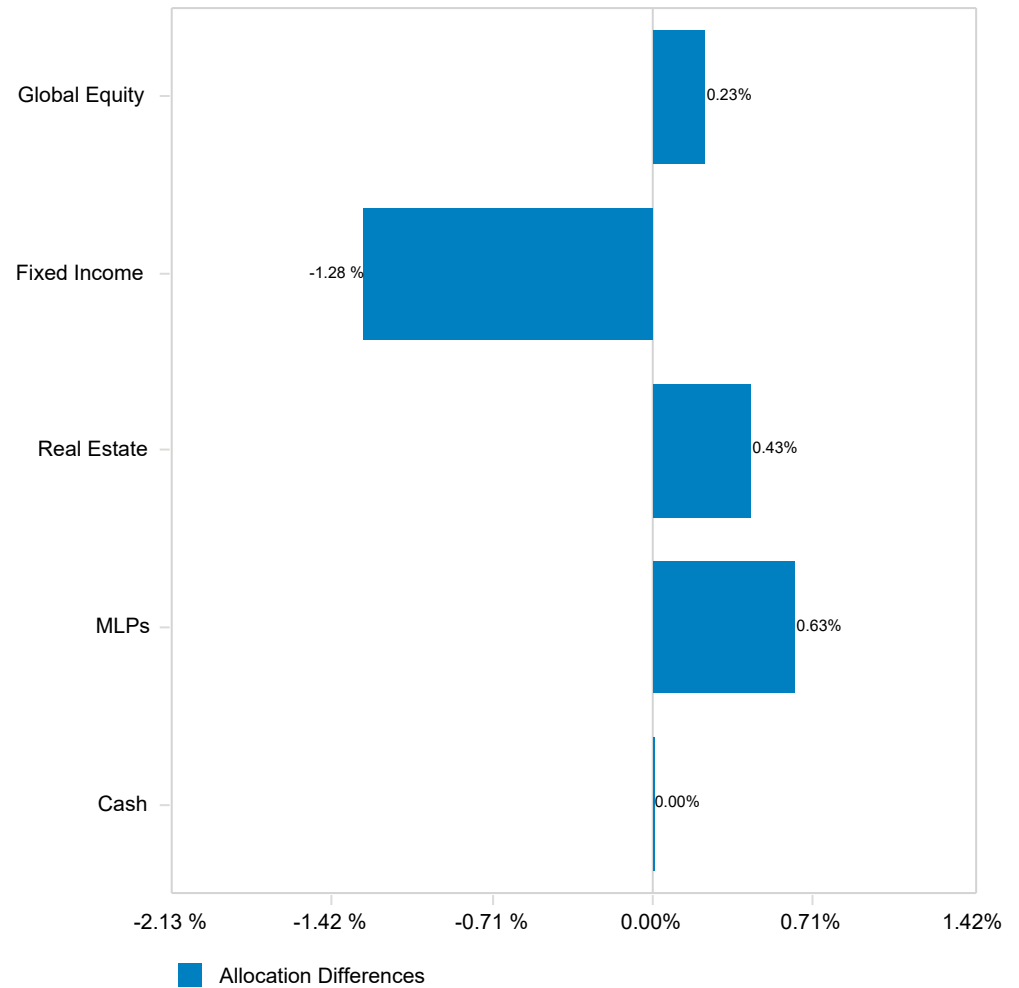
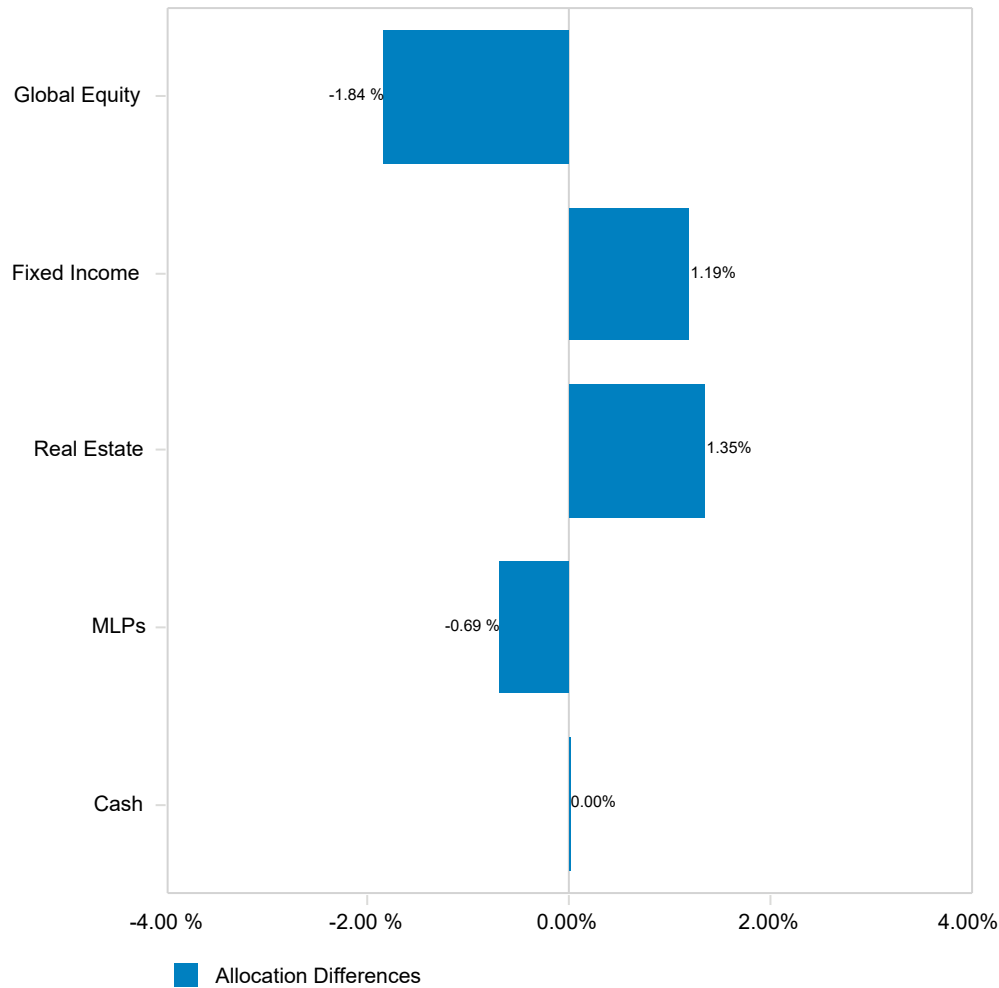


Total Fund

Schedule of Investable Assets



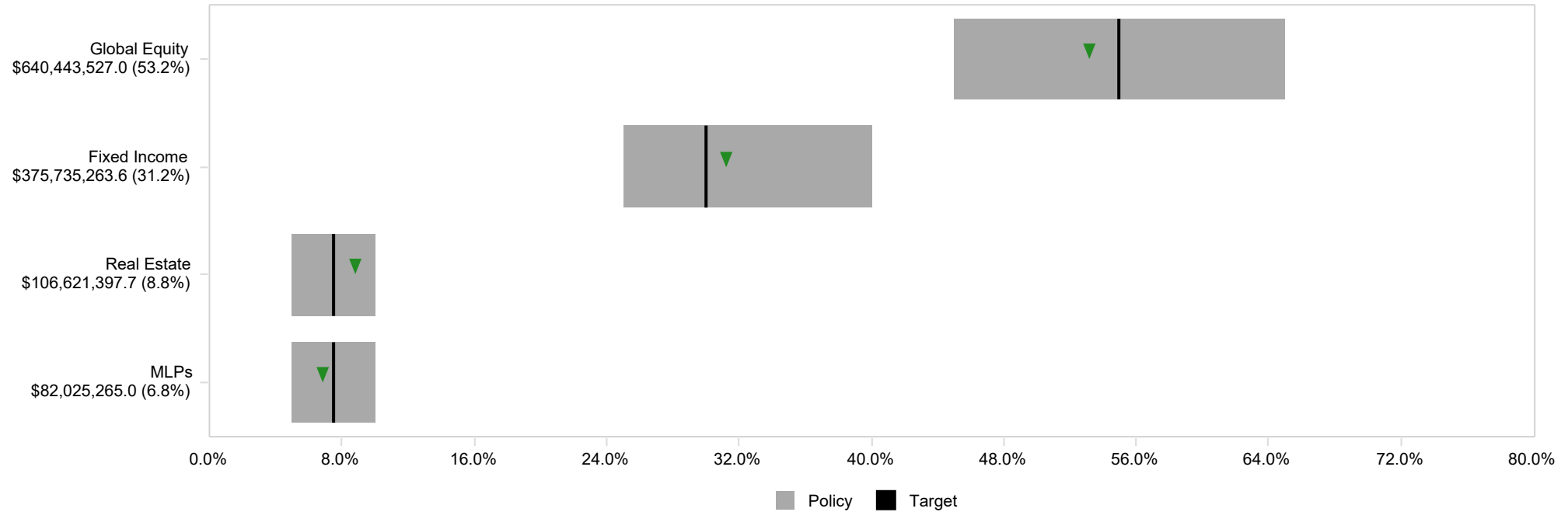
Employees' Retirement System of the City of Norfolk
Asset Allocation vs. Target Allocation
As of June 30, 2022



June 30, 2022				March 31, 2022			
	Market Value \$	Allocation (%)	Target (%)		Market Value \$	Allocation (%)	Target (%)
Global Equity	640,443,527	53.2	55.0	Global Equity	759,669,259	55.2	55.0
Fixed Income	375,735,264	31.2	30.0	Fixed Income	395,009,434	28.7	30.0
Real Estate	106,621,398	8.8	7.5	Real Estate	109,065,921	7.9	7.5
MLPs	82,025,265	6.8	7.5	MLPs	111,799,018	8.1	7.5
Cash	4,491	0.0	0.0	Cash	16,391	0.0	0.0
Total Fund	1,204,829,944	100.0	100.0	Total Fund	1,375,560,022	100.0	100.0



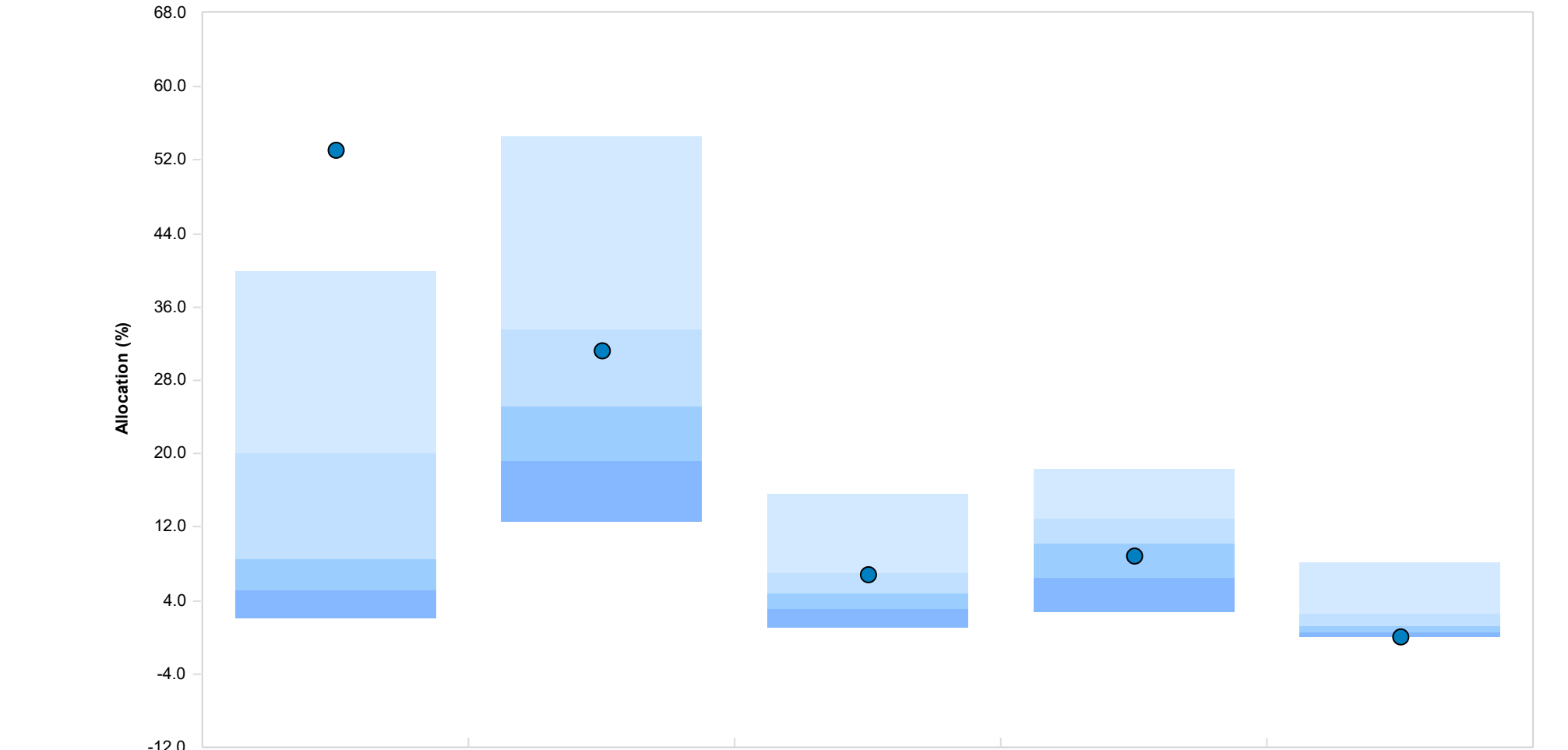
Executive Summary



Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Rebal. (\$000)
Total Fund	1,204,829,944	100.0	100.0			
Global Equity	640,443,527	53.2	55.0	45.0	65.0	22,212,942
SSgA MSCI ACWI IMI Index Fund	640,443,527	53.2				
Fixed Income	375,735,264	31.2	30.0	25.0	40.0	-14,286,280
PIMCO Total Return	185,545,098	15.4				
SSgA Bond Market Index	190,190,166	15.8				
Real Assets	188,646,663	15.7	15.0			-7,922,171
Real Estate	106,621,398	8.8	7.5	5.0	10.0	-16,259,152
JP Morgan Asset Management Strategic Property Fund	57,836,636	4.8				
UBS Trumbull Property Fund	33,146,457	2.8				
Vanguard Real Estate Index (VGSNX)	15,638,304	1.3				
MLPs	82,025,265	6.8	7.5	5.0	10.0	8,336,981
Harvest MLP	41,490,231	3.4				
Tortoise Capital Advisors	40,535,034	3.4				
Cash	4,491	0.0				

Plan Sponsor TF Asset Allocation vs. All Public Plans-Total Fund

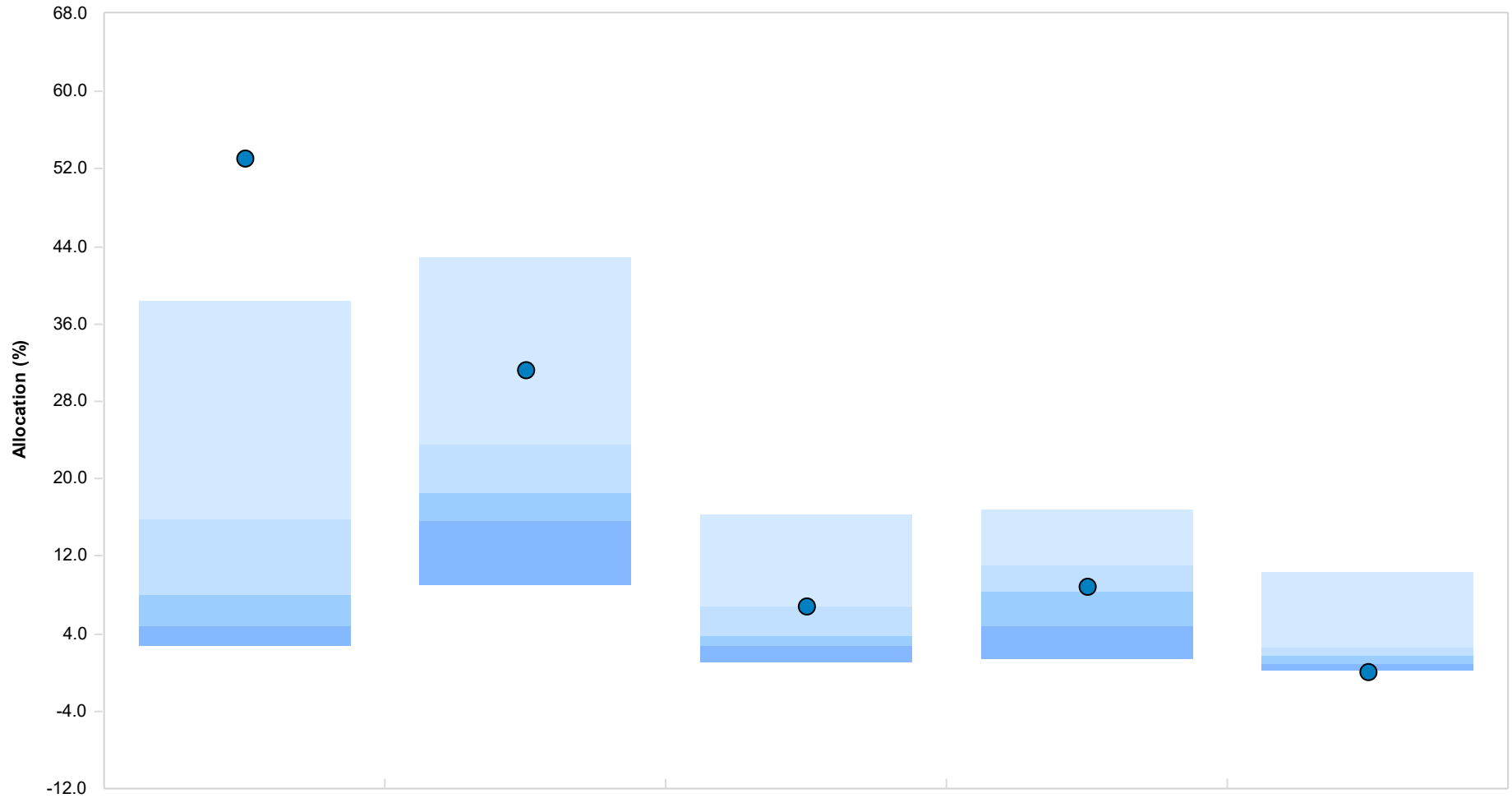


	Global Equity	US Fixed	Real Assets/Commod	Total Real Estate	Cash & Equivalents
● Total Fund Composite*	53.16 (3)	31.19 (30)	6.81 (26)	8.85 (60)	0.00 (100)
5th Percentile	39.89	54.53	15.65	18.35	8.12
1st Quartile	20.02	33.60	7.03	12.92	2.51
Median	8.55	25.19	4.81	10.25	1.30
3rd Quartile	5.05	19.25	3.01	6.46	0.59
95th Percentile	2.09	12.57	1.07	2.71	0.07
Population	41	442	64	302	378

Parentheses contain percentile rankings.



Plan Sponsor TF Asset Allocation vs. All Public Plans > \$1B-Total Fund

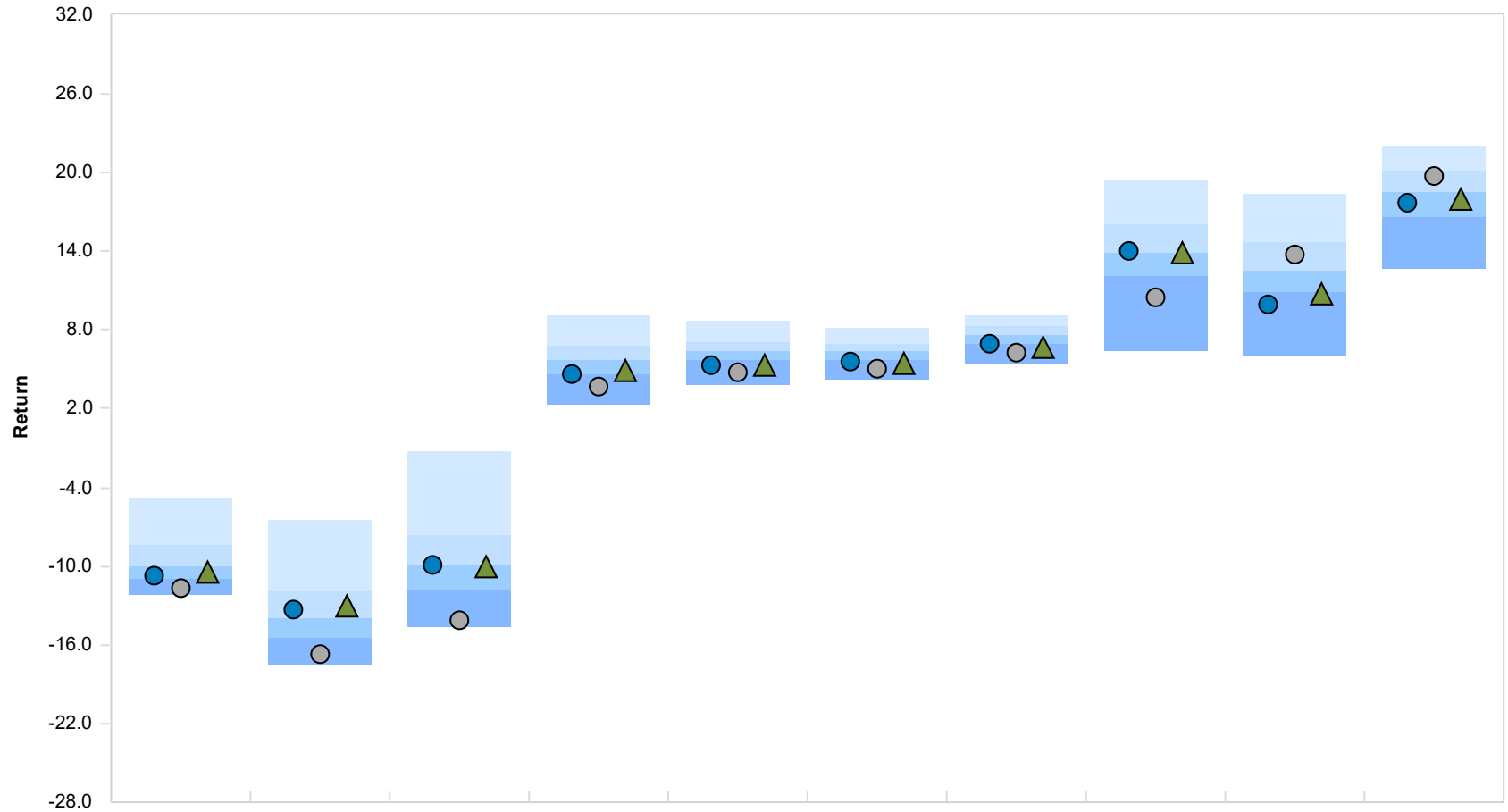


	Global Equity	US Fixed	Real Assets/Commod	Total Real Estate	Cash & Equivalents
● Total Fund Composite*	53.16 (1)	31.19 (9)	6.81 (26)	8.85 (46)	0.00 (100)
5th Percentile	38.34	42.96	16.25	16.76	10.29
1st Quartile	15.86	23.56	6.81	11.02	2.55
Median	7.98	18.52	3.72	8.33	1.71
3rd Quartile	4.77	15.56	2.80	4.83	0.82
95th Percentile	2.74	8.99	1.12	1.35	0.21
Population	15	76	17	67	59

Parentheses contain percentile rankings.



Plan Sponsor Peer Group Analysis vs. All Public Plans-Total Fund

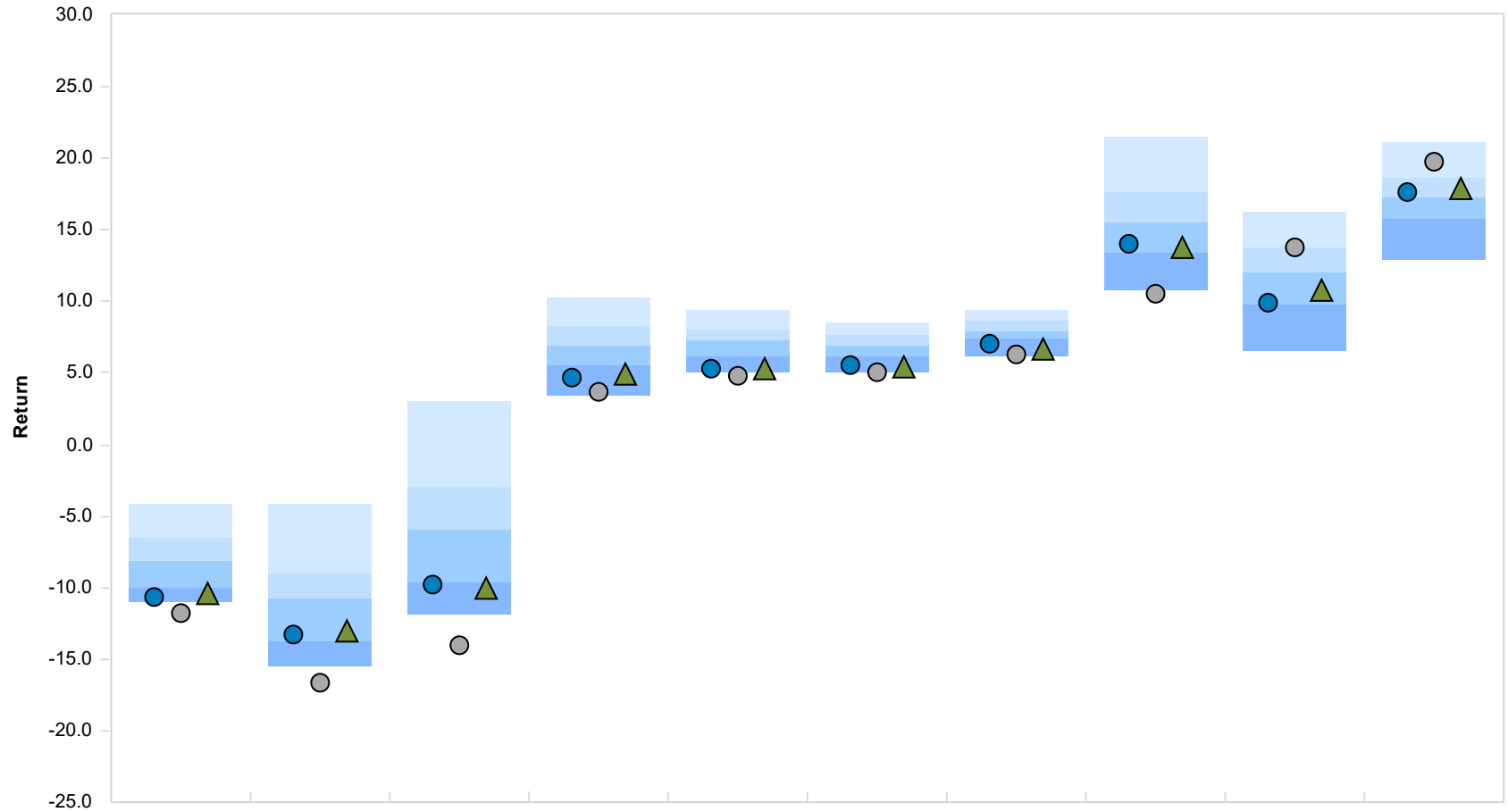


	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2021	2020	2019
● Total Fund Composite	-10.68 (68)	-13.25 (43)	-9.84 (50)	4.63 (77)	5.33 (82)	5.55 (80)	6.99 (75)	14.05 (49)	9.92 (82)	17.67 (62)
● Fund Policy (62.5% ACWI/37.5% Agg)	-11.74 (90)	-16.69 (89)	-14.06 (94)	3.71 (90)	4.80 (91)	5.09 (89)	6.34 (90)	10.53 (89)	13.76 (34)	19.72 (33)
▲ Fund Strategy Index	-10.39 (60)	-13.01 (40)	-9.97 (51)	4.88 (70)	5.36 (82)	5.45 (82)	6.65 (84)	13.85 (52)	10.81 (77)	17.92 (58)
5th Percentile	-4.84	-6.46	-1.14	9.10	8.72	8.23	9.14	19.48	18.36	22.06
1st Quartile	-8.39	-11.95	-7.57	6.78	7.17	7.02	8.27	16.11	14.67	20.19
Median	-10.06	-13.96	-9.89	5.69	6.41	6.36	7.70	13.93	12.51	18.55
3rd Quartile	-11.05	-15.49	-11.88	4.69	5.69	5.81	6.97	12.20	10.95	16.65
95th Percentile	-12.15	-17.51	-14.69	2.36	3.78	4.27	5.41	6.39	6.02	12.63
Population	299	299	299	295	284	274	255	640	711	743

Parenttheses contain percentile rankings.
Calculation based on monthly periodicity.



Plan Sponsor Peer Group Analysis vs. All Public Plans > \$1B-Total Fund

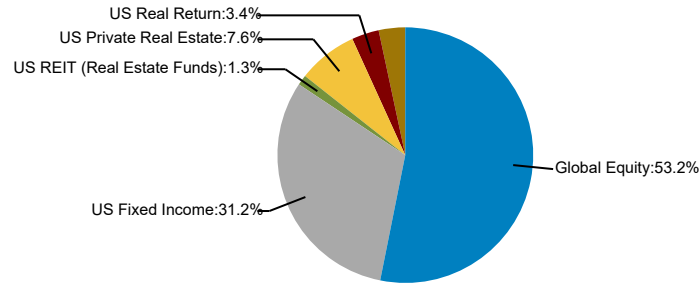


	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2021	2020	2019
● Total Fund Composite	-10.68 (92)	-13.25 (71)	-9.84 (76)	4.63 (88)	5.33 (92)	5.55 (92)	6.99 (85)	14.05 (68)	9.92 (74)	17.67 (41)
● Fund Policy (62.5% ACWI/37.5% Agg)	-11.74 (100)	-16.69 (100)	-14.06 (100)	3.71 (95)	4.80 (97)	5.09 (96)	6.34 (95)	10.53 (96)	13.76 (27)	19.72 (16)
▲ Fund Strategy Index	-10.39 (87)	-13.01 (66)	-9.97 (77)	4.88 (85)	5.36 (92)	5.45 (94)	6.65 (92)	13.85 (70)	10.81 (67)	17.92 (37)
5th Percentile	-4.21	-4.21	3.06	10.32	9.48	8.51	9.37	21.55	16.24	21.11
1st Quartile	-6.52	-9.03	-2.88	8.31	8.03	7.63	8.65	17.71	13.78	18.69
Median	-8.16	-10.74	-5.96	6.95	7.25	6.95	7.91	15.54	12.05	17.29
3rd Quartile	-10.00	-13.76	-9.70	5.59	6.16	6.16	7.39	13.43	9.80	15.76
95th Percentile	-11.03	-15.56	-11.94	3.41	5.01	5.10	6.22	10.84	6.51	12.95
Population	77	77	77	77	77	76	76	210	235	229

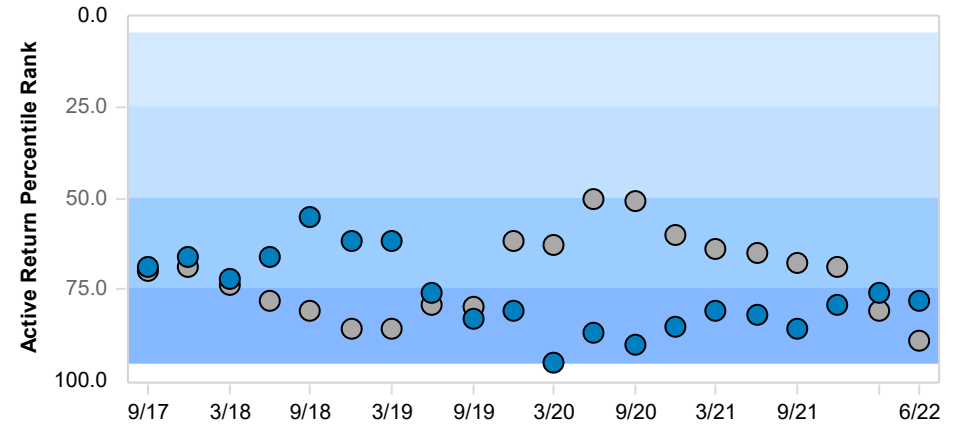
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



Asset Allocation By Asset Class

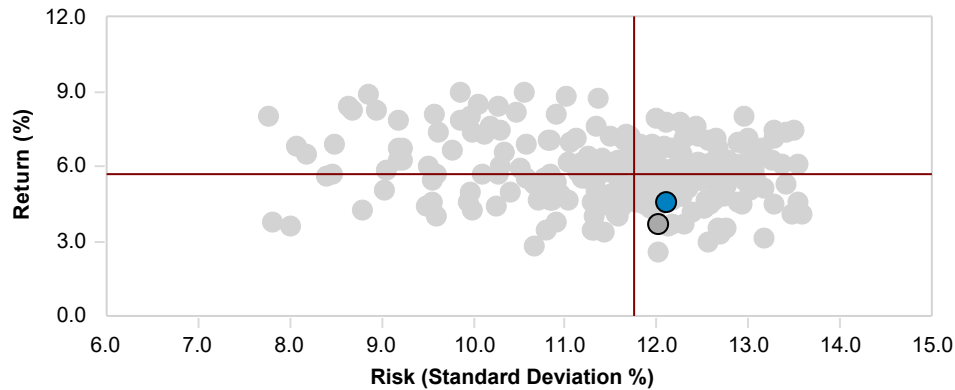


Rolling Percentile Ranking vs. All Public Plans-Total Fund



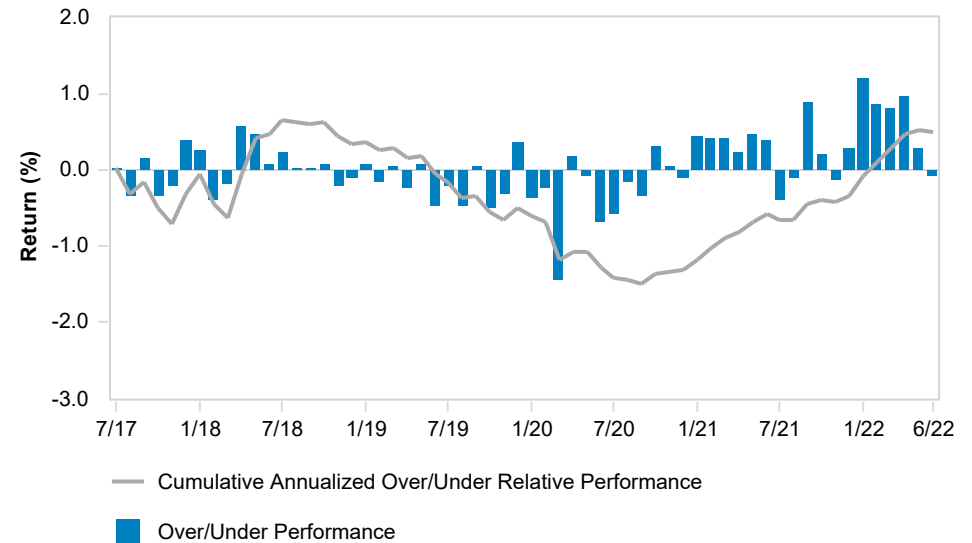
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Total Fund	20	0 (0%)	0 (0%)	7 (35%)	13 (65%)
Total Fund Policy	20	0 (0%)	1 (5%)	11 (55%)	8 (40%)

Risk vs. Return (July 1, 2019 - June 30, 2022)



	Return	Standard Deviation
Total Fund	4.63	12.10
Total Fund Policy	3.71	12.01
Median	5.69	11.74

Relative Performance vs. Total Fund Policy



Employees' Retirement System of the City of Norfolk
Asset Allocation & Performance (gross of fees)
As of June 30, 2022

Asset Allocation & Performance

	Market Value \$	%	Performance(%)										
			3 Month	CYTD	FYTD	1 Year	2 YR	3 Year	5 Year	Since Inception	Inception Date		
Total Fund	1,204,829,944	100.0	-10.68 (68)	-13.25 (43)	-9.84 (50)	-9.84 (50)	6.62 (54)	4.63 (77)	5.33 (82)	7.90 (83)	Oct-1990		
Total Fund Policy			-11.74	-16.69	-14.06	-14.06	3.29	3.71	4.80	7.70			
Excess Return			1.06	3.44	4.22	4.22	3.33	0.92	0.53	0.20			
All Public Plans-Total Fund Median			-10.06	-13.96	-9.89	-9.89	6.90	5.69	6.41	8.21			
Total Fund Strategy Index			-10.39	-13.01	-9.97	-9.97	6.71	4.88	5.36	7.81			
Excess Return			-0.29	-0.24	0.13	0.13	-0.09	-0.25	-0.03	0.09			
Global Equity	640,443,527	53.2	-15.68 (55)	-20.21 (44)	-16.17 (46)	-16.17 (46)	9.09 (35)	6.55 (31)	7.23 (34)	8.92 (43)	Oct-1990		
Global Equity Policy			-15.83	-20.44	-16.52	-16.52	8.47	5.98	6.70	8.96			
Excess Return			0.15	0.23	0.35	0.35	0.62	0.57	0.53	-0.04			
IM Global Equity (MF) Median			-15.25	-21.44	-17.51	-17.51	6.88	4.98	6.19	8.34			
Fixed Income	375,735,264	31.2	-4.88 (44)	-10.61 (56)	-10.42 (52)	-10.42 (52)	-5.19 (79)	-0.76 (85)	1.10 (85)	5.53 (75)	Oct-1990		
Bimbg. U.S. Aggregate Index			-4.69	-10.35	-10.29	-10.29	-5.45	-0.94	0.88	5.28			
Excess Return			-0.19	-0.26	-0.13	-0.13	0.26	0.18	0.22	0.25			
IM U.S. Broad Market Fixed Income (SA+CF) Median			-5.00	-10.47	-10.36	-10.36	-4.45	-0.25	1.44	5.76			
Real Estate	106,621,398	8.8	0.97 (84)	4.98 (75)	19.29 (79)	19.29 (79)	11.74 (86)	7.92 (85)	6.83 (83)	9.48 (82)	Apr-2011		
NCREIF Fund Index-ODCE (Net)			4.58	12.05	28.36	28.36	17.24	11.68	9.56	10.44			
Excess Return			-3.61	-7.07	-9.07	-9.07	-5.50	-3.76	-2.73	-0.96			
IM U.S. Open End Private Real Estate (SA+CF)			3.17	10.64	27.03	27.03	17.71	12.03	10.61	11.30			
MLPs	82,025,265	6.8	-8.67 (26)	13.21 (7)	14.28 (12)	14.28 (12)	32.13 (34)	2.99 (29)	2.24 (27)	2.67 (28)	Mar-2013		
Alerian MLP Index			-7.38	10.04	4.33	4.33	30.80	0.07	-0.29	-1.12			
Excess Return			-1.29	3.17	9.95	9.95	1.33	2.92	2.53	3.79			
Master Limited Partnerships (SA+CF) Median			-9.15	10.82	10.26	10.26	29.42	1.41	0.80	1.50			
Cash	4,491	0.0											



Employees' Retirement System of the City of Norfolk
Asset Allocation & Performance (gross of fees)
As of June 30, 2022

Asset Allocation & Performance

	Market Value \$	Performance(%)									
		3 Month	CYTD	1 Year	2 Year	3 Year	5 Year	Since Inception	Inception Date		
Global Equity											
SSgA MSCI ACWI IMI Index Fund	640,443,527	-15.68 (55)	-20.21 (44)	-16.17 (46)	8.95 (36)	6.46 (32)	7.18 (35)	8.81 (33)	May-2016		
MSCI AC World IMI (Net)		-15.83	-20.44	-16.52	8.47	5.98	6.70	8.33			
Excess Return		0.15	0.23	0.35	0.48	0.48	0.48	0.48			
IM Global Equity (MF) Median		-15.25	-21.44	-17.51	6.88	4.98	6.19	7.69			
Fixed Income											
PIMCO Total Return	185,545,098	-5.04 (68)	-10.87 (79)	-10.54 (66)	-5.02 (55)	-0.66 (69)	1.27 (53)	5.89 (10)	Jan-1991		
Blmbg. U.S. Aggregate Index		-4.69	-10.35	-10.29	-5.45	-0.94	0.88	5.16			
Excess Return		-0.35	-0.52	-0.25	0.43	0.28	0.39	0.73			
IM U.S. Broad Market Core Fixed Income (SA+CF) Median		-4.74	-10.32	-10.24	-4.83	-0.41	1.29	5.54			
SSgA Bond Market Index	190,190,166	-4.72 (46)	-10.35 (55)	-10.31 (58)	-5.41 (78)	-0.90 (86)	0.91 (90)	2.82 (91)	Jan-2009		
Blmbg. U.S. Aggregate Index		-4.69	-10.35	-10.29	-5.45	-0.94	0.88	2.80			
Excess Return		-0.03	0.00	-0.02	0.04	0.04	0.03	0.02			
IM U.S. Broad Market Core Fixed Income (SA+CF) Median		-4.74	-10.32	-10.24	-4.83	-0.41	1.29	3.65			
Real Estate											
JP Morgan Asset Management Strategic Property Fund	57,836,636	4.71 (21)	11.78 (38)	29.27 (38)	17.52 (52)	12.20 (50)	9.93 (59)	11.37 (49)	Apr-2011		
NCREIF Fund Index-ODCE (VW) (Net)		4.58	12.05	28.36	17.24	11.68	9.56	10.44			
Excess Return		0.13	-0.27	0.91	0.28	0.52	0.37	0.93			
IM U.S. Open End Private Real Estate (SA+CF) Median		3.17	10.64	27.03	17.71	12.03	10.61	11.30			
UBS Trumbull Property Fund	33,146,457	4.24 (34)	11.93 (37)	24.88 (59)	12.99 (76)	8.10 (84)	6.36 (85)	8.11 (-)	Dec-2011		
NCREIF Fund Index-ODCE (VW) (Net)		4.58	12.05	28.36	17.24	11.68	9.56	10.35			
Excess Return		-0.34	-0.12	-3.48	-4.25	-3.58	-3.20	-2.24			
IM U.S. Open End Private Real Estate (SA+CF) Median		3.17	10.64	27.03	17.71	12.03	10.61	-			
Vanguard Real Estate Index (VGSNX)	15,638,304	-15.46 (48)	-20.08 (52)	-7.46 (79)	-	-	-	-7.46 (79)	Jul-2021		
Vanguard Spliced REIT Index		-15.43	-20.47	-7.94	-	-	-	-7.94			
Excess Return		-0.03	0.39	0.48	-	-	-	0.48			
IM Real Estate Sector (MF) Median		-15.50	-19.99	-6.16	-	-	-	-6.16			
MLPs											
Harvest MLP	41,490,231	-7.66 (1)	15.32 (1)	18.08 (1)	35.56 (9)	5.48 (13)	3.88 (1)	3.39 (13)	Mar-2013		
Alerian MLP Index		-7.38	10.04	4.33	30.80	0.07	-0.29	-1.12			
Excess Return		-0.28	5.28	13.75	4.76	5.41	4.17	4.51			
Master Limited Partnerships (SA+CF) Median		-9.15	10.82	10.26	29.42	1.41	0.80	1.50			



Employees' Retirement System of the City of Norfolk
Asset Allocation & Performance (gross of fees)
As of June 30, 2022

	Market Value \$	Performance(%)								
		3 Month	CYTD	1 Year	2 Year	3 Year	5 Year	Since Inception	Inception Date	
Tortoise Capital Advisors	40,535,034	-9.69 (77)	11.26 (37)	10.39 (43)	29.11 (65)	0.72 (60)	0.73 (51)	1.47 (46)	Apr-2013	
Alerian MLP Index		-7.38	10.04	4.33	30.80	0.07	-0.29	-1.69		
Excess Return		-2.31	1.22	6.06	-1.69	0.65	1.02	3.16		
Master Limited Partnerships (SA+CF) Median		-9.15	10.82	10.26	29.42	1.41	0.80	0.88		



Employees' Retirement System of the City of Norfolk
Asset Allocation & Performance (net of fees)
As of June 30, 2022

Asset Allocation & Performance

	Market Value \$	%	Performance(%)								Inception Date
			3 Month	CYTD	FYTD	1 Year	2 YR	3 Year	5 Year	Since Inception	
Total Fund	1,204,829,944	100.0	-10.70	-13.32	-9.96	-9.96	6.48	4.48	5.17	7.70	Oct-1990
Total Fund Policy			-11.74	-16.69	-14.06	-14.06	3.29	3.71	4.80	7.70	
Excess Return			1.04	3.37	4.10	4.10	3.19	0.77	0.37	0.00	
Total Fund Strategy Index			-10.39	-13.01	-9.97	-9.97	6.71	4.88	5.36	7.81	
Excess Return			-0.31	-0.31	0.01	0.01	-0.23	-0.40	-0.19	-0.11	
Global Equity	640,443,527	53.2	-15.69	-20.23	-16.21	-16.21	9.04	6.51	7.19	8.75	Oct-1990
Global Equity Policy			-15.83	-20.44	-16.52	-16.52	8.47	5.98	6.70	8.96	
Excess Return			0.14	0.21	0.31	0.31	0.57	0.53	0.49	-0.21	
Fixed Income	375,735,264	31.2	-4.88	-10.63	-10.47	-10.47	-5.27	-0.86	0.98	5.34	Oct-1990
Blmbg. U.S. Aggregate Index			-4.69	-10.35	-10.29	-10.29	-5.45	-0.94	0.88	5.28	
Excess Return			-0.19	-0.28	-0.18	-0.18	0.18	0.08	0.10	0.06	
Real Estate	106,621,398	8.8	0.71	4.40	18.07	18.07	10.67	6.90	5.86	8.46	Apr-2011
NCREIF Fund Index-ODCE (Net)			4.58	12.05	28.36	28.36	17.24	11.68	9.56	10.44	
Excess Return			-3.87	-7.65	-10.29	-10.29	-6.57	-4.78	-3.70	-1.98	
MLPs	82,025,265	6.8	-8.67	13.12	14.10	14.10	31.80	2.63	1.72	2.09	Mar-2013
Alerian MLP Index			-7.38	10.04	4.33	4.33	30.80	0.07	-0.29	-1.12	
Excess Return			-1.29	3.08	9.77	9.77	1.00	2.56	2.01	3.21	
Cash	4,491	0.0									



Employees' Retirement System of the City of Norfolk
Asset Allocation & Performance (net of fees)
As of June 30, 2022

Asset Allocation & Performance

	Market Value \$	%	Performance(%)								
			3 Month	CYTD	FYTD	1 Year	2 Year	3 Year	5 Year	Since Inception	Inception Date
Global Equity											
SSgA MSCI ACWI IMI Index Fund	640,443,527	53.2	-15.69	-20.23	-16.21	-16.21	8.91	6.42	7.14	8.77	May-2016
MSCI AC World IMI (Net)			-15.83	-20.44	-16.52	-16.52	8.47	5.98	6.70	8.33	
Excess Return			0.14	0.21	0.31	0.31	0.44	0.44	0.44	0.44	
Fixed Income											
PIMCO Total Return	185,545,098	15.4	-5.04	-10.91	-10.62	-10.62	-5.15	-0.83	1.07	5.65	Jan-1991
Blmbg. U.S. Aggregate Index			-4.69	-10.35	-10.29	-10.29	-5.45	-0.94	0.88	5.16	
Excess Return			-0.35	-0.56	-0.33	-0.33	0.30	0.11	0.19	0.49	
SSgA Bond Market Index	190,190,166	15.8	-4.72	-10.36	-10.33	-10.33	-5.43	-0.92	0.89	2.81	Jan-2009
Blmbg. U.S. Aggregate Index			-4.69	-10.35	-10.29	-10.29	-5.45	-0.94	0.88	2.80	
Excess Return			-0.03	-0.01	-0.04	-0.04	0.02	0.02	0.01	0.01	
Real Estate											
JP Morgan Asset Management Strategic Property Fund	57,836,636	4.8	4.47	11.02	27.52	27.52	16.29	11.04	8.88	10.34	Apr-2011
NCREIF Fund Index-ODCE (VW) (Net)			4.58	12.05	28.36	28.36	17.24	11.68	9.56	10.44	
Excess Return			-0.11	-1.03	-0.84	-0.84	-0.95	-0.64	-0.68	-0.10	
UBS Trumbull Property Fund	33,146,457	2.8	3.79	11.21	23.54	23.54	11.78	7.02	5.36	7.03	Dec-2011
NCREIF Fund Index-ODCE (VW) (Net)			4.58	12.05	28.36	28.36	17.24	11.68	9.56	10.35	
Excess Return			-0.79	-0.84	-4.82	-4.82	-5.46	-4.66	-4.20	-3.32	
Vanguard Real Estate Index (VGSNX)	15,638,304	1.3	-15.48	-20.12	-7.56	-7.56	N/A	N/A	N/A	-7.56	Jul-2021
Vanguard Spliced REIT Index			-15.43	-20.47	-7.94	-7.94	N/A	N/A	N/A	-7.94	
Excess Return			-0.05	0.35	0.38	0.38	N/A	N/A	N/A	0.38	
MLPs											
Harvest MLP	41,490,231	3.4	-7.66	15.32	18.08	18.08	35.39	5.26	3.44	2.85	Mar-2013
Alerian MLP Index			-7.38	10.04	4.33	4.33	30.80	0.07	-0.29	-1.12	
Excess Return			-0.28	5.28	13.75	13.75	4.59	5.19	3.73	3.97	
Tortoise Capital Advisors	40,535,034	3.4	-9.69	11.09	10.06	10.06	28.59	0.22	0.12	0.84	Apr-2013
Alerian MLP Index			-7.38	10.04	4.33	4.33	30.80	0.07	-0.29	-1.69	
Excess Return			-2.31	1.05	5.73	5.73	-2.21	0.15	0.41	2.53	



Employees' Retirement System of the City of Norfolk
Asset Allocation & Performance (net of fees)

As of June 30, 2022

Fiscal Returns										
	Performance(%)									
	FYTD	Jul-2020 To Jun-2021	Jul-2019 To Jun-2020	Jul-2018 To Jun-2019	Jul-2017 To Jun-2018	Jul-2016 To Jun-2017	Jul-2015 To Jun-2016	Jul-2014 To Jun-2015	Jul-2013 To Jun-2014	Jul-2012 To Jun-2013
Total Fund	-9.96	25.93	0.59	5.35	7.10	11.66	0.49	1.98	17.30	12.09
Total Fund Policy	-14.06	24.13	4.56	6.17	6.77	11.42	0.49	2.16	15.82	10.43
Excess Return	4.10	1.80	-3.97	-0.82	0.33	0.24	0.00	-0.18	1.48	1.66
 Total Fund Strategy Index	 -9.97	 26.49	 1.30	 5.91	 6.25	 10.62	 0.97	 1.54	 16.12	 11.34
Excess Return	0.01	-0.56	-0.71	-0.56	0.85	1.04	-0.48	0.44	1.18	0.75
 Global Equity	 -16.21	 41.90	 1.61	 4.97	 11.60	 19.46	 -2.82	 2.33	 23.89	 18.43
Global Equity Policy	-16.52	40.94	1.17	4.56	11.14	19.01	-3.37	2.20	23.86	18.37
Excess Return	0.31	0.96	0.44	0.41	0.46	0.45	0.55	0.13	0.03	0.06
 Fixed Income	 -10.47	 0.24	 8.59	 7.58	 0.18	 0.76	 5.10	 2.38	 4.31	 -0.15
Blmbg. U.S. Aggregate Index	-10.29	-0.34	8.74	7.87	-0.40	-0.31	6.00	1.86	4.37	-0.69
Excess Return	-0.18	0.58	-0.15	-0.29	0.58	1.07	-0.90	0.52	-0.06	0.54
 Real Estate	 18.07	 3.74	 -0.28	 1.90	 6.82	 5.89	 9.79	 11.93	 11.24	 11.02
NCREIF Fund Index-ODCE (Net)	28.36	7.09	1.33	5.46	7.47	6.90	10.80	13.39	11.74	11.08
Excess Return	-10.29	-3.35	-1.61	-3.56	-0.65	-1.01	-1.01	-1.46	-0.50	-0.06
 MLPs	 14.10	 52.25	 -37.78	 1.24	 -0.49	 2.94	 -17.50	 -11.33	 35.63	 -
Alerian MLP Index	4.33	63.98	-41.43	3.09	-4.58	0.40	-13.11	-19.81	21.57	-
Excess Return	9.77	-11.73	3.65	-1.85	4.09	2.54	-4.39	8.48	14.06	-



Employees' Retirement System of the City of Norfolk

Financial Reconciliation

1 Quarter Ending June 30, 2022

Financial Reconciliation								
	Market Value 04/01/2022	Net Transfers	Contributions	Distributions	Management Fees	Income	Apprec./ Deprec.	Market Value 06/30/2022
Total Fund	1,375,560,022	-	-	-25,047,000	-361,627	3,975,080	-149,296,531	1,204,829,944
Global Equity	759,669,259	-	-	-	-78,927	-	-119,146,805	640,443,527
SSgA MSCI ACWI IMI Index Fund	759,669,259	-	-	-	-78,927	-	-119,146,805	640,443,527
Fixed Income	395,009,434	-	-	-	-10,210	1,357,942	-20,621,902	375,735,264
PIMCO Total Return	195,392,645	-	-	-	-	1,357,942	-11,205,490	185,545,098
SSgA Bond Market Index	199,616,789	-	-	-	-10,210	-	-9,416,413	190,190,166
Real Estate	109,065,921	-3,197,766	-	-	-272,490	1,099,879	-74,145	106,621,398
JP Morgan Asset Management Strategic Property Fund	55,360,356	-10	-	-	-126,327	436,264	2,166,353	57,836,636
UBS Trumbull Property Fund	34,532,528	-2,597,756	-	-	-141,575	563,890	789,370	33,146,457
Vanguard Real Estate Index (VGSNX)	19,173,036	-600,000	-	-	-4,588	99,725	-3,029,868	15,638,304
MLPs	111,799,018	-21,837,000	-	-	-	1,516,628	-9,453,381	82,025,265
Harvest MLP	52,026,540	-7,000,000	-	-	-	715,904	-4,252,213	41,490,231
Tortoise Capital Advisors	59,772,478	-14,837,000	-	-	-	800,724	-5,201,168	40,535,034
Cash	16,391	25,034,766	-	-25,047,000	-	631	-297	4,491



Employees' Retirement System of the City of Norfolk
Financial Reconciliation
July 1, 2021 To June 30, 2022

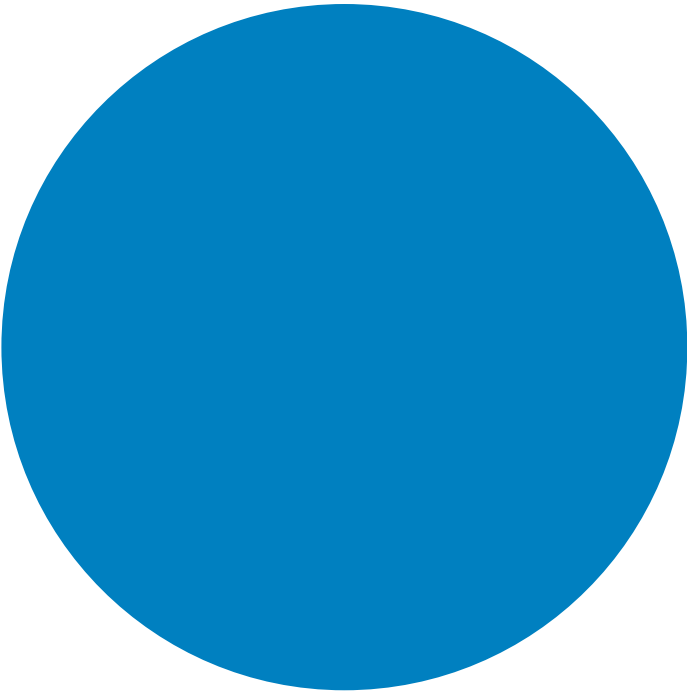
Financial Reconciliation								
	Market Value 07/01/2021	Net Transfers	Contributions	Distributions	Management Fees	Income	Apprec./ Deprec.	Market Value 06/30/2022
Total Fund	1,390,335,588	-	31,447,746	-83,296,000	-1,809,118	14,275,050	-146,123,321	1,204,829,944
Global Equity	779,940,629	-15,898,000	-	-	-320,056	-	-123,279,046	640,443,527
SSgA MSCI ACWI IMI Index Fund	779,940,629	-15,898,000	-	-	-320,056	-	-123,279,046	640,443,527
Fixed Income	428,086,879	-8,589,000	190,137	-	-230,866	4,340,403	-48,062,290	375,735,264
PIMCO Total Return	215,989,678	-8,589,000	190,137	-	-190,137	4,340,403	-26,195,984	185,545,098
SSgA Bond Market Index	212,097,201	-	-	-	-40,729	-	-21,866,306	190,190,166
Real Estate	81,594,793	7,157,368	-	-	-1,093,656	3,531,162	15,431,730	106,621,398
JP Morgan Asset Management Strategic Property Fund	45,356,339	-21	-	-	-707,355	1,577,501	11,610,172	57,836,636
UBS Trumbull Property Fund	36,238,454	-10,242,611	-	-	-367,484	1,340,996	6,177,102	33,146,457
Vanguard Real Estate Index (VGSNX)	-	17,400,000	-	-	-18,817	612,665	-2,355,544	15,638,304
MLPs	100,706,225	-34,847,000	164,540	-	-164,540	6,377,721	9,788,318	82,025,265
Harvest MLP	51,807,422	-20,010,000	-	-	-	3,192,046	6,500,763	41,490,231
Tortoise Capital Advisors	48,898,803	-14,837,000	164,540	-	-164,540	3,185,675	3,287,556	40,535,034
Cash	7,062	52,176,632	31,093,069	-83,296,000	-	25,763	-2,035	4,491



Global Equity

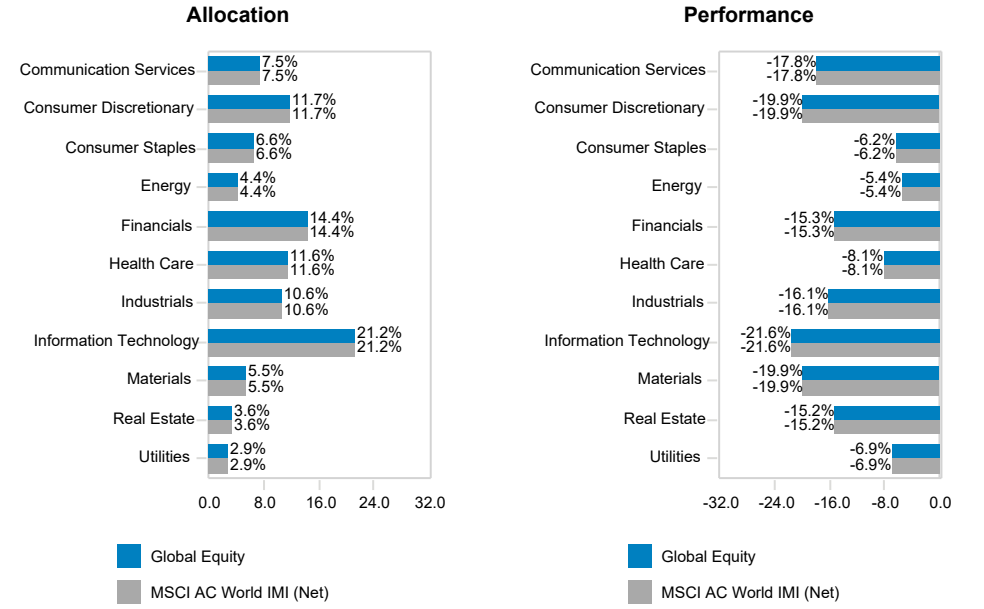
Manager Allocation

June 30, 2022 : \$640,443,527

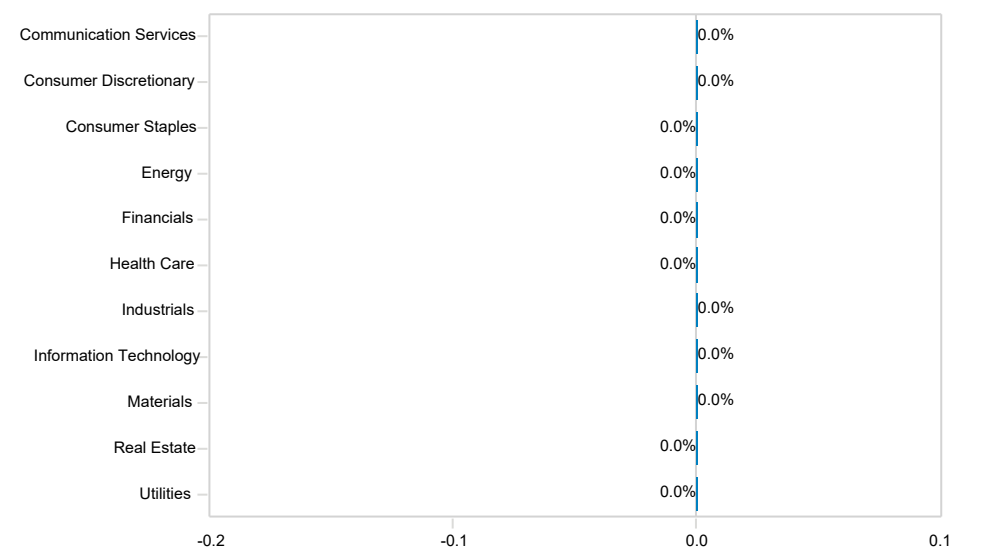


	Market Value	Allocation
■ SSgA MSCI ACWI IMI Index Fund	640,443,527	100.0

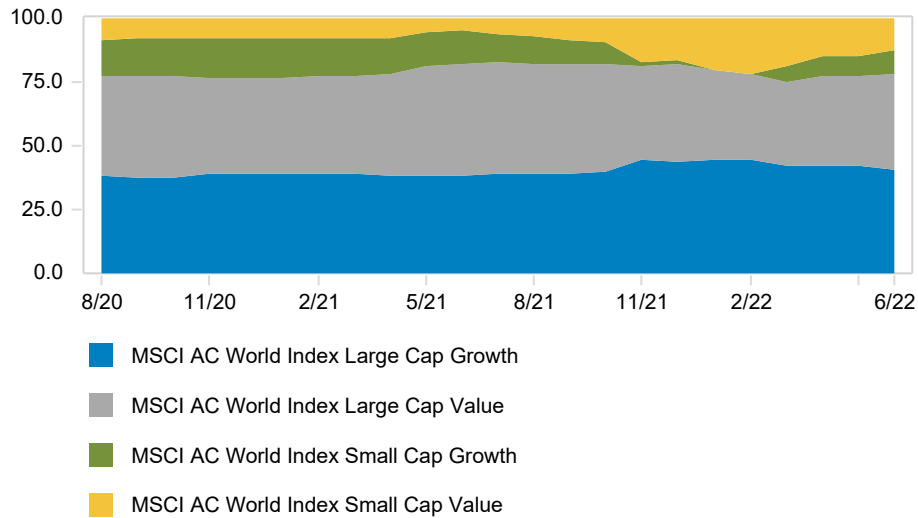
Sector Allocation - Holdings Based



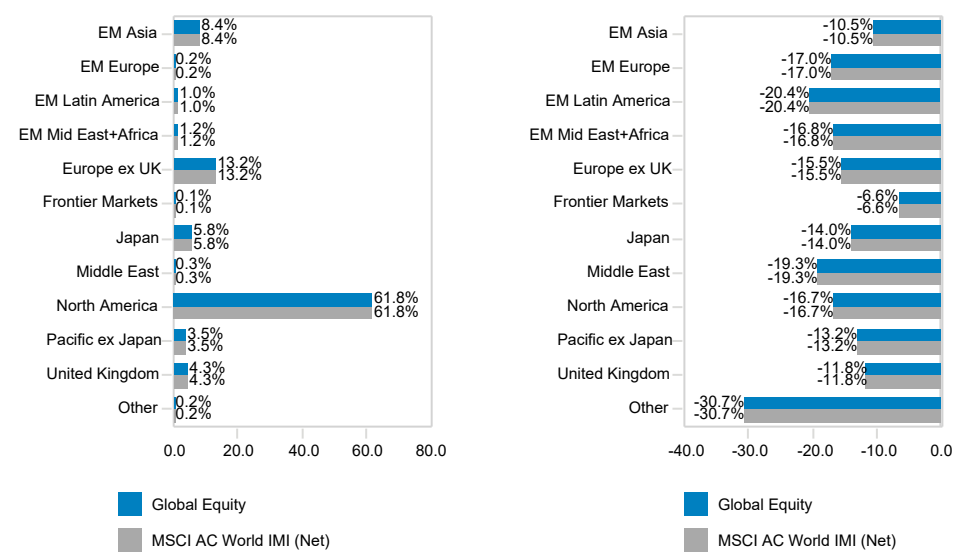
Total Attribution



Style Analysis - Returns Based
Style History(12 Months)



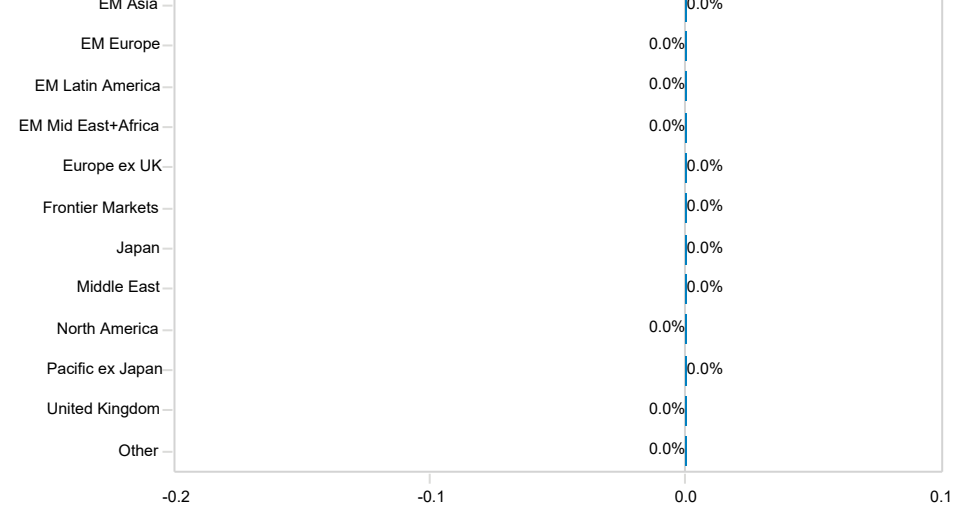
Region Allocation - Holdings Based
Allocation Performance



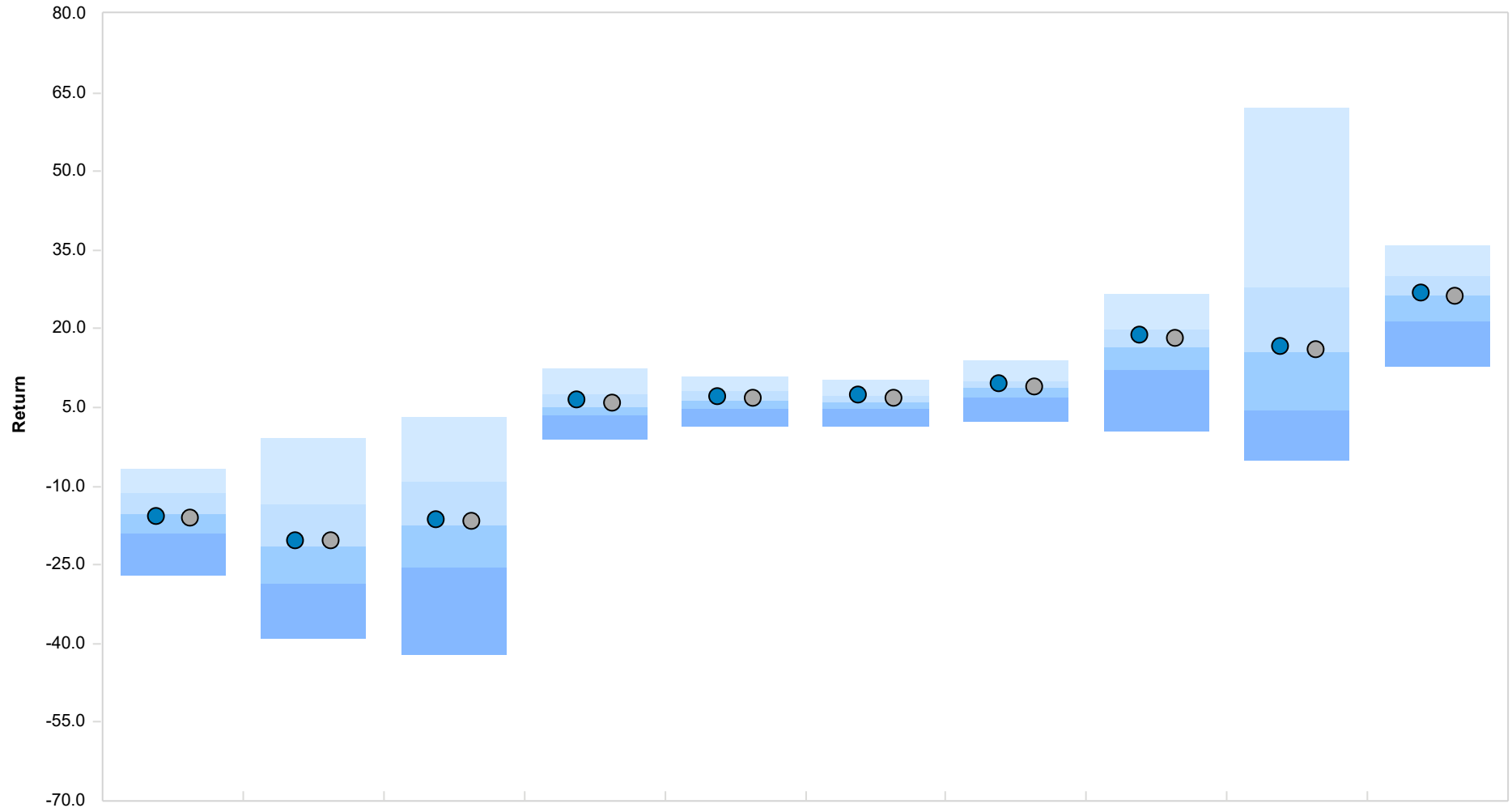
3 Year Style Analysis
Style Map(12 Months)



Total Attribution



Peer Group Analysis - IM Global Equity (MF)



	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2021	2020	2019
● Global Equity	-15.68 (55)	-20.21 (44)	-16.17 (46)	6.55 (31)	7.23 (34)	7.39 (25)	9.48 (33)	18.95 (31)	16.88 (44)	26.92 (47)
● Global Equity Policy	-15.83 (56)	-20.44 (45)	-16.52 (48)	5.98 (37)	6.70 (41)	6.86 (33)	9.07 (42)	18.22 (36)	16.25 (46)	26.35 (51)
5th Percentile	-6.69	-0.97	3.08	12.33	10.80	10.23	13.91	26.69	62.21	35.78
1st Quartile	-11.21	-13.48	-9.22	7.32	7.95	7.31	10.01	19.86	27.82	30.03
Median	-15.25	-21.44	-17.51	4.98	6.19	6.02	8.57	16.55	15.37	26.38
3rd Quartile	-19.00	-28.51	-25.50	3.50	4.57	4.72	6.94	12.24	4.27	21.47
95th Percentile	-27.09	-39.03	-42.18	-1.29	1.26	1.24	2.31	0.33	-5.16	12.73

Parenttheses contain percentile rankings.
Calculation based on monthly periodicity.



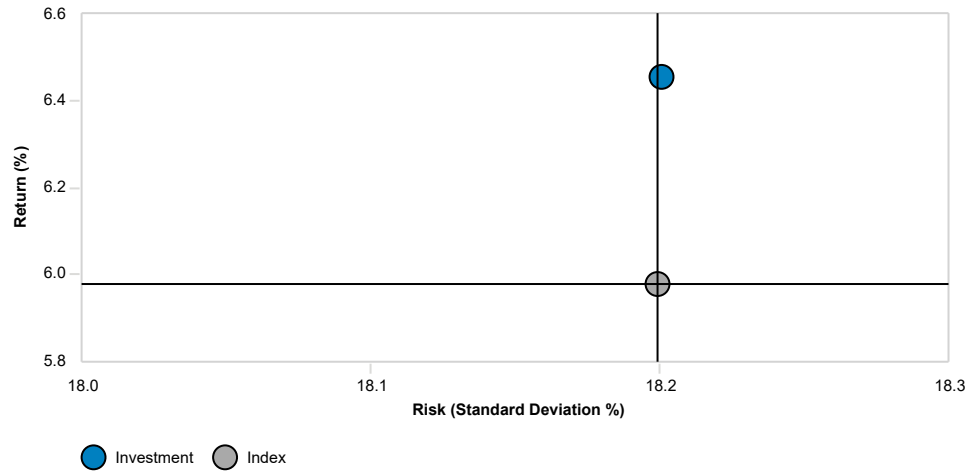
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	6.46	18.20	0.40	100.99	7	99.17	5
Index	5.98	18.20	0.38	100.00	7	100.00	5

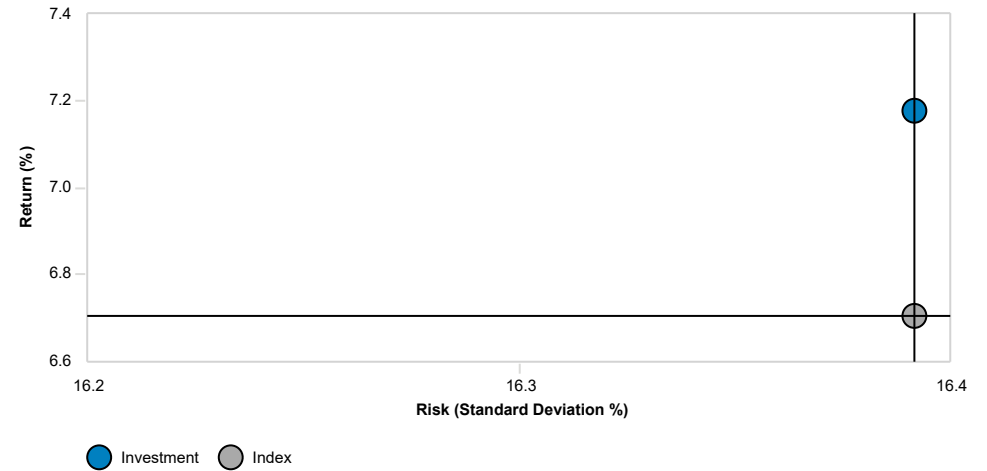
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.18	16.39	0.44	101.16	13	99.19	7
Index	6.70	16.39	0.41	100.00	13	100.00	7

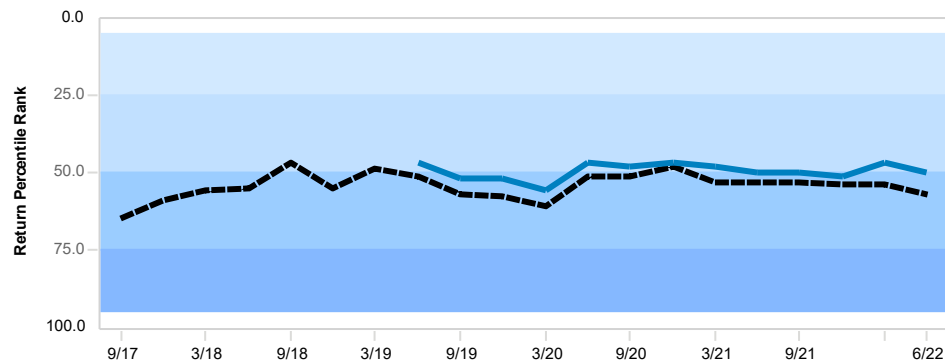
Risk and Return 3 Years



Risk and Return 5 Years

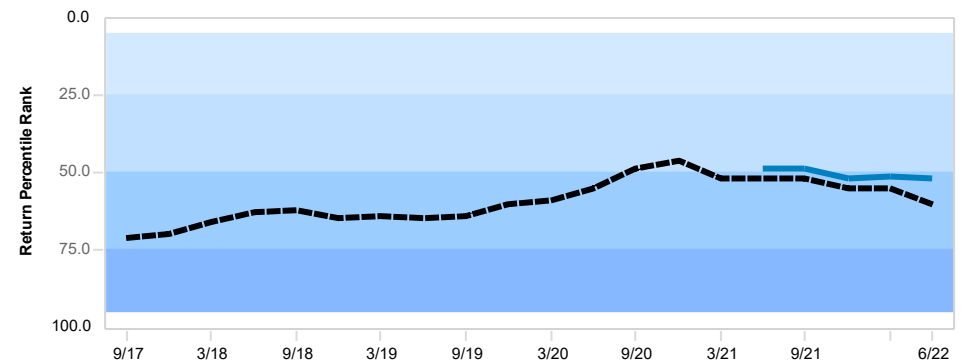


3 Year Rolling Percentile Rank IM Global Equity (SA+CF)



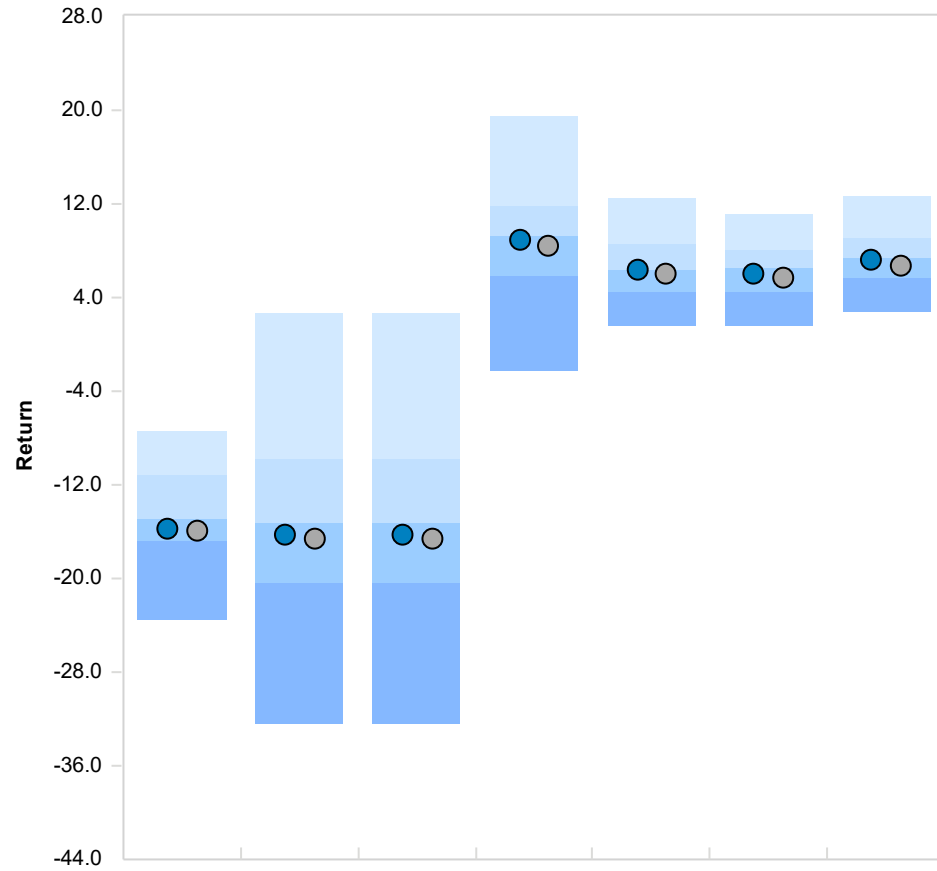
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	13	0 (0%)	9 (69%)	4 (31%)	0 (0%)
Index	20	0 (0%)	3 (15%)	17 (85%)	0 (0%)

5 Year Rolling Percentile Rank IM Global Equity (SA+CF)



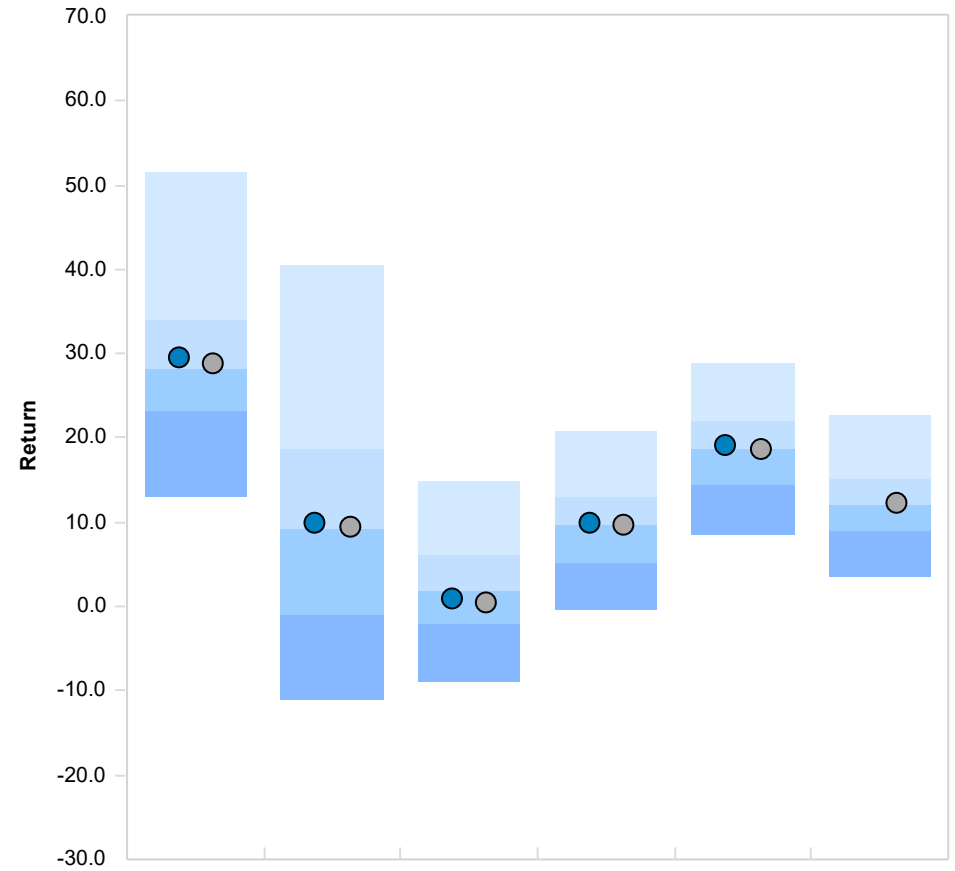
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	5	0 (0%)	2 (40%)	3 (60%)	0 (0%)
Index	20	0 (0%)	2 (10%)	18 (90%)	0 (0%)

Peer Group Analysis - IM Global Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
Investment	-15.68 (64)	-16.17 (55)	-16.17 (55)	8.95 (52)	6.46 (50)	6.10 (58)	7.18 (52)
Index	-15.83 (66)	-16.52 (59)	-16.52 (59)	8.47 (57)	5.98 (57)	5.62 (63)	6.70 (60)
Median	-14.87	-15.31	-15.31	9.28	6.39	6.60	7.33

Peer Group Analysis - IM Global Equity (SA+CF)



	Oct-2020 To Sep-2021	Oct-2019 To Sep-2020	Oct-2018 To Sep-2019	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016
Investment	29.54 (42)	10.04 (48)	0.93 (57)	10.07 (46)	19.24 (47)	N/A
Index	28.92 (45)	9.57 (50)	0.48 (61)	9.63 (51)	18.73 (51)	12.25 (50)
Median	28.09	9.16	1.95	9.64	18.81	12.15

Comparative Performance

	1 Qtr Ending Mar-2022	1 Qtr Ending Dec-2021	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020
Investment	-5.37	6.18	-1.05	7.25	5.31	15.91
Index	-5.47	6.10	-1.11	7.18	5.14	15.70

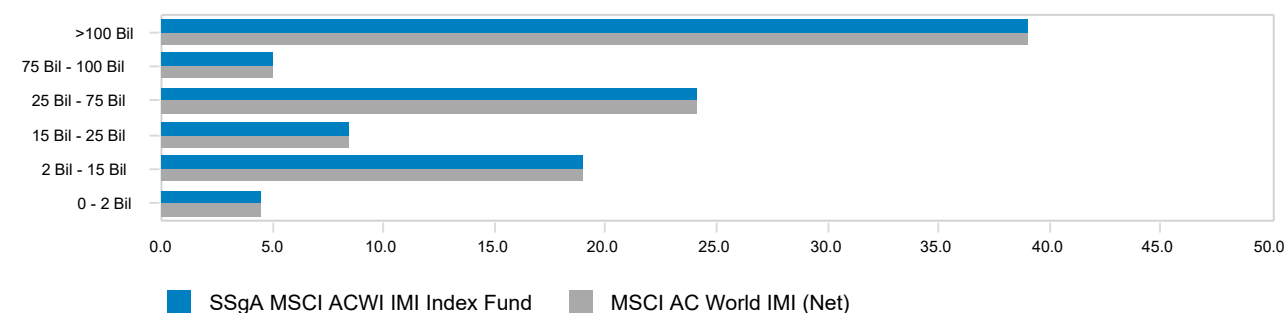
Portfolio Characteristics (Benchmark: MSCI AC World IMI (Net))

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	271,246,543,398	271,246,543,523
Median Mkt. Cap (\$)	1,711,030,373	1,711,030,373
Price/Earnings ratio	14.83	14.83
Price/Book ratio	3.09	3.09
5 Yr. EPS Growth Rate (%)	17.29	17.29
Current Yield (%)	2.38	2.38
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	9,297	9,297

Top Ten Equity Holdings (Benchmark: MSCI AC World IMI (Net))

	Portfolio (%)	Benchmark (%)	Active (%)	Qtr Rtn (%)
Apple Inc	3.53	3.53	0.00	-21.59
Microsoft Corp	2.90	2.90	0.00	-16.49
Amazon.com Inc	1.54	1.54	0.00	-34.84
Alphabet Inc	1.04	1.04	0.00	-21.65
Alphabet Inc	0.98	0.98	0.00	-21.68
Tesla Inc	0.94	0.94	0.00	-37.51
Unitedhealth Group Inc	0.77	0.77	0.00	1.08
Johnson & Johnson	0.74	0.74	0.00	0.79
Taiwan Semiconductor ORD	0.62	0.62	0.00	-22.77
NVIDIA Corporation	0.60	0.60	0.00	-44.43

Distribution of Market Capitalization (%)



Ten Best Performers

	Portfolio (%)	Benchmark (%)
Koolearn Technology Holding Ltd	0.00	0.00
Turning Point Therapeutics Inc	0.01	0.01
PT Panin Financial TBK	0.00	0.00
Veru Inc	0.00	0.00
Haichang Ocean Park Holdings Ltd	0.00	0.00
Kintor Pharmaceutical Ltd	0.00	0.00
Chong Qing Changan Automobile Co Ltd	0.00	0.00
Saras Raffinerie Sarde SPA	0.00	0.00
The Go-Ahead Group PLC	0.00	0.00
Ningbo Deye Technology Group Co Ltd	0.00	0.00

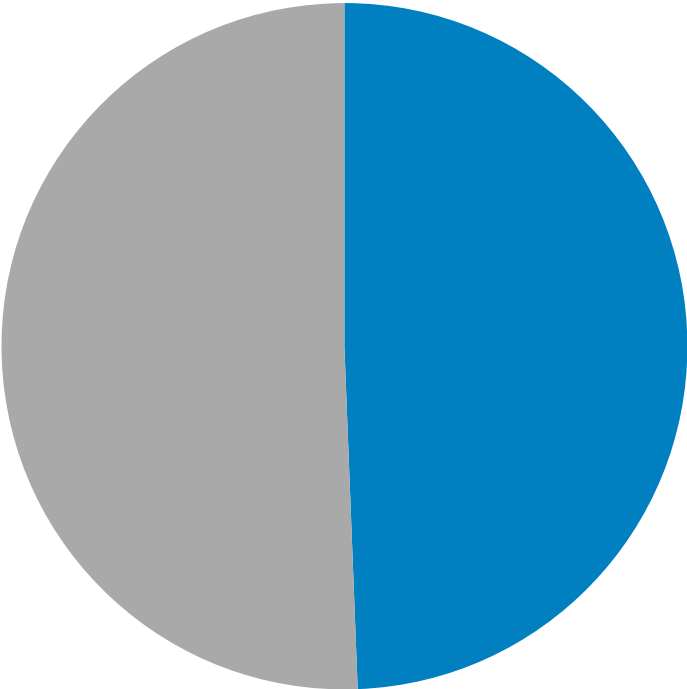
Buy and Hold Sector Attribution	Allocation		Performance		Attribution		
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Total
Communication Services	7.5	7.5	-17.80	-17.80	0.00	0.00	0.00
Consumer Discretionary	11.7	11.7	-19.92	-19.92	0.00	0.00	0.00
Consumer Staples	6.6	6.6	-6.22	-6.22	0.00	0.00	0.00
Energy	4.4	4.4	-5.45	-5.45	0.00	0.00	0.00
Financials	14.4	14.4	-15.32	-15.32	0.00	0.00	0.00
Health Care	11.6	11.6	-8.09	-8.09	0.00	0.00	0.00
Industrials	10.6	10.6	-16.06	-16.06	0.00	0.00	0.00
Information Technology	21.2	21.2	-21.56	-21.56	0.00	0.00	0.00
Materials	5.5	5.5	-19.87	-19.87	0.00	0.00	0.00
Real Estate	3.6	3.6	-15.20	-15.20	0.00	0.00	0.00
Utilities	2.9	2.9	-6.87	-6.87	0.00	0.00	0.00
Total	100.0	100.0	-15.58	-15.58	0.00	0.00	0.00

Ten Worst Performers

	Portfolio (%)	Benchmark (%)
GOME Electrical Appliances	0.00	0.00
Voyager Digital Ltd	0.00	0.00
Embark Technology Inc	0.00	0.00
Skyfame Realty Holdings	0.00	0.00
Velo3D Inc	0.00	0.00
Firefinch Ltd	0.00	0.00
Avaya Holdings Corp	0.00	0.00
Argonaut Gold Inc	0.00	0.00
Boxed Inc	0.00	0.00
Carvana Co	0.00	0.00

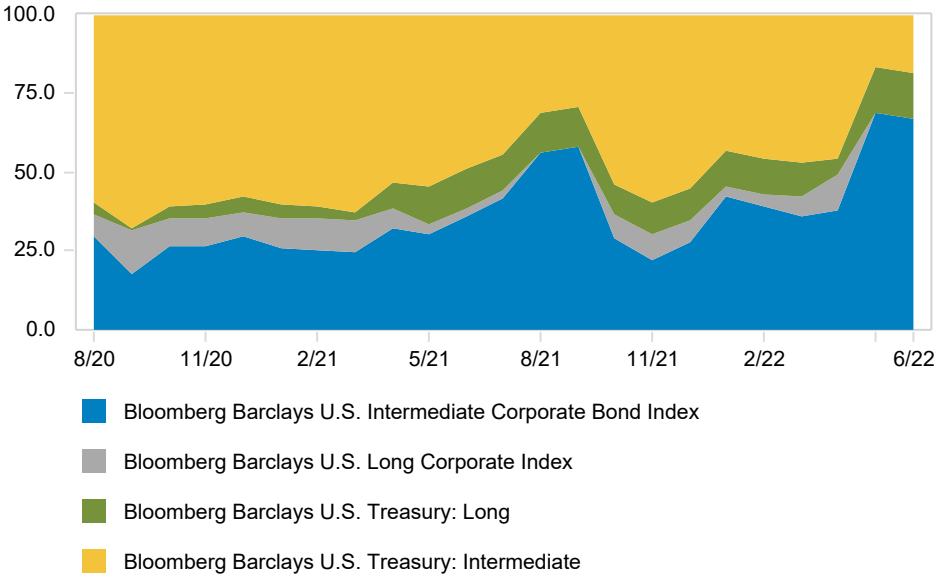
Fixed Income

Manager Allocation
June 30, 2022 : \$375,735,264

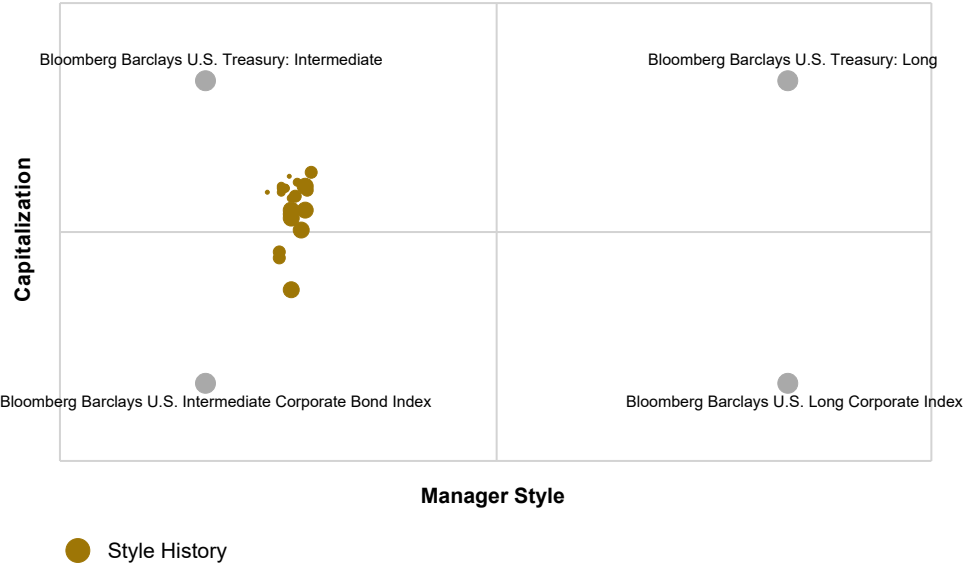


	Market Value	Allocation
■ PIMCO Total Return	185,545,098	49.4
■ SSgA Bond Market Index	190,190,166	50.6

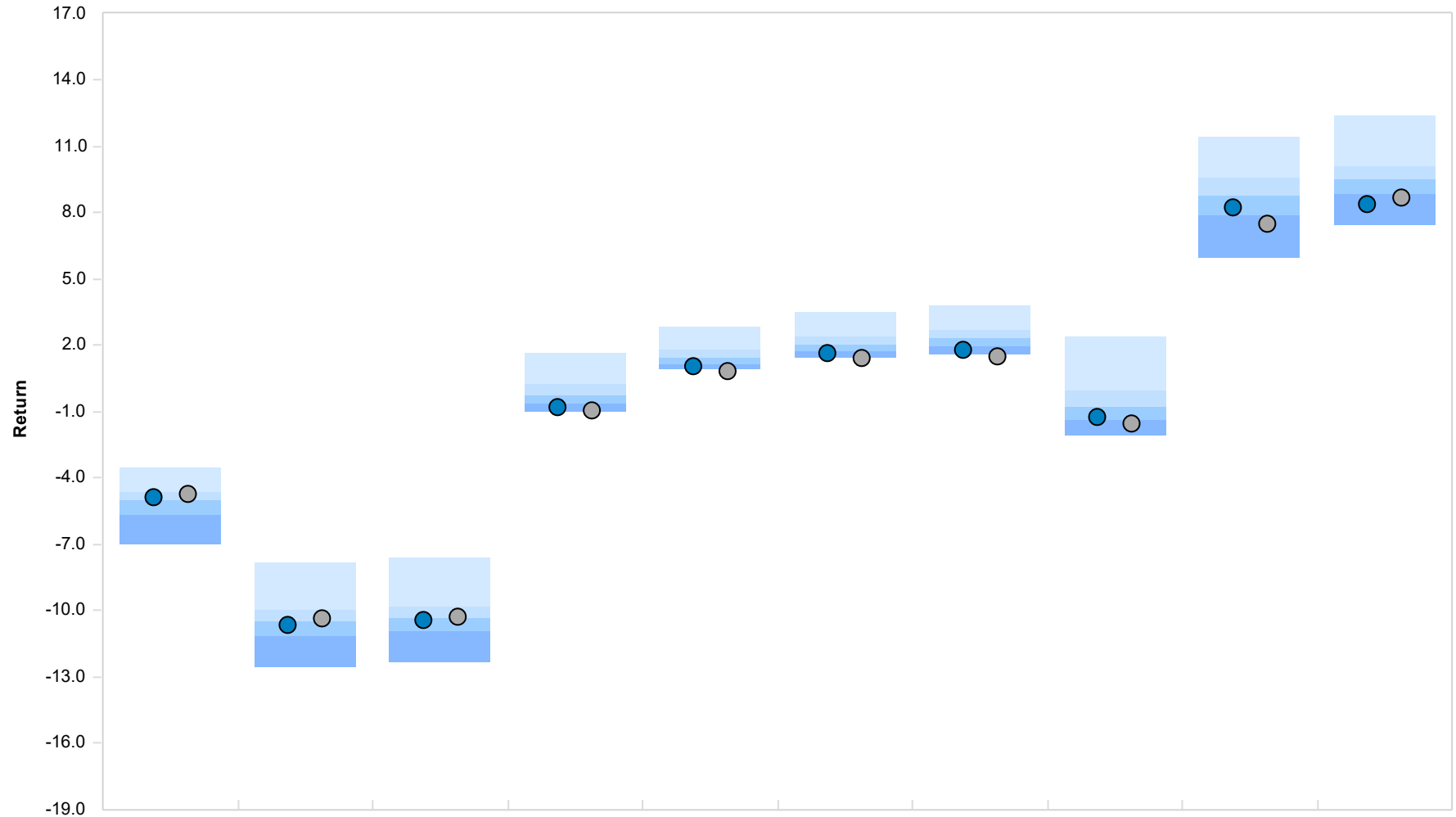
Style Analysis - Returns Based



3 Year Style Analysis



Peer Group Analysis - IM U.S. Broad Market Fixed Income (SA+CF)

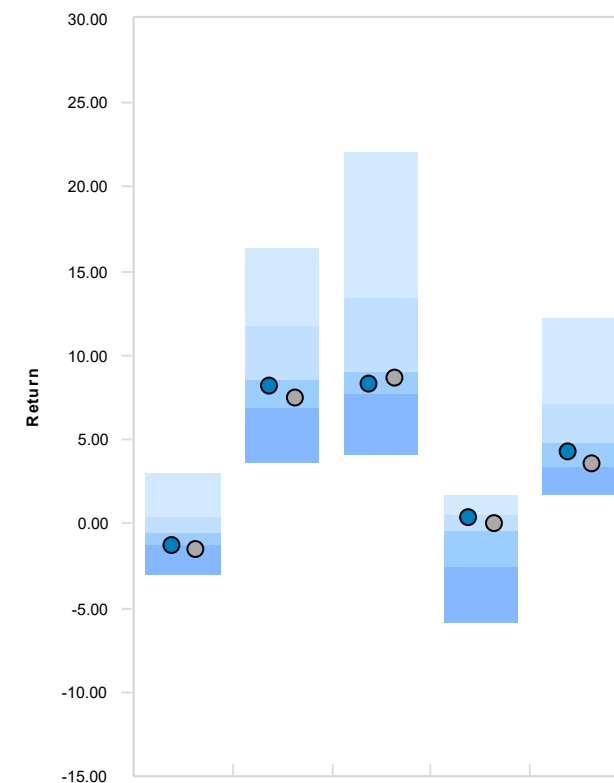
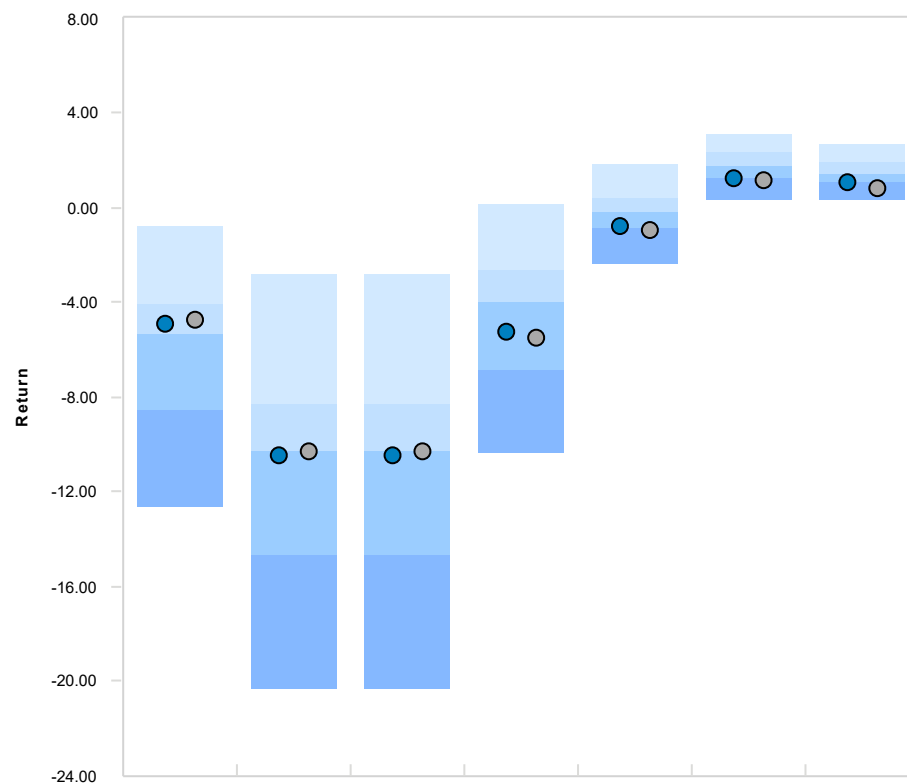


	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2021	2020	2019
● Fixed Income	-4.88 (44)	-10.61 (56)	-10.42 (52)	-0.76 (85)	1.10 (85)	1.64 (86)	1.85 (84)	-1.21 (68)	8.27 (66)	8.39 (89)
● Blmbg. U.S. Aggregate Index	-4.69 (30)	-10.35 (44)	-10.29 (48)	-0.94 (94)	0.88 (96)	1.42 (98)	1.54 (97)	-1.55 (81)	7.51 (86)	8.72 (82)
5th Percentile	-3.52	-7.81	-7.62	1.66	2.82	3.49	3.79	2.39	11.47	12.41
1st Quartile	-4.66	-9.94	-9.83	0.24	1.82	2.42	2.70	-0.03	9.62	10.12
Median	-5.00	-10.47	-10.36	-0.25	1.44	2.01	2.30	-0.75	8.76	9.49
3rd Quartile	-5.65	-11.17	-10.94	-0.65	1.18	1.78	1.98	-1.38	7.86	8.89
95th Percentile	-6.99	-12.59	-12.30	-0.97	0.90	1.48	1.57	-2.04	5.97	7.45

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



Plan Sponsor Peer Group Analysis - All Master Trust-US Fixed Income Segment



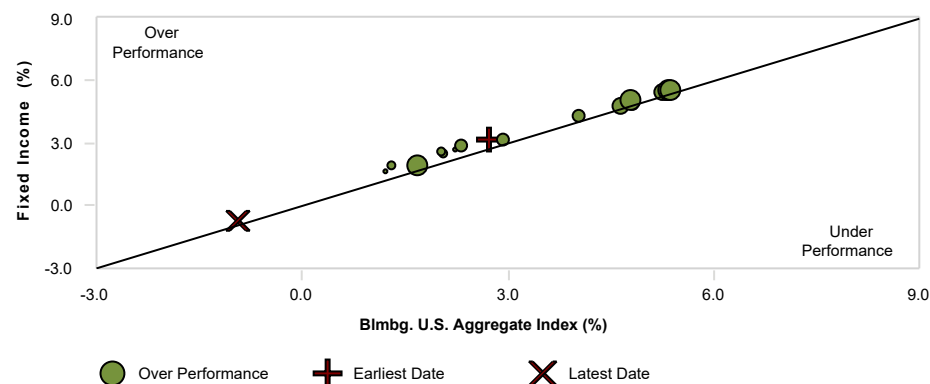
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Fixed Income	-4.88 (41)	-10.42 (52)	-10.42 (52)	-5.19 (67)	-0.76 (73)	1.29 (75)	1.10 (74)
● Blmbg. U.S. Aggregate Index	-4.69 (37)	-10.29 (50)	-10.29 (50)	-5.45 (69)	-0.94 (79)	1.20 (79)	0.88 (85)
Median	-5.35	-10.30	-10.30	-3.98	-0.21	1.80	1.42

	2021	2020	2019	2018	2017
● Fixed Income	-1.21 (74)	8.27 (55)	8.39 (64)	0.35 (28)	4.34 (56)
● Blmbg. U.S. Aggregate Index	-1.55 (81)	7.51 (66)	8.72 (58)	0.01 (36)	3.54 (69)
Median	-0.54	8.58	9.09	-0.39	4.78

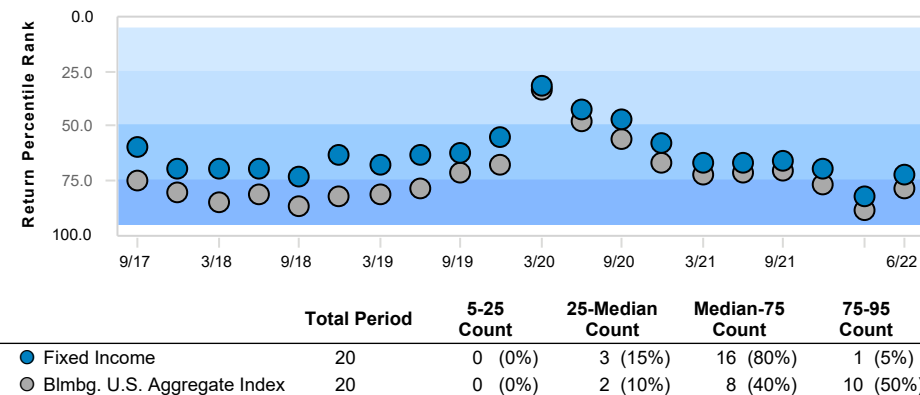
Comparative Performance

	1 Qtr Ending Mar-2022	1 Qtr Ending Dec-2021	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020
Fixed Income	-6.02	-0.05	0.26	1.99	-3.34	0.72
Blmbg. U.S. Aggregate Index	-5.93	0.01	0.05	1.83	-3.38	0.67

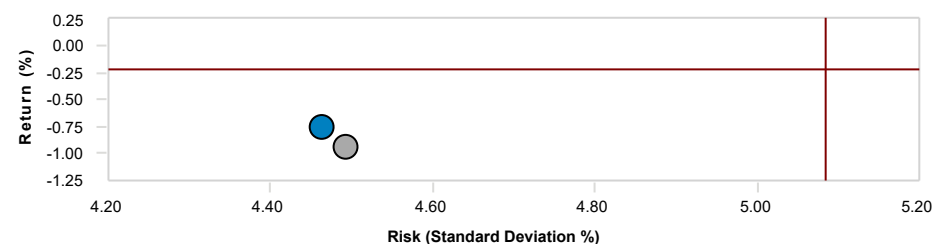
3 Yr Rolling Under/Over Performance - 5 Years



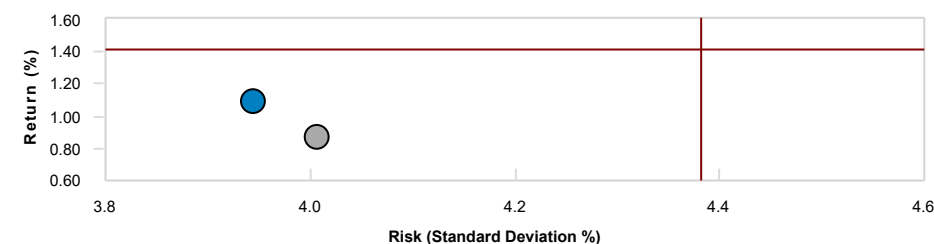
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Fixed Income	0.54	100.77	97.83	0.17	0.33	-0.29	0.99	3.48
Blmbg. U.S. Aggregate Index	0.00	100.00	100.00	0.00	N/A	-0.33	1.00	3.51

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Fixed Income	0.46	100.67	96.27	0.24	0.47	0.02	0.98	2.82
Blmbg. U.S. Aggregate Index	0.00	100.00	100.00	0.00	N/A	-0.04	1.00	2.87

Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-0.66	4.47	-0.27	99.95	8	95.48	4
Index	-0.94	4.49	-0.33	100.00	9	100.00	3

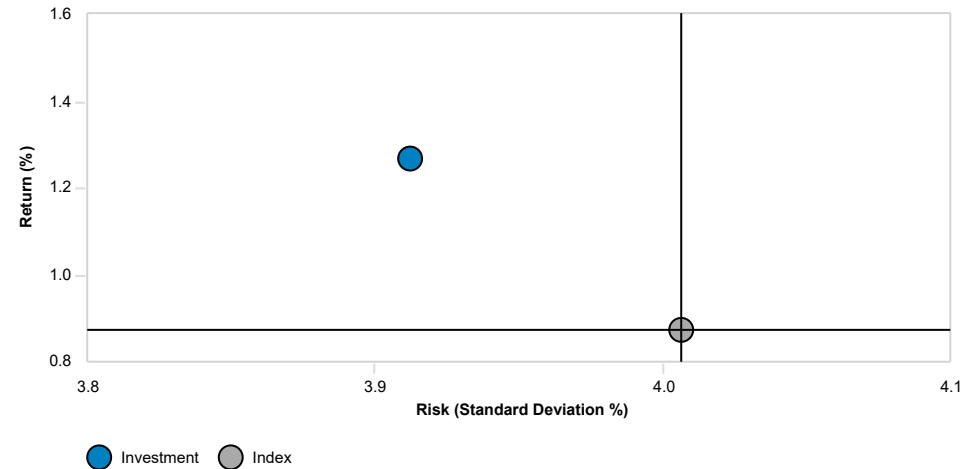
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	1.27	3.91	0.06	100.28	15	92.19	5
Index	0.88	4.01	-0.04	100.00	15	100.00	5

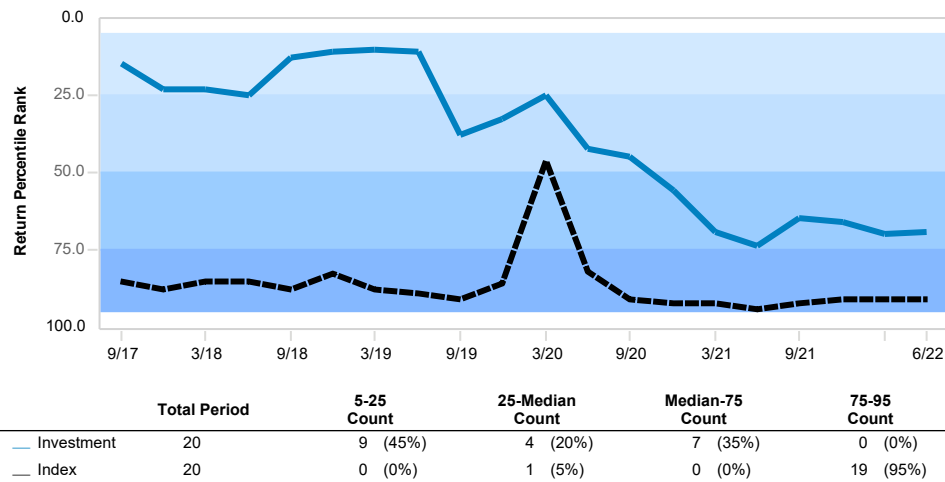
Risk and Return 3 Years



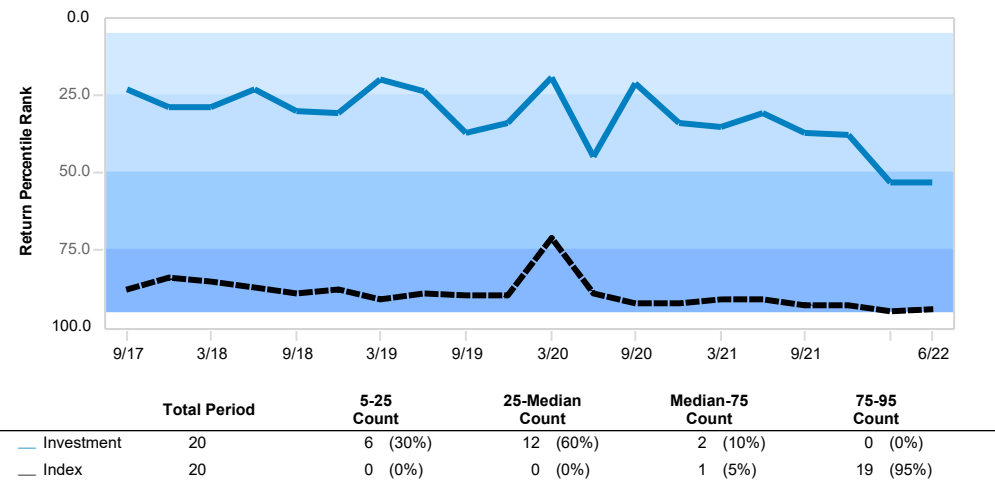
Risk and Return 5 Years



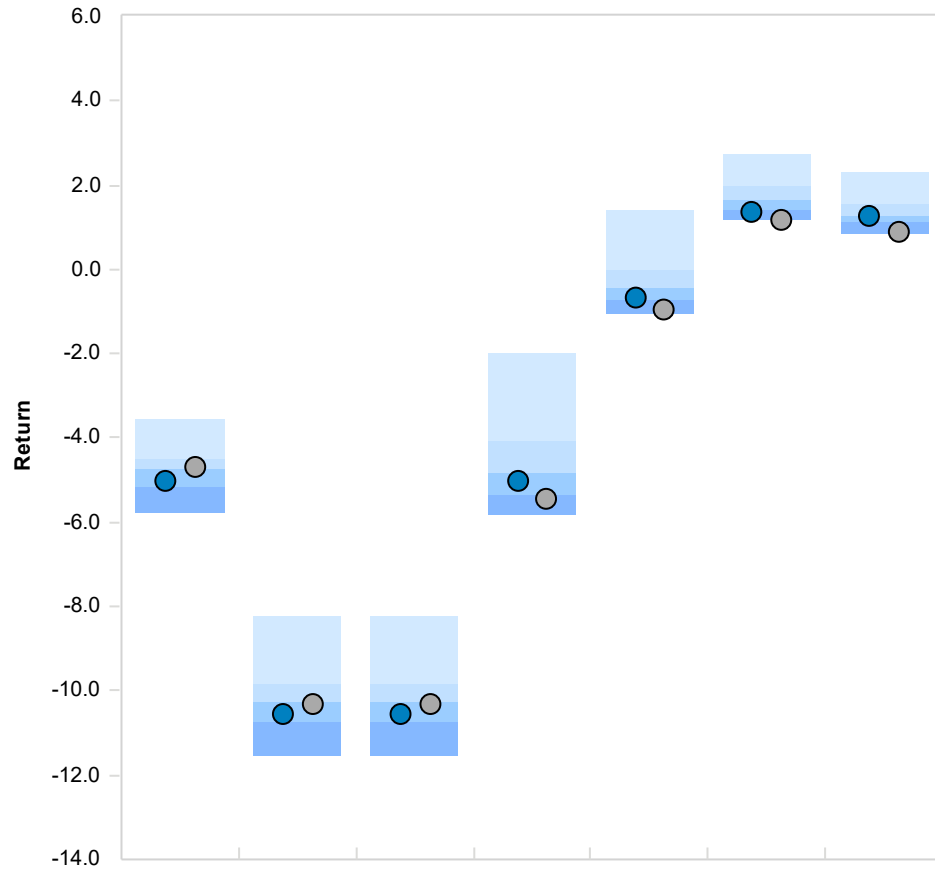
3 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)



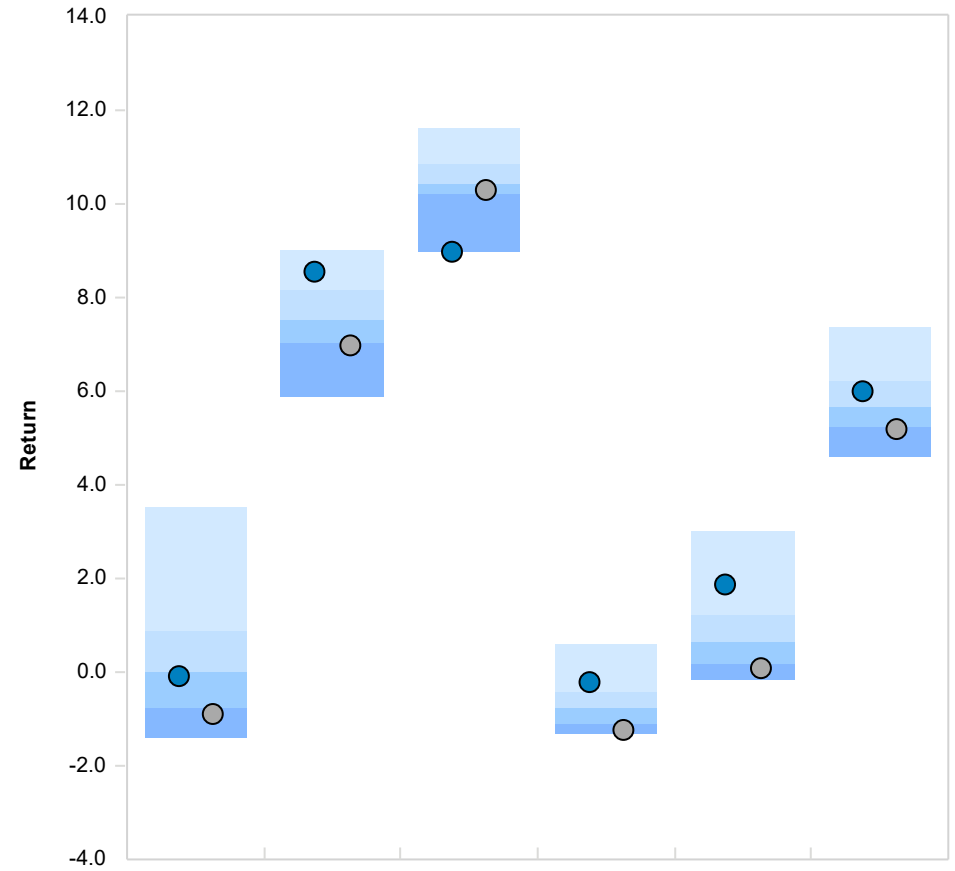
5 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)



Peer Group Analysis - IM U.S. Broad Market Core Fixed Income (SA+CF)



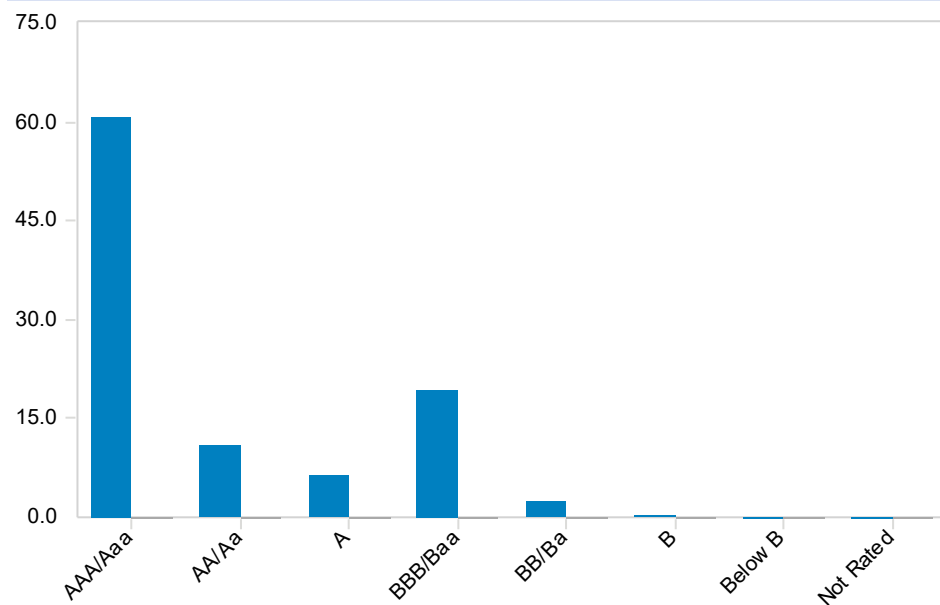
Peer Group Analysis - IM U.S. Broad Market Core Fixed Income (SA+CF)



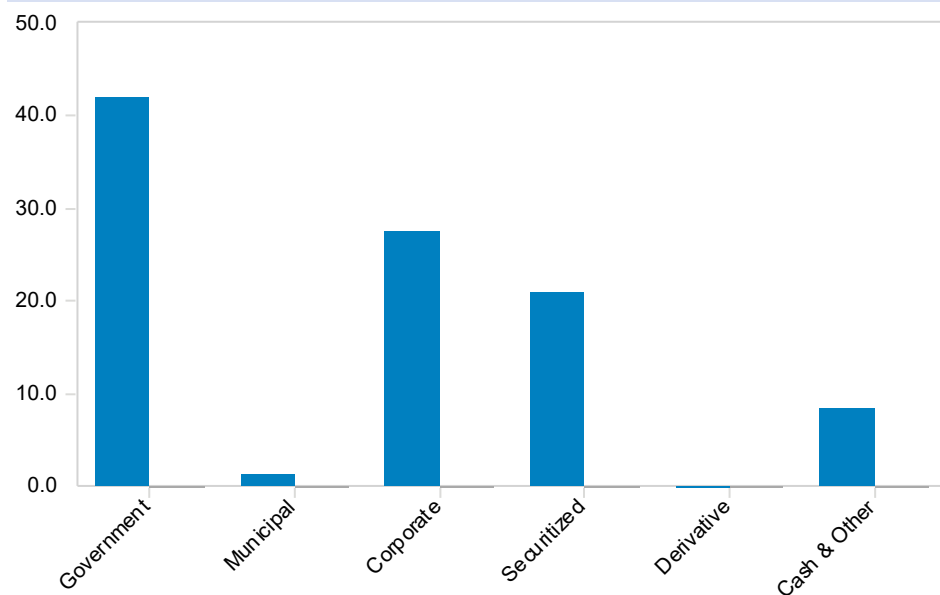
Comparative Performance

	1 Qtr Ending Mar-2022	1 Qtr Ending Dec-2021	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020
Investment	-6.14	-0.09	0.45	2.12	-3.34	0.75
Index	-5.93	0.01	0.05	1.83	-3.38	0.67

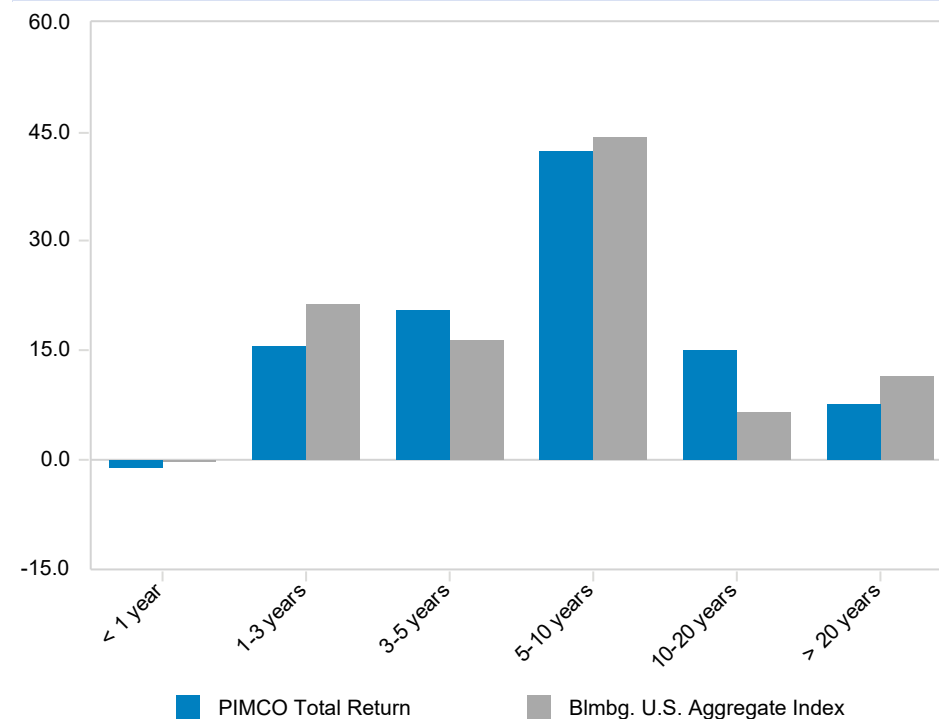
Credit Quality Distribution (%)



Sector Distribution (%)



Maturity Distribution (%)



Portfolio Characteristics

	Portfolio	Benchmark
Avg. Maturity	9.44	8.64
Avg. Quality	AA	AA
Coupon Rate (%)	2.40	2.49
Yield To Maturity (%)	2.20	8.86
Current Yield	2.24	N/A
Effective Duration	5.84	6.33
Holdings Count	528	12,563

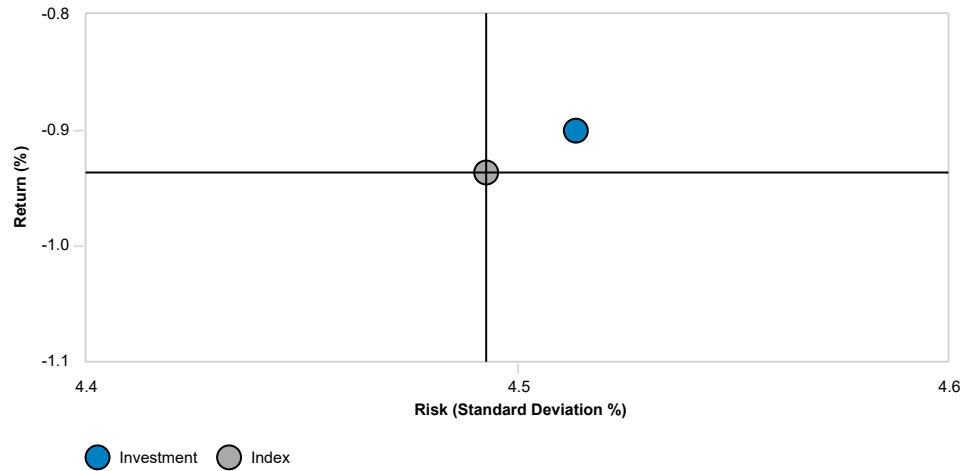
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-0.90	4.51	-0.32	101.29	8	100.53	4
Index	-0.94	4.49	-0.33	100.00	9	100.00	3

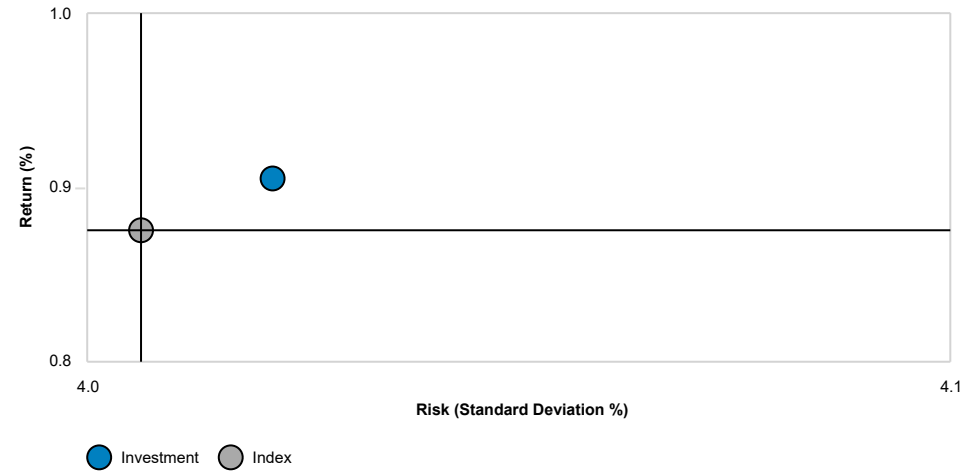
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	0.91	4.02	-0.03	100.85	14	100.38	6
Index	0.88	4.01	-0.04	100.00	15	100.00	5

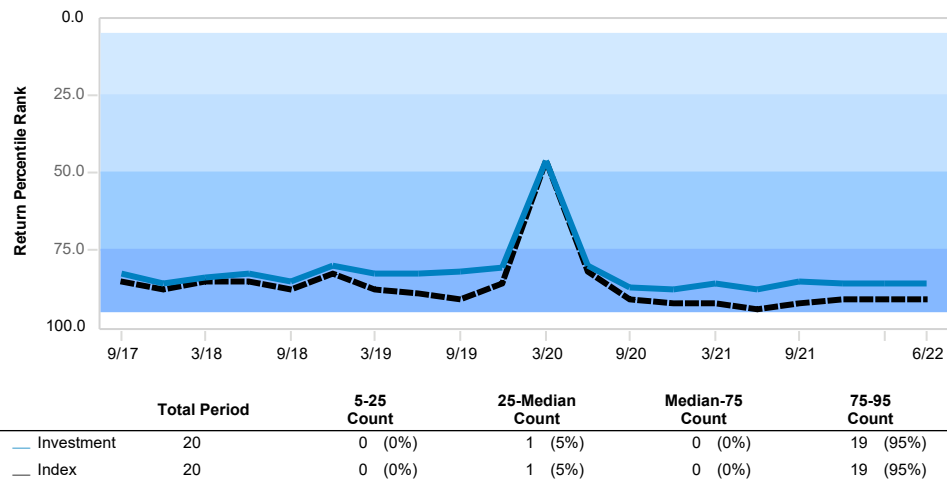
Risk and Return 3 Years



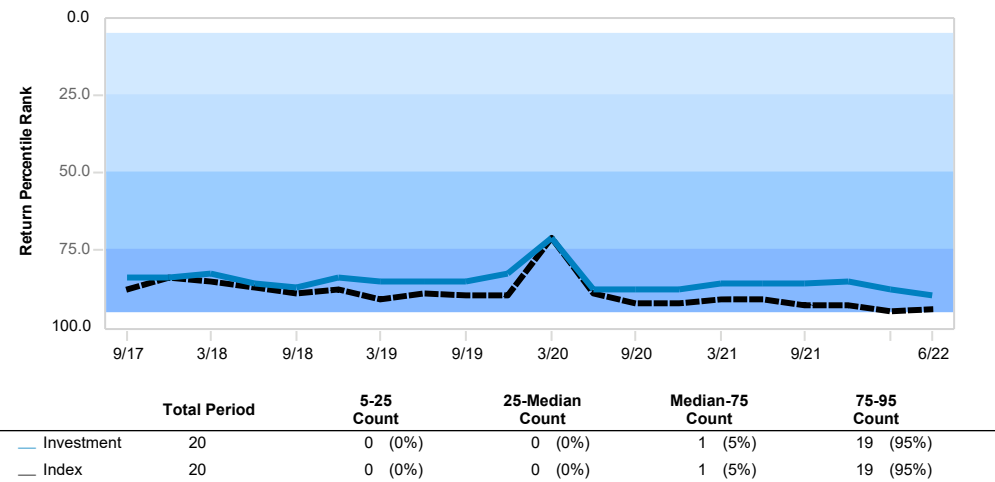
Risk and Return 5 Years



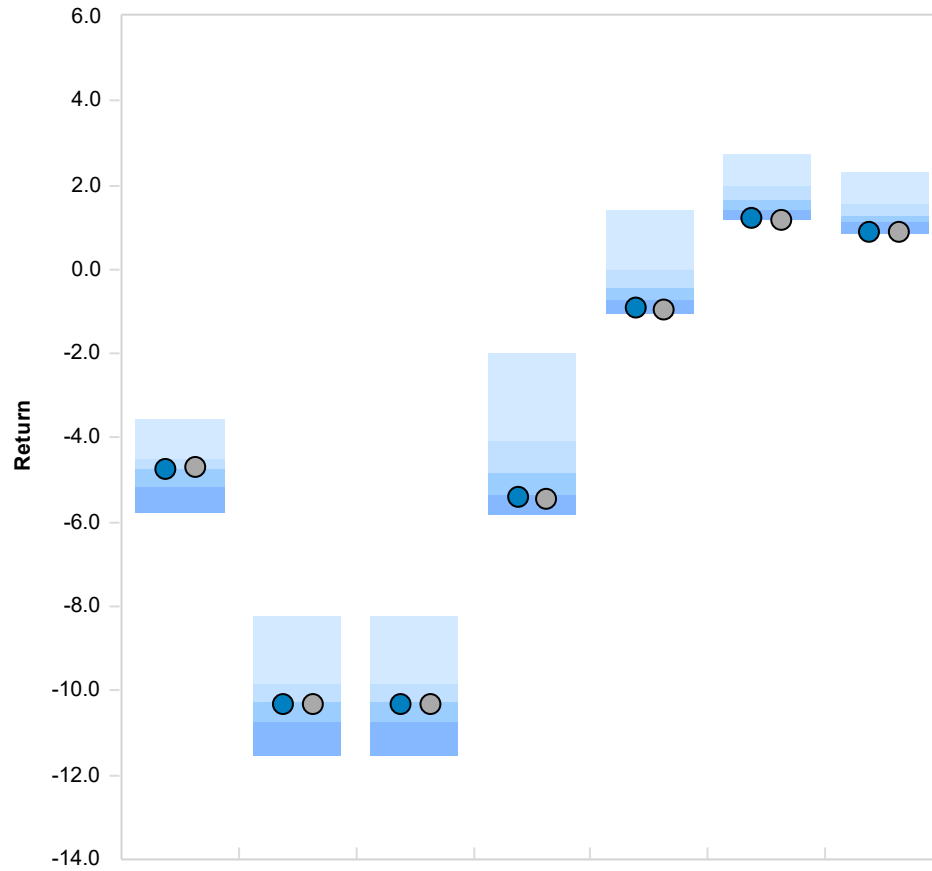
3 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)



5 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)



Peer Group Analysis - IM U.S. Broad Market Core Fixed Income (SA+CF)

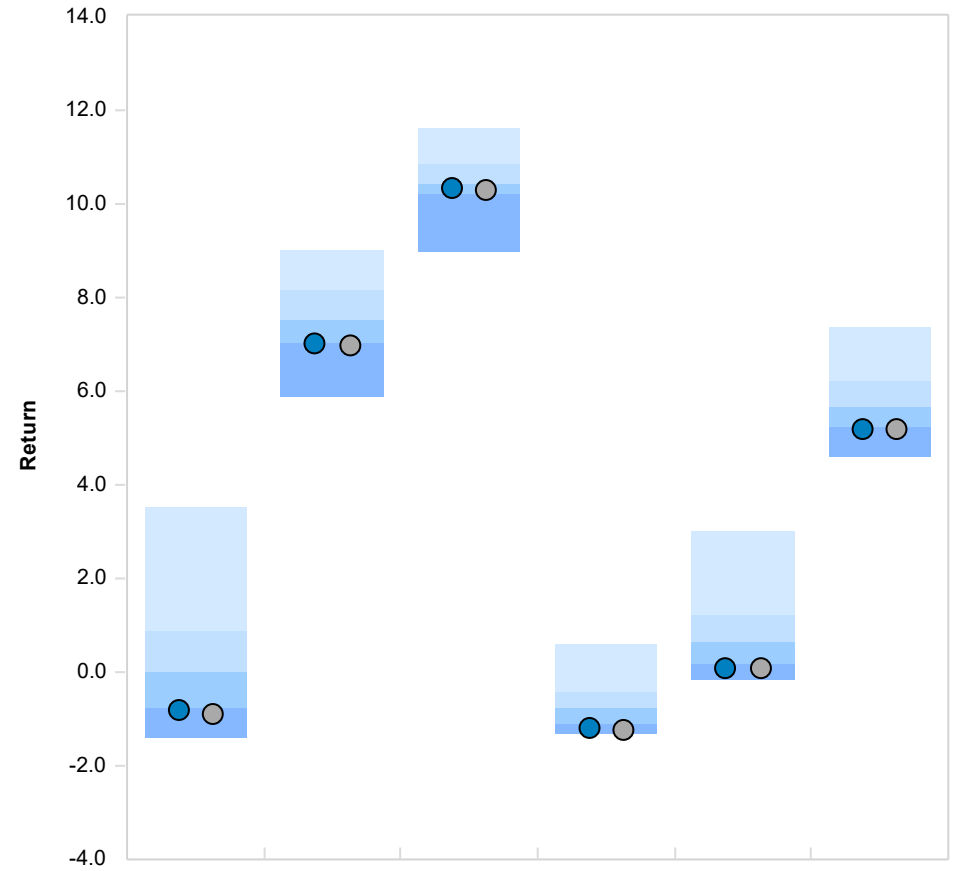


	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Investment	-4.72 (46)	-10.31 (58)	-10.31 (58)	-5.41 (78)	-0.90 (86)	1.23 (90)	0.91 (90)
● Index	-4.69 (41)	-10.29 (55)	-10.29 (55)	-5.45 (82)	-0.94 (91)	1.20 (94)	0.88 (94)
Median	-4.74	-10.24	-10.24	-4.83	-0.41	1.64	1.29

Comparative Performance

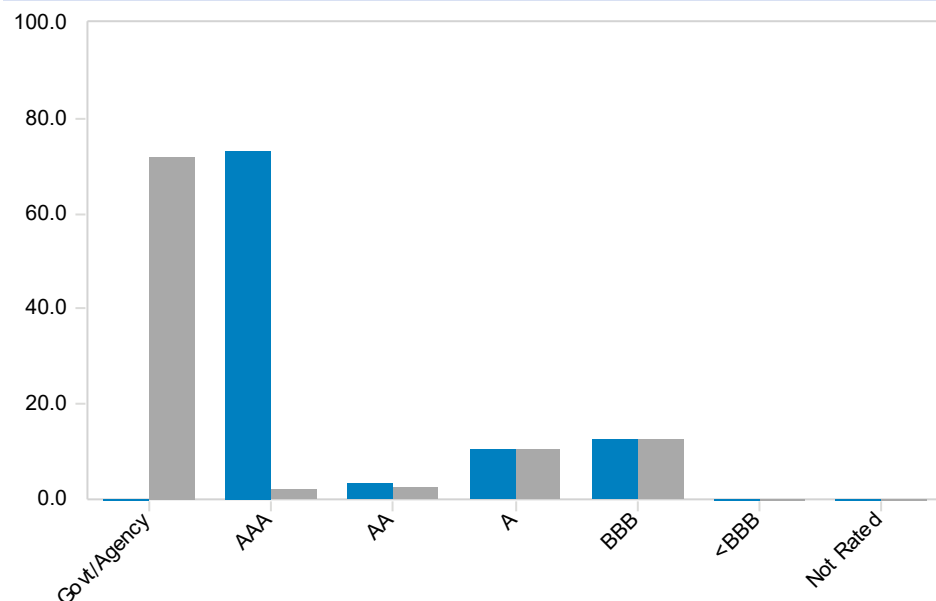
	1 Qtr Ending Mar-2022	1 Qtr Ending Dec-2021	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020
Investment	-5.91	-0.02	0.06	1.85	-3.35	0.69
Index	-5.93	0.01	0.05	1.83	-3.38	0.67

Peer Group Analysis - IM U.S. Broad Market Core Fixed Income (SA+CF)

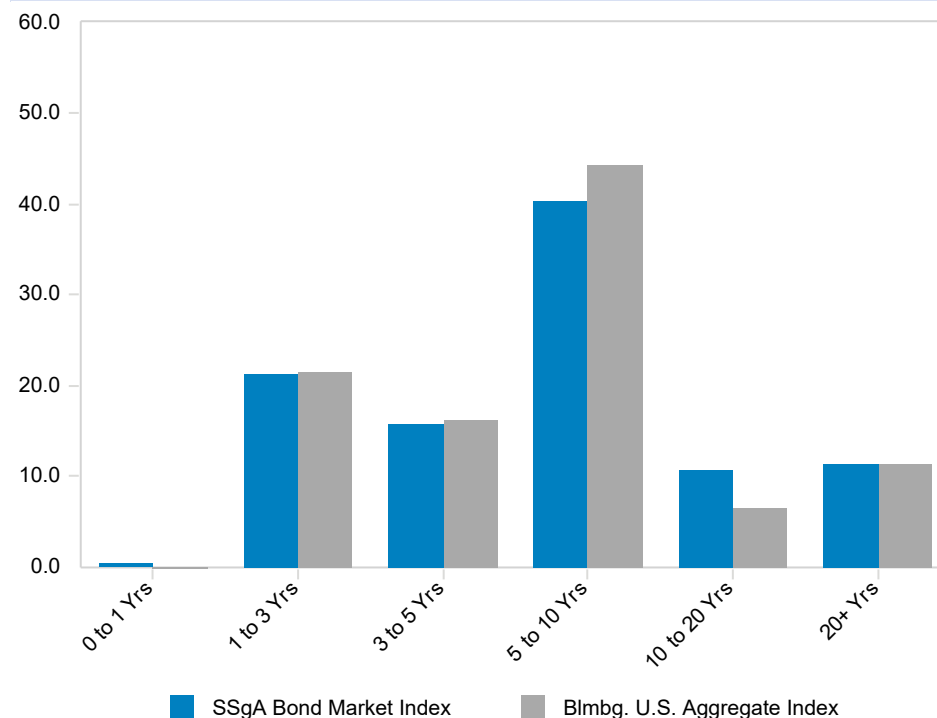


	Oct-2020 To Sep-2021	Oct-2019 To Sep-2020	Oct-2018 To Sep-2019	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016
● Investment	-0.82 (80)	7.04 (72)	10.35 (64)	-1.21 (87)	0.08 (82)	5.20 (79)
● Index	-0.90 (84)	6.98 (77)	10.30 (69)	-1.22 (88)	0.07 (84)	5.19 (80)
Median	-0.02	7.52	10.42	-0.75	0.63	5.66

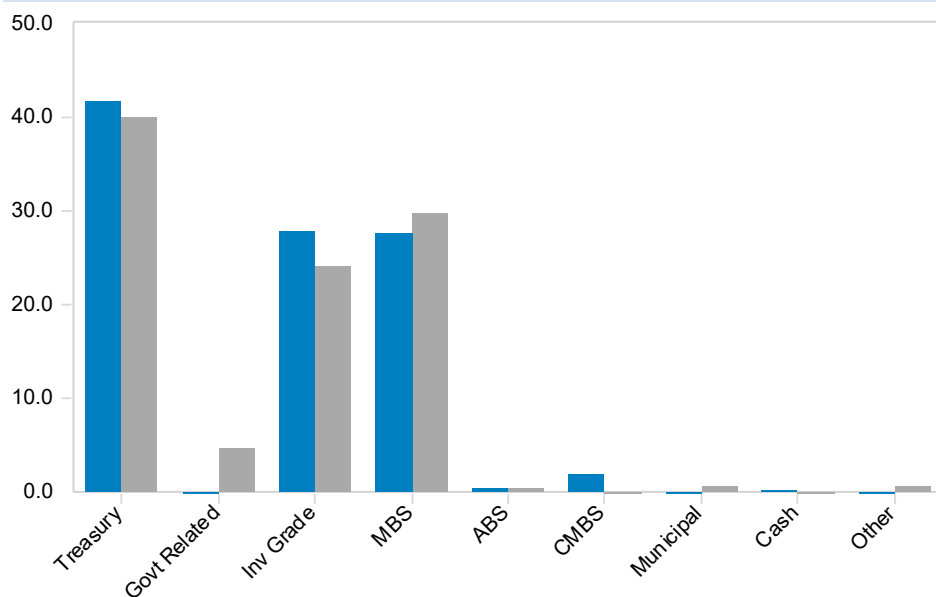
Credit Quality Distribution (%)



Maturity Distribution (%)



Sector Distribution (%)



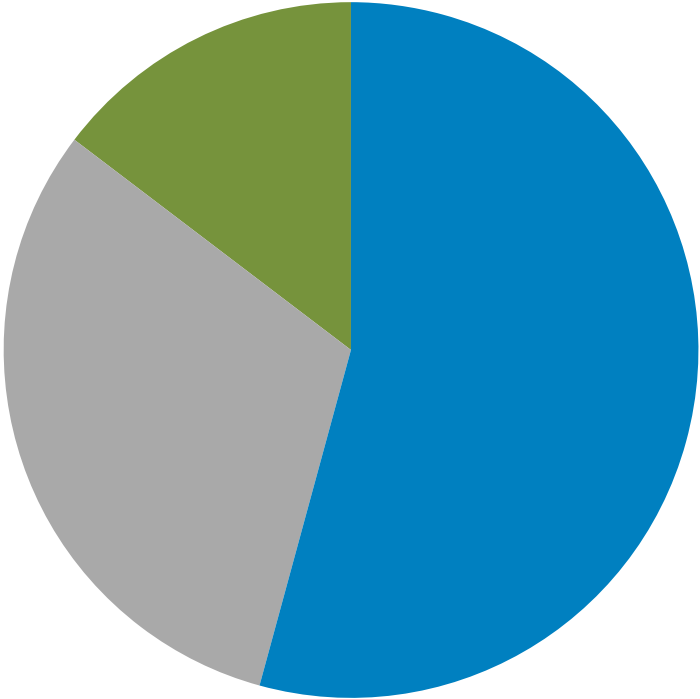
Portfolio Characteristics

	Portfolio	Benchmark
Avg. Maturity	8.70	8.64
Avg. Quality	Aa2	AA
Coupon Rate (%)	2.58	2.49
Yield To Maturity (%)	3.72	8.86
Current Yield	2.75	N/A
Effective Duration	6.43	6.33
Holdings Count	9,435	12,563

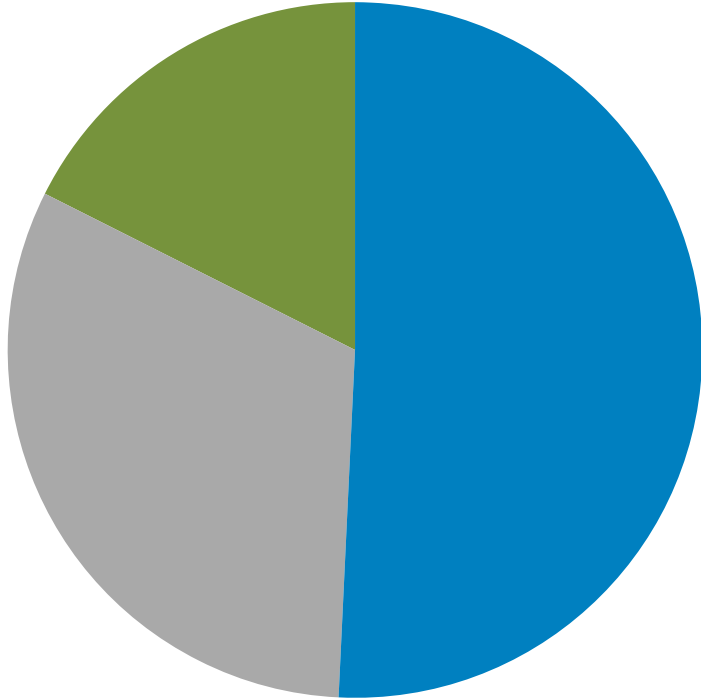
Real Estate

June 30, 2022 : \$106,621,398

March 31, 2022 : \$109,065,921



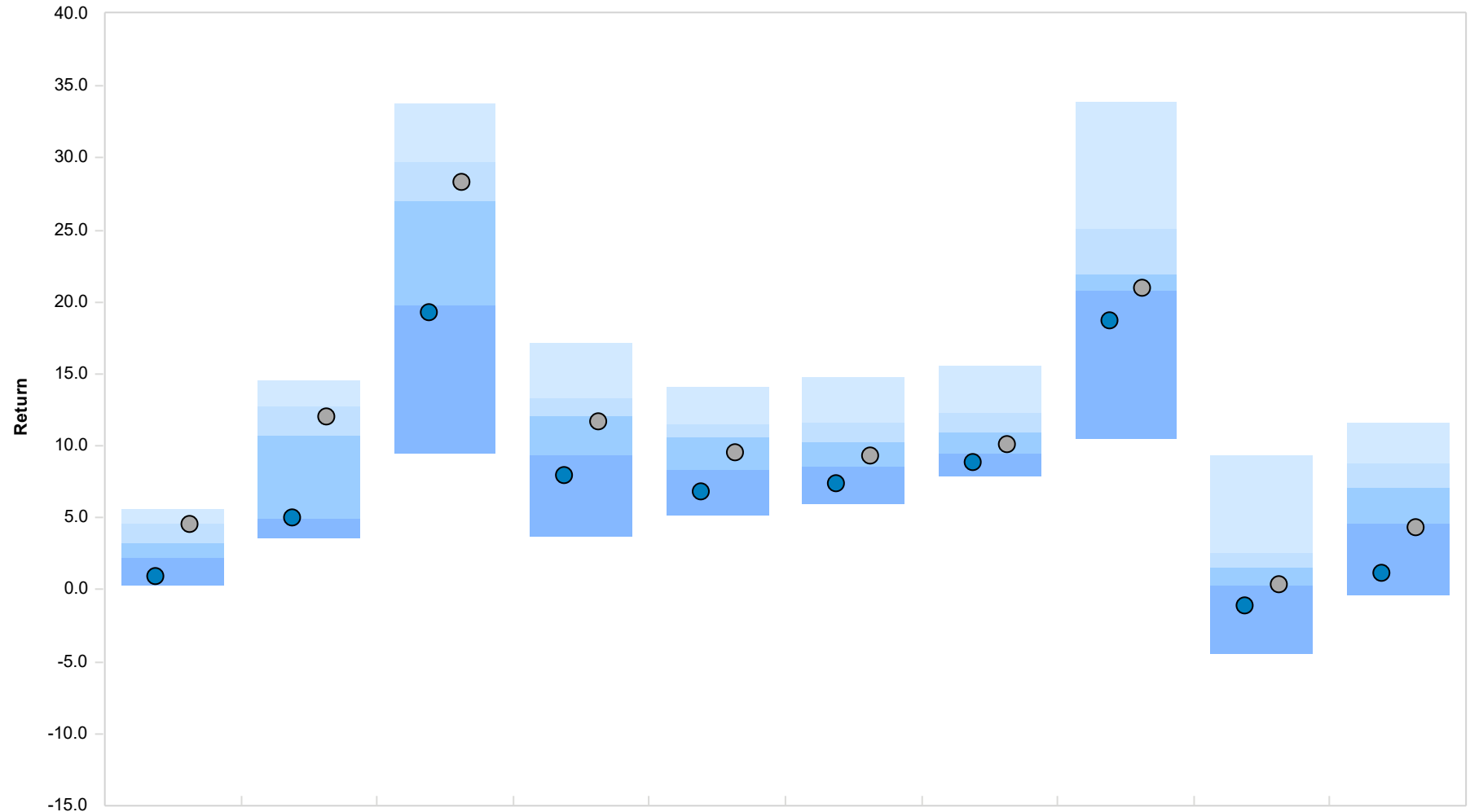
	Market Value	Allocation
JP Morgan Asset Management Strategic Property Fund	57,836,636	54.2
UBS Trumbull Property Fund	33,146,457	31.1
Vanguard Real Estate Index (VGSNX)	15,638,304	14.7



	Market Value	Allocation
JP Morgan Asset Management Strategic Property Fund	55,360,356	50.8
UBS Trumbull Property Fund	34,532,528	31.7
Vanguard Real Estate Index (VGSNX)	19,173,036	17.6



Peer Group Analysis - IM U.S. Open End Private Real Estate (SA+CF)



Parenteses contain percentile rankings.
Calculation based on quarterly periodicity.

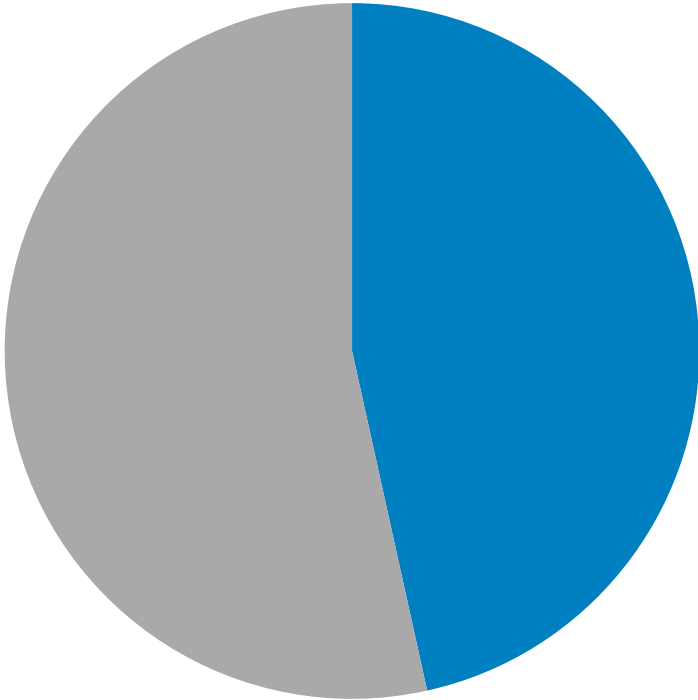
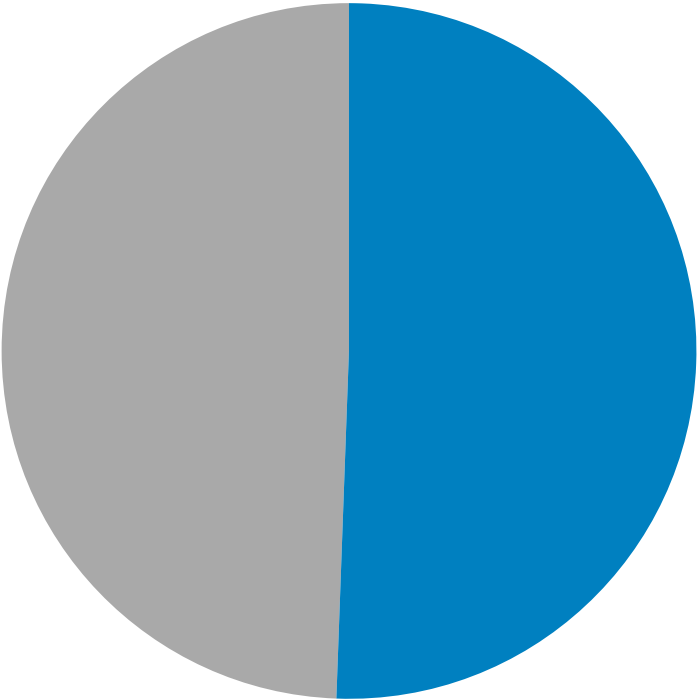


Master Limited Partnerships



June 30, 2022 : \$82,025,265

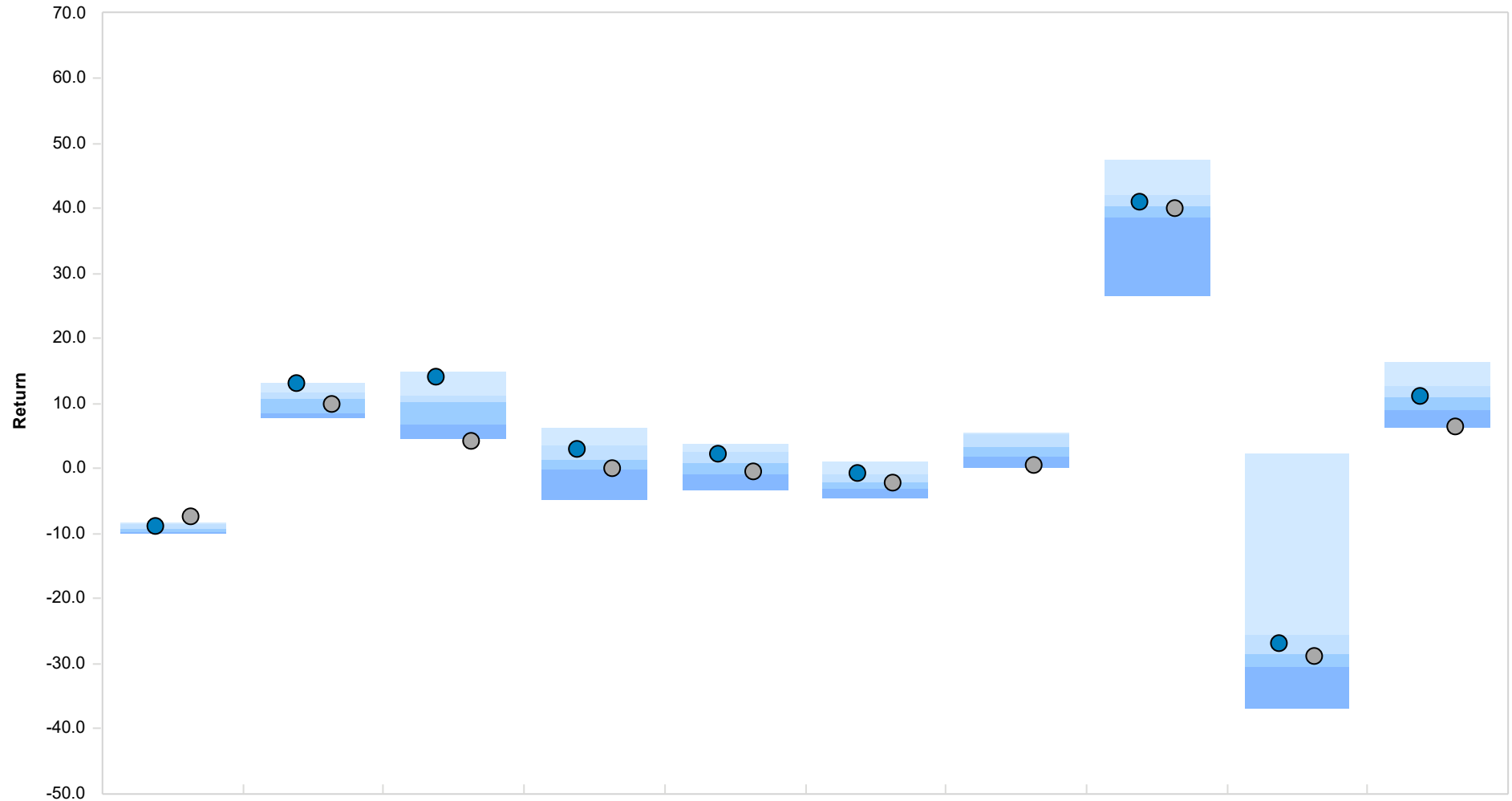
March 31, 2022 : \$111,799,018



	Market Value	Allocation		Market Value	Allocation
Harvest MLP	41,490,231	50.6	Harvest MLP	52,026,540	46.5
Tortoise Capital Advisors	40,535,034	49.4	Tortoise Capital Advisors	59,772,478	53.5



Peer Group Analysis - Master Limited Partnerships (SA+CF)

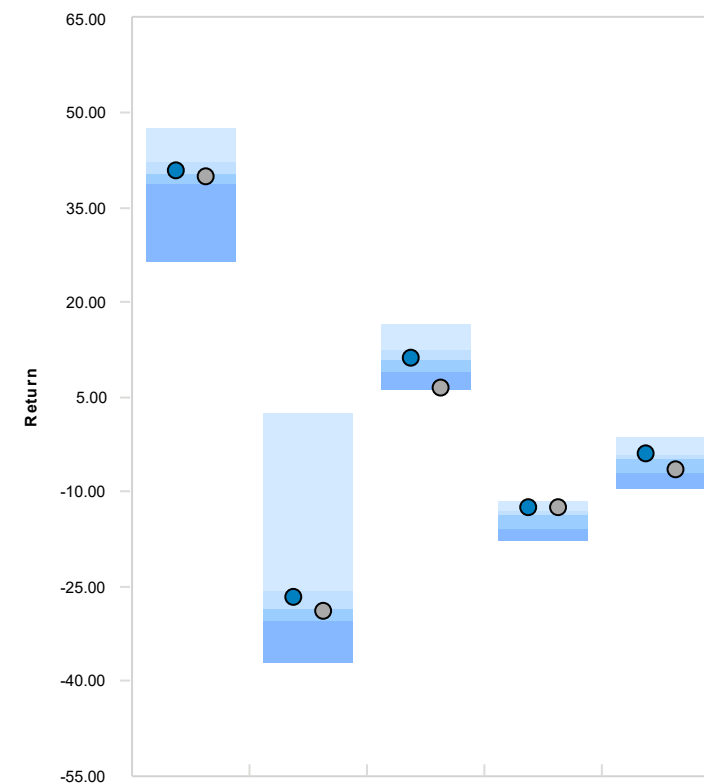
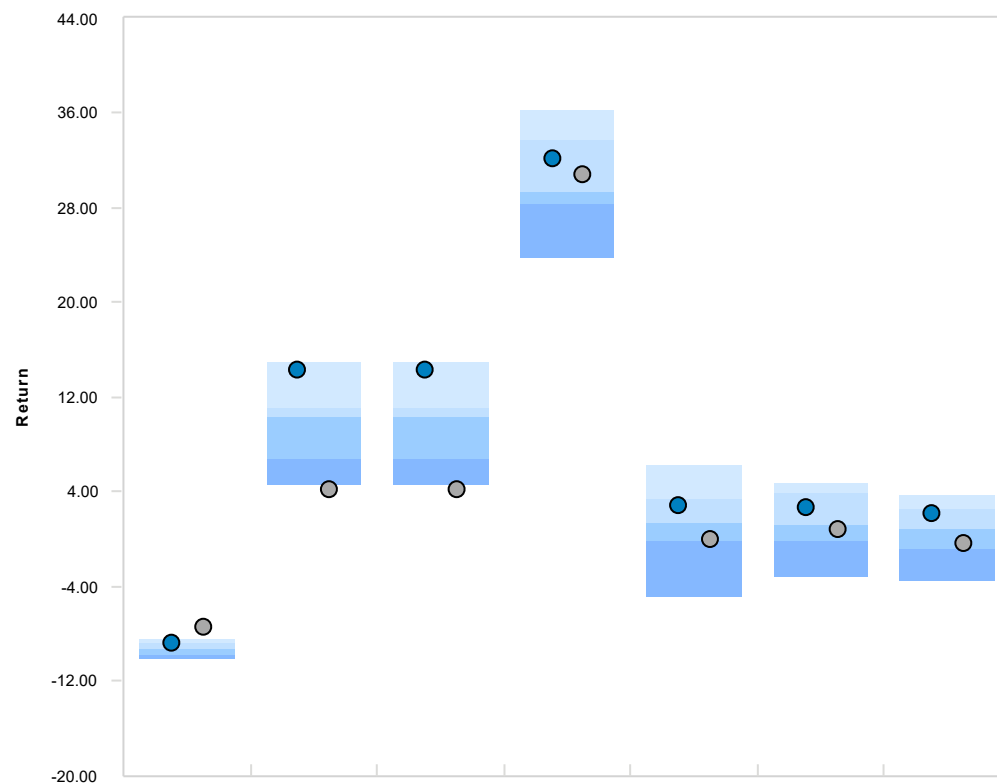


	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2021	2020	2019
● MLPs	-8.67 (26)	13.21 (7)	14.28 (12)	2.99 (29)	2.24 (27)	-0.55 (23)	N/A	41.07 (34)	-26.67 (29)	11.16 (36)
● Alerian MLP Index	-7.38 (1)	10.04 (67)	4.33 (97)	0.07 (70)	-0.29 (68)	-2.13 (50)	0.74 (89)	40.17 (54)	-28.69 (55)	6.56 (91)
5th Percentile	-8.37	13.31	15.06	6.26	3.78	1.09	5.55	47.48	2.41	16.53
1st Quartile	-8.64	11.84	11.13	3.48	2.49	-0.87	5.27	42.16	-25.55	12.73
Median	-9.15	10.82	10.26	1.41	0.80	-2.20	3.27	40.26	-28.54	11.00
3rd Quartile	-9.67	8.58	6.85	-0.18	-0.83	-2.97	1.78	38.69	-30.51	8.97
95th Percentile	-10.05	7.87	4.58	-4.76	-3.44	-4.56	0.01	26.63	-37.04	6.20

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



Plan Sponsor Peer Group Analysis - Master Limited Partnerships (SA+CF)



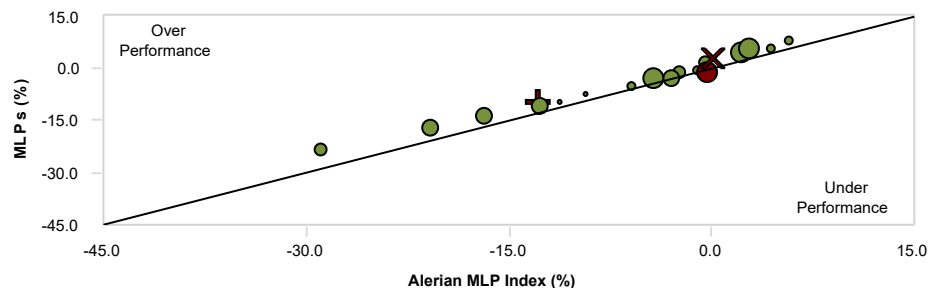
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● MLPs	-8.67 (26)	14.28 (12)	14.28 (12)	32.13 (34)	2.99 (29)	2.74 (37)	2.24 (27)
● Alerian MLP Index	-7.38 (1)	4.33 (97)	4.33 (97)	30.80 (40)	0.07 (70)	0.81 (61)	-0.29 (68)
Median	-9.15	10.26	10.26	29.42	1.41	1.29	0.80

	2021	2020	2019	2018	2017
● MLPs	41.07 (34)	-26.67 (29)	11.16 (36)	-12.45 (9)	-3.96 (20)
● Alerian MLP Index	40.17 (54)	-28.69 (55)	6.56 (91)	-12.42 (9)	-6.52 (70)
Median	40.26	-28.54	11.00	-13.48	-4.94

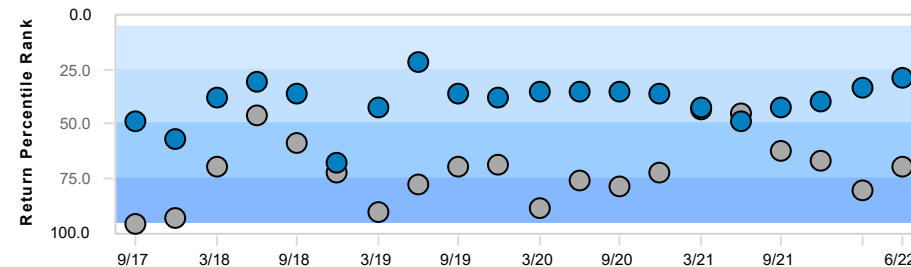
Comparative Performance

	1 Qtr Ending Mar-2022	1 Qtr Ending Dec-2021	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020
MLPs	23.96	2.31	-1.33	19.57	16.88	24.76
Alerian MLP Index	18.81	0.55	-5.71	21.23	21.95	32.45

3 Yr Rolling Under/Over Performance - 5 Years

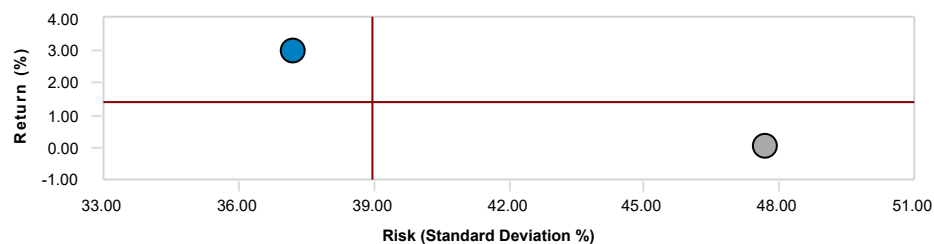


3 Yr Rolling Percentile Ranking - 5 Years



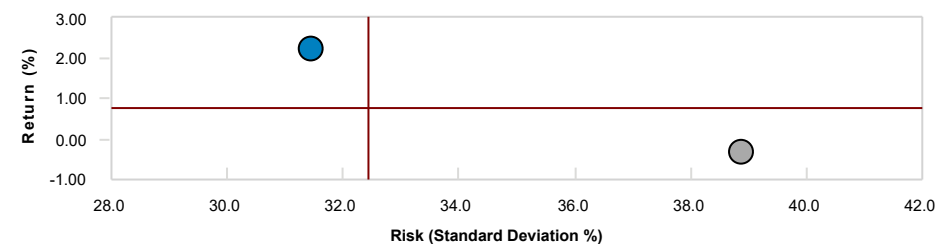
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
MLPs	20	1 (5%)	17 (85%)	2 (10%)	0 (0%)
Alerian MLP Index	20	0 (0%)	3 (15%)	9 (45%)	8 (40%)

Peer Group Scattergram - 3 Years



	Return	Standard Deviation
MLPs	2.99	37.18
Alerian MLP Index	0.07	47.68
Median	1.41	38.96

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
MLPs	2.24	31.43
Alerian MLP Index	-0.29	38.86
Median	0.80	32.42

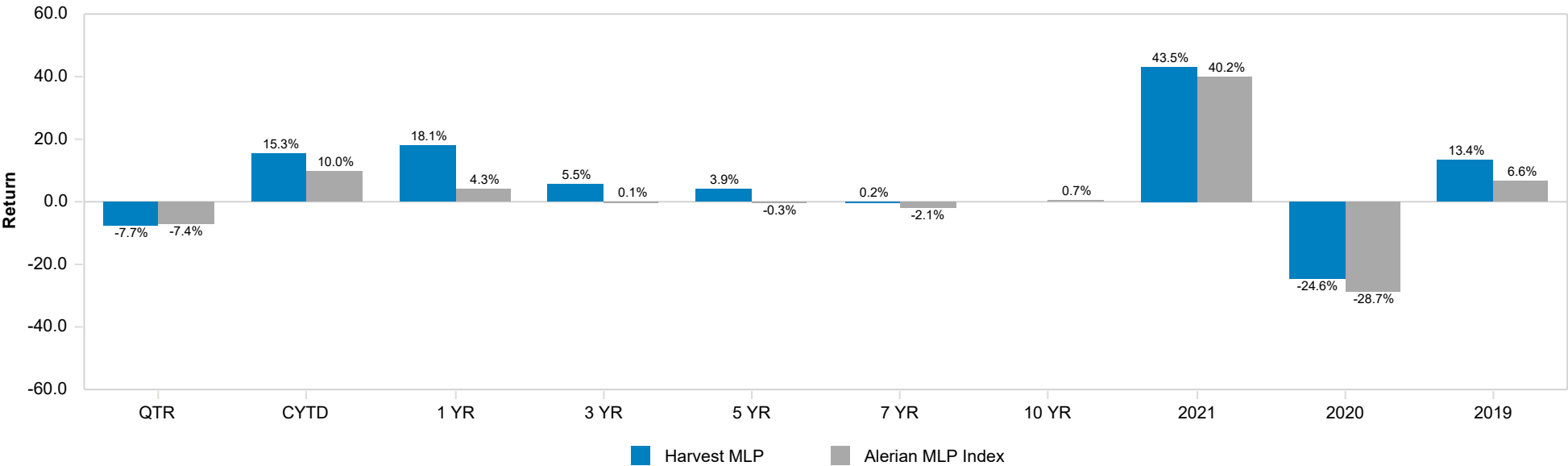
Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
MLPs	12.54	82.89	81.99	1.16	-0.13	0.27	0.77	27.04
Alerian MLP Index	0.00	100.00	100.00	0.00	N/A	0.24	1.00	32.24

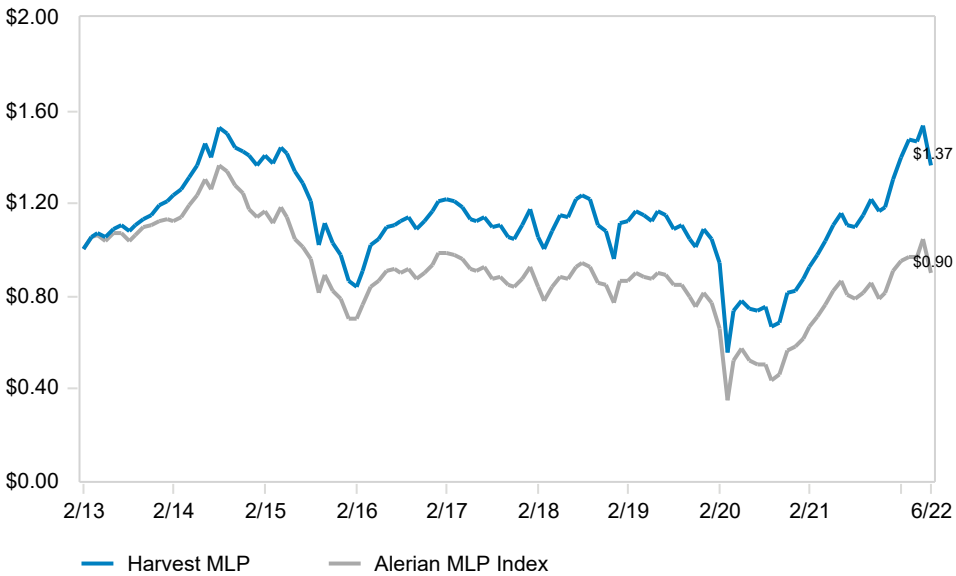
Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
MLPs	9.89	88.82	86.99	1.43	-0.02	0.21	0.79	22.49
Alerian MLP Index	0.00	100.00	100.00	0.00	N/A	0.17	1.00	26.32

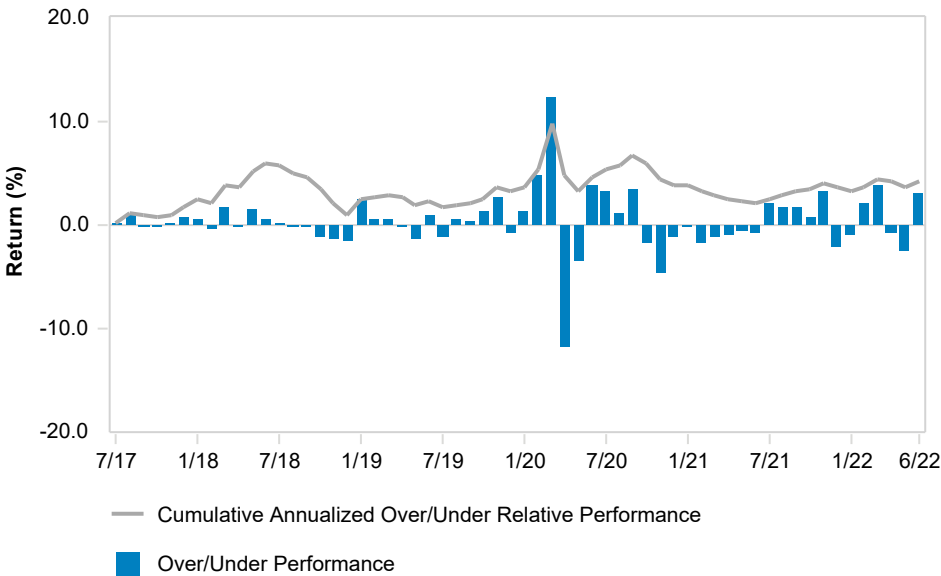
Comparative Performance



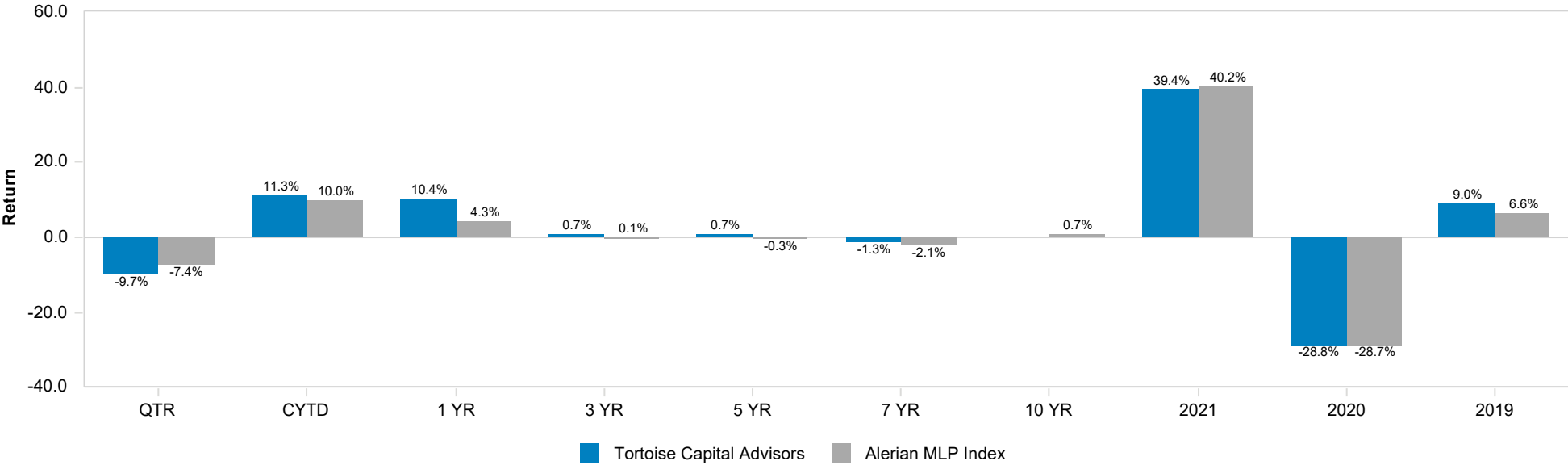
Growth of \$1 - Since Inception (03/01/13)



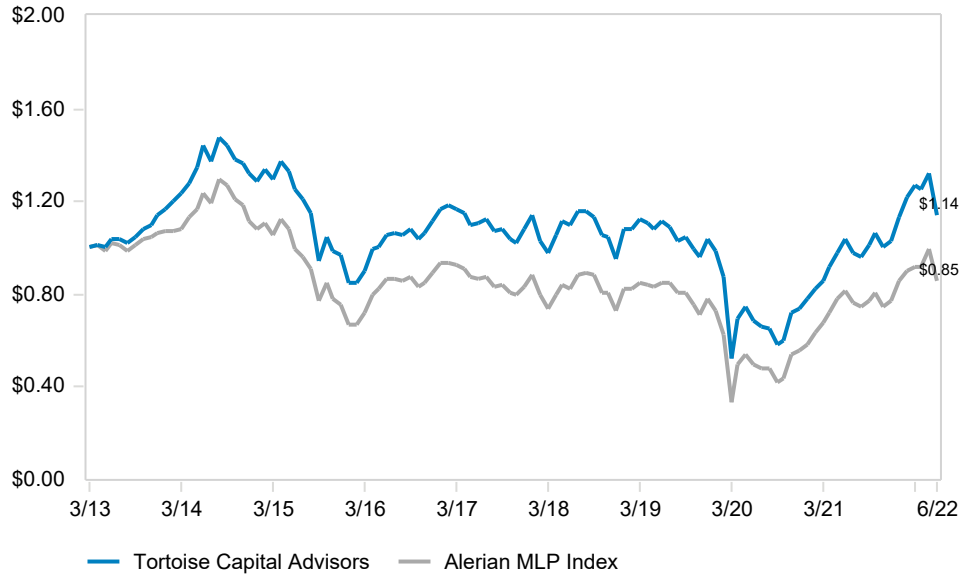
Relative Performance vs. Alerian MLP Index



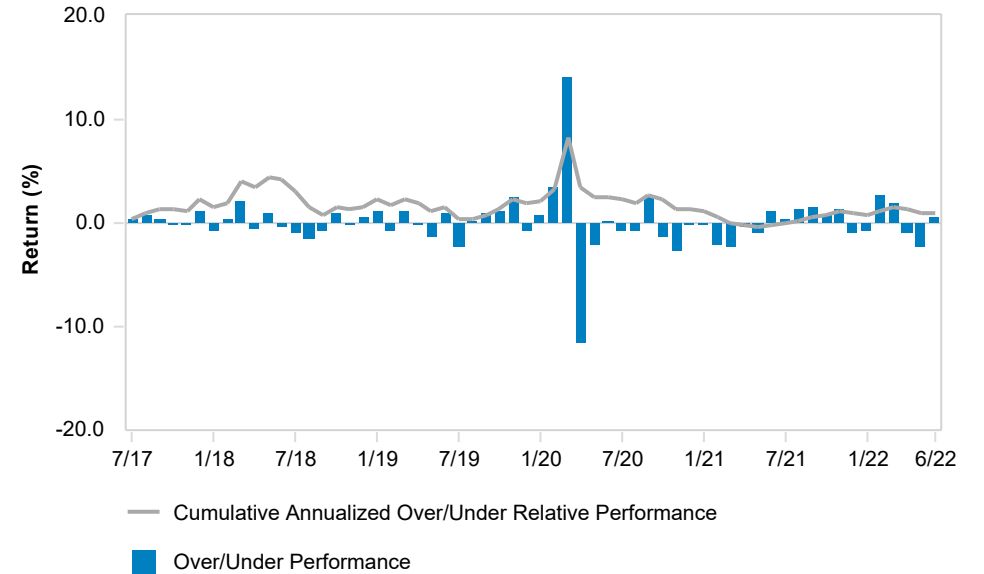
Comparative Performance



Growth of \$1 - Since Inception (04/01/13)



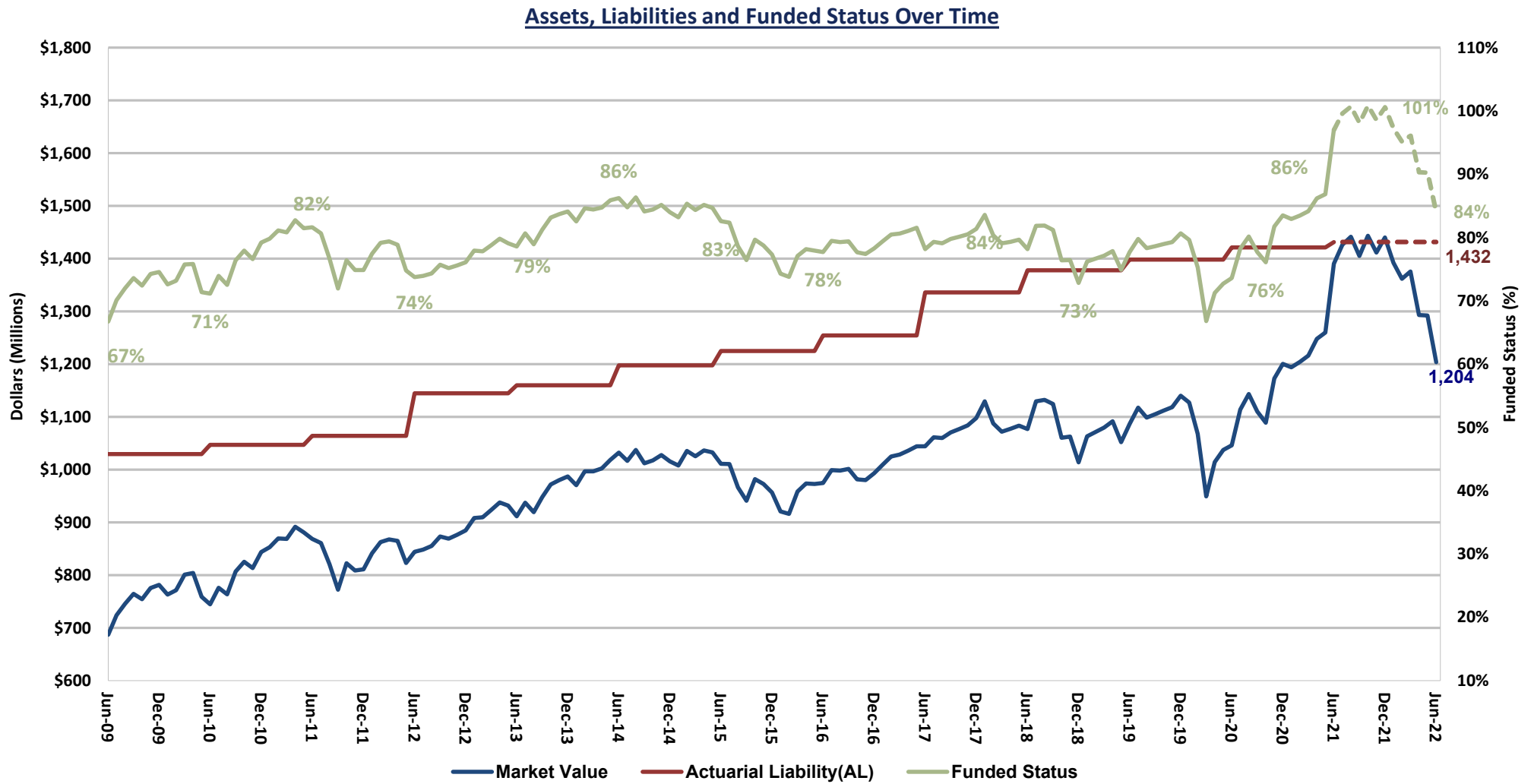
Relative Performance vs. Alerian MLP Index



Appendix

Employees' Retirement System for the City of Norfolk

Asset LiabilityScorecard Net of Fees*



*The dashed liability line and dashed funded status line are not actuarial calculations and are for projections purposes only.

As of the Plan's June 30, 2021 actuarial valuation report, the plan had a fiscal year end Actuarial Liability (AL) of \$1,431,515,000.

As of June 30, 2022, the Plan's current market value of assets (MVA) was \$1,203,618,259

As of June 30, 2022, the Plan's market value funded ratio (current MVA/fiscal year end AL) was 84.1%



Employees' Retirement System of the City of Norfolk
Fee Analysis
As of June 30, 2022

	Fee Schedule	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Total Fund		1,204,829,944	2,402,221	0.20
Global Equity		640,443,527	256,177	0.04
SSgA MSCI ACWI IMI Index Fund	0.04 % of Assets	640,443,527	256,177	0.04
Fixed Income		375,735,264	798,773	0.21
PIMCO Total Return	0.41 % of Assets	185,545,098	760,735	0.41
SSgA Bond Market Index	0.02 % of Assets	190,190,166	38,038	0.02
Real Assets		188,646,663	1,347,270	0.71
Real Estate		106,621,398	792,883	0.74
JP Morgan Asset Management Strategic Property Fund	1.00 % of Assets	57,836,636	578,366	1.00
UBS Trumbull Property Fund	0.60 % of Assets	33,146,457	198,879	0.60
Vanguard Real Estate Index (VGSNX)	0.10 % of Assets	15,638,304	15,638	0.10
MLPs		82,025,265	554,387	0.68
Harvest MLP	0.75 % of Assets	41,490,231	311,177	0.75
Tortoise Capital Advisors	0.60 % of Assets	40,535,034	243,210	0.60
Cash		4,491	-	

Employees' Retirement System of the City of Norfolk
Historical Hybrid Composition
As of June 30, 2022

Total Fund Policy

Allocation Mandate	Weight (%)
May-2016	
MSCI AC World IMI (Net)	62.50
Blmbg. U.S. Aggregate Index	37.50

Total Fund Strategy Index

Allocation Mandate	Weight (%)
Jul-2016	
MSCI AC World IMI (Net)	55.00
Blmbg. U.S. Aggregate Index	30.00
NCREIF Fund Index-ODCE (VW) (Net)	7.50
Alerian MLP Index	7.50

Strategy Index is comprised of the returns of the various broad market benchmarks assigned to each manager and weighted to reflect the System's target asset allocation.



Global Equity Policy

Allocation Mandate	Weight (%)
Oct-1990	
S&P 500 Index	100.00
Jun-2006	
Russell 3000 Index	70.00
MSCI EAFE Index	30.00
Jun-2009	
Russell 3000 Index	70.00
MSCI AC World ex USA (Net)	30.00
Sep-2009	
Russell 3000 Index	60.00
MSCI AC World ex USA (Net)	40.00
May-2016	
MSCI AC World IMI (Net)	100.00

Active Return	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
Alpha	- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.
Beta	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
Consistency	- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.
Distributed to Paid In (DPI)	- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.
Down Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
Downside Risk	- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.
Excess Return	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
Excess Risk	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
Information Ratio	- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.
Public Market Equivalent (PME)	- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.
R-Squared	- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.
Return	- Compounded rate of return for the period.
Sharpe Ratio	- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.
Standard Deviation	- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.
Total Value to Paid In (TVPI)	- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life
Tracking Error	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
Treynor Ratio	- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.
Up Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

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