

Investment Performance Review
Period Ending December 31, 2021

Employees' Retirement System of the City of Norfolk



On behalf of everyone at AndCo, we want to Thank You for the opportunity to serve and the trust you place in us! 2021 marked another unique year as society continued to deal with the effects of the global pandemic. While this environment caused all organizations to reassess their business models and service approach, AndCo has remained 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. These four AndCo principles drive our service approach and desire to exceed your expectations. We take our role as your consultant and trusted advisor seriously and will continue working hard to maintain your confidence.

Looking back at 2021, we would like to provide a brief update on the firm. We advise on approximately \$123 billion in client assets, as of June 30, 2021. 2021 also marked the 21st straight year of revenue growth for the firm. We continue to reinvest 100% of our net profits back into the organization so that we can continue to evolve and adapt within a market environment that is constantly changing and challenging. Put simply, stasis is not an effective strategy, and we are convicted in our belief that a firm not focused on moving forward in our industry is moving backward.

To execute on our commitment, we continued to make personnel and technology investments within the firm. Our personnel investments focused on further enhancing departmental service levels and narrowing perceived gaps. We continued to invest in our proprietary software system to more effectively and efficiently compile and share information across departments and ultimately better serve our clients. We also continued to build out our internal site (the intranet) so colleagues could stay connected with the firm and gain a deeper understanding of standard operating procedures and collectively service our clients the AndCo way. Our intranet also helped strengthen our internal brand and culture by pushing out a variety of daily firm updates, videos, and interactive posts to increase team member bonds to our values, core philosophies, and ultimately, brought the firm closer together. We believe these connections are increasingly important in the COVID environment when many team members remain wholly or partially remote and we will continue to explore innovative ways to be together in 2022.

As we start 2022, we are 87 team members strong with plans to grow. We are targeting several new positions for the year as we thoughtfully continue to invest in our firm to provide the quality services you expect from AndCo. These talent enhancements cover multiple departments including Research and Client Solutions, which will strengthen our alternative and public market research as well as our client service. We are also looking to add team members to our Consulting, Finance, Marketing, and IT departments.

While adding so many resources to a firm our size is a significant investment, it is one we embrace due to the impact we believe it will have on our ability to continue serving our clients at a high level and push us closer to our vision of being a transformational organization viewed as the leader in our industry.

At the beginning of each year, we discuss the AndCo partnership and, when earned, announce new partners. This year I am thrilled to share two new team members were named partners at AndCo – Brian Green and Kerry Richardville. Brian has been with the firm for over 6 years and is currently a consultant based out of our Detroit, Michigan office. Kerry has been with AndCo for over 5 years and is a consultant based in Orlando. We could not be happier for both Brian and Kerry or more grateful for the contributions they have made to AndCo since joining the firm. Brian and Kerry represent what it means to be an AndCo team member, and we are honored and fortunate to have them serving our clients. With the addition of Brian and Kerry, we have 13 partners representing various departments at AndCo, which provides diverse perspectives and insight. Our growing partnership group continues to strengthen AndCo and reaffirm our belief that 100% employee management is vital to protecting our mission, vision, values, and the long-term success of our organization. We enter 2022 with an unwavering commitment to serve you the best we possibly can.

Coming off a year that provided many of our clients record returns, we recognize results going forward may be more challenging to obtain. Please know we will continue to invest and evolve our firm in aiming to meet these realities. We do not take any client relationship for granted and will continue to work tirelessly to serve, earn your trust, add value, and exceed your expectations. We are honored and humbled you have chosen AndCo as your partner.

In closing, and 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. As we continue to discuss strategic decisions and reinvestments regarding our firm, please know that our decisions are filtered through the following question: "How does this keep our clients' interests first?" If it doesn't meet this standard, we don't do it - it's that simple.

Thank you again for your valued partnership and the opportunity to serve you. Happy New Year!



Mike Welker, CFA
CEO



Organizational Chart

PARTNERSHIP

Mike Welker, CFA® Jacob Peacock, CPFA
Brian Green Jason Purdy
Bryan Bakardjiev, CFA® **Kerry Richardville, CFA®**
Dan Johnson Kim Spurlin, CPA
Dan Osika, CFA® Steve Gordon
Donna Sullivan **Troy Brown, CFA®**
Evan Scussel, CFA®, CAIA®

LEADERSHIP & MANAGEMENT

Mike Welker, CFA® **Daniel Kwasny, CIPM®**
 CEO Client Solutions Director
Bryan Bakardjiev, CFA® **Evan Scussel, CFA®, CAIA®**
 COO Research Director
Kim Spurlin, CPA **Jack Evatt**
 CFO Consulting Director
Sara Searle **Jacob Peacock, CPFA**
 CCO Consulting Director
Stacie Runion **Jason Purdy**
 CHRO I.T. Director
Steve Gordon **Molly Halcom**
 Partner Marketing Director
Troy Brown, CFA® **Philip Schmitt**
 Executive Director Research Director
Brooke Wilson, CIPM® **Rachel Brignoni, MHR**
 Client Solutions Director People & Culture Director
Dan Johnson

INVESTMENT POLICY COMMITTEE

Mike Welker, CFA®
Bryan Bakardjiev, CFA®
Troy Brown, CFA®
Sara Searle

CONSULTING

Annette Bidart **Jennifer Gainfort, CFA®, CPFA**
Brad Hess, CFA®, CPFA **John Mellinger**
Brendon Vavrica, CFP® **John Thinnes, CFA®, CAIA®**
Brian Green **Jon Breth, CFP®**
Chris Kuhn, CFA®, CAIA® **Justin Lauver, Esq.**
Christiaan Brokaw, CFA® **Kevin Vandolder, CFA®**
Dave West, CFA® **Kerry Richardville, CFA®**
Doug Anderson **Mary Nye**
Gwelda Swilley **Michael Fleiner**
Ian Jones **Michael Holycross, CIMA®**
James Ross **Mike Bostler**
Jeff Kuchta, CFA®, CPFA
Jennifer Brozstek

CLIENT SOLUTIONS

Donna Sullivan **Donnell Lehrer, CPFA** **Julio Garcia Rengifo**
Albert Sauerland **Grace Niebrzydowski** **Kim Hummel**
Amy Foster **James Reno** **Meghan Haines**
David Gough, CPFA **Jeff Pruniski** **Misha Bell**
Don Delaney **Joe Carter, CPFA** **Yoon Lee-Choi**

OPERATIONS

FINANCE **H.R.** **MARKETING**
Kahjeelia Pope **Sara Schmedinghoff** **Dan Osika, CFA®**
Robert Marquetti **OPERATIONS** **John Rodak, CIPM®**
COMPLIANCE **Jerry Camel** **Kayleigh Greaser**
Allen Caldwell
Thay Arroyo **Kim Goodearl**
Lauren Kaufmann

RESEARCH

Ben Baldrige, CFA®, CAIA®
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Chester Wyche
 Real Estate & Real Assets
Dan Lomelino, CFA®
 Fixed Income
David Julier
 Real Estate & Real Assets
Elizabeth Wolfe
 Capital Markets & Asset Allocation
Evan Scussel, CFA®, CAIA®
 Private & Public Equity
Joseph Ivaszuk
 Operational Due Diligence
Josue Christiansen, CFA®, CIPM®
 Public Equity
Julie Baker, CFA®, CAIA®
 Private & Hedged Equity
Justin Ellsesser, CFA®, CAIA®
 Private Equity
Kevin Laake, CFA®, CAIA®
 Private Equity
Michael Kosoff
 Hedge Funds
Philip Schmitt
 Fixed Income & Capital Markets
Ryan McCuskey
 Real Estate & Real Assets
Zac Chichinski, CFA®, CIPM®
 Public Equity



87
EMPLOYEES

38 ADVANCED DEGREES

23 CFA®

8 CAIA®

8 CPFA

6 CIPM®



4th Quarter 2021 Market Environment

The Economy

- The US economy faced headwinds from the Omicron variant during the quarter which likely had a negative impact on economic growth. Fortunately, despite higher transmission rates, the variant appears to be less likely to result in hospitalizations or significant health risks.
- Even with the variant, the demand for goods and services remained strong during the quarter and market expectations for 4th quarter US GDP growth range from 4% to 7%.
- The US labor market is nearing full employment with the unemployment rate falling to 3.9% in December. The pace of job growth slowed during the quarter with a three-month average of roughly +365,000. Despite the continued improvement in the labor market, workers are continuing to leave their employers in record numbers. This condition means the number of jobs available exceeds the number of unemployed workers. As a result, wage growth remains strong as employers compete to fill job openings.
- Persistently higher inflation readings forced the Fed to announce it was planning to end its bond purchase program earlier than expected. In addition, the Fed's December statement suggested that it could also begin raising short-term interest rates sooner than expected.

Equity (Domestic and International)

- US equities rose to all-time highs during the 4th quarter as investors expressed optimism about future economic growth and continued monetary support from the Fed. Large cap growth was the best performing domestic segment of the equity market relative to other US market capitalizations and styles.
- International equities lagged far behind their US counterparts during the 4th quarter. A key contributor to the muted performance was US dollar strength, which rose against both the Euro and Yen developed market currencies and most emerging market currencies. Emerging markets came under pressure as the Chinese property developer Evergrande defaulted during the quarter.

Fixed Income

- The combination of concerns related to the potential for rising US interest rates and persistent inflation acted as headwinds for fixed income performance during the quarter. US interest rates moved modestly higher during the quarter with the US 10-Year Treasury bond rising 2 basis points to close at 1.51%.
- Generally, performance across most bond markets sectors was positive during the quarter, led by US high yield corporate bonds and US Treasury Inflation-Protected Securities (TIPS).
- High yield bond's combination of higher coupons and a shorter maturity profile relative to high quality government bonds was the primary driver of their performance during the period.
- TIPS outperformed all other sectors during the quarter. US inflation remained substantially higher than the Fed's stated 2% long-term target average, and as a result, investors' expectations of future inflation increased.

Market Themes

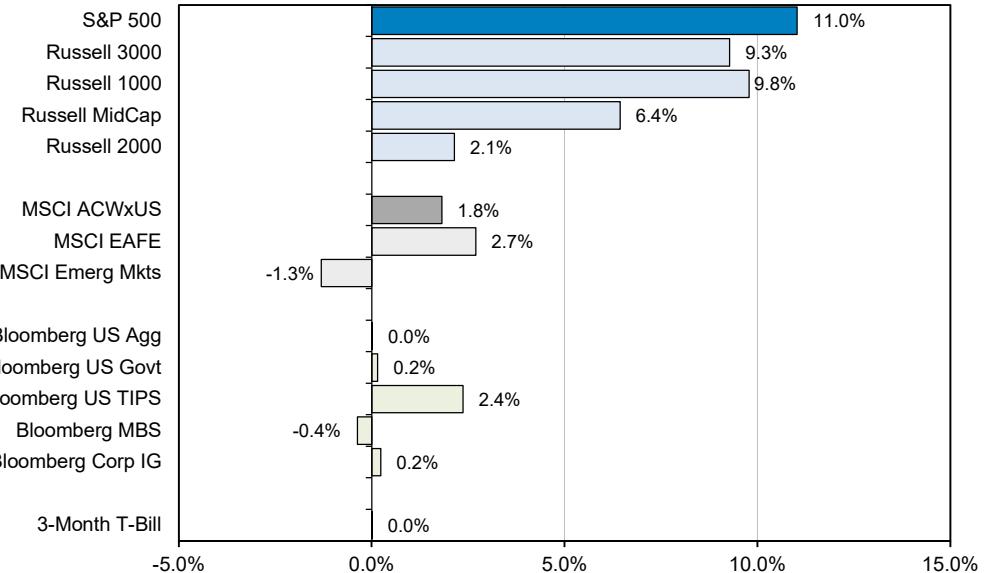
- Global central bank monetary policy diverged somewhat during the quarter as the Fed stated its intention to taper its bond purchases and potentially be raising interest rates in 2022. Both the European Central Bank and the Bank of Japan reiterated their intent to remain accommodative as localized inflation remains low.
- While US economic growth remained strong, overall global economic growth slowed during the quarter primarily due to the rise in pandemic-related cases and shutdowns. It is likely that economic growth could face headwinds in 2022 as central bank stimulus begins to wear off.
- US equity markets – as measured by the S&P 500 Index – experienced their third consecutive year of double-digit positive performance led by large, growth-oriented companies. While equities have historically performed well during periods of rising inflation due to their links with strong economic growth, companies may face headwinds if they are unable to pass along price increases, which would result in lower profit margins.
- Longer-dated fixed income markets were negatively impacted by rising interest rates during the year. Despite the potential for increasing risks due to deteriorating credit conditions, corporate bonds could outperform given their higher coupons and shorter maturity profiles compared to higher quality, longer duration bonds.



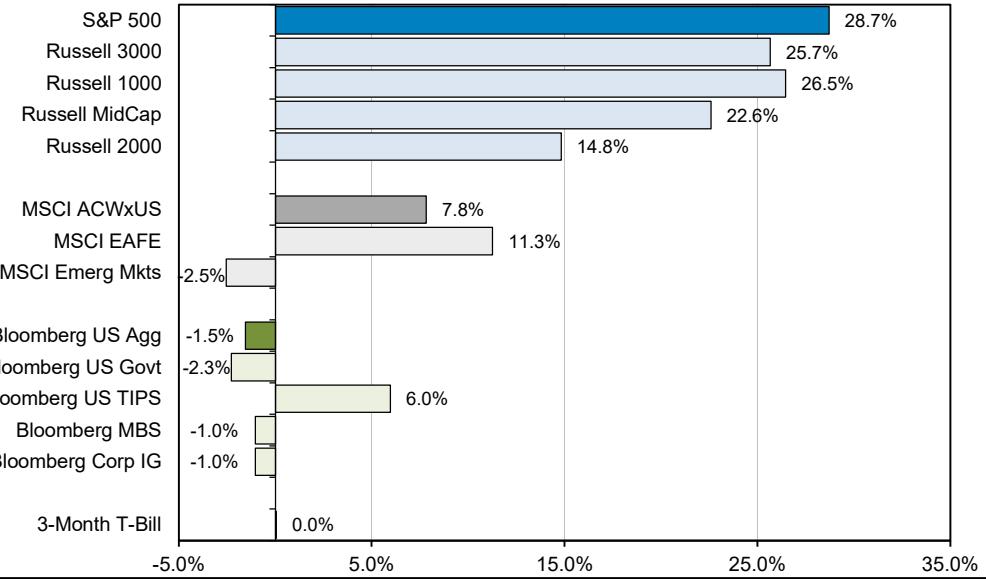
- Broad US equity markets experienced strong returns during the 4th quarter of 2021. There were a variety of factors that contributed to performance including improving corporate earnings, increased consumer spending and demand, and continued accommodative monetary support from the Fed. For the period, the S&P 500 large cap benchmark returned 11.0%, compared to 6.4% for the mid-cap and 2.1% for small cap indices.
- Similar to domestic markets, developed market international equities also posted positive results for the 4th quarter, albeit more muted. Europe and the UK were negatively affected by the increase in COVID cases related to the Omicron variant. Emerging markets declined primarily due to concerns related to future economic growth in China and the default of property developer Evergrande. China is the second largest country in the developed market index (9.4%) and its weight dominates the emerging markets index (32.5%). During the period, the MSCI EAFE Index returned of 2.7% while the MSCI Emerging Markets Index declined by -1.3%
- For the quarter, bond market performance was generally muted as concerns about higher interest rates and rising inflation acted as sizable headwinds. The outlier during the period was TIPS, which are highly sensitive to future inflation expectations and posted a return of 2.4%. The Bloomberg Barclays (BB) US Aggregate Index returned 0.0%, for the period, trailing Investment Grade Corporate bonds, which returned 0.2%.

- Developed equity markets were sharply higher over the trailing 1-year period. The combination of Improving economic fundamentals, continued support from the Fed, and improving investor expectations all combined to drive equity markets higher. All broad US equity market indexes traded at near-record levels during the quarter. The S&P 500 large cap stock index led equity market performance for the year with a return of 28.7%. The Russell 2000 small cap index returned a lower, but still strong, 14.8% for the year.
- Over the trailing 1-year period the developed market MSCI EAFE Index return of 11.3% outpaced the MSCI Emerging Markets Index return of -2.5%. While growth in developed markets improved throughout the year, emerging markets were negatively impacted from concerns related to index's dominant country weight to China.
- Bond market returns over the trailing 1-year period were broadly negative as rising interest rates and concerns regarding inflation detracted from performance. TIPS were the lone bright spot in the bond market with the TIPS Index returning 6.0% for the year.

Quarter Performance



1-Year Performance

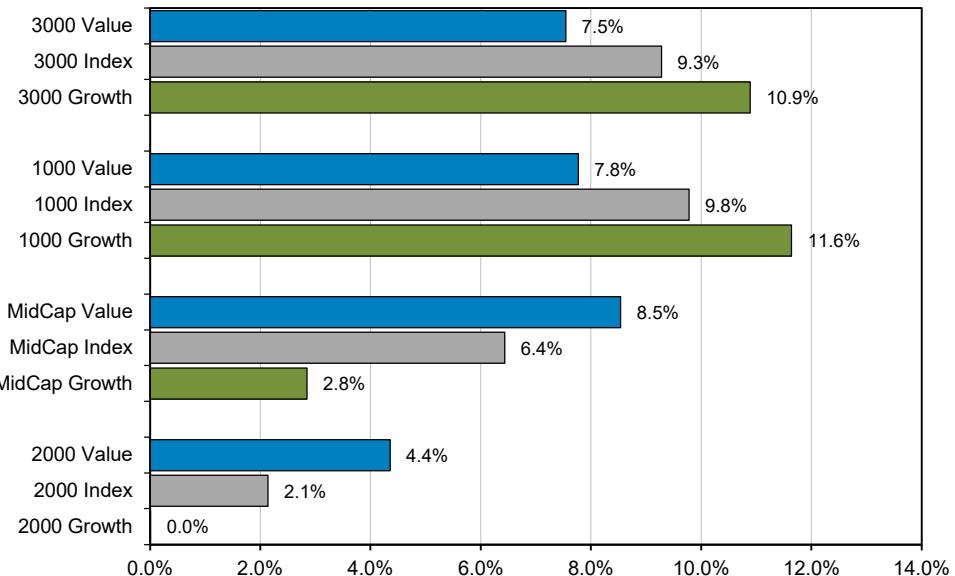


Source: Investment Metrics

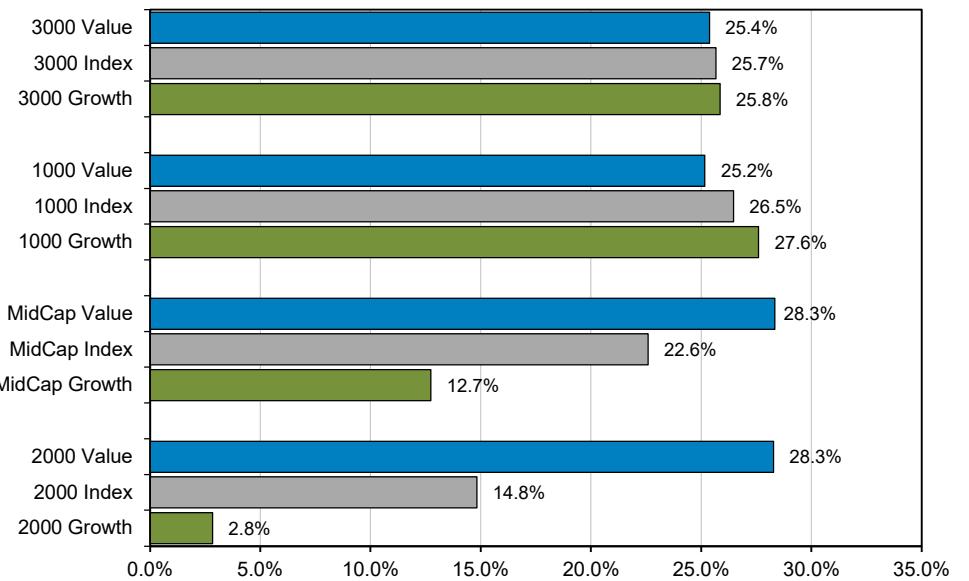
- The equity market resumed its solid momentum during the 4th quarter as nearly all US equity benchmarks posted positive returns across both the style and market capitalization spectrums. Large cap stocks continued their leadership followed by mid and small cap issues. The Russell 1000 Index returned a strong 9.8% for the quarter and outpaced a 6.4% return of the Russell Mid Cap Index and a Russell 2000 Index return of 2.1%.
- Performance across styles and market capitalizations was disparate during the quarter. Large cap growth stocks sizably outpaced their value counterparts while mid and small cap value stocks outperformed growth stocks by an even wider margin. For the period, the Russell 1000 Growth Index was the best performing style index, posting a return of 11.6%. Mid cap value index performance was the next best performing segment, returning 8.5% for the quarter. Small cap growth stocks were the laggards during the period with the Russell 2000 Growth Index returning 0.0%.
- Performance across all market capitalizations and styles was broadly robust over the trailing 1-year period. Much like the 4th quarter, the outlier for the year was small cap growth stocks. The Russell 2000 Growth Index return of 2.8% for the year significantly lagged both its mid and large cap growth index counterparts and Russell 2000 Value index return of 28.3%.
- While large cap style returns were relatively similar for the year, there was wide dispersion across mid and small style-based index performance. For the year, the Russell 1000 Growth Index rose by 27.6% compared to a still robust 25.2% return for the Russell 1000 Value Index. Within mid and small cap benchmark performance, value dominated growth by double digits. The Russell 2000 Value Index and Russell Mid Cap Value Index both returned 28.3% for the period. In comparison, the Russell Mid Cap Growth Index returned 12.7%, while the Russell 2000 Growth Index returned only 2.8%.

Source: Investment Metrics

Quarter Performance - Russell Style Series

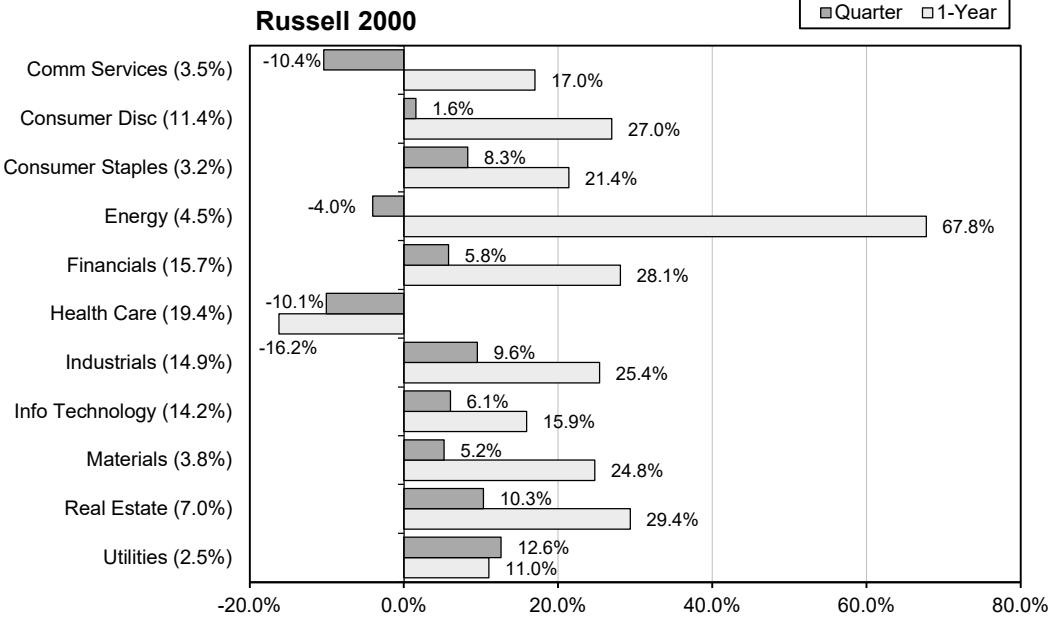
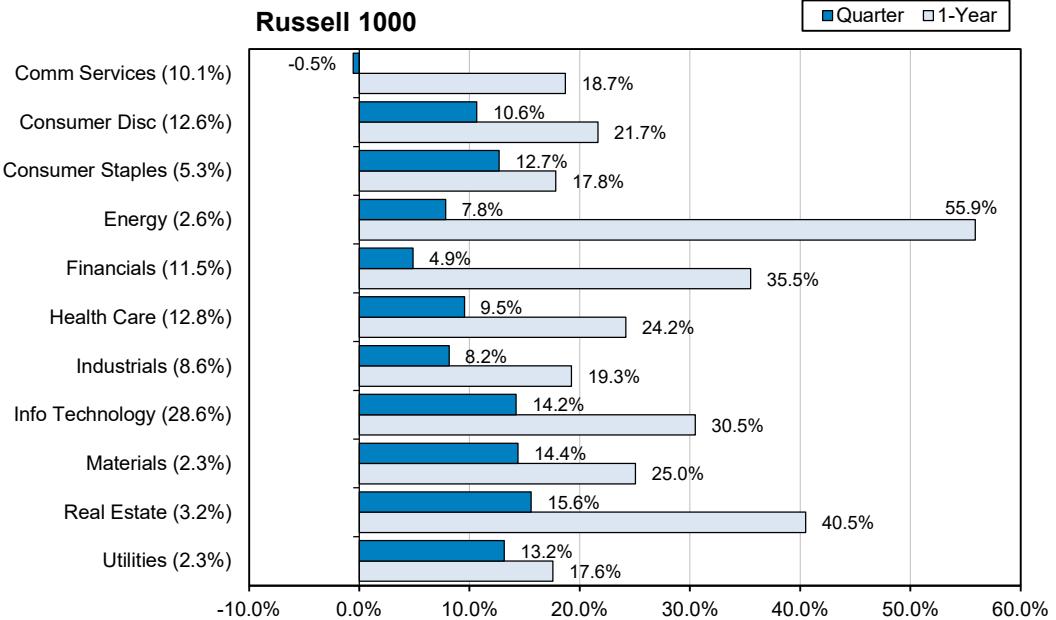


1-Year Performance - Russell Style Series



- Economic sector performance was positive across ten of the eleven large cap economic sectors for the 4th quarter. Six sectors outpaced the return of the broad index during the period.
- Economically sensitive sectors like real estate (15.6%), materials (14.4%), information technology (14.2%), and utilities (13.2%) were the best performing sectors for the quarter. In general, companies in sectors with the ability to grow earnings and either guard against, or pass along, inflation experienced the strongest returns. While nearly all sectors experienced positive results, the communication services sector (-0.5%) lagged its peers and was the sole negative performer for the quarter.
- For the full year, four sectors exceeded the return of the broad large cap benchmark: energy (55.9%), real estate (40.5%), financials (35.5%), and information technology (30.5%). The weakest economic sector performance in the Russell 1000 for the year was utilities, which still managed to post a solid return of 17.6%.

- Small cap sector performance was more mixed with eight of the eleven economic sectors posting positive performance for the quarter and seven of them outpacing the return of the broader Russell 2000 Index. Utilities were the best performing sector during the quarter, returning 12.6%. The real estate (10.3%), industrials (9.6%), and consumer staples (8.3%) sectors also performed well during the period.
- For the trailing 1-year period, nine of the eleven sectors outpaced the broad benchmark's return. Outperforming sectors included energy (67.8%), real estate (29.4%), financials (28.1%), consumer discretionary (27.0%), industrials (25.4%), materials (24.8%), consumer staples (21.4%), communication services (17.0%), and information technology (15.9%). The combination of a steadily improving economy, improving corporate fundamentals, easy monetary policy, and rising inflationary pressures were all tailwinds for the robust performance in these sectors.



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 December 31, 2021

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	6.11%	25.7%	34.6%	Information Technology
Microsoft Corp	5.65%	19.5%	52.5%	Information Technology
Amazon.com Inc	3.23%	1.5%	2.4%	Consumer Discretionary
Alphabet Inc Class A	1.94%	8.4%	65.3%	Communication Services
Tesla Inc	1.91%	36.3%	49.8%	Consumer Discretionary
Alphabet Inc Class C	1.81%	8.6%	65.2%	Communication Services
Meta Platforms Inc Class A	1.77%	-0.9%	23.1%	Communication Services
NVIDIA Corp	1.57%	42.0%	125.5%	Information Technology
Berkshire Hathaway Inc Class B	1.22%	9.5%	29.0%	Financials
UnitedHealth Group Inc	1.05%	28.9%	45.2%	Health Care

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
AMC Entmt Hldgs Inc Class A	0.47%	-28.5%	1,183.0%	Communication Services
Synaptics Inc	0.38%	61.1%	200.3%	Information Technology
Lattice Semiconductor Corp	0.35%	19.2%	68.2%	Information Technology
EastGroup Properties Inc	0.31%	37.4%	68.4%	Real Estate
BJ's Wholesale Club Holdings Inc	0.31%	21.9%	79.6%	Consumer Staples
Tetra Tech Inc	0.31%	13.8%	47.5%	Industrials
Saia Inc	0.30%	41.6%	86.4%	Industrials
Ovintiv Inc	0.30%	3.0%	138.4%	Energy
Tenet Healthcare Corp	0.29%	23.0%	104.6%	Health Care
WillScot Mobile Mini Holdings Corp	0.29%	28.8%	76.3%	Industrials

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Arista Networks Inc	0.08%	67.3%	97.9%	Information Technology
Builders FirstSource Inc	0.04%	65.7%	110.0%	Industrials
New Relic Inc	0.01%	53.2%	68.1%	Information Technology
Teradyne Inc	0.06%	49.9%	36.8%	Information Technology
Ciena Corp	0.03%	49.9%	45.6%	Information Technology
ON Semiconductor Corp	0.06%	48.4%	107.5%	Information Technology
Ford Motor Co	0.18%	47.4%	137.5%	Consumer Discretionary
Dollar Tree Inc	0.07%	46.8%	30.1%	Consumer Discretionary
Marvell Technology Inc	0.16%	45.2%	84.6%	Information Technology
Rexford Industrial Realty Inc	0.03%	43.4%	67.8%	Real Estate

Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Adicet Bio Inc Ordinary Shares	0.01%	123.1%	24.5%	Health Care
Yellow Corp Ordinary Shares	0.02%	122.9%	184.3%	Industrials
R.R. Donnelley & Sons Co	0.03%	119.1%	398.2%	Industrials
ChemoCentryx Inc	0.07%	112.9%	-41.2%	Health Care
iRhythm Technologies Inc	0.12%	101.0%	-50.4%	Health Care
BlueLinx Holdings Inc	0.03%	95.9%	227.3%	Industrials
Kezar Life Sciences Inc	0.02%	93.5%	220.3%	Health Care
Alpha & Omega Semiconductor Ltd	0.04%	93.1%	156.2%	Information Technology
Protagonist Therapeutics Inc	0.05%	93.0%	69.6%	Health Care
Clearfield Inc	0.03%	91.2%	241.5%	Information Technology

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Peloton Interactive Inc	0.02%	-58.9%	-76.4%	Consumer Discretionary
Everbridge Inc	0.01%	-55.4%	-54.8%	Information Technology
Chegg Inc	0.01%	-54.9%	-66.0%	Consumer Discretionary
Upstart Holdings Inc Ordinary Shares	0.02%	-52.2%	271.3%	Financials
StoneCo Ltd Class A	0.01%	-51.4%	-79.9%	Information Technology
Vroom Inc Ordinary Shares	0.00%	-51.1%	-73.7%	Consumer Discretionary
Paysafe Ltd Ord Shares - Class A	0.01%	-49.5%	N/A	Information Technology
Virgin Galactic Holdings Inc Shs A	0.01%	-47.1%	-43.6%	Industrials
DraftKings Inc Ord Shares - Class A	0.02%	-43.0%	-41.0%	Consumer Discretionary
DocuSign Inc	0.07%	-40.8%	-31.5%	Information Technology

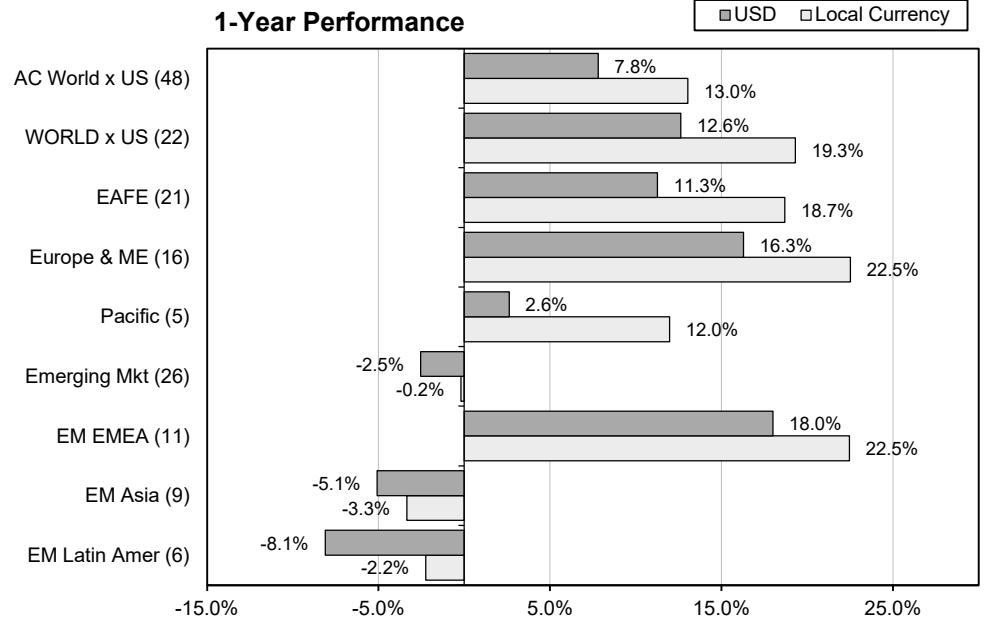
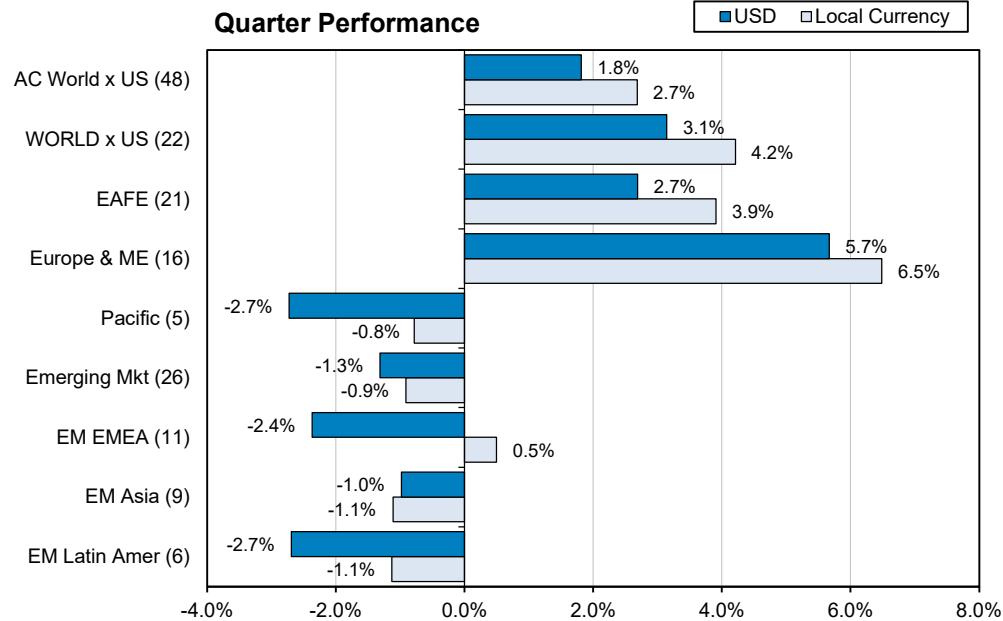
Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Allakos Inc	0.01%	-90.8%	-93.0%	Health Care
Cortexyme Inc	0.01%	-86.2%	-54.6%	Health Care
Rafael Hldgs Inc Ord Shares - B	0.00%	-83.4%	-78.1%	Real Estate
Adagio Therapeutics Inc Ord Shares	0.01%	-82.8%	N/A	Health Care
Atea Pharmaceuticals Inc Ord Shs	0.02%	-74.5%	-78.6%	Health Care
Eros STX Global Corp	0.00%	-73.9%	-86.8%	Communication Services
Reata Pharmaceuticals Inc A	0.02%	-73.8%	-78.7%	Health Care
Generation Bio Co Ordinary Shares	0.01%	-71.8%	-75.0%	Health Care
BeyondSpring Inc	0.00%	-71.3%	-62.9%	Health Care
Deciphera Pharmaceuticals Inc	0.01%	-71.2%	-82.9%	Health Care

Source: Morningstar Direct



The Market Environment
International and Regional Market Index Performance (Country Count)
As of December 31, 2021

- Most developed market international equity indexes tracked in the chart posted positive returns in both US dollar (USD) and local currency terms for the 4th quarter. The provincial outlier during the period was the Pacific region which declined during the period on concerns about China and the country's future economic growth. The developed market MSCI EAFE Index returned 2.7% in USD and 3.9% in local currency (LC) terms for the period, while the MSCI Emerging Markets Index declined by -1.3% in USD and -0.9% in local currency terms.



Source: MSCI Global Index Monitor (Returns are Net)



The Market Environment
US Dollar International Index Attribution & Country Detail
As of December 31, 2021

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	4.5%	-5.6%	-5.7%
Consumer Discretionary	12.5%	2.9%	10.7%
Consumer Staples	10.3%	5.2%	7.3%
Energy	3.4%	-0.5%	22.9%
Financials	16.9%	1.2%	16.6%
Health Care	12.8%	3.0%	8.6%
Industrials	16.2%	2.6%	13.6%
Information Technology	9.7%	3.8%	20.9%
Materials	7.6%	5.9%	10.4%
Real Estate	2.8%	-0.5%	4.1%
Utilities	3.4%	8.8%	0.0%
Total	100.0%	2.7%	11.3%

MSCI - ACWIxUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	6.1%	-2.8%	-6.9%
Consumer Discretionary	12.1%	-0.9%	-6.0%
Consumer Staples	8.6%	3.8%	5.3%
Energy	4.8%	-0.4%	26.0%
Financials	19.2%	1.9%	16.4%
Health Care	9.4%	0.1%	3.7%
Industrials	12.6%	2.6%	12.9%
Information Technology	13.6%	5.2%	15.4%
Materials	8.1%	3.6%	9.7%
Real Estate	2.4%	-2.3%	-2.2%
Utilities	3.1%	6.8%	3.1%
Total	100.0%	1.8%	7.8%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	10.7%	-0.5%	-9.1%
Consumer Discretionary	13.5%	-8.2%	-29.1%
Consumer Staples	5.9%	-2.1%	-4.9%
Energy	5.6%	-3.8%	21.0%
Financials	19.4%	-0.4%	8.2%
Health Care	4.2%	-15.4%	-19.8%
Industrials	5.1%	-0.3%	8.4%
Information Technology	22.7%	7.4%	9.9%
Materials	8.6%	-2.9%	9.3%
Real Estate	2.0%	-8.5%	-21.8%
Utilities	2.4%	0.7%	12.4%
Total	100.0%	-1.3%	-2.5%

Country	MSCI-EAFE Weight	MSCI-ACWIxUS Weight	Quarter Return	1- Year Return
Japan	22.5%	14.3%	-4.0%	1.7%
United Kingdom	14.6%	9.3%	5.6%	18.5%
France	11.7%	7.5%	7.1%	19.5%
Switzerland	10.5%	6.7%	12.8%	19.3%
Germany	8.9%	5.6%	0.8%	5.3%
Australia	6.9%	4.4%	2.1%	9.4%
Netherlands	4.9%	3.1%	3.5%	27.6%
Sweden	4.0%	2.5%	6.1%	21.9%
Hong Kong	2.8%	1.8%	-3.6%	-3.9%
Denmark	2.7%	1.7%	5.8%	19.1%
Italy	2.5%	1.6%	5.6%	15.0%
Spain	2.2%	1.4%	-1.4%	1.4%
Singapore	1.2%	0.8%	-3.4%	5.7%
Finland	1.0%	0.7%	3.0%	9.0%
Belgium	0.9%	0.6%	1.7%	2.2%
Israel	0.7%	0.5%	7.0%	15.2%
Ireland	0.7%	0.4%	0.6%	8.5%
Norway	0.7%	0.4%	-0.3%	22.0%
Austria	0.2%	0.2%	5.2%	41.5%
New Zealand	0.2%	0.1%	-4.0%	-17.1%
Portugal	0.2%	0.1%	1.9%	0.2%
Total EAFE Countries	100.0%	63.6%	2.7%	11.3%
Canada		7.5%	7.2%	26.0%
Total Developed Countries		71.1%	3.1%	12.6%
China		9.4%	-6.1%	-21.7%
Taiwan		4.7%	8.4%	26.1%
Korea		3.7%	-0.9%	-8.4%
India		3.6%	-0.2%	26.2%
Brazil		1.2%	-6.5%	-17.4%
Russia		1.0%	-9.2%	19.0%
Saudi Arabia		1.0%	-0.7%	37.7%
South Africa		0.9%	-0.5%	3.6%
Mexico		0.6%	6.2%	22.5%
Thailand		0.5%	3.0%	-1.4%
Indonesia		0.4%	6.4%	2.1%
Malaysia		0.4%	1.8%	-6.2%
United Arab Emirates		0.3%	10.3%	50.2%
Poland		0.2%	-2.4%	8.5%
Qatar		0.2%	2.6%	15.2%
Philippines		0.2%	3.7%	-3.9%
Kuwait		0.2%	2.3%	30.9%
Chile		0.1%	-10.5%	-17.3%
Hungary		0.1%	-9.7%	12.1%
Turkey		0.1%	-11.2%	-28.4%
Peru		0.1%	10.4%	-19.9%
Greece		0.1%	-3.6%	8.0%
Colombia		0.1%	-2.7%	-13.8%
Czech Republic		0.0%	12.3%	55.0%
Egypt		0.0%	18.3%	7.5%
Argentina		0.0%	-0.4%	21.0%
Pakistan		0.0%	-2.7%	-24.9%
Total Emerging Countries		28.9%	-1.3%	-2.5%
Total ACWIxUS Countries		100.0%	1.8%	7.8%

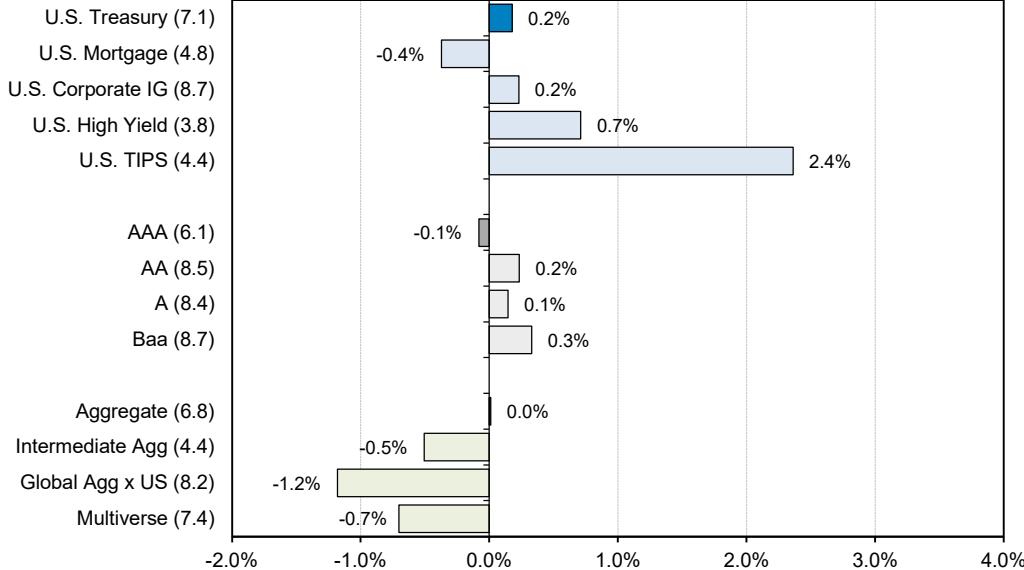
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

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.

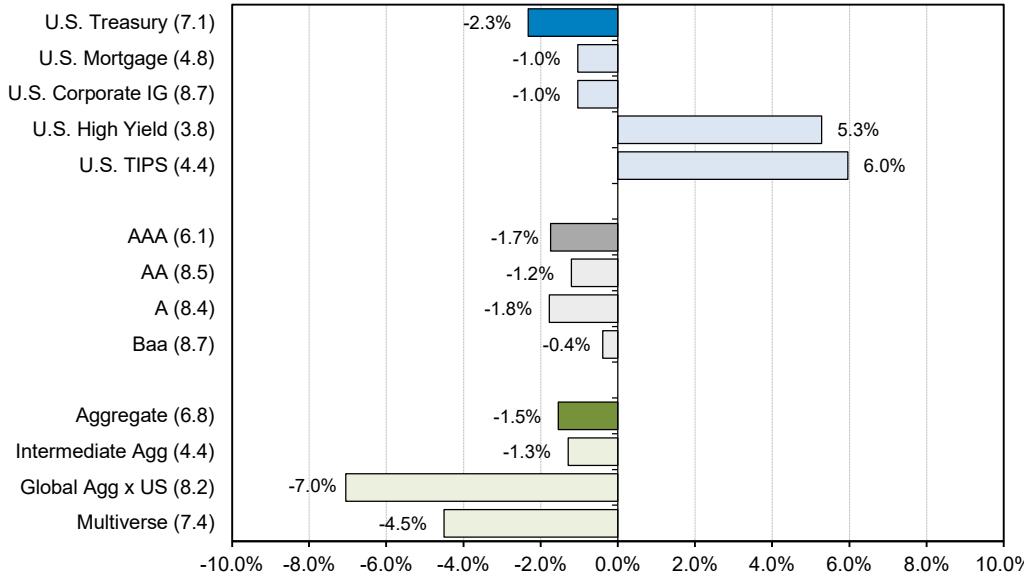


- Fixed income market results were mixed during the 4th quarter. While the Fed remained supportive with bond purchases, concerns about rising inflation and potentially higher interest rates detracted from performance. US Treasury yields were mixed across the maturity curve but remained low.
- The return for the Bloomberg US Aggregate Bond Index, the bellwether investment grade benchmark, was flat for the period at 0.0%.
- Performance across the investment grade index's segments was mixed during the period with the US Corporate Investment Grade bonds returning 0.2% while the US Mortgage index component fell -0.4%.
- US TIPS posted the quarter's strongest bond performance with a return of 2.4%. High yield issues were also positive, posting a return of 0.7%.
- Outside of domestic markets, the BB Global Aggregate ex US Index posted a return of -1.2% for the quarter. Like international stocks, global bond index performance was negatively impacted by the strengthening USD, which acted as a drag on domestic index returns.

Quarter Performance

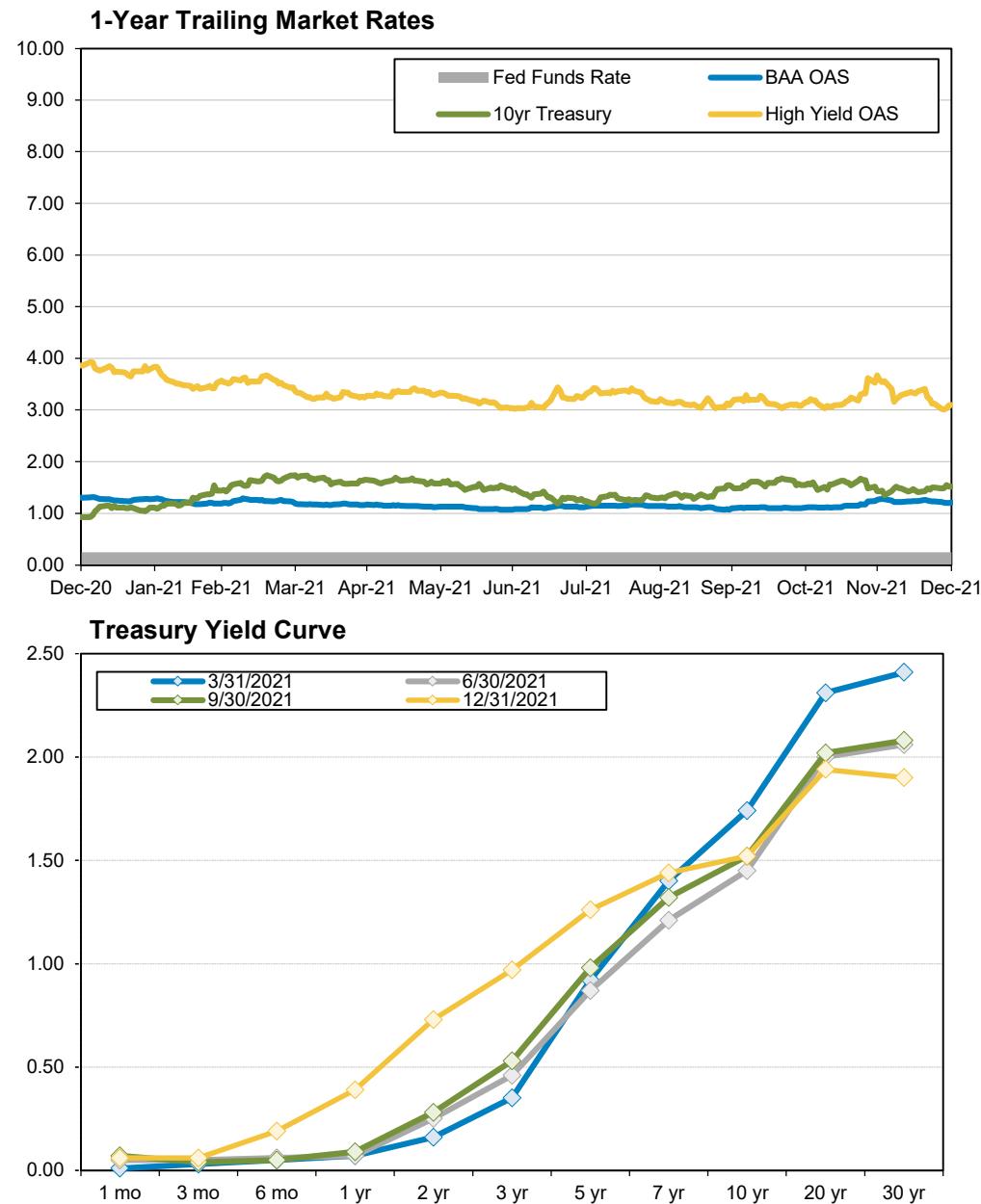


1-Year Performance



Source: Bloomberg

- The gray band across the graph illustrates the range of the current Fed Funds Rate. Over the past year, the Fed's target rate range has remained unchanged at 0.00% to 0.25%. During its recent December meeting, the Federal Open Market Committee (FOMC) stated its intent to keep interest rates unchanged in the near-term, while also signaling that it would end its bond purchase program earlier than expected and foreshadowing that interest rates could begin to rise early next year.
- The yield on the US 10-year Treasury (green line) ended the year higher as economic growth accelerated in anticipation of the Fed beginning the process of normalizing interest rates. After reaching a high of 1.74% during the 1st quarter of 2021, interest rates traded within a narrow range for the remainder of the year. The yield on the US 10-year Treasury was 1.52% on December 31st.
- 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 narrowed slightly from 1.30% to 1.21%. A narrowing of the premium measured by the High Yield OAS showed investors' willingness to take on credit risk during the year as the spread tightened from 3.86% to 3.10% over the course of the year.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. While short-term rates are largely pinned to the Fed Funds Rate, beginning in the 1st quarter of 2021, intermediate-term interest rates began to move higher as investors expectations for higher future interest rates increased. In contrast, longer-term interest rates declined throughout the year over concerns that future economic growth may slow due to rising interest rates.



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

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Annual Asset Class Performance
Strategic Policy
As of December 31, 2021

Annual Asset Class Performance																	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD		
Best ↑	MSCI Emerging Mkts (Net) 39.4 %	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) 15.0 %	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 %		
	Russell 1000 Growth 11.8 %	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 %		
	MSCI EAFE (Net) 11.2 %	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 %		
	Blmbg Barc Global Agg Ex USD 11.0 %	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 %		
	Strategic Policy 7.2 %	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 13.9 %		
	Russell 2000 Growth 7.0 %	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 %		
	Blmbg Barc US Agg 7.0 %	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 %		
	S&P 500 5.5 %	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 %		
	Blmbg Barc US Corp High Yield 1.9 %	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 %		
Worst ↓	Russell 1000 Value -0.2 %	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 2000 Value -9.8 %	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 %	Blmbg Barc US Agg 1.0 %	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 %			



Executive Summary

HIGHLIGHTS

Winners for the recent quarter

- S&P 500 +11.0%
- Russell 1000 +9.8%
- Russell 3000 +9.3%

Losers for the recent quarter

- MSCI EM -1.3%
- Bloomberg MBS -0.4%

Areas of strength for the recent quarter

- Domestic Equity
- International Markets

Winners for the trailing year

- S&P 500 +28.7%
- Russell 1000 +26.5%
- Russell 3000 +25.7%

Losers for the trailing year

- Bloomberg US Govt -2.3%
- Bloomberg US Agg -1.5%

Areas of strength for the trailing year

- Domestic Equity
- International Markets

COMMENTARY

- Allocation to equities ended the quarter at 55.7%, inside the target range of 45%-65%. Market value for the **Total Fund** was \$1.44 billion by quarter-end versus \$1.40 Billion in the previous quarter. The Total Fund posted a 4.20% return for the trailing quarter and +14.04% for the trailing 12 months. The Total Fund outperformed the Policy Index by 37 bps for the quarter and overperformed its Policy Index by 351 bps over the trailing year. Versus the Strategic Index, the Total Fund overperformed by 19 bps for the quarter and underperformed by 19 bps for the trailing year.

- The **Total Fund** ranked in the 50th percentile in the peer universe for the quarter and 42nd percentile over the last 12 months.

- The **Global Equity Composite** returned +6.18% for the quarter, outperforming the index by 8 bps and ranking in the 45th percentile versus peers. Over the trailing 12 months, the portfolio returned +18.95%, outperforming the benchmark by 73 bps and ranking in the 45th percentile of the peer universe.

- The **Fixed Income Composite** returned -0.05% for the quarter, underperforming the Bloomberg Barclays U.S. Aggregate by 6 bps. Over the trailing 12 months, the composite returned -1.21% and outperformed the Index by 34 bps.

- The **Real Estate Composite** returned +8.70% for the quarter and +18.65% for the trailing 12 months.

- The **MLP Composite** returned +2.31% for the quarter, outperforming the index by 176 bps and ranking in the 15th percentile versus peers. For the trailing year, the composite has returned +41.07% and has outperformed the benchmark by 90 bps, ranking in the 34th percentile versus peers. Since inception, the MLP Composite is ahead of its Alerian MLP Index benchmark by 363 bps and has returned +1.39%.

Employees' Retirement System of the City of Norfolk

Executive Summary

ACTIVITY FOR THE QUARTER

Raise cash for benefit payments:

October 2021

Harvest - \$5,390,000

To cash \$6,800,000

November 2021

Harvest - \$7,100,000

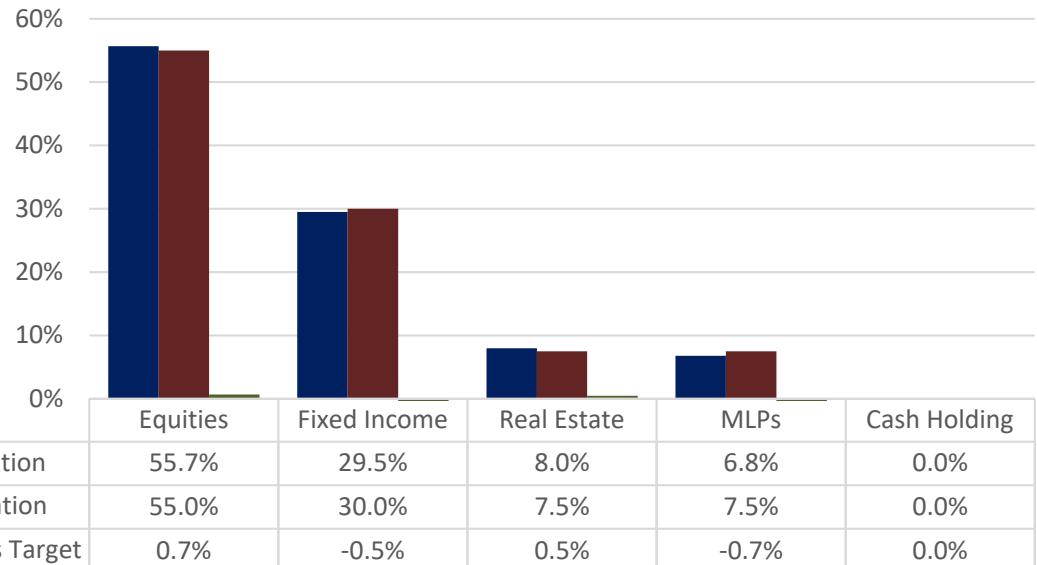
To cash \$7,332,000

December 2021

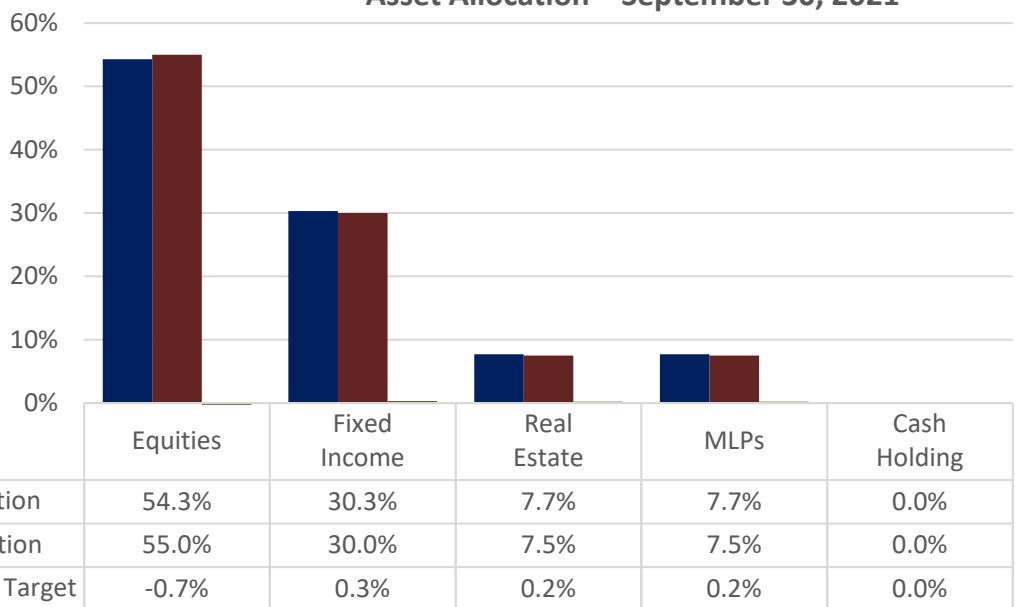
SSgA MSCI ACWI IMI - \$7,498,000

To cash \$7,500,000

Asset Allocation – December 31, 2021



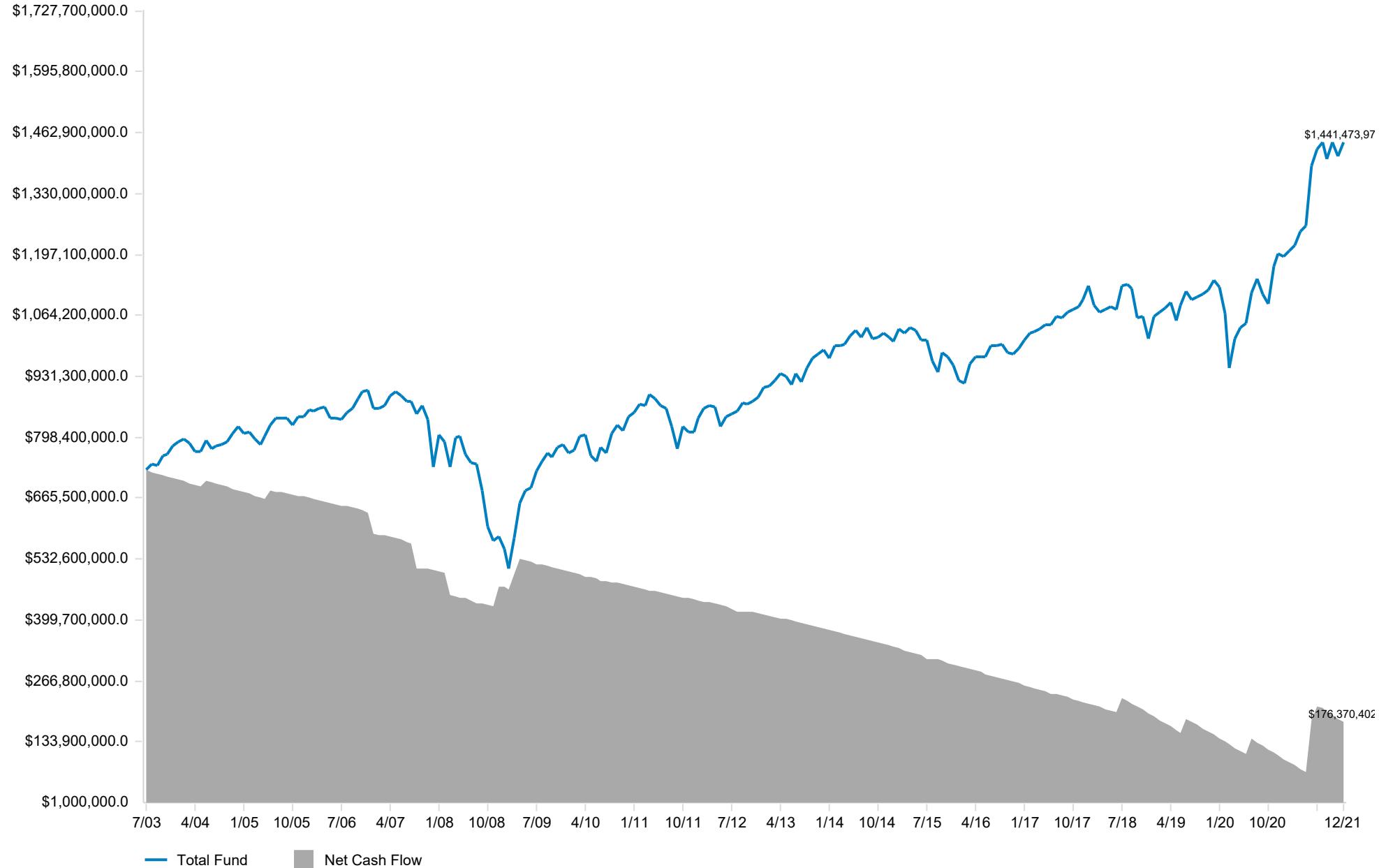
Asset Allocation – September 30, 2021



Total Fund

Employees' Retirement System of the City of Norfolk
Schedule of Investable Assets
Since Inception Ending December 31, 2021

Schedule of Investable Assets



— Total Fund

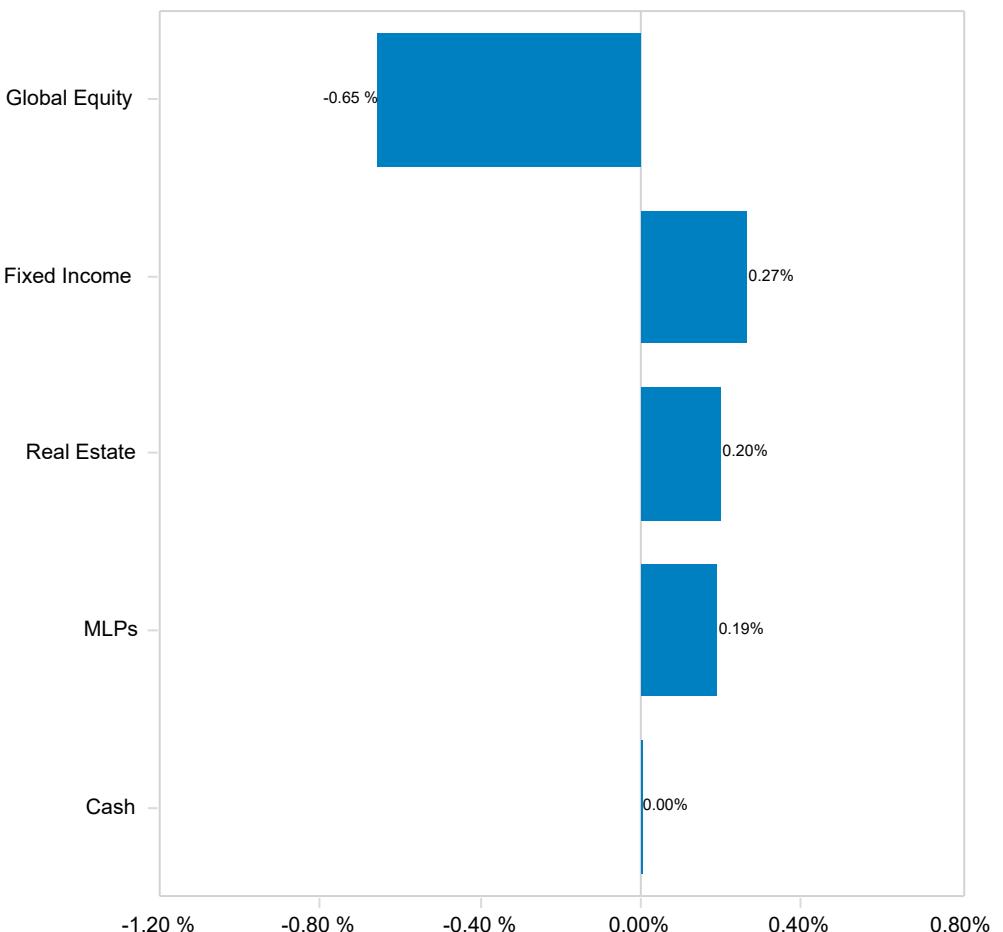
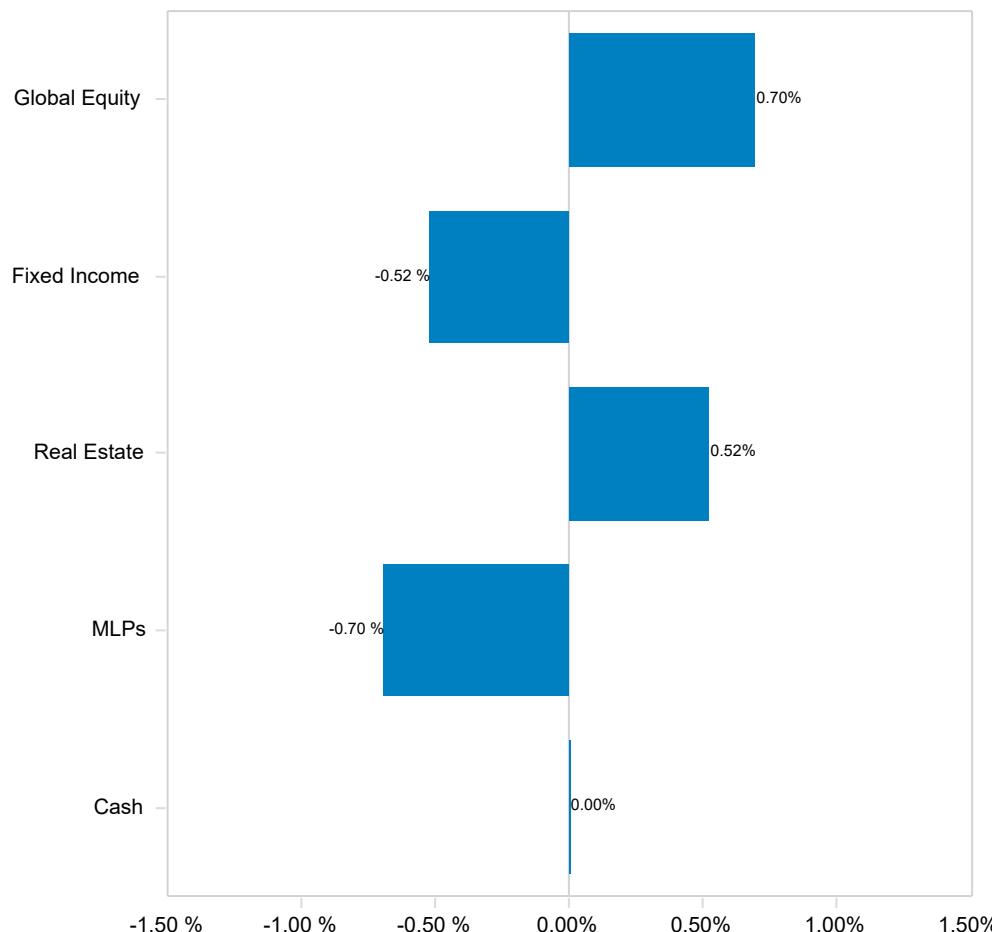
■ Net Cash Flow



Employees' Retirement System of the City of Norfolk

Asset Allocation vs. Target Allocation

As of December 31, 2021



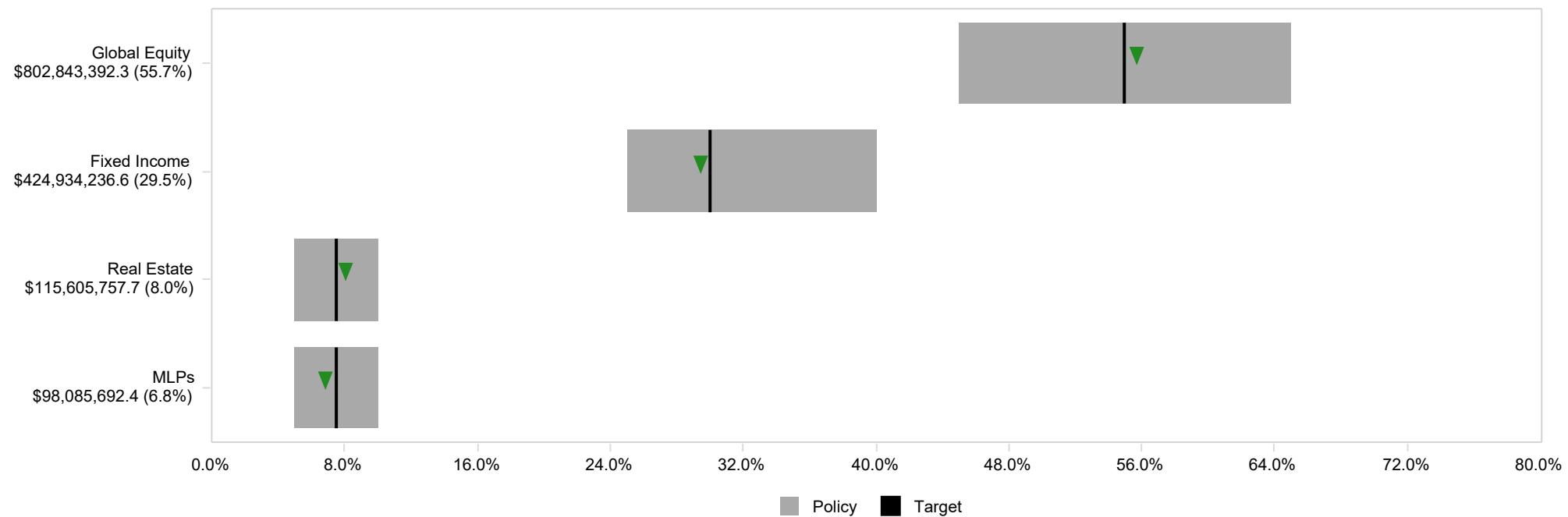
December 31, 2021

September 30, 2021

	Market Value \$	Allocation (%)	Target (%)		Market Value \$	Allocation (%)	Target (%)
Global Equity	802,843,392	55.7	55.0	Global Equity	763,429,269	54.3	55.0
Fixed Income	424,934,237	29.5	30.0	Fixed Income	425,166,518	30.3	30.0
Real Estate	115,605,758	8.0	7.5	Real Estate	108,165,577	7.7	7.5
MLPs	98,085,692	6.8	7.5	MLPs	108,003,974	7.7	7.5
Cash	4,899	0.0	0.0	Cash	5,844	0.0	0.0
Total Fund	1,441,473,978	100.0	100.0	Total Fund	1,404,771,182	100.0	100.0



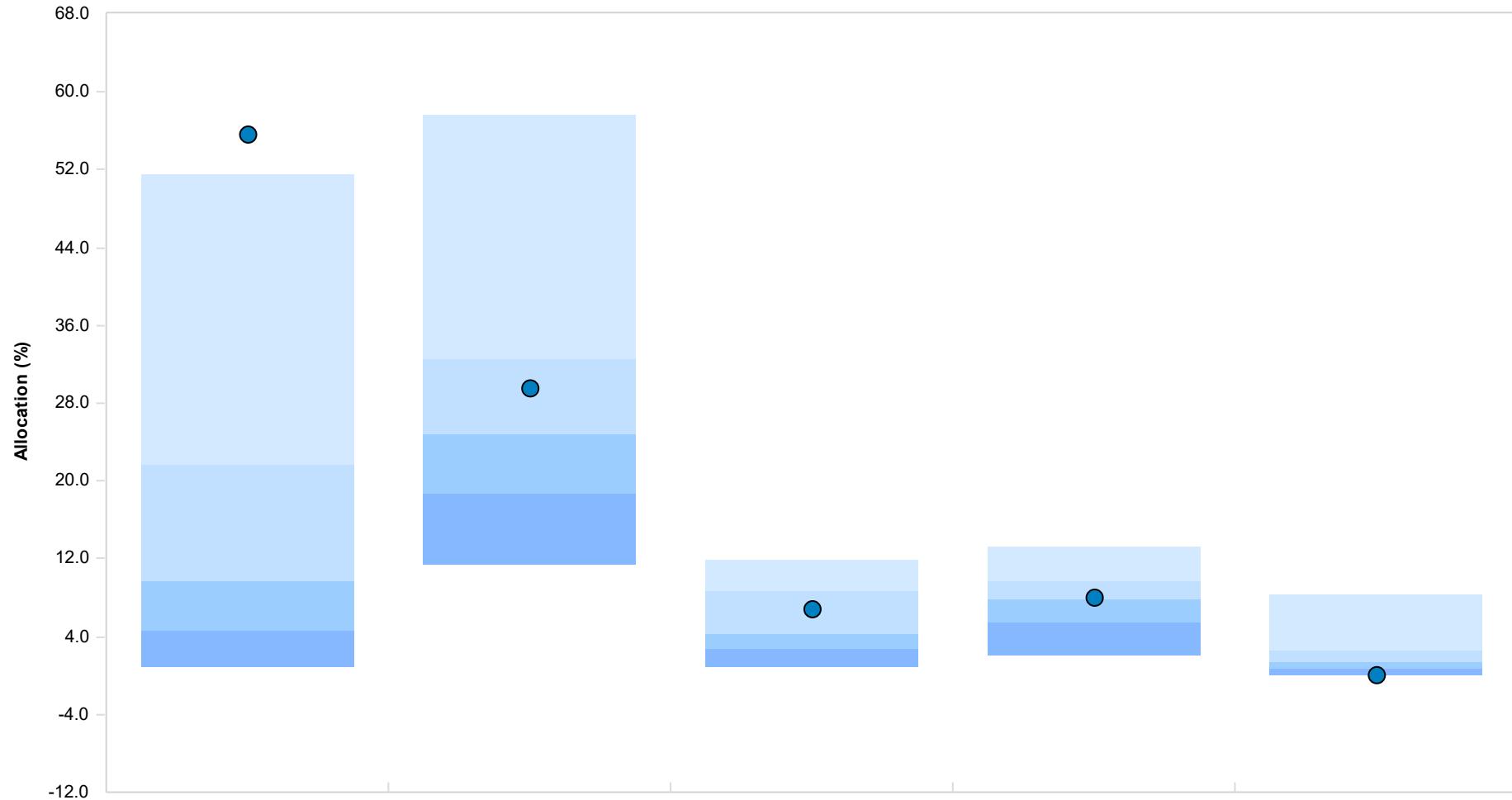
Executive Summary



Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Rebal. (\$000)
Total Fund	1,441,473,978	100.0	100.0			
Global Equity	802,843,392	55.7	55.0	45.0	65.0	-10,032,704
SSgA MSCI ACWI IMI Index Fund	802,843,392	55.7				
Fixed Income	424,934,237	29.5	30.0	25.0	40.0	7,507,957
PIMCO Total Return	212,759,090	14.8				
SSgA Bond Market Index	212,175,147	14.7				
Real Assets	213,691,450	14.8	15.0			2,529,647
Real Estate	115,605,758	8.0	7.5	5.0	10.0	-7,495,209
JP Morgan Asset Management Strategic Property Fund	52,095,003	3.6				
UBS Trumbull Property Fund	35,519,186	2.5				
Vanguard Real Estate Index (VGSNX)	27,991,569	1.9				
MLPs	98,085,692	6.8	7.5	5.0	10.0	10,024,856
Harvest MLP	49,568,773	3.4				
Tortoise Capital Advisors	48,516,920	3.4				
Cash	4,899	0.0				

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

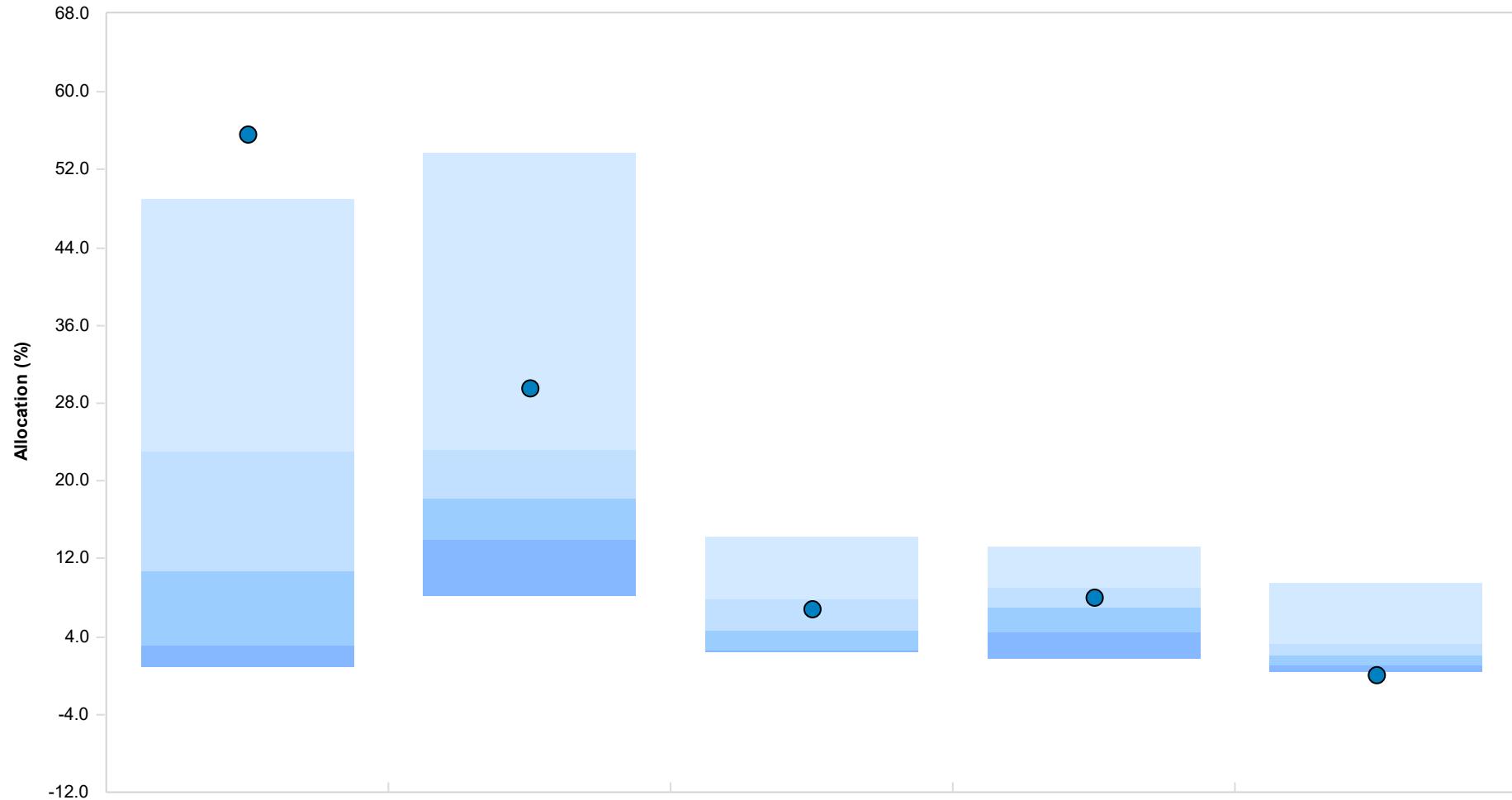


	Global Equity	US Fixed	Real Assets/Commod	Total Real Estate	Cash & Equivalents
Total Fund Composite*	55.70 (4)	29.48 (35)	6.80 (34)	8.02 (48)	0.00 (100)
5th Percentile	51.51	57.62	11.86	13.21	8.34
1st Quartile	21.66	32.58	8.68	9.77	2.57
Median	9.71	24.72	4.30	7.77	1.36
3rd Quartile	4.56	18.61	2.73	5.40	0.63
95th Percentile	0.95	11.47	0.93	2.11	0.07
Population	31	434	48	309	368

Parentheses contain percentile rankings.



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

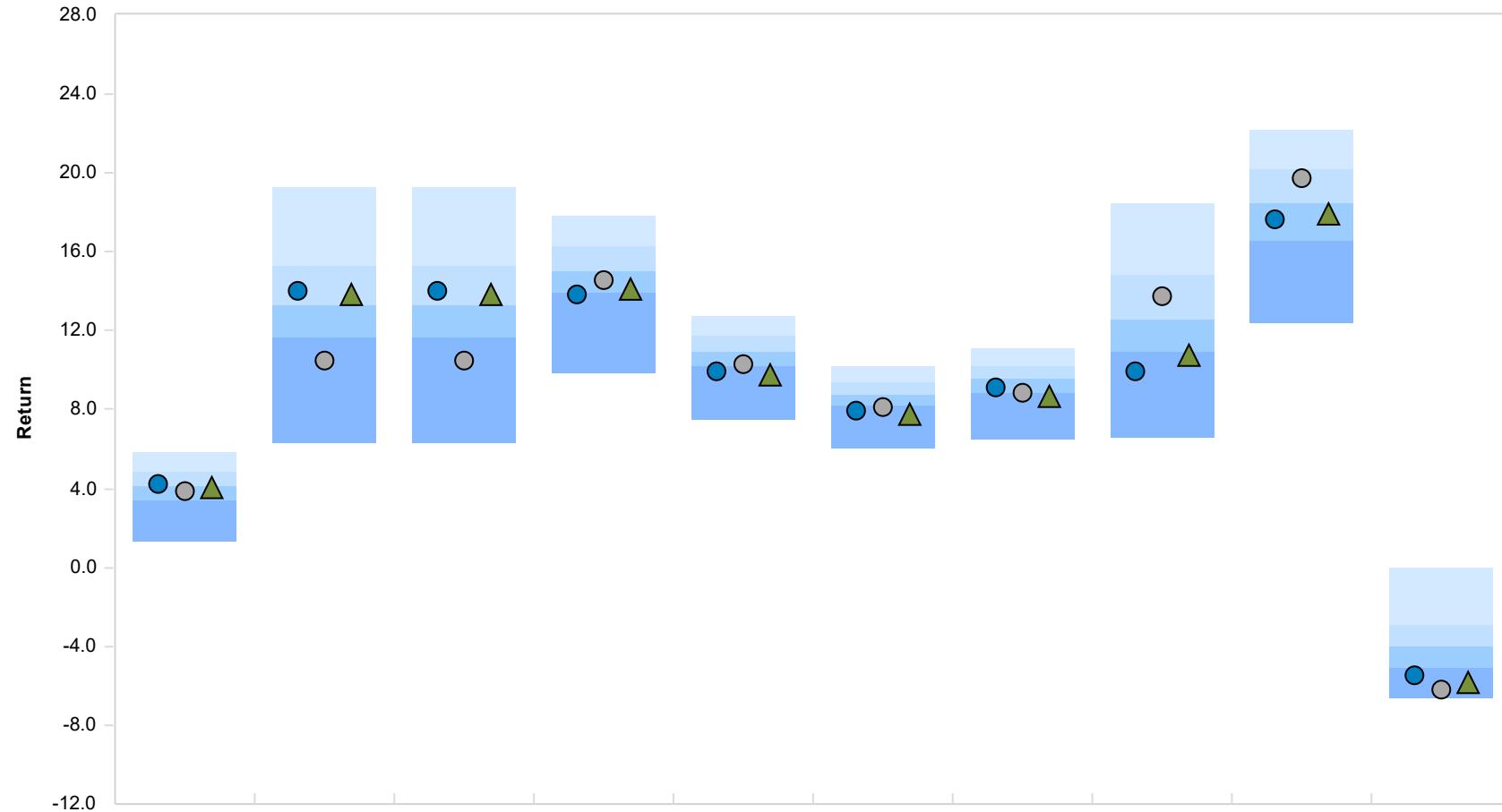


	Global Equity	US Fixed	Real Assets/Commod	Total Real Estate	Cash & Equivalents
Total Fund Composite*	55.70 (1)	29.48 (12)	6.80 (29)	8.02 (34)	0.00 (100)
5th Percentile	49.08	53.83	14.21	13.28	9.45
1st Quartile	23.11	23.29	7.80	9.02	3.27
Median	10.75	18.11	4.68	6.93	2.06
3rd Quartile	3.04	13.89	2.58	4.38	1.08
95th Percentile	0.84	8.14	2.35	1.70	0.37
Population	10	78	8	70	62

Parentheses contain percentile rankings.



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

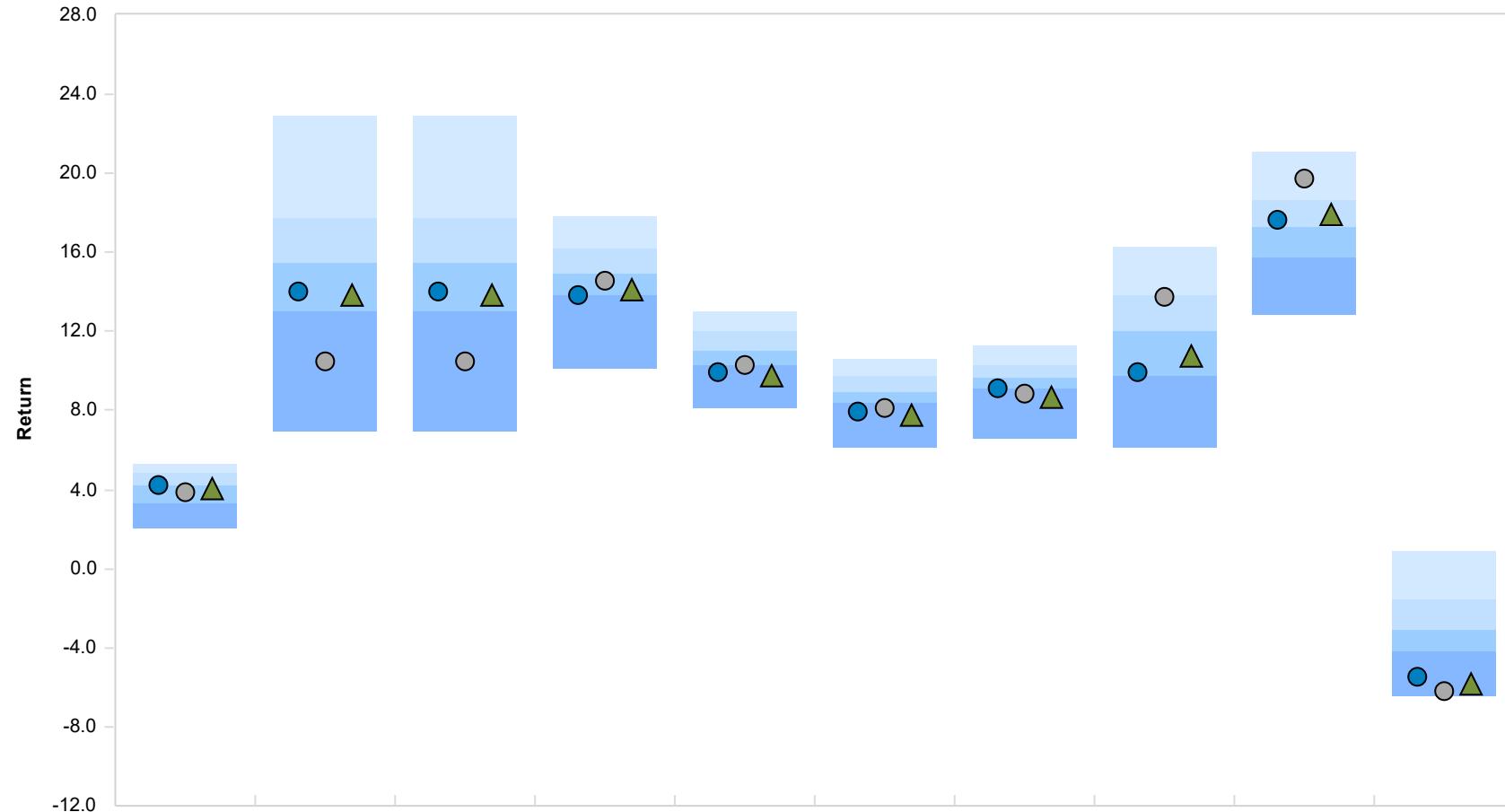


	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2020	2019	2018
● Total Fund Composite	4.20 (50)	14.04 (42)	14.04 (42)	13.83 (76)	9.94 (81)	7.99 (82)	9.15 (68)	9.92 (82)	17.67 (61)	-5.43 (82)
● Fund Policy (62.5% ACWI/37.5% Agg)	3.83 (64)	10.53 (86)	10.53 (86)	14.61 (61)	10.36 (72)	8.13 (78)	8.85 (77)	13.76 (36)	19.72 (31)	-6.19 (90)
▲ Fund Strategic Index	4.01 (58)	13.85 (46)	13.85 (46)	14.16 (70)	9.78 (84)	7.78 (87)	8.70 (79)	10.81 (76)	17.92 (57)	-5.80 (86)
5th Percentile	5.83	19.32	19.32	17.82	12.74	10.18	11.09	18.44	22.15	-0.07
1st Quartile	4.91	15.33	15.33	16.33	11.78	9.44	10.21	14.83	20.17	-2.90
Median	4.19	13.33	13.33	15.03	10.94	8.77	9.58	12.54	18.49	-4.04
3rd Quartile	3.40	11.67	11.67	13.91	10.19	8.19	8.88	10.93	16.57	-5.12
95th Percentile	1.34	6.28	6.28	9.88	7.52	6.05	6.51	6.56	12.44	-6.69
Population	326	324	324	319	306	290	278	677	702	582

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



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

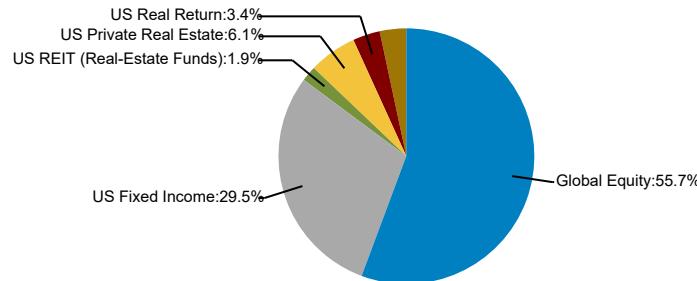


	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2020	2019	2018
● Total Fund Composite	4.20 (51)	14.04 (63)	14.04 (63)	13.83 (76)	9.94 (86)	7.99 (88)	9.15 (76)	9.92 (74)	17.67 (42)	-5.43 (87)
● Fund Policy (62.5% ACWI/37.5% Agg)	3.83 (65)	10.53 (93)	10.53 (93)	14.61 (60)	10.36 (75)	8.13 (82)	8.85 (82)	13.76 (27)	19.72 (16)	-6.19 (94)
▲ Fund Strategic Index	4.01 (60)	13.85 (67)	13.85 (67)	14.16 (67)	9.78 (88)	7.78 (90)	8.70 (83)	10.81 (67)	17.92 (38)	-5.80 (91)
5th Percentile	5.36	22.89	22.89	17.84	13.01	10.55	11.30	16.27	21.08	0.86
1st Quartile	4.88	17.72	17.72	16.23	12.07	9.73	10.32	13.81	18.68	-1.56
Median	4.23	15.46	15.46	14.95	11.05	8.99	9.67	12.05	17.29	-3.12
3rd Quartile	3.35	13.00	13.00	13.85	10.33	8.38	9.15	9.81	15.75	-4.23
95th Percentile	2.10	6.99	6.99	10.09	8.17	6.18	6.57	6.14	12.87	-6.47
Population	86	85	85	85	84	83	82	220	210	169

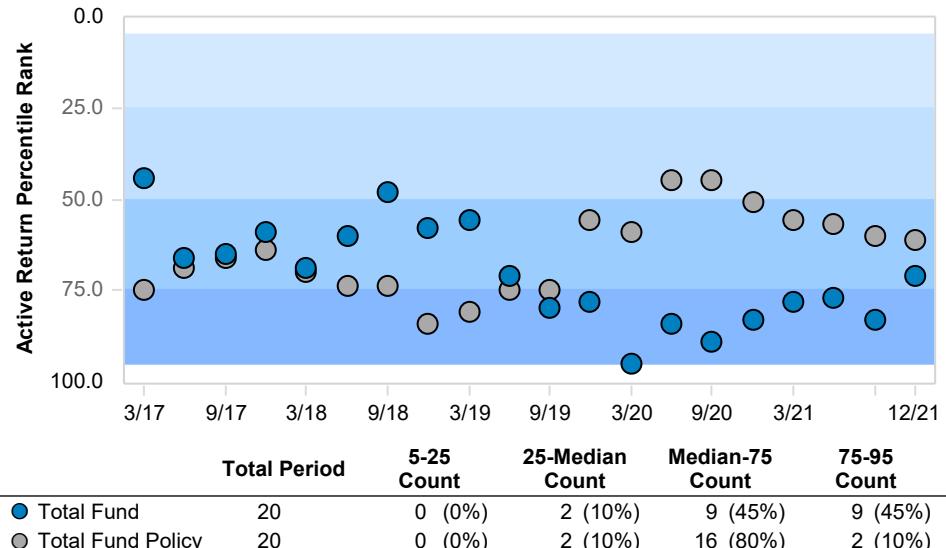
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



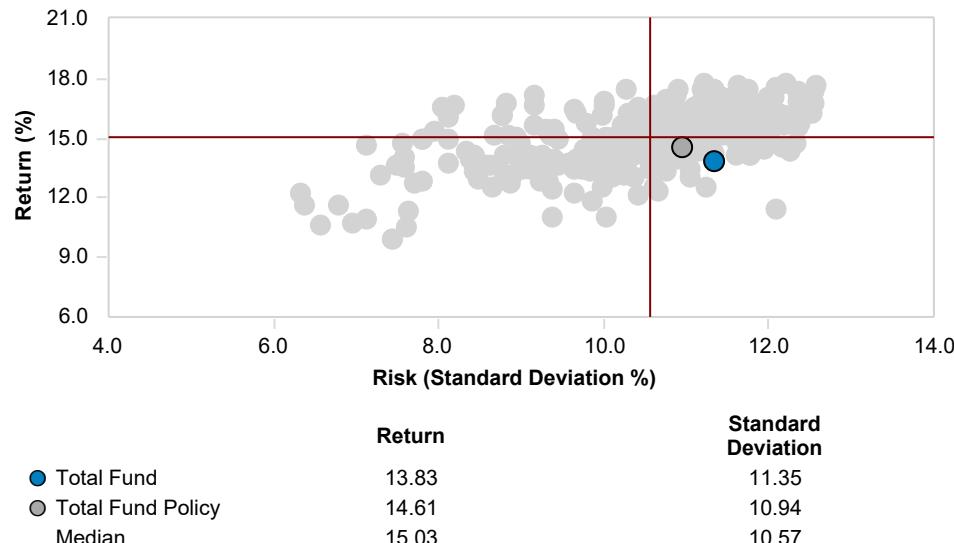
Asset Allocation By Asset Class



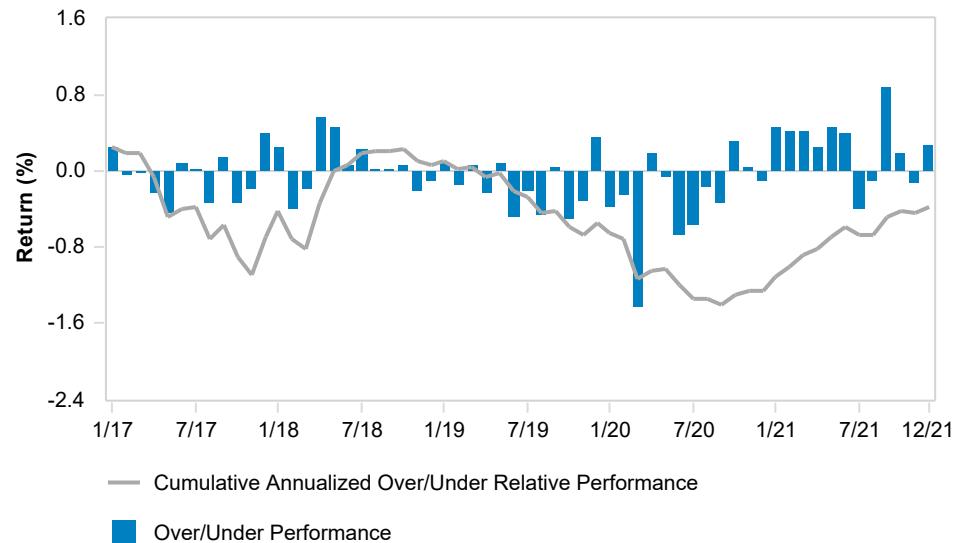
Rolling Percentile Ranking vs. All Public Plans-Total Fund



Risk vs. Return (January 1, 2019 - December 31, 2021)



Relative Performance vs. Total Fund Policy



Employees' Retirement System of the City of Norfolk

Asset Allocation & Performance (gross of fees)

As of December 31, 2021

Asset Allocation & Performance

	Market Value \$	%	Performance(%)								
			3 Month	CYTD	1 Year	2 YR	3 Year	5 Year	Since Inception	Inception Date	
Total Fund	1,441,473,978	100.0	4.20 (50)	14.04 (42)	14.04 (42)	11.96 (76)	13.83 (76)	9.94 (81)	8.52 (71)		Oct-1990
Total Fund Policy			3.83	10.53	10.53	12.13	14.61	10.36	8.46		
Excess Return			0.37	3.51	3.51	-0.17	-0.78	-0.42	0.06		
Total Fund Strategy Index			4.01	13.85	13.85	12.32	14.16	9.78	8.42		
Excess Return			0.19	0.19	0.19	-0.36	-0.33	0.16	0.10		
Global Equity	802,843,392	55.7	6.18 (45)	18.95 (31)	18.95 (31)	17.91 (45)	20.84 (44)	14.67 (42)	9.86 (37)		Oct-1990
Global Equity Policy			6.10	18.22	18.22	17.23	20.20	14.12	9.91		
Excess Return			0.08	0.73	0.73	0.68	0.64	0.55	-0.05		
Fixed Income	424,934,237	29.5	-0.05 (67)	-1.21 (69)	-1.21 (69)	3.42 (75)	5.05 (82)	3.95 (78)	6.00 (72)		Oct-1990
Blmbg. U.S. Aggregate Index			0.01	-1.55	-1.55	2.88	4.79	3.57	5.74		
Excess Return			-0.06	0.34	0.34	0.54	0.26	0.38	0.26		
Real Estate	115,605,758	8.0	8.70 (29)	18.65 (78)	18.65 (78)	8.34 (80)	5.90 (88)	6.40 (85)	9.43 (84)		Apr-2011
NCREIF Fund Index-ODCE (Net)			7.69	21.06	21.06	10.21	8.24	7.75	9.79		
Excess Return			1.01	-2.41	-2.41	-1.87	-2.34	-1.35	-0.36		
MLPs	98,085,692	6.8	2.31 (15)	41.07 (34)	41.07 (34)	1.71 (24)	4.77 (40)	-0.67 (28)	1.39 (35)		Mar-2013
Alerian MLP Index			0.55	40.17	40.17	-0.02	2.12	-2.70	-2.24		
Excess Return			1.76	0.90	0.90	1.73	2.65	2.03	3.63		
Cash	4,899	0.0									



Employees' Retirement System of the City of Norfolk
Asset Allocation & Performance (gross of fees)
As of December 31, 2021

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	802,843,392	6.18 (45)	18.66 (33)	18.66 (33)	17.77 (46)	20.74 (45)	14.61 (42)	14.08 (40)	May-2016	
MSCI AC World IMI (Net)		6.10	18.22	18.22	17.23	20.20	14.12	13.59		
Excess Return		0.08	0.44	0.44	0.54	0.54	0.49	0.49		
Fixed Income										
PIMCO Total Return	212,759,090	-0.09 (63)	-0.93 (39)	-0.93 (39)	3.85 (39)	5.26 (69)	4.28 (40)	6.39 (10)	Jan-1991	
Blmbg. U.S. Aggregate Index		0.01	-1.55	-1.55	2.88	4.79	3.57	5.62		
Excess Return		-0.10	0.62	0.62	0.97	0.47	0.71	0.77		
SSgA Bond Market Index	212,175,147	-0.02 (41)	-1.51 (71)	-1.51 (71)	2.93 (87)	4.83 (88)	3.60 (88)	3.80 (92)	Jan-2009	
Blmbg. U.S. Aggregate Index		0.01	-1.55	-1.55	2.88	4.79	3.57	3.78		
Excess Return		-0.03	0.04	0.04	0.05	0.04	0.03	0.02		
Real Estate										
JP Morgan Asset Management Strategic Property Fund	52,095,003	8.12 (33)	20.96 (59)	20.96 (59)	10.76 (62)	8.60 (69)	8.20 (73)	10.75 (70)	Apr-2011	
NCREIF Fund Index-ODCE (VW) (Net)		7.69	21.06	21.06	10.21	8.24	7.75	9.79		
Excess Return		0.43	-0.10	-0.10	0.55	0.36	0.45	0.96		
UBS Trumbull Property Fund	35,519,186	5.04 (94)	16.23 (82)	16.23 (82)	5.73 (94)	3.05 (94)	4.47 (94)	7.32 (-)	Dec-2011	
NCREIF Fund Index-ODCE (VW) (Net)		7.69	21.06	21.06	10.21	8.24	7.75	9.65		
Excess Return		-2.65	-4.83	-4.83	-4.48	-5.19	-3.28	-2.33		
Vanguard Real Estate Index (VGSNX)	27,991,569	14.99 (68)	-	-	-	-	-	15.79 (74)	Jul-2021	
Vanguard Spliced REIT Index		14.94	-	-	-	-	-	15.75		
Excess Return		0.05	-	-	-	-	-	0.04		
MLPs										
Harvest MLP	49,568,773	2.66 (9)	43.50 (16)	43.50 (16)	4.03 (15)	7.07 (18)	0.31 (18)	1.93 (28)	Mar-2013	
Alerian MLP Index		0.55	40.17	40.17	-0.02	2.12	-2.70	-2.24		
Excess Return		2.11	3.33	3.33	4.05	4.95	3.01	4.17		
Tortoise Capital Advisors	48,516,920	1.86 (27)	39.36 (69)	39.36 (69)	-0.39 (57)	2.65 (58)	-1.56 (51)	0.32 (47)	Apr-2013	
Alerian MLP Index		0.55	40.17	40.17	-0.02	2.12	-2.70	-2.85		
Excess Return		1.31	-0.81	-0.81	-0.37	0.53	1.14	3.17		



Employees' Retirement System of the City of Norfolk
Asset Allocation & Performance (net of fees)
As of December 31, 2021

Asset Allocation & Performance											
	Market Value \$	%	Performance(%)								
			3 Month	CYTD	FYTD	1 Year	2 YR	3 Year	5 Year	Since Inception	Inception Date
Total Fund	1,441,473,978	100.0	4.18	13.92	3.87	13.92	11.83	13.67	9.76	8.33	Oct-1990
Total Fund Policy			3.83	10.53	3.15	10.53	12.13	14.61	10.36	8.46	
Excess Return			0.35	3.39	0.72	3.39	-0.30	-0.94	-0.60	-0.13	
Total Fund Strategy Index			4.01	13.85	3.50	13.85	12.32	14.16	9.78	8.42	
Excess Return			0.17	0.07	0.37	0.07	-0.49	-0.49	-0.02	-0.09	
Global Equity	802,843,392	55.7	6.17	18.90	5.04	18.90	17.87	20.80	14.63	9.69	Oct-1990
Global Equity Policy			6.10	18.22	4.92	18.22	17.23	20.20	14.12	9.91	
Excess Return			0.07	0.68	0.12	0.68	0.64	0.60	0.51	-0.22	
Fixed Income	424,934,237	29.5	-0.05	-1.27	0.19	-1.27	3.34	4.94	3.83	5.81	Oct-1990
Blmbg. U.S. Aggregate Index			0.01	-1.55	0.06	-1.55	2.88	4.79	3.57	5.74	
Excess Return			-0.06	0.28	0.13	0.28	0.46	0.15	0.26	0.07	
Real Estate	115,605,758	8.0	8.52	17.67	13.09	17.67	7.41	4.97	5.48	8.44	Apr-2011
NCREIF Fund Index-ODCE (Net)			7.69	21.06	14.59	21.06	10.21	8.24	7.75	9.79	
Excess Return			0.83	-3.39	-1.50	-3.39	-2.80	-3.27	-2.27	-1.35	
MLPs	98,085,692	6.8	2.23	40.88	0.87	40.88	1.41	4.31	-1.24	0.79	Mar-2013
Alerian MLP Index			0.55	40.17	-5.19	40.17	-0.02	2.12	-2.70	-2.24	
Excess Return			1.68	0.71	6.06	0.71	1.43	2.19	1.46	3.03	
Cash	4,899	0.0									



Employees' Retirement System of the City of Norfolk
Asset Allocation & Performance (net of fees)
As of December 31, 2021
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	802,843,392	55.7	6.17	18.62	5.04	18.62	17.73	20.70	14.58	14.04	May-2016	
MSCI AC World IMI (Net)			6.10	18.22	4.92	18.22	17.23	20.20	14.12	13.59		
Excess Return			0.07	0.40	0.12	0.40	0.50	0.50	0.46	0.45		
Fixed Income												
PIMCO Total Return	212,759,090	14.8	-0.09	-1.03	0.33	-1.03	3.71	5.08	4.07	6.14	Jan-1991	
Blmbg. U.S. Aggregate Index			0.01	-1.55	0.06	-1.55	2.88	4.79	3.57	5.62		
Excess Return			-0.10	0.52	0.27	0.52	0.83	0.29	0.50	0.52		
SSgA Bond Market Index	212,175,147	14.7	-0.02	-1.53	0.04	-1.53	2.91	4.81	3.58	3.79	Jan-2009	
Blmbg. U.S. Aggregate Index			0.01	-1.55	0.06	-1.55	2.88	4.79	3.57	3.78		
Excess Return			-0.03	0.02	-0.02	0.02	0.03	0.02	0.01	0.01		
Real Estate												
JP Morgan Asset Management Strategic Property Fund	52,095,003	3.6	7.88	19.82	14.86	19.82	9.83	7.63	7.26	9.77	Apr-2011	
NCREIF Fund Index-ODCE (VW) (Net)			7.69	21.06	14.59	21.06	10.21	8.24	7.75	9.79		
Excess Return			0.19	-1.24	0.27	-1.24	-0.38	-0.61	-0.49	-0.02		
UBS Trumbull Property Fund	35,519,186	2.5	4.82	15.23	11.09	15.23	4.71	2.09	3.53	6.27	Dec-2011	
NCREIF Fund Index-ODCE (VW) (Net)			7.69	21.06	14.59	21.06	10.21	8.24	7.75	9.65		
Excess Return			-2.87	-5.83	-3.50	-5.83	-5.50	-6.15	-4.22	-3.38		
Vanguard Real Estate Index (VGSNX)	27,991,569	1.9	14.96	N/A	15.73	N/A	N/A	N/A	N/A	15.73	Jul-2021	
Vanguard Spliced REIT Index			14.94	N/A	15.75	N/A	N/A	N/A	N/A	15.75		
Excess Return			0.02	N/A	-0.02	N/A	N/A	N/A	N/A	-0.02		
MLPs												
Harvest MLP	49,568,773	3.4	2.66	43.42	2.39	43.42	3.90	6.72	-0.19	1.36	Mar-2013	
Alerian MLP Index			0.55	40.17	-5.19	40.17	-0.02	2.12	-2.70	-2.24		
Excess Return			2.11	3.25	7.58	3.25	3.92	4.60	2.51	3.60		
Tortoise Capital Advisors	48,516,920	3.4	1.71	38.98	-0.93	38.98	-0.89	2.06	-2.20	-0.32	Apr-2013	
Alerian MLP Index			0.55	40.17	-5.19	40.17	-0.02	2.12	-2.70	-2.85		
Excess Return			1.16	-1.19	4.26	-1.19	-0.87	-0.06	0.50	2.53		



Fiscal Returns										
	Performance(%)									
	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	Jul-2011 To Jun-2012
Total Fund	25.93	0.59	5.35	7.10	11.66	0.49	1.98	17.30	12.09	0.54
Total Fund Policy	24.13	4.56	6.17	6.77	11.42	0.49	2.16	15.82	10.43	1.12
Excess Return	1.80	-3.97	-0.82	0.33	0.24	0.00	-0.18	1.48	1.66	-0.58
Total Fund Strategy Index	26.49	1.30	5.91	6.25	10.62	0.97	1.54	16.12	11.34	1.30
Excess Return	-0.56	-0.71	-0.56	0.85	1.04	-0.48	0.44	1.18	0.75	-0.76
Global Equity	41.90	1.61	4.97	11.60	19.46	-2.82	2.33	23.89	18.43	-3.51
Global Equity Policy	40.94	1.17	4.56	11.14	19.01	-3.37	2.20	23.86	18.37	-3.83
Excess Return	0.96	0.44	0.41	0.46	0.45	0.55	0.13	0.03	0.06	0.32
Fixed Income	0.24	8.59	7.58	0.18	0.76	5.10	2.38	4.31	-0.15	6.93
Blmbg. U.S. Aggregate Index	-0.34	8.74	7.87	-0.40	-0.31	6.00	1.86	4.37	-0.69	7.47
Excess Return	0.58	-0.15	-0.29	0.58	1.07	-0.90	0.52	-0.06	0.54	-0.54
Real Estate	3.74	-0.28	1.90	6.82	5.89	9.79	11.93	11.24	11.02	10.94
NCREIF Fund Index-ODCE (Net)	7.09	1.33	5.46	7.47	6.90	10.80	13.39	11.74	11.08	11.30
Excess Return	-3.35	-1.61	-3.56	-0.65	-1.01	-1.01	-1.46	-0.50	-0.06	-0.36
MLPs	52.25	-37.78	1.24	-0.49	2.94	-17.50	-11.33	35.63	-	-
Alerian MLP Index	63.98	-41.43	3.09	-4.58	0.40	-13.11	-19.81	21.57	-	-
Excess Return	-11.73	3.65	-1.85	4.09	2.54	-4.39	8.48	14.06	-	-
Cash										

Employees' Retirement System of the City of Norfolk

Financial Reconciliation

1 Quarter Ending December 31, 2021

Financial Reconciliation									
	Market Value 10/01/2021	Net Transfers	Contributions	Distributions	Management Fees	Income	Apprec./ Deprec.	Market Value 12/31/2021	
Total Fund	1,404,771,182	-	74,882	-21,632,000	-357,289	3,716,518	54,900,685	1,441,473,978	
Global Equity	763,429,269	-7,498,000	-	-	-81,775	-	46,993,898	802,843,392	
SSgA MSCI ACWI IMI Index Fund	763,429,269	-7,498,000	-	-	-81,775	-	46,993,898	802,843,392	
Fixed Income	425,166,518	-	-	-	-10,680	1,033,786	-1,255,388	424,934,237	
PIMCO Total Return	212,943,906	-	-	-	-	1,033,786	-1,218,602	212,759,090	
SSgA Bond Market Index	212,222,612	-	-	-	-10,680	-	-36,786	212,175,147	
Real Estate	108,165,577	-1,641,116	-	-	-189,953	935,884	8,335,366	115,605,758	
JP Morgan Asset Management Strategic Property Fund	48,288,973	-3	-	-	-108,971	451,953	3,463,051	52,095,003	
UBS Trumbull Property Fund	35,527,221	-1,641,113	-	-	-74,655	230,841	1,476,891	35,519,186	
Vanguard Real Estate Index (VGSNX)	24,349,383	-	-	-	-6,327	253,090	3,395,424	27,991,569	
MLPs	108,003,974	-12,490,000	74,882	-	-74,882	1,744,017	827,701	98,085,692	
Harvest MLP	60,375,177	-12,490,000	-	-	-	913,195	770,401	49,568,773	
Tortoise Capital Advisors	47,628,798	-	74,882	-	-74,882	830,823	57,299	48,516,920	
Cash	5,844	21,629,116	-	-21,632,000	-	2,831	-892	4,899	



Employees' Retirement System of the City of Norfolk

Financial Reconciliation

July 1, 2021 To December 31, 2021

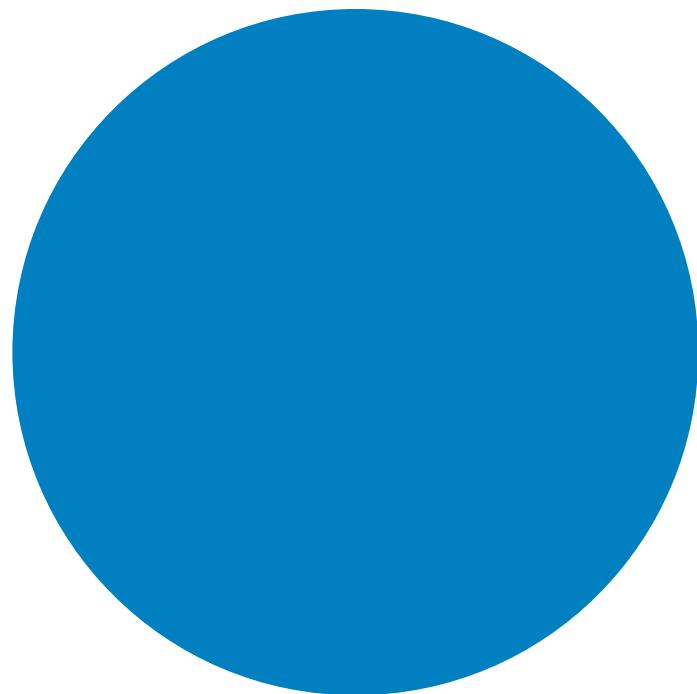
Financial Reconciliation									
	Market Value 07/01/2021	Net Transfers	Contributions	Distributions	Management Fees	Income	Apprec./ Deprec.	Market Value 12/31/2021	
Total Fund	1,390,335,588	-	31,243,961	-34,349,000	-705,901	7,188,546	47,760,784	1,441,473,978	
Global Equity	779,940,629	-15,898,000	-	-	-158,275	-	38,959,039	802,843,392	
SSgA MSCI ACWI IMI Index Fund	779,940,629	-15,898,000	-	-	-158,275	-	38,959,039	802,843,392	
Fixed Income	428,086,879	-4,059,000	76,011	-	-95,911	2,189,928	-1,263,670	424,934,237	
PIMCO Total Return	215,989,678	-4,059,000	76,011	-	-76,011	2,189,928	-1,361,516	212,759,090	
SSgA Bond Market Index	212,097,201	-	-	-	-19,901	-	97,846	212,175,147	
Real Estate	81,594,793	20,644,418	-	-	-376,833	1,684,964	12,058,415	115,605,758	
JP Morgan Asset Management Strategic Property Fund	45,356,339	-6	-	-	-215,328	715,588	6,238,410	52,095,003	
UBS Trumbull Property Fund	36,238,454	-4,355,575	-	-	-150,921	558,831	3,228,397	35,519,186	
Vanguard Real Estate Index (VGSNX)	-	25,000,000	-	-	-10,584	410,545	2,591,608	27,991,569	
MLPs	100,706,225	-3,940,000	74,882	-	-74,882	3,310,699	-1,991,232	98,085,692	
Harvest MLP	51,807,422	-3,940,000	-	-	-	1,718,860	-17,509	49,568,773	
Tortoise Capital Advisors	48,898,803	-	74,882	-	-74,882	1,591,840	-1,973,724	48,516,920	
Cash	7,062	3,252,582	31,093,069	-34,349,000	-	2,955	-1,768	4,899	



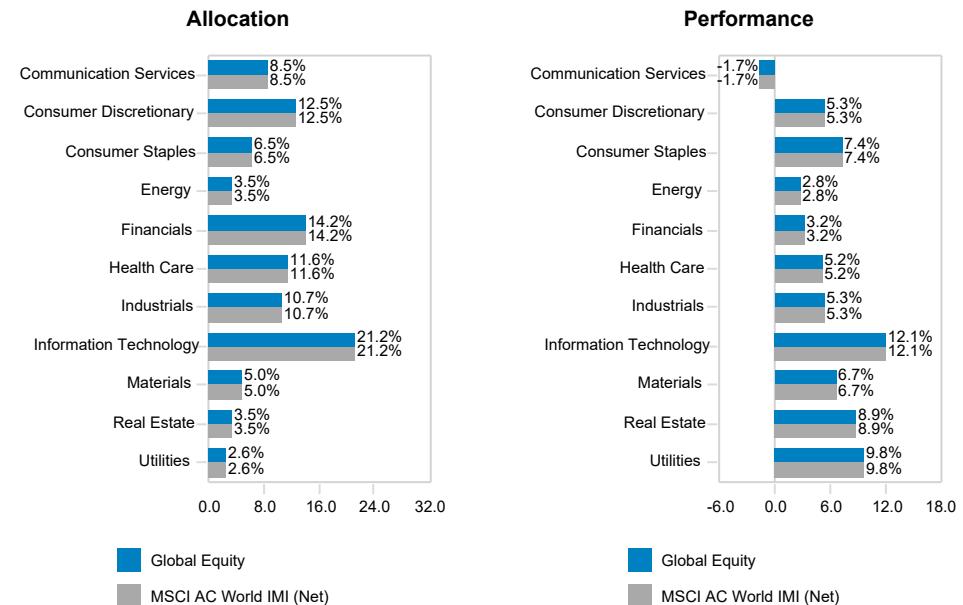
Global Equity

Manager Allocation

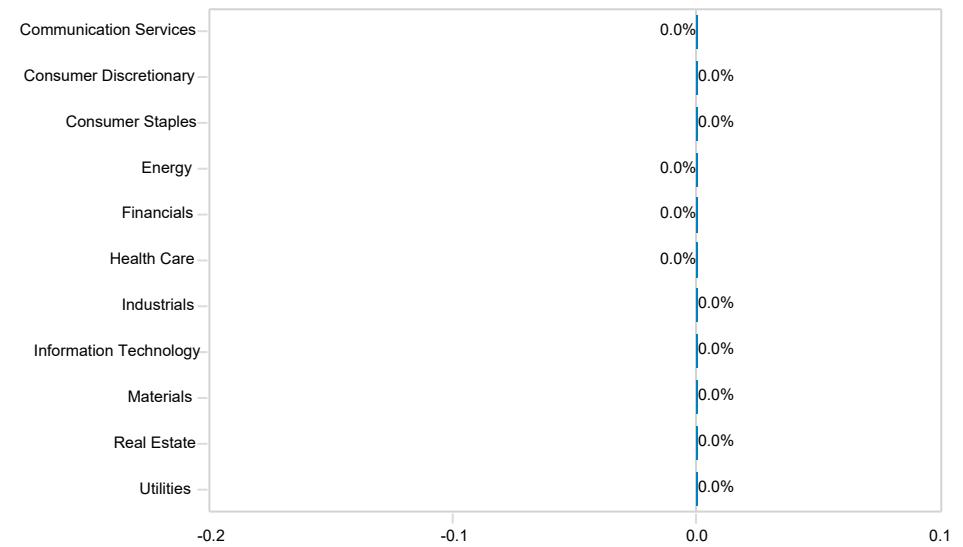
December 31, 2021 : \$802,843,392



Sector Allocation - Holdings Based



Total Attribution



Market Value

Allocation

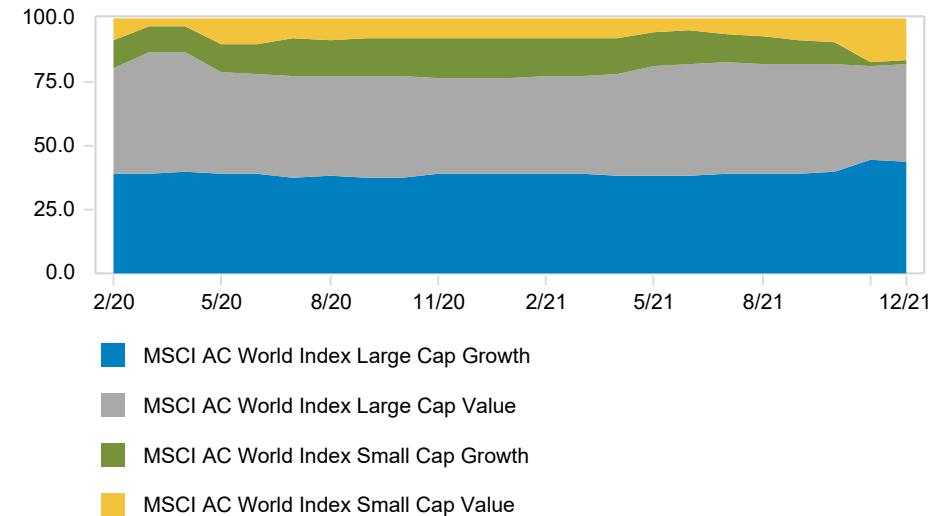
802,843,392

100.0

■ SSgA MSCI ACWI IMI Index Fund

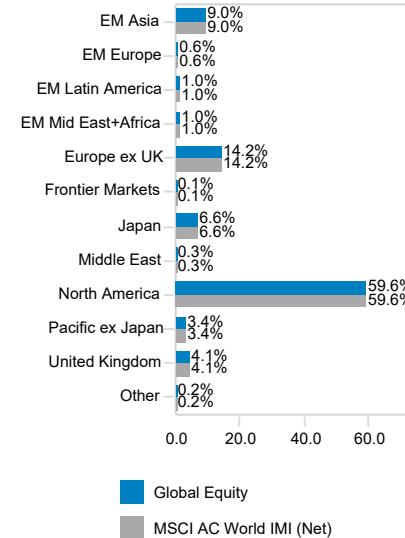
Style Analysis - Returns Based

Style History(12 Months)

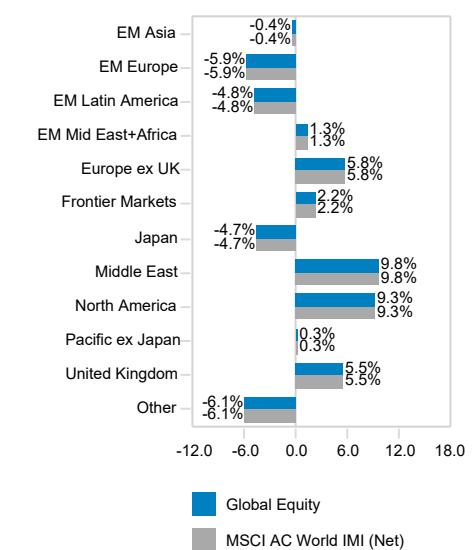


Region Allocation - Holdings Based

Allocation



Performance

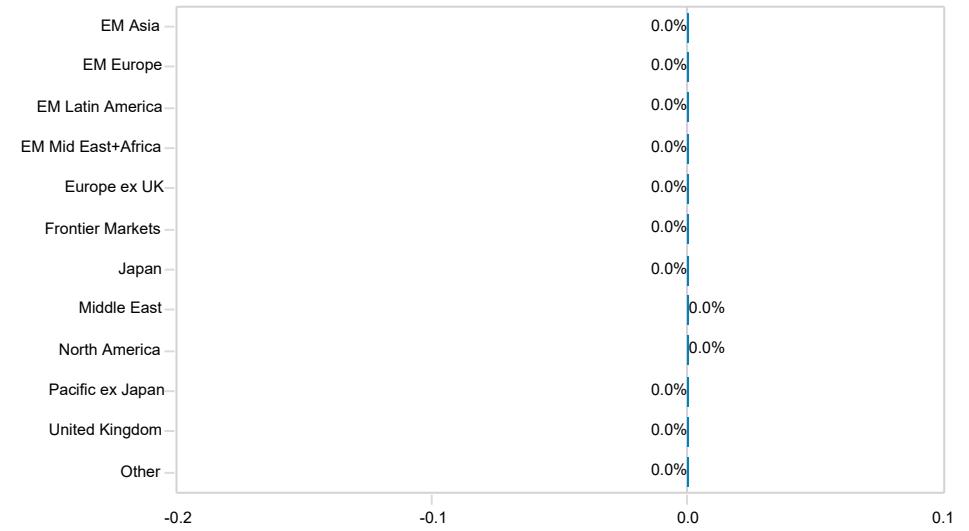


3 Year Style Analysis

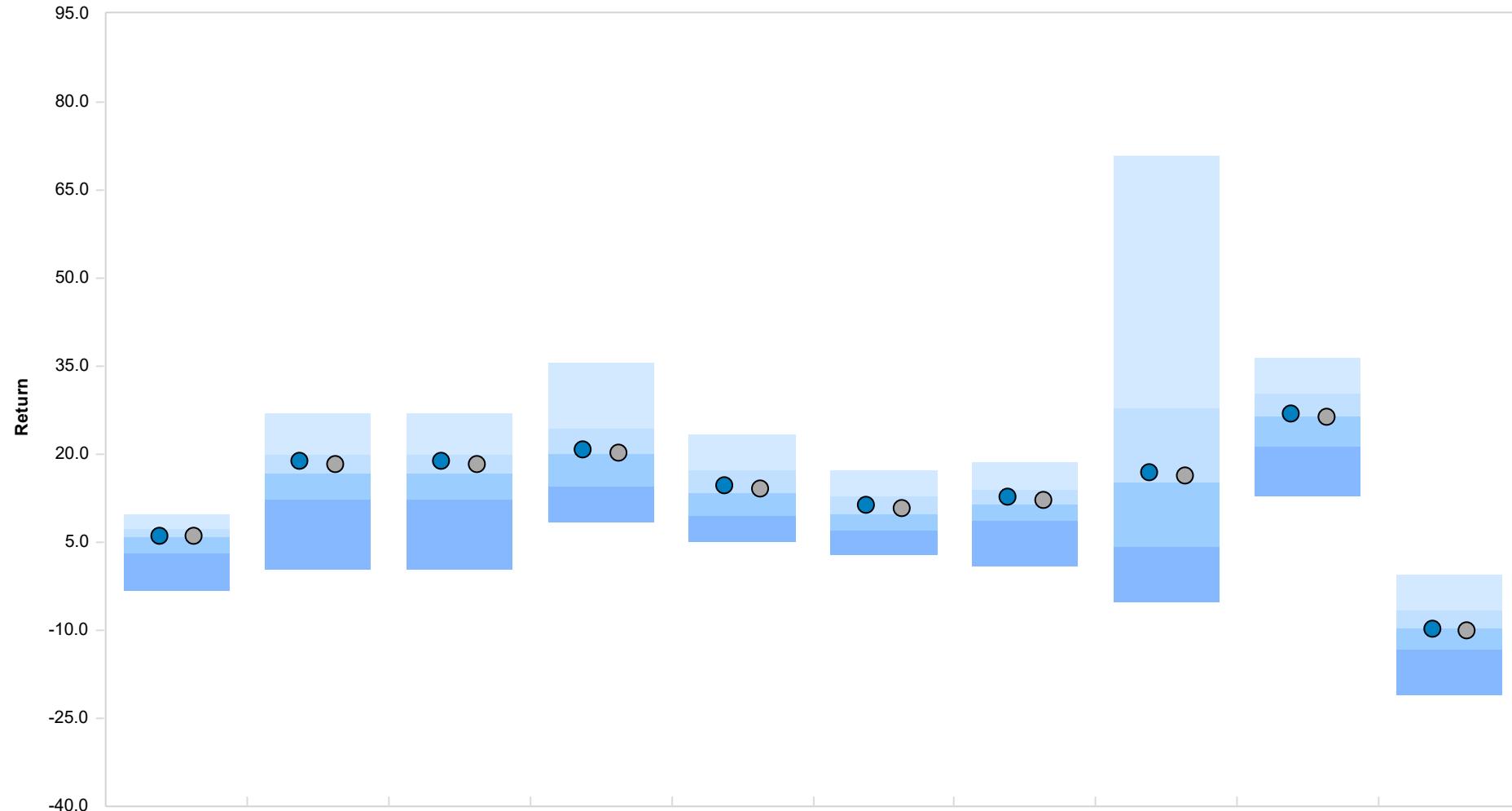
Style Map(12 Months)



Total Attribution



Peer Group Analysis



	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2020	2019	2018
Global Equity	6.18 (45)	18.95 (31)	18.95 (31)	20.84 (44)	14.67 (42)	11.34 (36)	12.73 (39)	16.88 (44)	26.92 (47)	-9.73 (51)
Global Equity Policy	6.10 (46)	18.22 (37)	18.22 (37)	20.20 (49)	14.12 (45)	10.84 (41)	12.33 (42)	16.25 (45)	26.35 (51)	-10.08 (55)
5th Percentile	9.73	26.84	26.84	35.51	23.32	17.20	18.49	70.89	36.33	-0.63
1st Quartile	7.27	20.02	20.02	24.42	17.12	12.70	13.97	27.81	30.17	-6.73
Median	5.83	16.54	16.54	19.92	13.32	9.86	11.46	15.26	26.37	-9.72
3rd Quartile	3.06	12.22	12.22	14.36	9.36	6.89	8.59	4.13	21.28	-13.42
95th Percentile	-3.26	0.28	0.28	8.46	4.95	2.78	0.76	-5.23	12.64	-21.07

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



Strategy Review
SSgA MSCI ACWI IMI Index Fund | MSCI AC World IMI (Net)
As of December 31, 2021

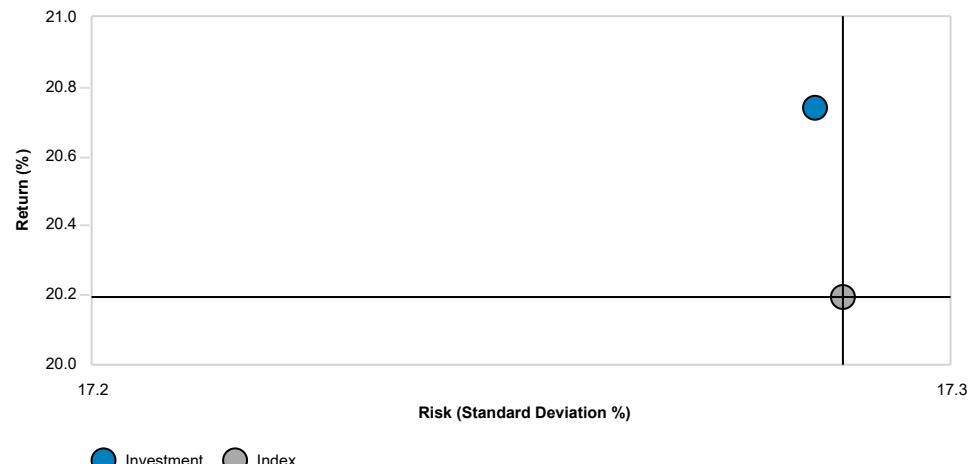
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	20.74	17.28	1.12	100.85	9	98.92	3
Index	20.20	17.29	1.10	100.00	9	100.00	3

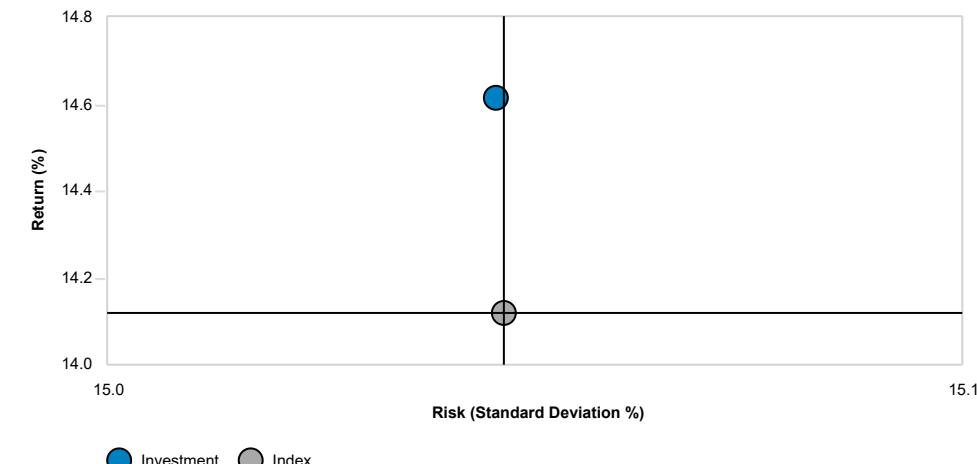
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	14.61	15.05	0.91	101.12	15	99.05	5
Index	14.12	15.05	0.88	100.00	15	100.00	5

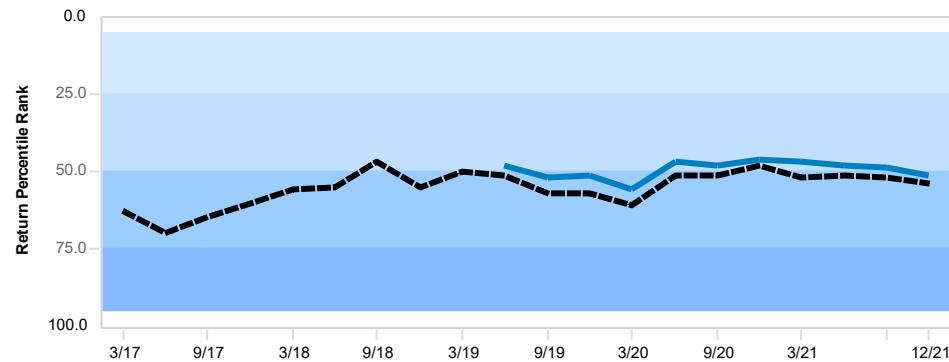
Risk and Return 3 Years



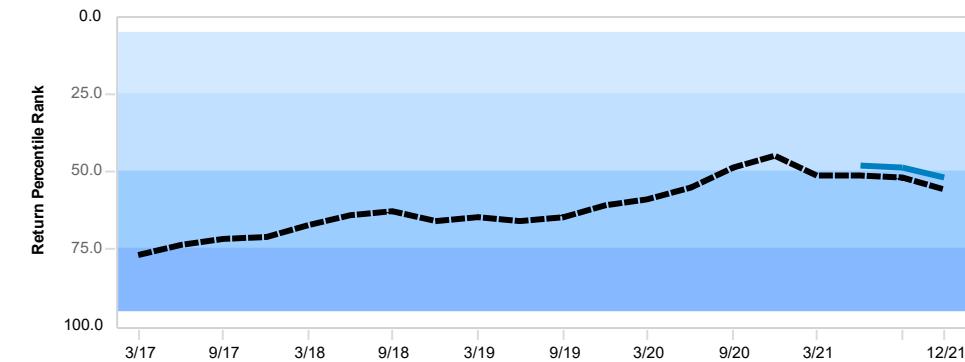
Risk and Return 5 Years



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



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

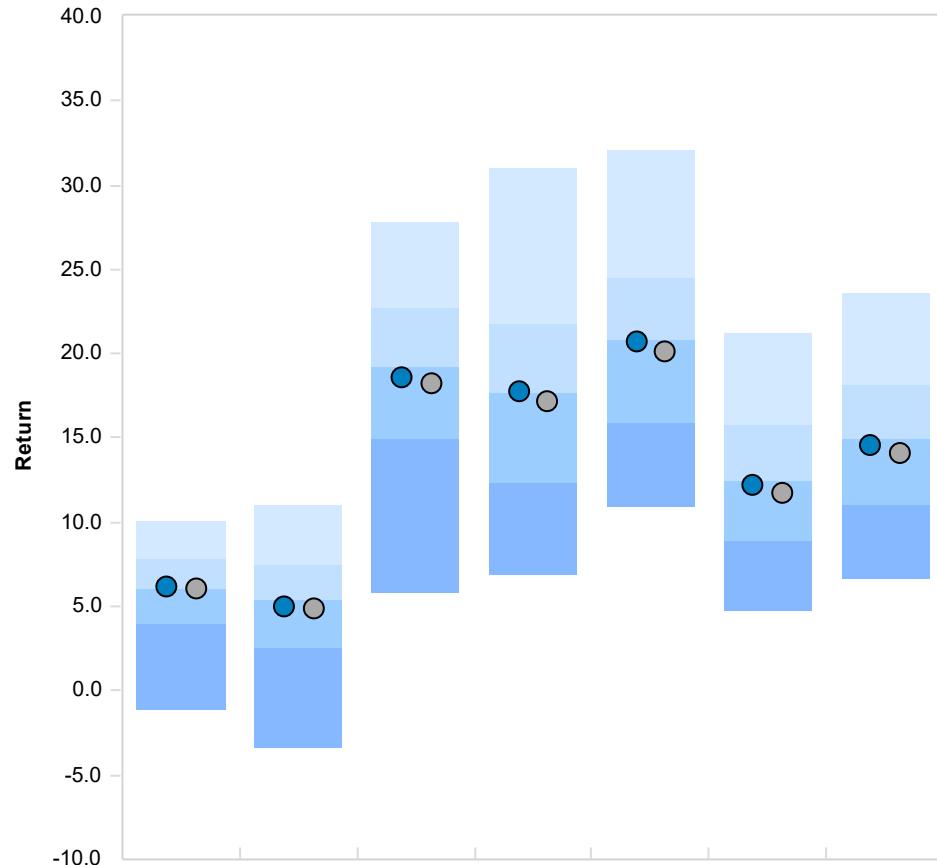


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	11	0 (0%)	7 (64%)	4 (36%)	0 (0%)
Index	20	0 (0%)	3 (15%)	17 (85%)	0 (0%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	3	0 (0%)	2 (67%)	1 (33%)	0 (0%)
Index	20	0 (0%)	2 (10%)	17 (85%)	1 (5%)



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



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



QTR FYTD 1 YR 2 YR 3 YR 4 YR 5 YR

Investment 6.18 (50) 5.06 (54) 18.66 (54) 17.77 (50) 20.74 (51) 12.27 (52) 14.61 (52)

Index 6.10 (50) 4.92 (55) 18.22 (57) 17.23 (53) 20.20 (54) 11.79 (55) 14.12 (56)

Median 6.08 5.35 19.14 17.70 20.88 12.49 14.93

QTR FYTD 1 YR 2 YR 3 YR 4 YR 5 YR

Investment 29.54 (42) 10.04 (47) 0.93 (57) 10.07 (48) 19.24 (46) N/A

Index 28.92 (44) 9.57 (49) 0.48 (62) 9.63 (52) 18.73 (50) 12.25 (50)

Median 28.05 8.51 1.96 9.75 18.65 12.14

Comparative Performance

	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020	1 Qtr Ending Sep-2020	1 Qtr Ending Jun-2020
Investment	-1.05	7.25	5.31	15.91	8.17	19.99
Index	-1.11	7.18	5.14	15.70	8.11	19.83



Holdings Based Analysis
SSgA MSCI ACWI IMI Index Fund

As of December 31, 2021

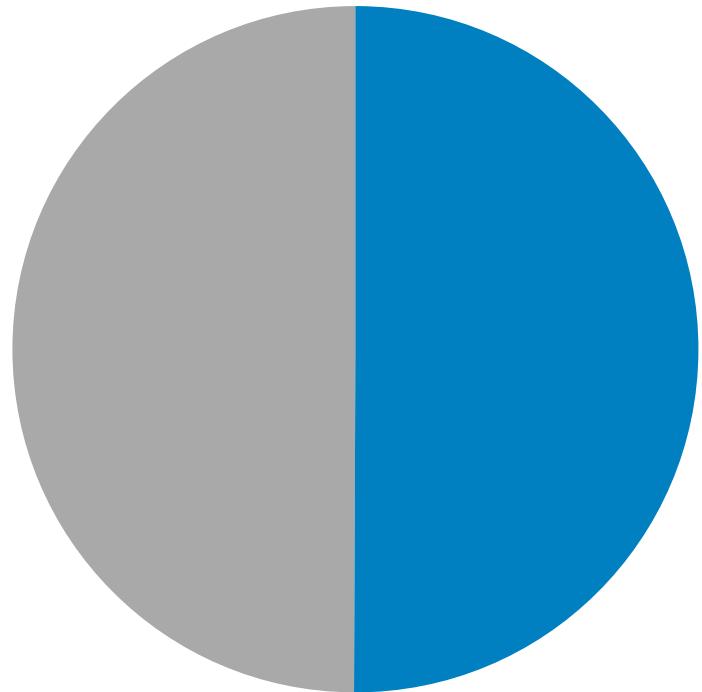
Portfolio Characteristics (Benchmark: MSCI AC World IMI (Net))				Top Ten Equity Holdings (Benchmark: MSCI AC World IMI (Net))			
	Portfolio	Benchmark		Portfolio (%)	Benchmark (%)	Active (%)	Qtr Rtn (%)
Wtd. Avg. Mkt. Cap (\$)	373,927,606,492	373,927,606,612	Apple Inc	3.67	3.67	0.00	25.67
Median Mkt. Cap (\$)	2,217,021,660	2,217,021,660	Microsoft Corp	3.00	3.00	0.00	19.51
Price/Earnings ratio	19.68	19.68	Amazon.com Inc	1.90	1.90	0.00	1.50
Price/Book ratio	3.69	3.69	Tesla Inc	1.11	1.11	0.00	36.27
5 Yr. EPS Growth Rate (%)	18.51	18.51	Alphabet Inc	1.09	1.09	0.00	8.36
Current Yield (%)	1.77	1.77	Alphabet Inc	1.04	1.04	0.00	8.57
Beta (5 Years, Monthly)	1.00	1.00	Meta Platforms Inc	1.00	1.00	0.00	-0.90
Number of Stocks	9,309	9,309	NVIDIA Corporation	0.92	0.92	0.00	41.99
			Taiwan Semiconductor ORD	0.68	0.68	0.00	7.00
			Unitedhealth Group Inc	0.59	0.59	0.00	28.92
Distribution of Market Capitalization (%)				Ten Best Performers			
>100 Bil	42.0			Portfolio (%)	Benchmark (%)		
75 Bil - 100 Bil	6.0			Tata Teleservices (Maharashtra) Ltd	0.00	0.00	
25 Bil - 75 Bil	19.0			PT Berkah Beton Sadaya Tbk	0.00	0.00	
15 Bil - 25 Bil	6.2			Brightcom Group Ltd	0.00	0.00	
2 Bil - 15 Bil	18.0			Dubai Financial Market	0.00	0.00	
0 - 2 Bil	5.0			Cowell E Holdings Inc	0.00	0.00	
				Vidente Co Ltd	0.00	0.00	
				Wemade Co Ltd	0.00	0.00	
				Skyworth Group Ltd	0.00	0.00	
				AVZ Minerals Ltd	0.00	0.00	
				Wysiwyg Studios Co Ltd	0.00	0.00	
Buy and Hold Sector Attribution				Ten Worst Performers			
Allocation		Performance		Attribution			
Portfolio		Portfolio		Sector		Total	
Communication Services	8.5	8.5	-1.68	-1.68	0.00	0.00	0.00
Consumer Discretionary	12.5	12.5	5.34	5.34	0.00	0.00	0.00
Consumer Staples	6.5	6.5	7.41	7.41	0.00	0.00	0.00
Energy	3.5	3.5	2.80	2.80	0.00	0.00	0.00
Financials	14.2	14.2	3.18	3.18	0.00	0.00	0.00
Health Care	11.6	11.6	5.23	5.23	0.00	0.00	0.00
Industrials	10.7	10.7	5.30	5.30	0.00	0.00	0.00
Information Technology	21.2	21.2	12.11	12.11	0.00	0.00	0.00
Materials	5.0	5.0	6.71	6.71	0.00	0.00	0.00
Real Estate	3.5	3.5	8.87	8.87	0.00	0.00	0.00
Utilities	2.6	2.6	9.81	9.81	0.00	0.00	0.00
Total	100.0	100.0	6.21	6.21	0.00	0.00	



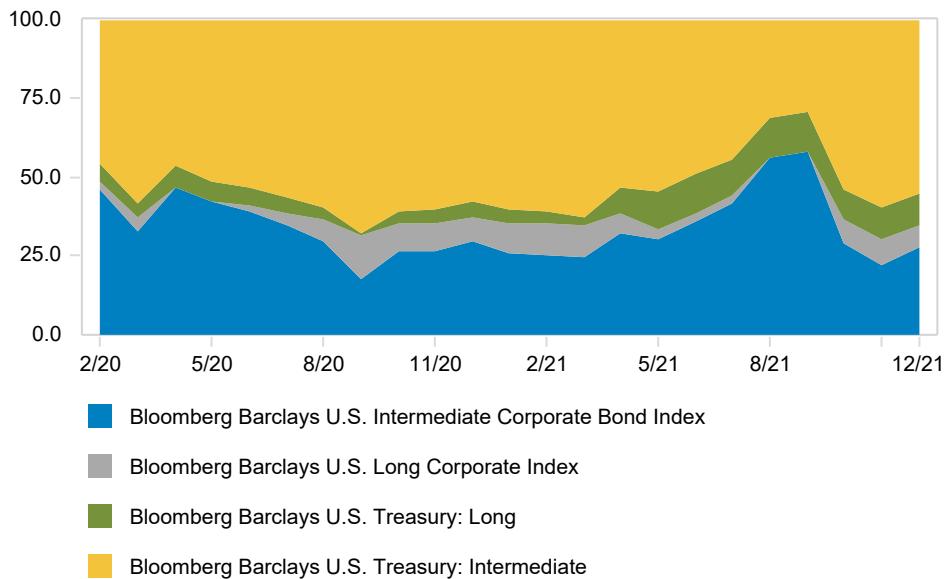
Fixed Income

Manager Allocation

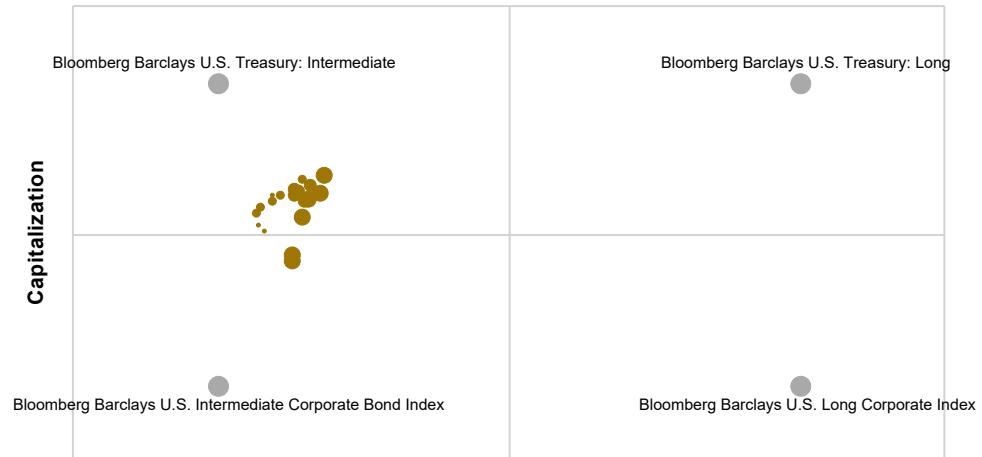
December 31, 2021 : \$424,934,237



Style Analysis - Returns Based



3 Year Style Analysis



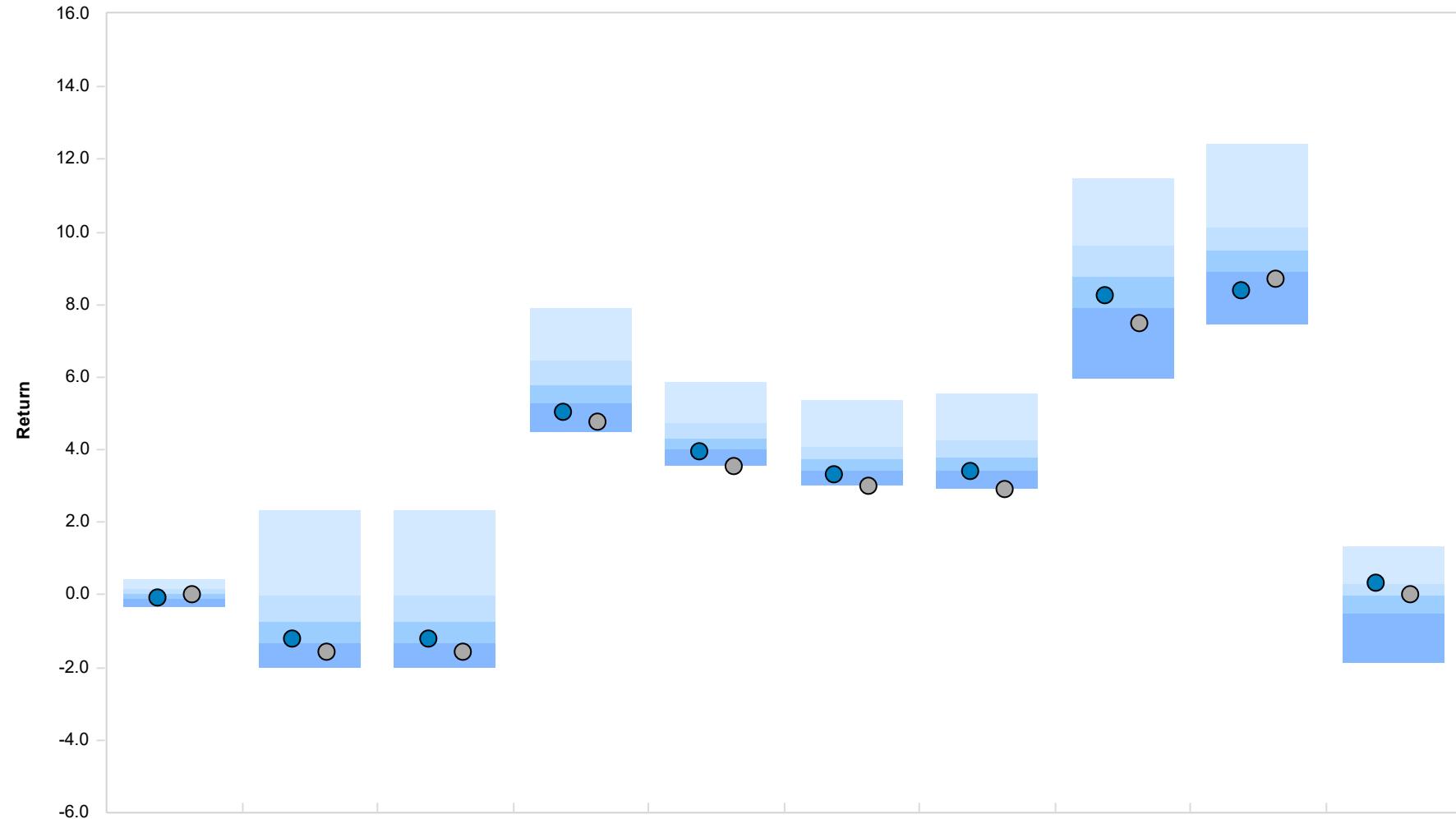
	Market Value	Allocation
PIMCO Total Return	212,759,090	50.1
SSgA Bond Market Index	212,175,147	49.9

● Style History

Manager Style



Peer Group Analysis

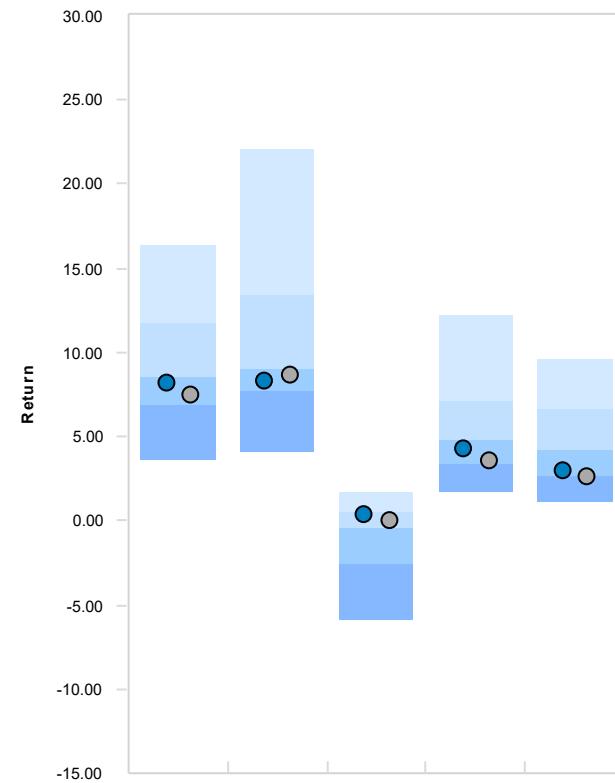
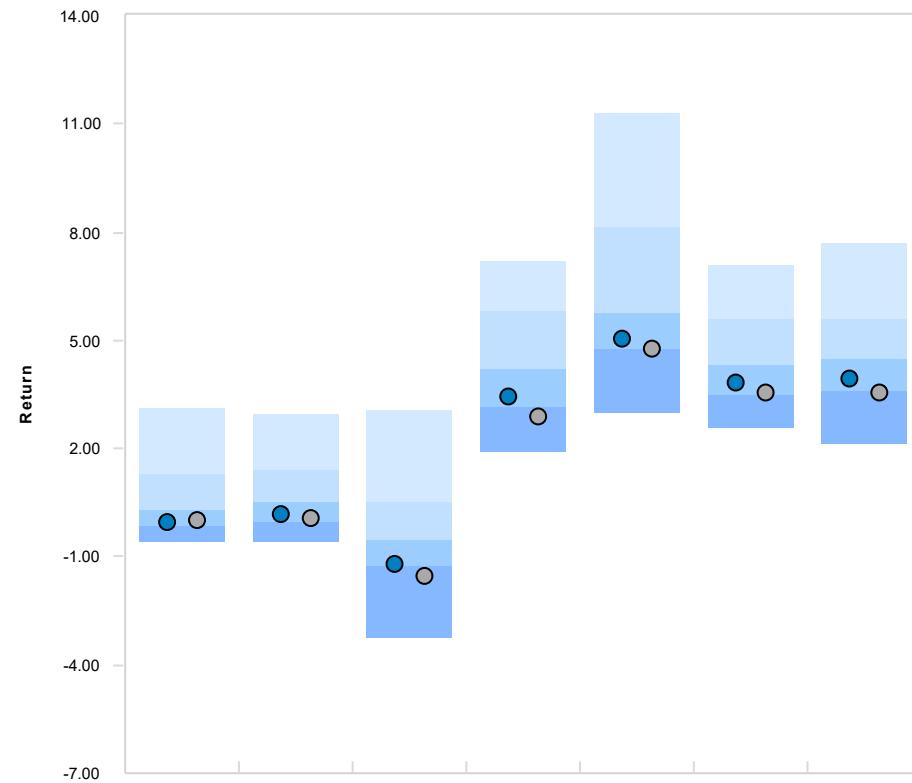


	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2020	2019	2018
Fixed Income	-0.05 (67)	-1.21 (69)	-1.21 (69)	5.05 (82)	3.95 (78)	3.35 (79)	3.43 (73)	8.27 (66)	8.39 (89)	0.35 (23)
Blmbg. U.S. Aggregate Index	0.01 (50)	-1.55 (83)	-1.55 (83)	4.79 (93)	3.57 (95)	3.00 (96)	2.90 (96)	7.51 (86)	8.72 (82)	0.01 (48)
5th Percentile	0.42	2.34	2.34	7.90	5.87	5.38	5.54	11.47	12.42	1.32
1st Quartile	0.14	-0.03	-0.03	6.46	4.75	4.08	4.26	9.62	10.12	0.28
Median	0.01	-0.73	-0.73	5.79	4.31	3.74	3.80	8.77	9.48	-0.01
3rd Quartile	-0.10	-1.35	-1.35	5.29	3.99	3.40	3.40	7.88	8.89	-0.51
95th Percentile	-0.35	-2.03	-2.03	4.50	3.55	3.01	2.91	5.96	7.43	-1.87

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.



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



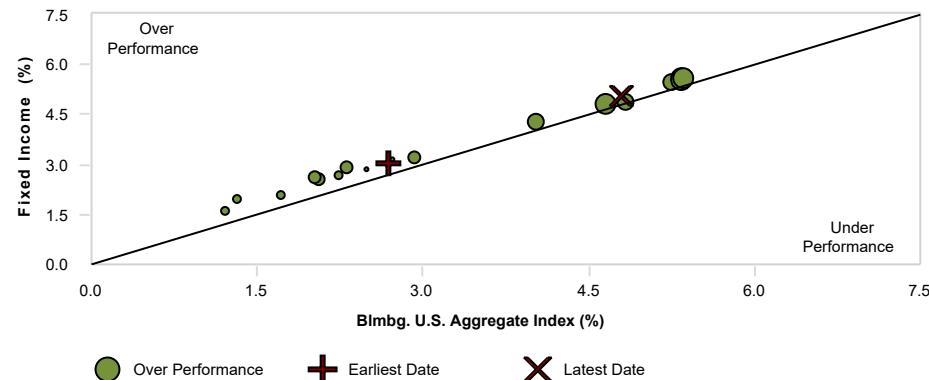
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Fixed Income	-0.05 (68)	0.21 (61)	-1.21 (75)	3.42 (71)	5.05 (69)	3.85 (68)	3.95 (64)
○ Blmbg. U.S. Aggregate Index	0.01 (66)	0.06 (71)	-1.55 (81)	2.88 (82)	4.79 (76)	3.57 (75)	3.57 (76)
Median	0.29	0.52	-0.54	4.20	5.76	4.31	4.50

	2020	2019	2018	2017	2016
● Fixed Income	8.27 (55)	8.39 (64)	0.35 (28)	4.34 (56)	3.05 (69)
○ Blmbg. U.S. Aggregate Index	7.51 (66)	8.72 (58)	0.01 (36)	3.54 (69)	2.65 (78)
Median	8.58	9.09	-0.39	4.78	4.24

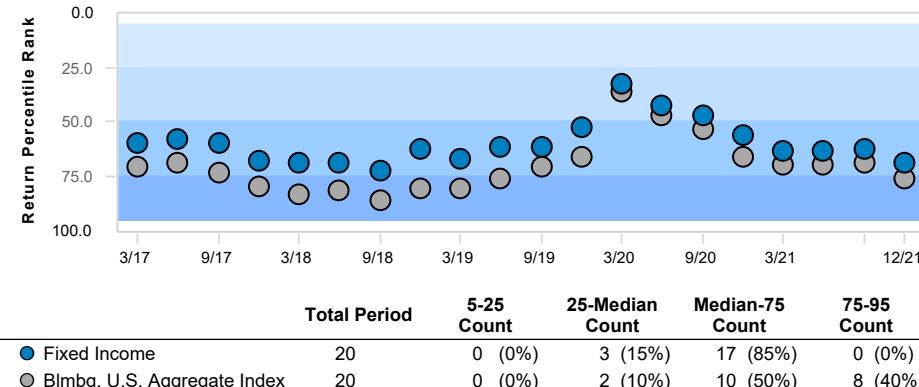
Comparative Performance

	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020	1 Qtr Ending Sep-2020	1 Qtr Ending Jun-2020
Fixed Income	0.26	1.99	-3.34	0.72	1.07	3.36
Blmbg. U.S. Aggregate Index	0.05	1.83	-3.38	0.67	0.62	2.90

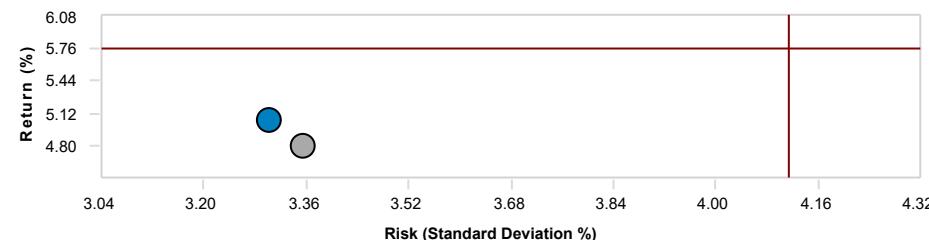
3 Yr Rolling Under/Over Performance - 5 Years



3 Yr Rolling Percentile Ranking - 5 Years

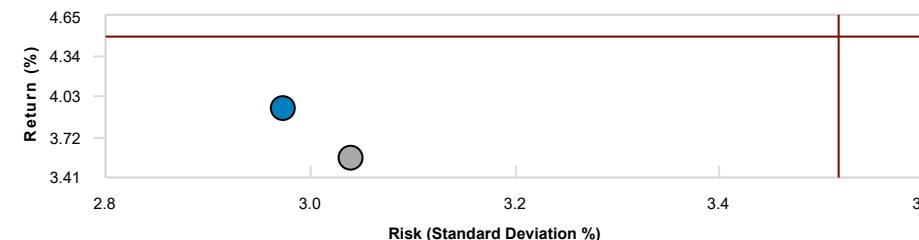


Peer Group Scattergram - 3 Years



	Return	Standard Deviation
Fixed Income	5.05	3.30
Bimb. U.S. Aggregate Index	4.79	3.36
Median	5.76	4.11

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
Fixed Income	3.95	2.97
Bimb. U.S. Aggregate Index	3.57	3.04
Median	4.50	3.52

Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Fixed Income	0.49	101.59	94.59	0.38	0.50	1.24	0.97	1.49
Bimb. U.S. Aggregate Index	0.00	100.00	100.00	0.00	N/A	1.15	1.00	1.47

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Fixed Income	0.42	102.72	91.91	0.48	0.88	0.95	0.97	1.43
Bimb. U.S. Aggregate Index	0.00	100.00	100.00	0.00	N/A	0.81	1.00	1.46



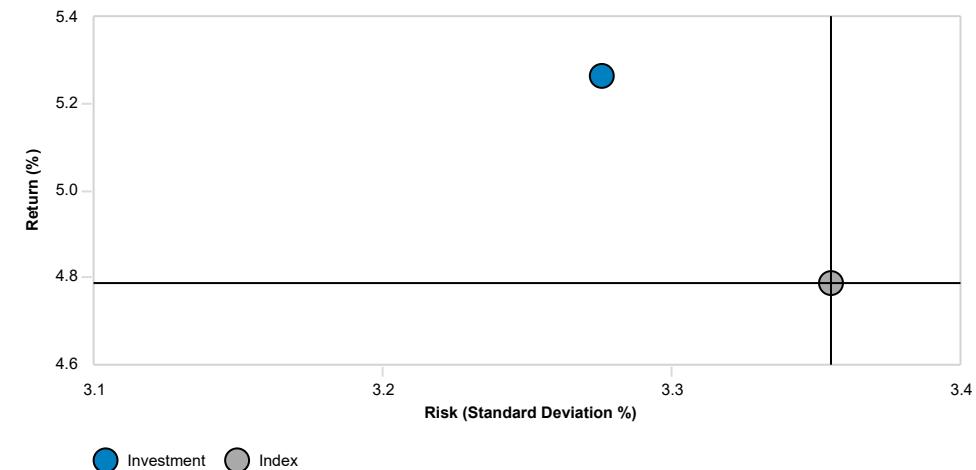
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	5.26	3.28	1.30	101.90	10	87.19	2
Index	4.79	3.36	1.15	100.00	11	100.00	1

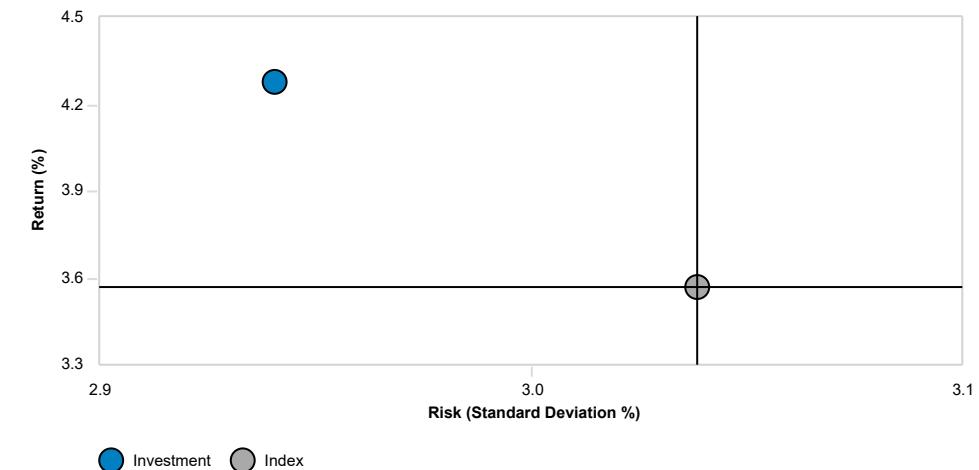
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	4.28	2.94	1.06	104.30	17	83.24	3
Index	3.57	3.04	0.81	100.00	17	100.00	3

Risk and Return 3 Years



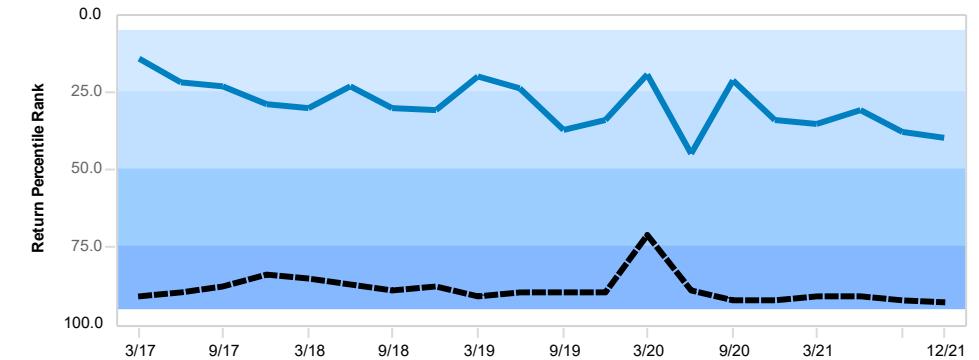
Risk and Return 5 Years



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



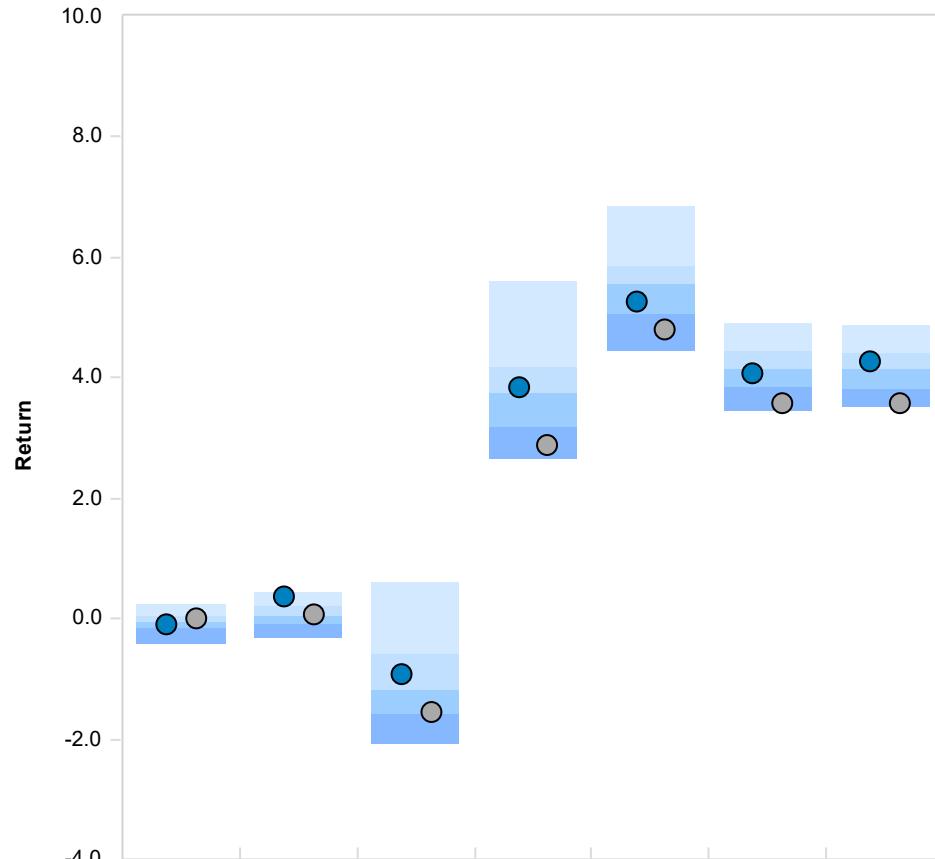
5 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)



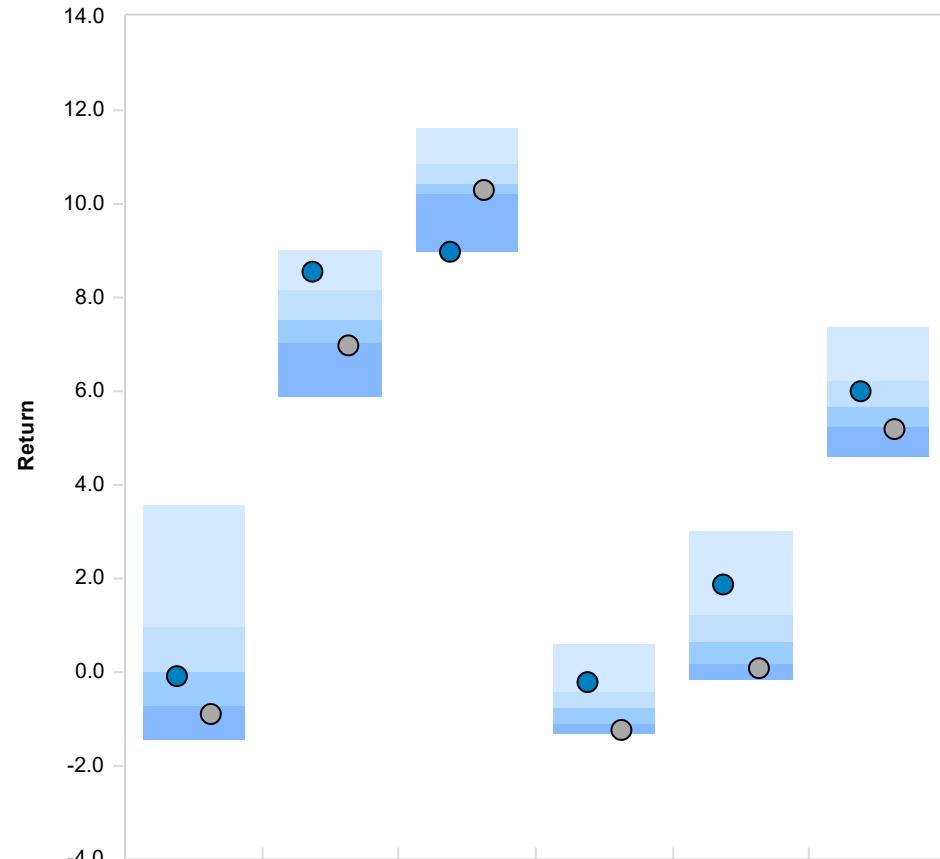
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	8 (40%)	7 (35%)	5 (25%)	0 (0%)
Index	20	0 (0%)	1 (5%)	0 (0%)	19 (95%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	8 (40%)	12 (60%)	0 (0%)	0 (0%)
Index	20	0 (0%)	0 (0%)	1 (5%)	19 (95%)

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)



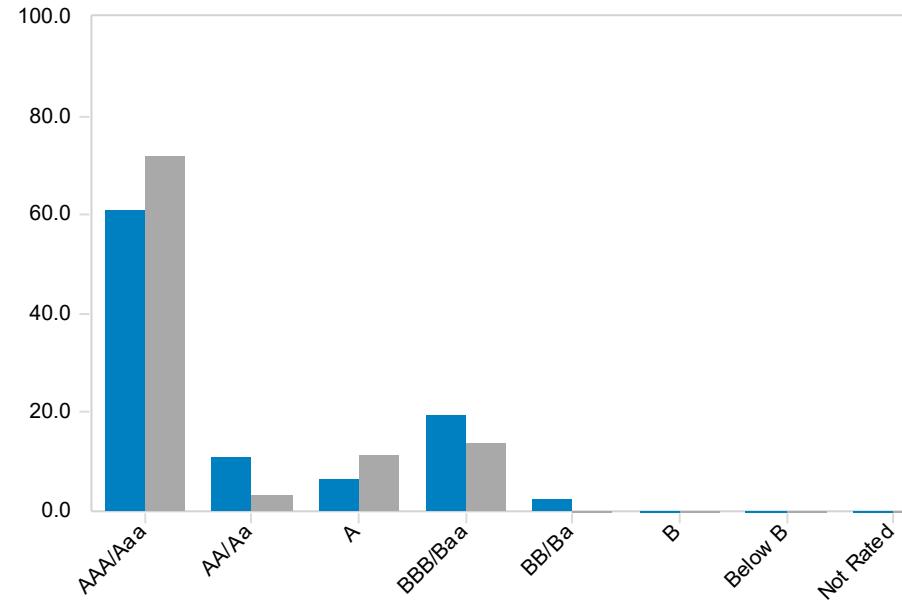
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
Investment	-0.09 (63)	0.37 (8)	-0.93 (39)	3.85 (39)	5.26 (69)	4.09 (57)	4.28 (40)
Index	0.01 (33)	0.06 (45)	-1.55 (72)	2.88 (89)	4.79 (91)	3.57 (91)	3.57 (93)
Median	-0.05	0.03	-1.20	3.75	5.56	4.15	4.13

	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	-0.10 (55)	8.56 (14)	9.00 (95)	-0.23 (17)	1.89 (11)	5.99 (33)
Index	-0.90 (86)	6.98 (77)	10.30 (69)	-1.22 (88)	0.07 (84)	5.19 (80)
Median	-0.02	7.52	10.43	-0.75	0.63	5.66

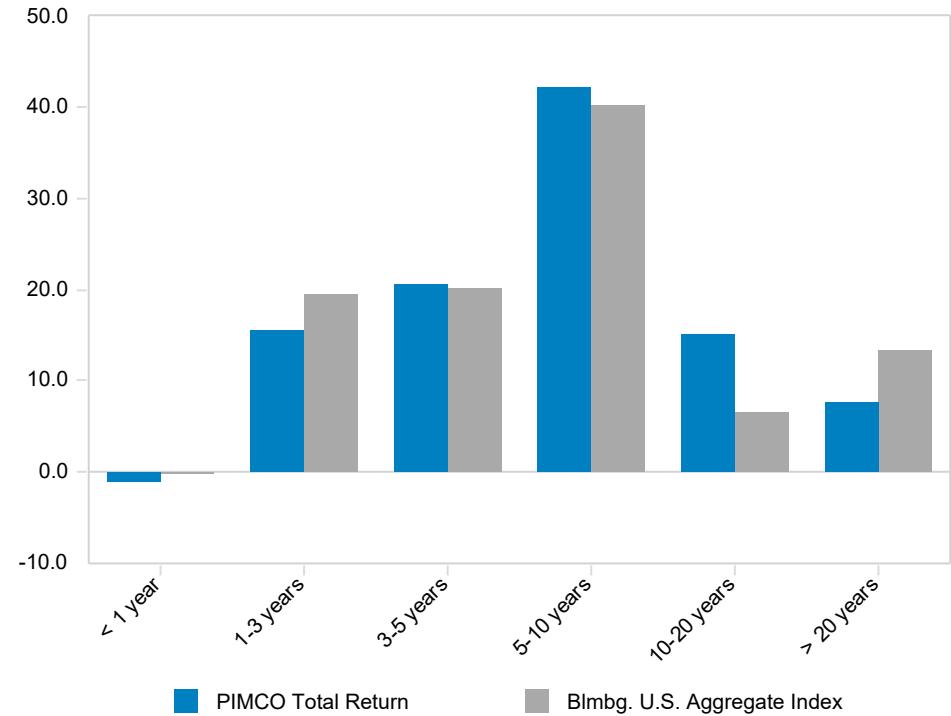
Comparative Performance

	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020	1 Qtr Ending Sep-2020	1 Qtr Ending Jun-2020
Investment	0.45	2.12	-3.34	0.75	1.41	3.71
Index	0.05	1.83	-3.38	0.67	0.62	2.90

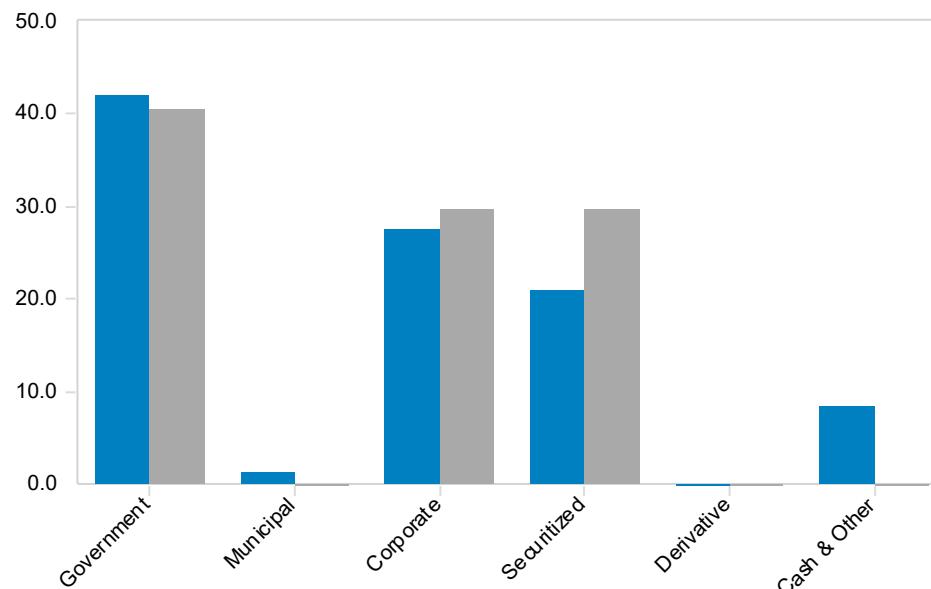
Credit Quality Distribution (%)



Maturity Distribution (%)



Sector Distribution (%)



Portfolio Characteristics

	Portfolio	Benchmark
Avg. Maturity	9.44	8.71
Avg. Quality	AA	AA1/AA2
Coupon Rate (%)	2.40	2.43
Yield To Maturity (%)	2.20	1.76
Current Yield	2.24	2.32
Effective Duration	5.84	6.69
Holdings Count	528	12,350

Strategy Review
SSgA Bond Market Index | Blmbg. U.S. Aggregate Index
As of December 31, 2021

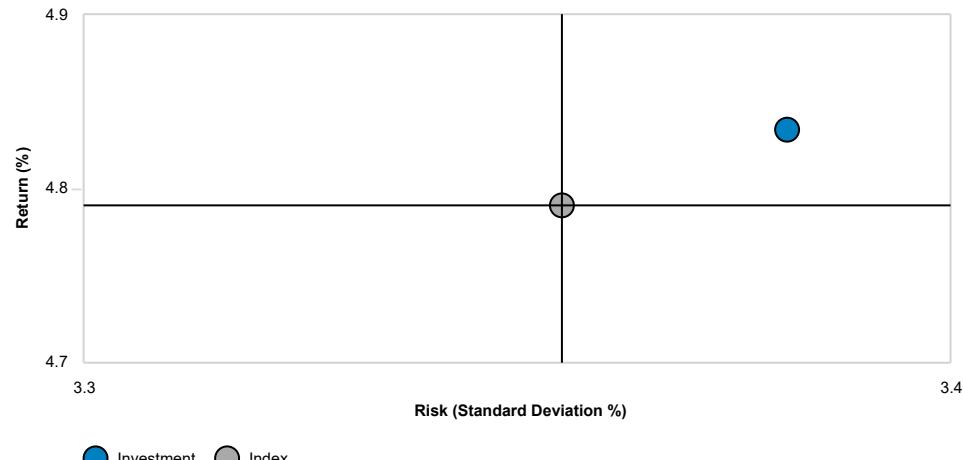
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	4.83	3.38	1.15	101.06	10	101.37	2
Index	4.79	3.36	1.15	100.00	11	100.00	1

Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.60	3.06	0.82	100.85	16	100.75	4
Index	3.57	3.04	0.81	100.00	17	100.00	3

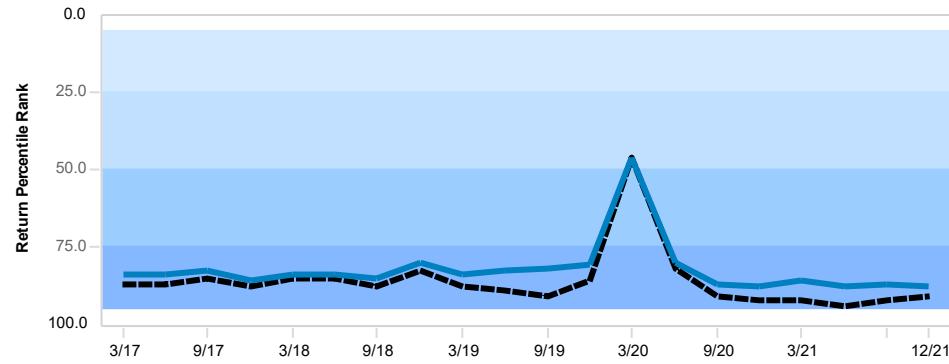
Risk and Return 3 Years



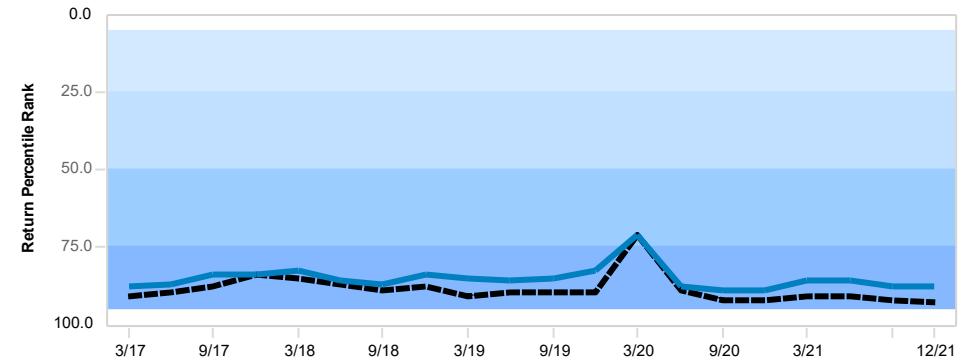
Risk and Return 5 Years



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)

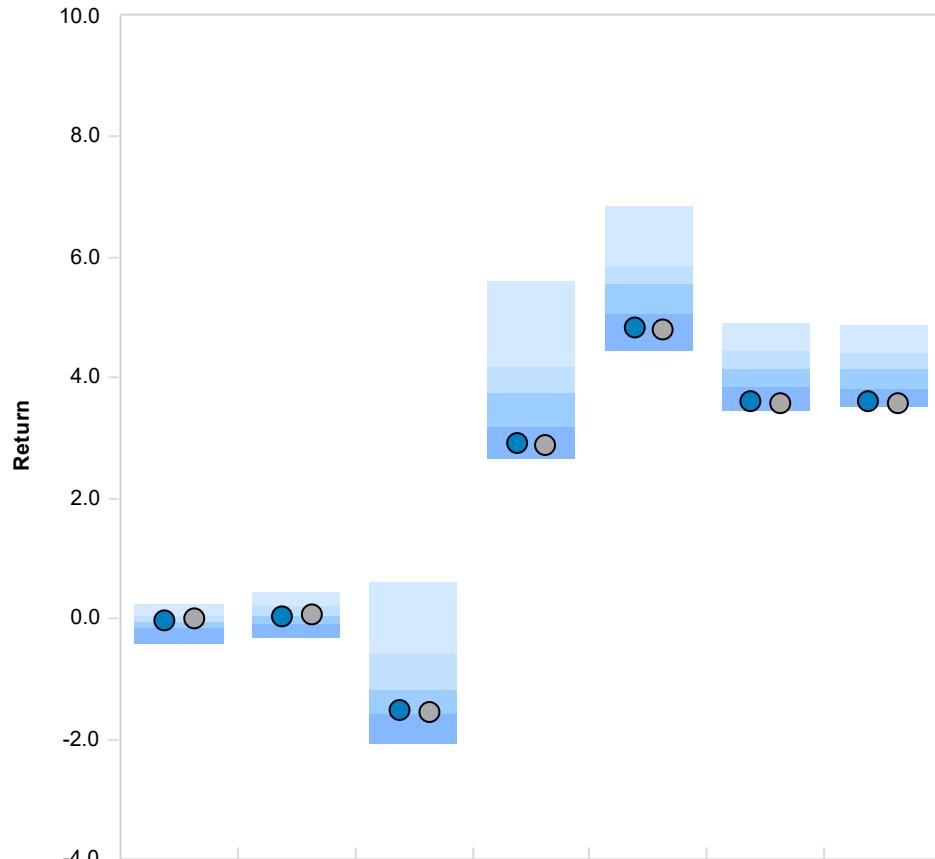


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	1 (5%)	0 (0%)	19 (95%)
Index	20	0 (0%)	1 (5%)	0 (0%)	19 (95%)

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	0 (0%)	1 (5%)	19 (95%)
Index	20	0 (0%)	0 (0%)	1 (5%)	19 (95%)



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)



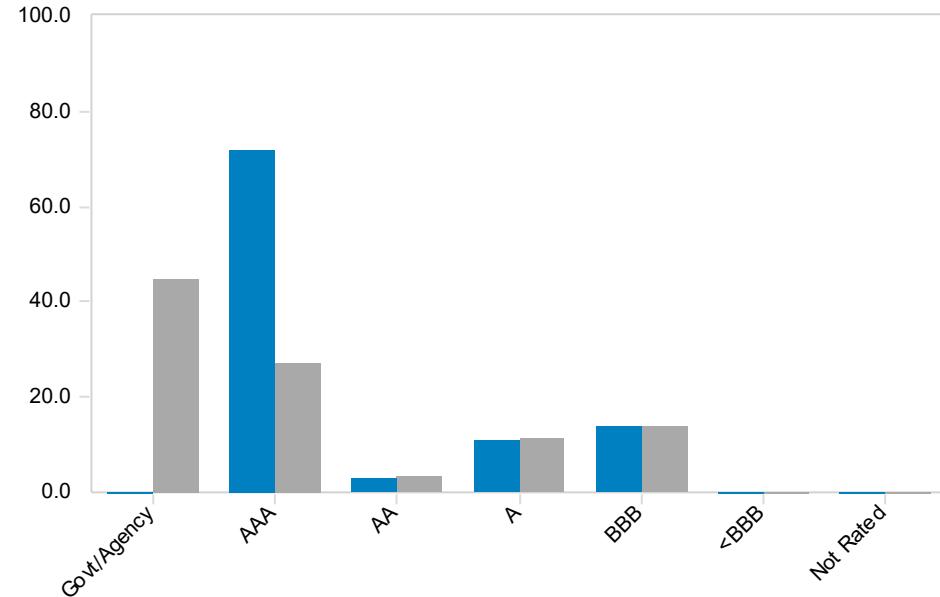
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
Investment	-0.02 (41)	0.05 (48)	-1.51 (71)	2.93 (87)	4.83 (88)	3.61 (88)	3.60 (88)
Index	0.01 (33)	0.06 (45)	-1.55 (72)	2.88 (89)	4.79 (91)	3.57 (91)	3.57 (93)
Median	-0.05	0.03	-1.20	3.75	5.56	4.15	4.13

	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 (81)	7.04 (72)	10.35 (64)	-1.21 (87)	0.08 (82)	5.20 (79)
Index	-0.90 (86)	6.98 (77)	10.30 (69)	-1.22 (88)	0.07 (84)	5.19 (80)
Median	-0.02	7.52	10.43	-0.75	0.63	5.66

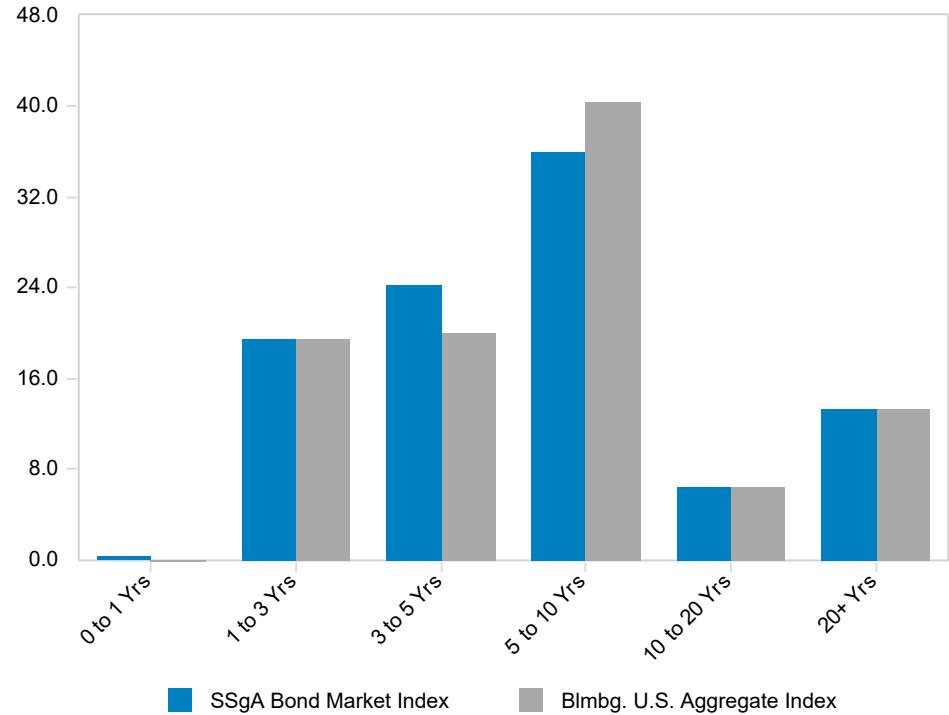
Comparative Performance

	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020	1 Qtr Ending Sep-2020	1 Qtr Ending Jun-2020
Investment	0.06	1.85	-3.35	0.69	0.65	2.99
Index	0.05	1.83	-3.38	0.67	0.62	2.90

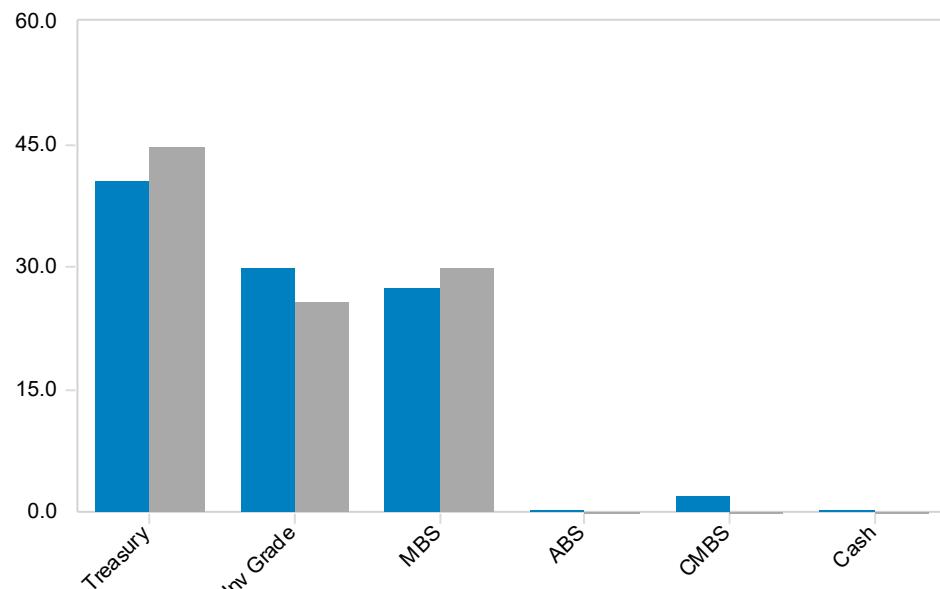
Credit Quality Distribution (%)



Maturity Distribution (%)



Sector Distribution (%)



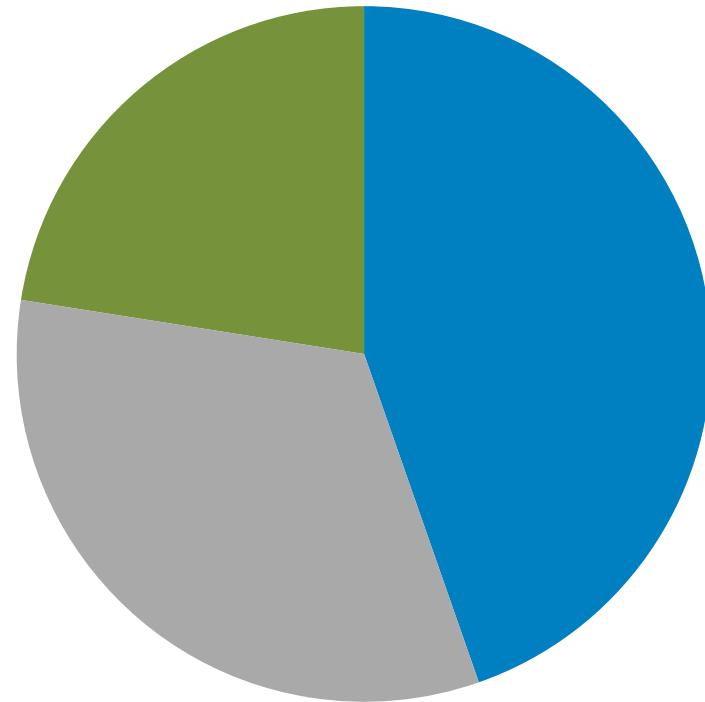
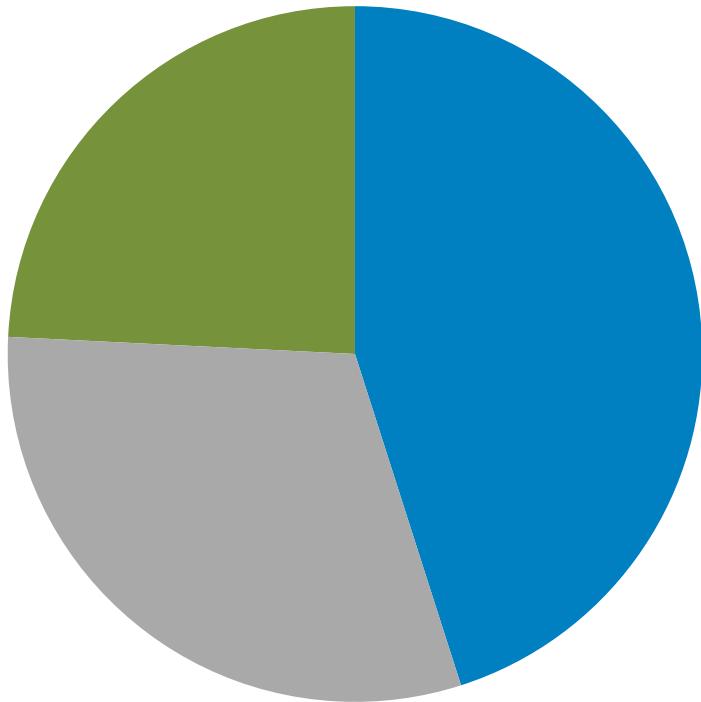
Portfolio Characteristics

	Portfolio	Benchmark
Avg. Maturity	8.58	8.71
Avg. Quality	Aa2	AA1/AA2
Coupon Rate (%)	2.55	2.43
Yield To Maturity (%)	1.76	1.76
Current Yield	2.33	2.32
Effective Duration	6.78	6.69
Holdings Count	9,291	12,350

Real Estate

December 31, 2021 : \$115,605,758

September 30, 2021 : \$108,165,577



█ JP Morgan Asset Management Strategic Property Fund
█ UBS Trumbull Property Fund
█ Vanguard Real Estate Index (VGSNX)

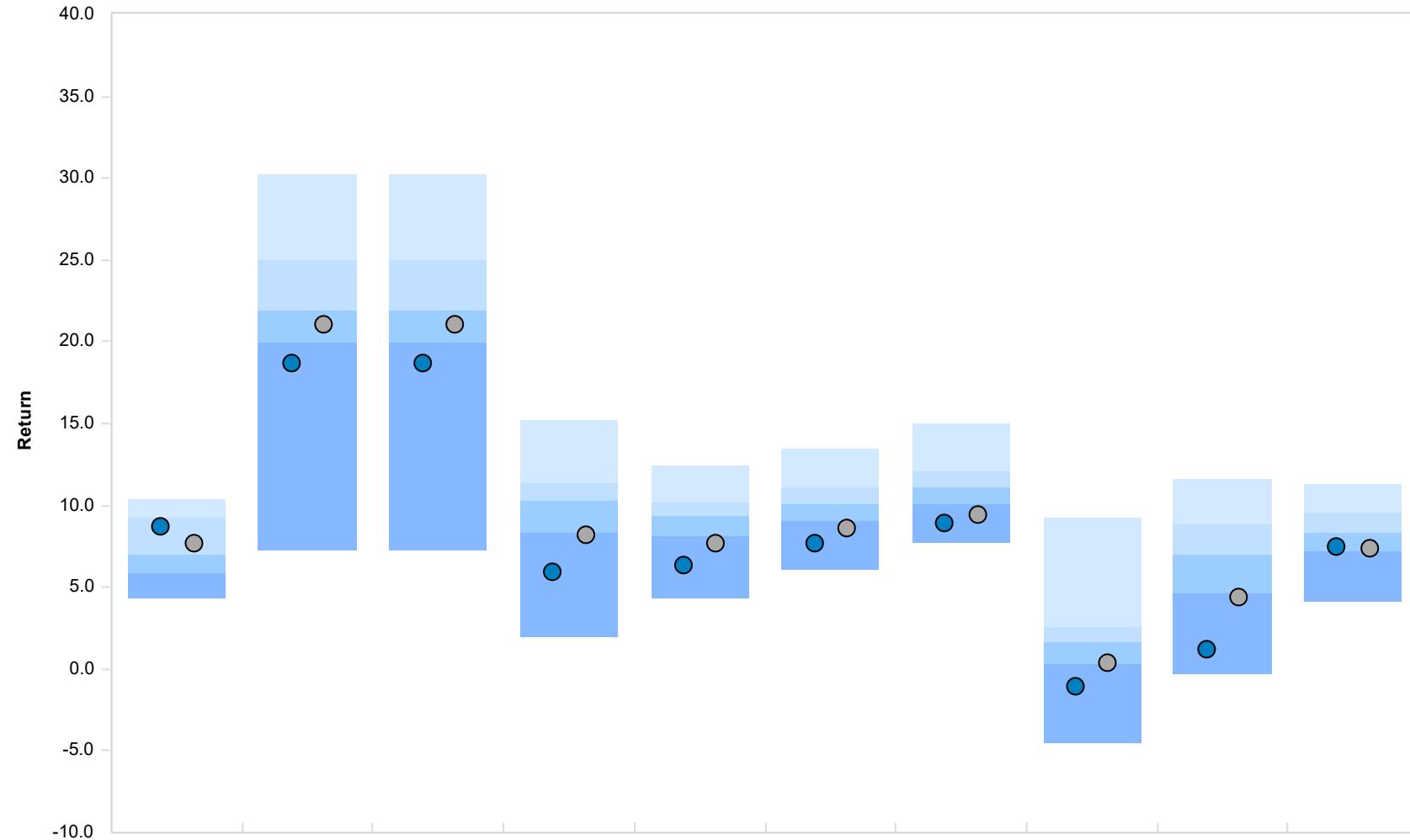
Market Value **Allocation**
 52,095,003 45.1
 35,519,186 30.7
 27,991,569 24.2

█ JP Morgan Asset Management Strategic Property Fund
█ UBS Trumbull Property Fund
█ Vanguard Real Estate Index (VGSNX)

Market Value **Allocation**
 48,288,973 44.6
 35,527,221 32.8
 24,349,383 22.5



Peer Group Analysis



	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2020	2019	2018
Real Estate	8.70 (29)	18.65 (78)	18.65 (78)	5.90 (88)	6.40 (85)	7.70 (81)	8.94 (86)	-1.07 (86)	1.18 (94)	7.52 (70)
NCREIF Fund Index-ODCE (VW) (Net)	7.69 (37)	21.06 (57)	21.06 (57)	8.24 (76)	7.75 (77)	8.62 (77)	9.44 (83)	0.34 (75)	4.39 (79)	7.36 (74)
5th Percentile	10.40	30.25	30.25	15.17	12.44	13.43	14.97	9.28	11.62	11.31
1st Quartile	9.29	25.02	25.02	11.41	10.14	11.06	12.16	2.54	8.81	9.57
Median	6.97	21.86	21.86	10.23	9.32	10.04	11.07	1.58	7.02	8.27
3rd Quartile	5.83	19.97	19.97	8.29	8.07	9.00	10.05	0.24	4.57	7.20
95th Percentile	4.32	7.31	7.31	1.90	4.30	6.02	7.65	-4.53	-0.38	4.09

Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.

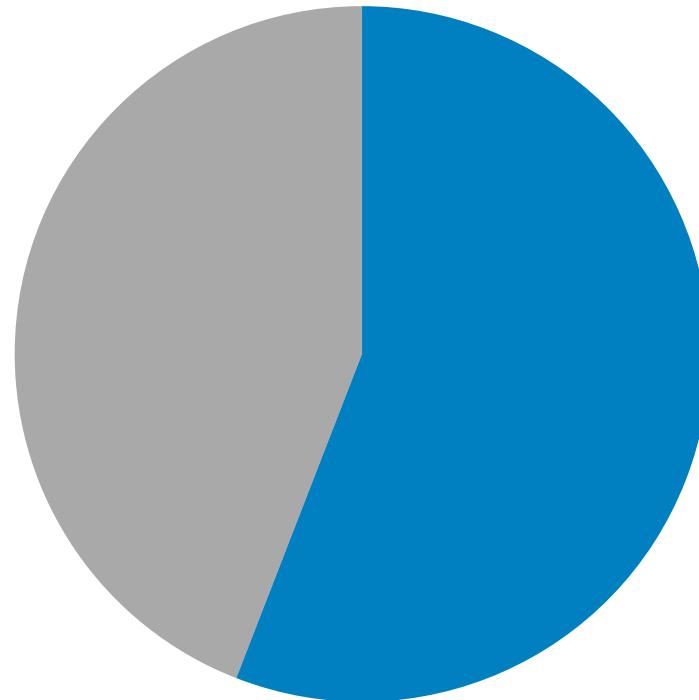
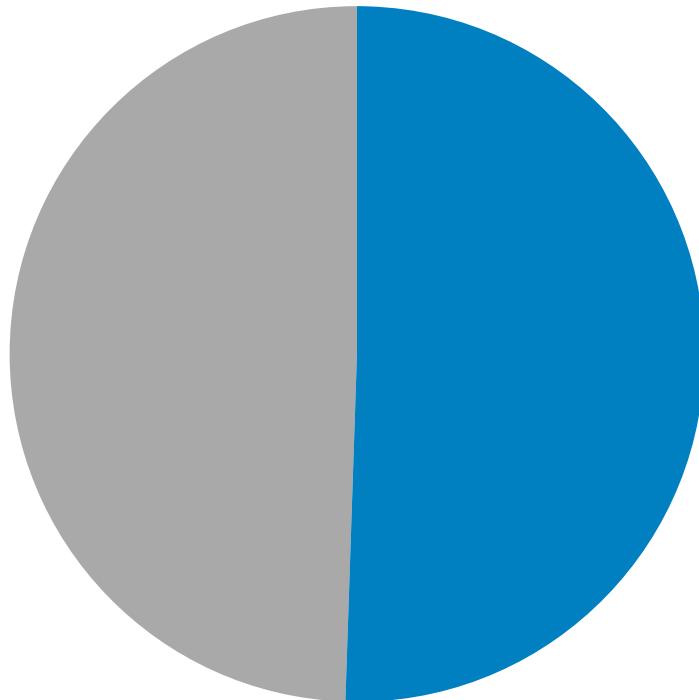


Master Limited Partnerships

Employees' Retirement System of the City of Norfolk
 Asset Allocation By Manager
 As of December 31, 2021

December 31, 2021 : \$98,085,692

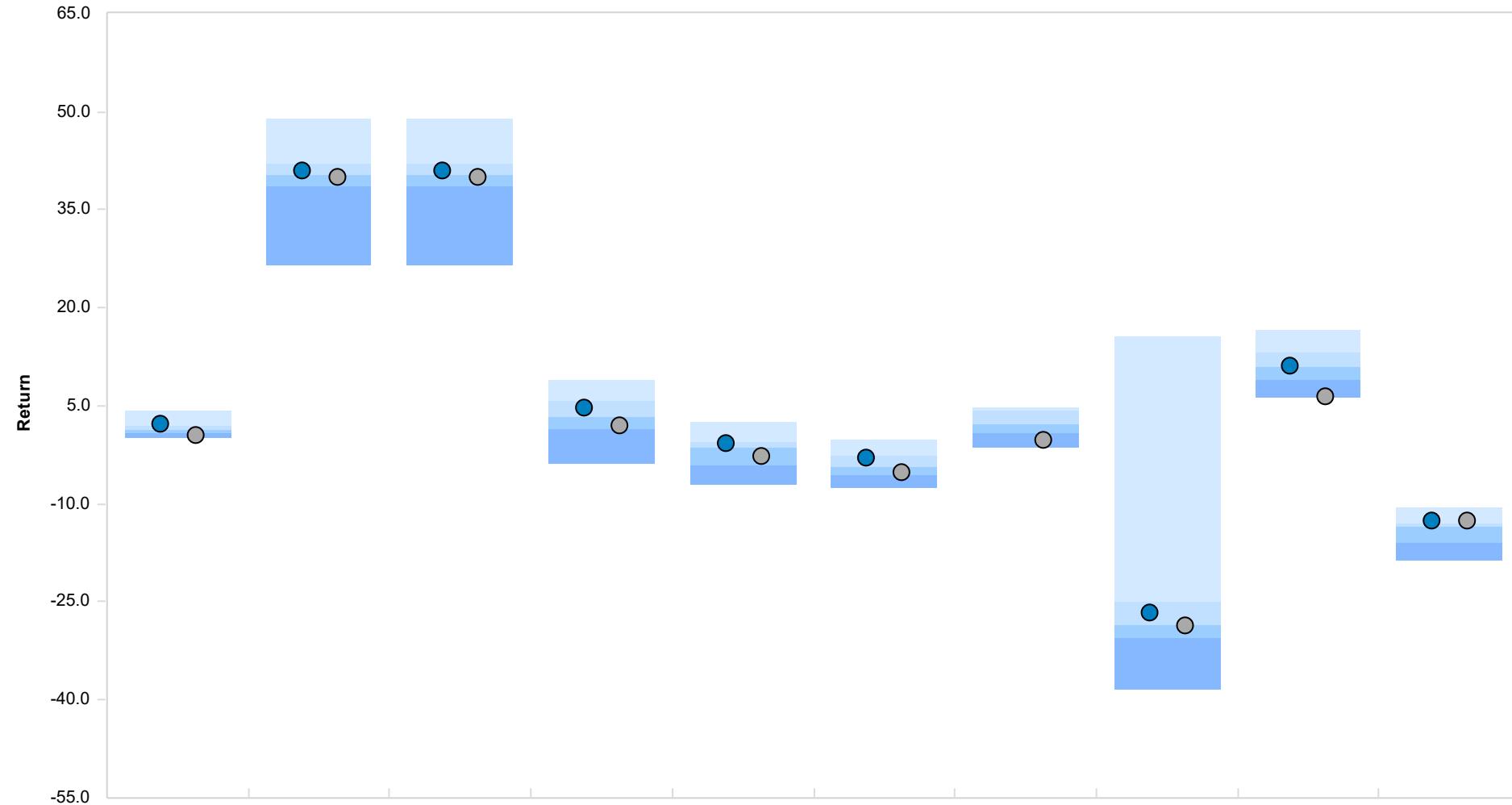
September 30, 2021 : \$108,003,974



	Market Value	Allocation		Market Value	Allocation
■ Harvest MLP	49,568,773	50.5	■ Harvest MLP	60,375,177	55.9
■ Tortoise Capital Advisors	48,516,920	49.5	■ Tortoise Capital Advisors	47,628,798	44.1



Peer Group Analysis

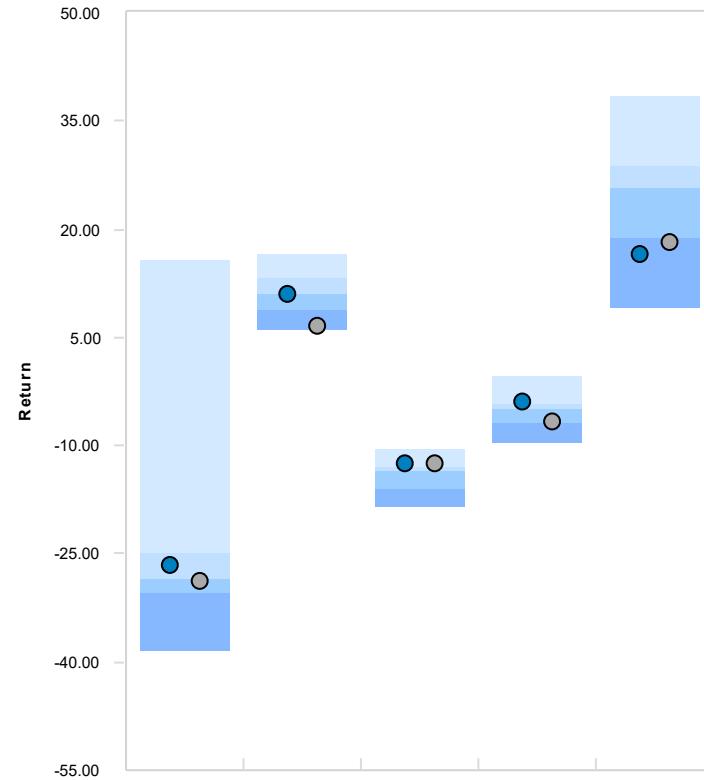
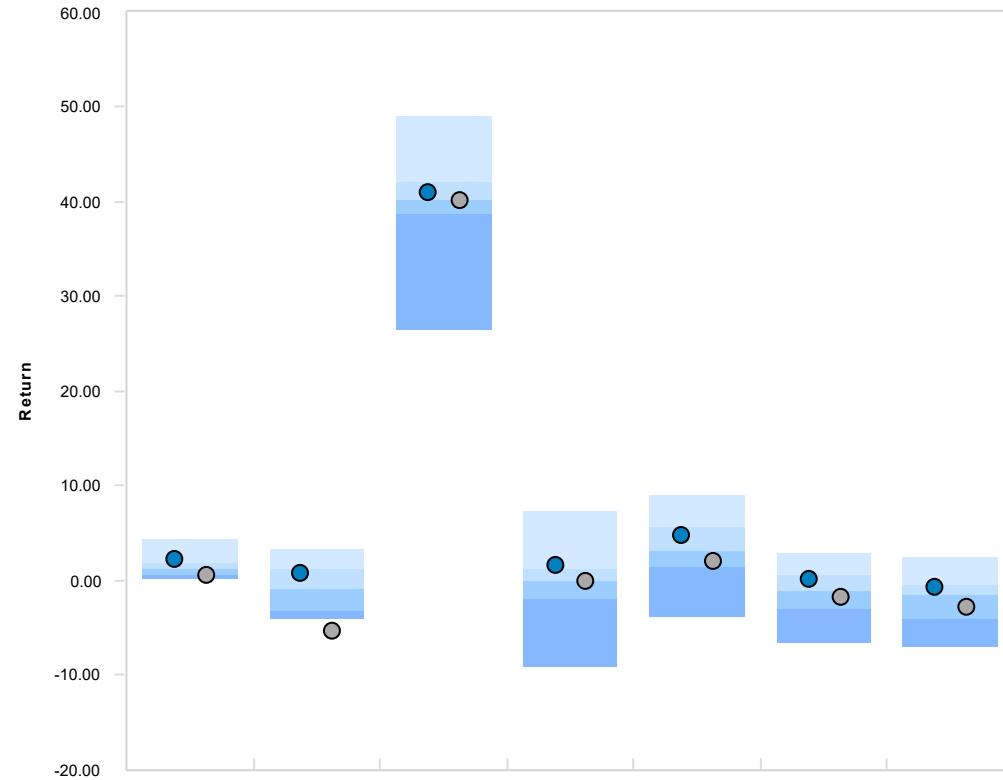


	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2020	2019	2018
MLPs	2.31 (16)	41.07 (34)	41.07 (34)	4.77 (41)	-0.67 (27)	-3.02 (32)	N/A	-26.67 (28)	11.16 (35)	-12.45 (12)
Alerian MLP Index	0.55 (86)	40.17 (58)	40.17 (58)	2.12 (67)	-2.70 (59)	-5.06 (61)	-0.26 (92)	-28.69 (54)	6.56 (89)	-12.42 (11)
5th Percentile	4.38	48.95	48.95	9.02	2.50	-0.17	4.83	15.73	16.67	-10.56
1st Quartile	1.93	42.16	42.16	5.74	-0.46	-2.74	4.27	-24.94	13.20	-12.99
Median	1.26	40.30	40.30	3.22	-1.52	-4.37	2.30	-28.54	11.00	-13.48
3rd Quartile	0.73	38.69	38.69	1.54	-4.02	-5.62	0.73	-30.51	8.86	-15.97
95th Percentile	0.13	26.53	26.53	-3.81	-7.02	-7.65	-1.45	-38.51	6.17	-18.63

Parentheses contain percentile rankings.
 Calculation based on monthly periodicity.



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



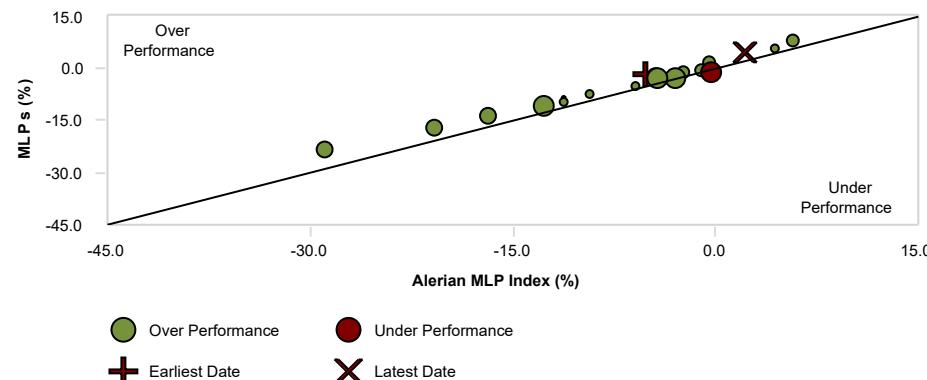
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2020	2019	2018	2017	2016
MLPs	2.31 (16)	0.94 (32)	41.07 (34)	1.71 (25)	4.77 (41)	0.17 (32)	-0.67 (27)	MLPs	-26.67 (28)	11.16 (35)	-12.45 (12)	-3.96 (20)	16.68 (82)
Alerian MLP Index	0.55 (86)	-5.19 (100)	40.17 (58)	-0.02 (57)	2.12 (67)	-1.72 (58)	-2.70 (59)	Alerian MLP Index	-28.69 (54)	6.56 (89)	-12.42 (11)	-6.52 (69)	18.31 (76)
Median	1.26	-0.78	40.30	0.10	3.22	-1.09	-1.52	Median	-28.54	11.00	-13.48	-4.94	25.56

Comparative Performance

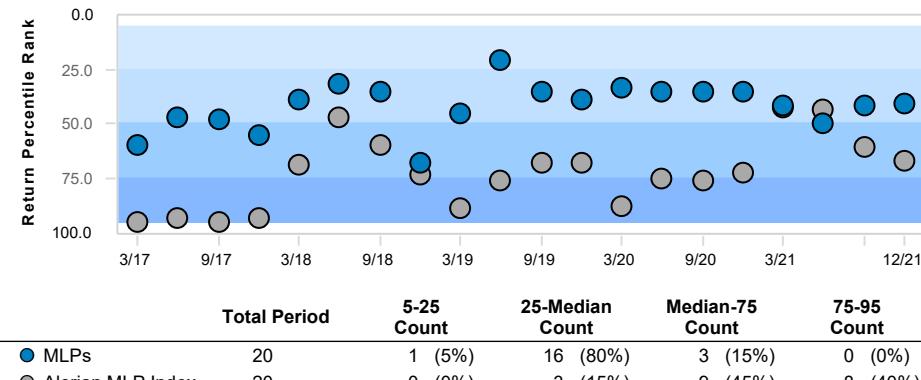
	1 Qtr Ending Sep-2021	1 Qtr Ending Jun-2021	1 Qtr Ending Mar-2021	1 Qtr Ending Dec-2020	1 Qtr Ending Sep-2020	1 Qtr Ending Jun-2020
MLPs	-1.33	19.57	16.88	24.76	-12.38	31.60
Alerian MLP Index	-5.71	21.23	21.95	32.45	-16.26	50.18



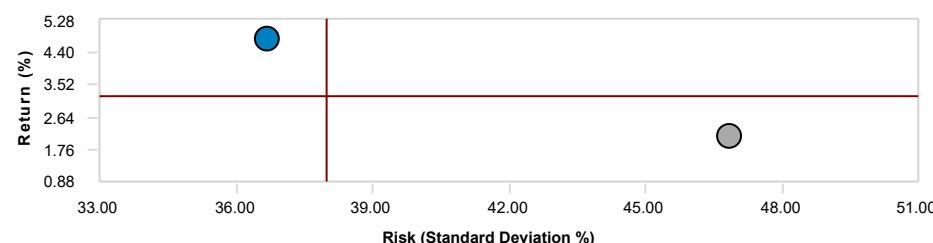
3 Yr Rolling Under/Over Performance - 5 Years



3 Yr Rolling Percentile Ranking - 5 Years

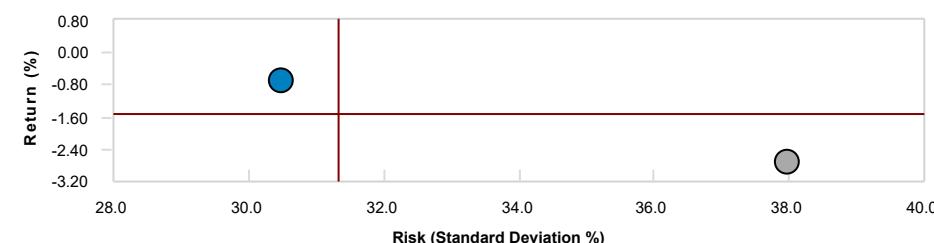


Peer Group Scattergram - 3 Years



	Return	Standard Deviation
MLPs	4.77	36.67
Alerian MLP Index	2.12	46.86
Median	3.22	38.01

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
MLPs	-0.67	30.46
Alerian MLP Index	-2.70	37.98
Median	-1.52	31.33

Historical Statistics - 3 Years

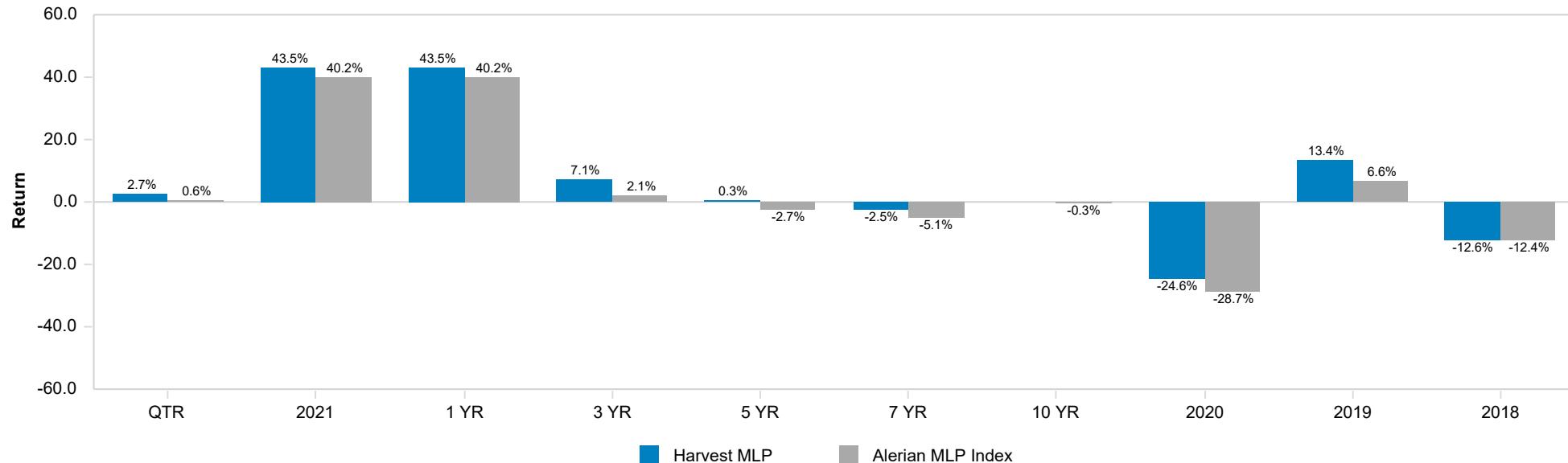
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
MLPs	12.30	83.29	82.08	1.38	-0.15	0.30	0.77	26.13
Alerian MLP Index	0.00	100.00	100.00	0.00	N/A	0.28	1.00	31.23

Historical Statistics - 5 Years

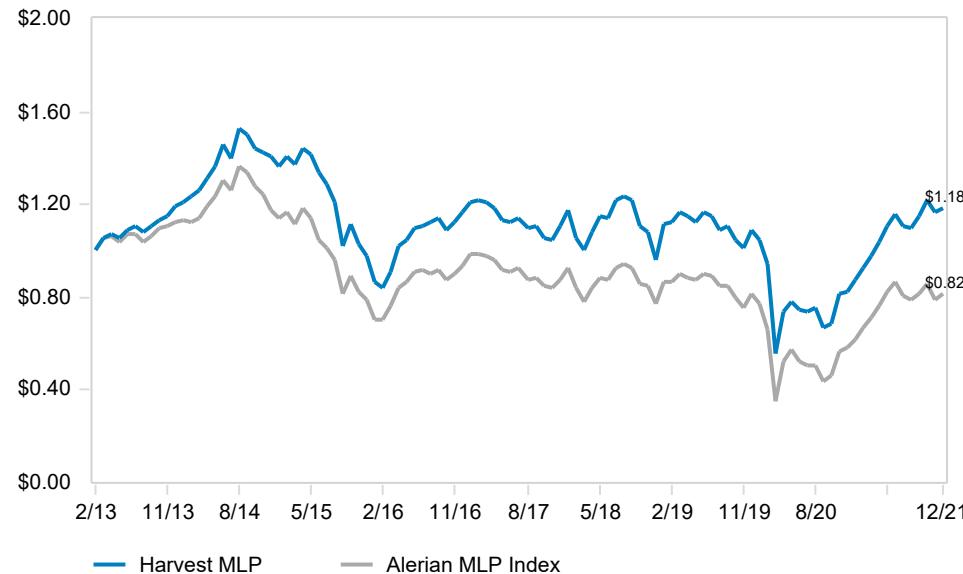
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
MLPs	9.65	86.87	86.62	0.48	-0.06	0.11	0.79	21.91
Alerian MLP Index	0.00	100.00	100.00	0.00	N/A	0.10	1.00	25.66



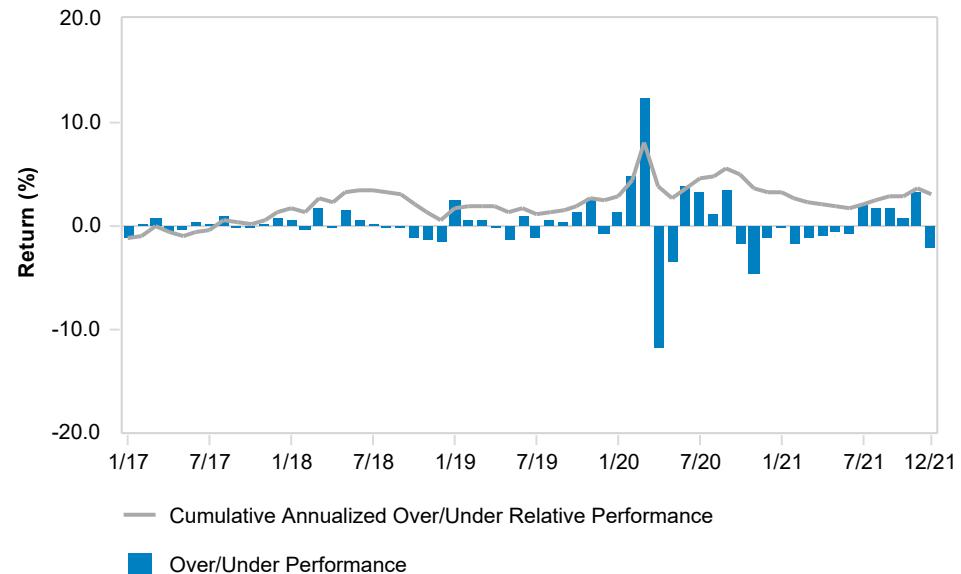
Comparative Performance



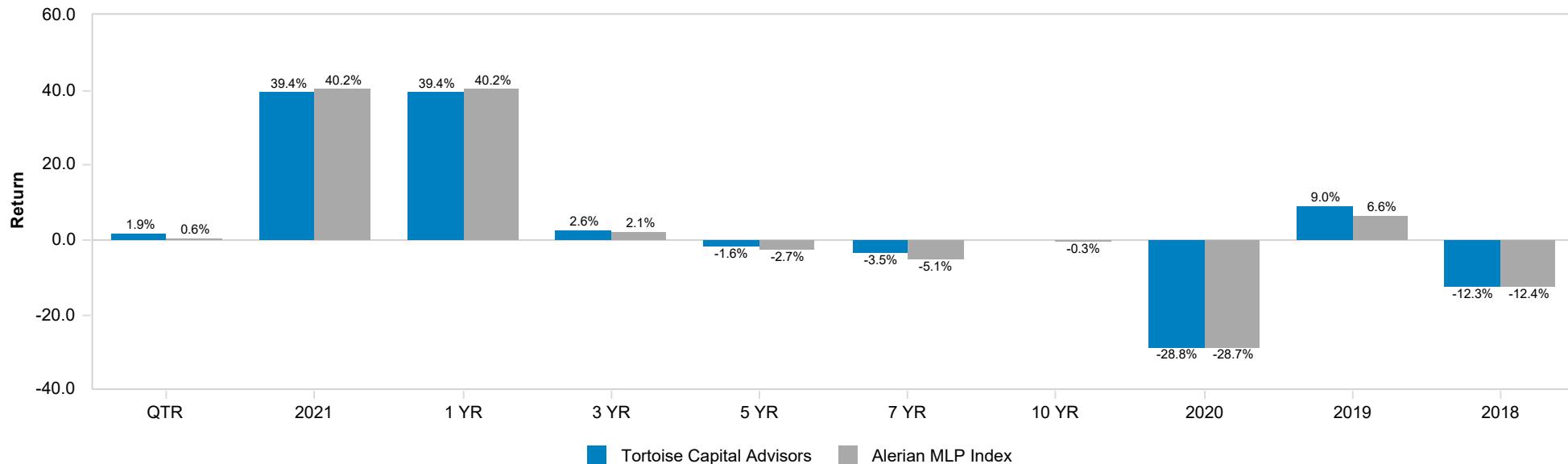
Growth of \$1 - Since Inception (03/01/13)



Relative Performance vs. Alerian MLP Index



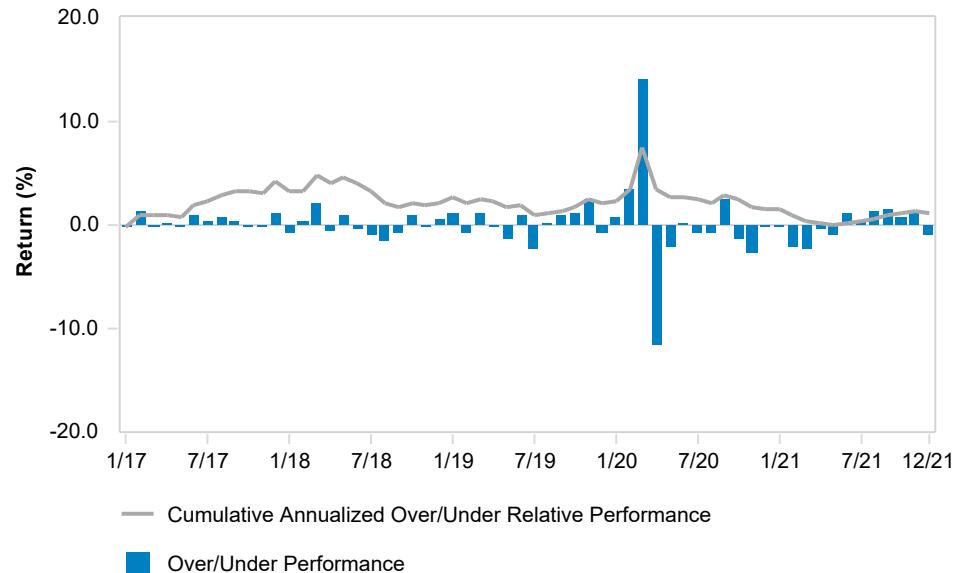
Comparative Performance



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



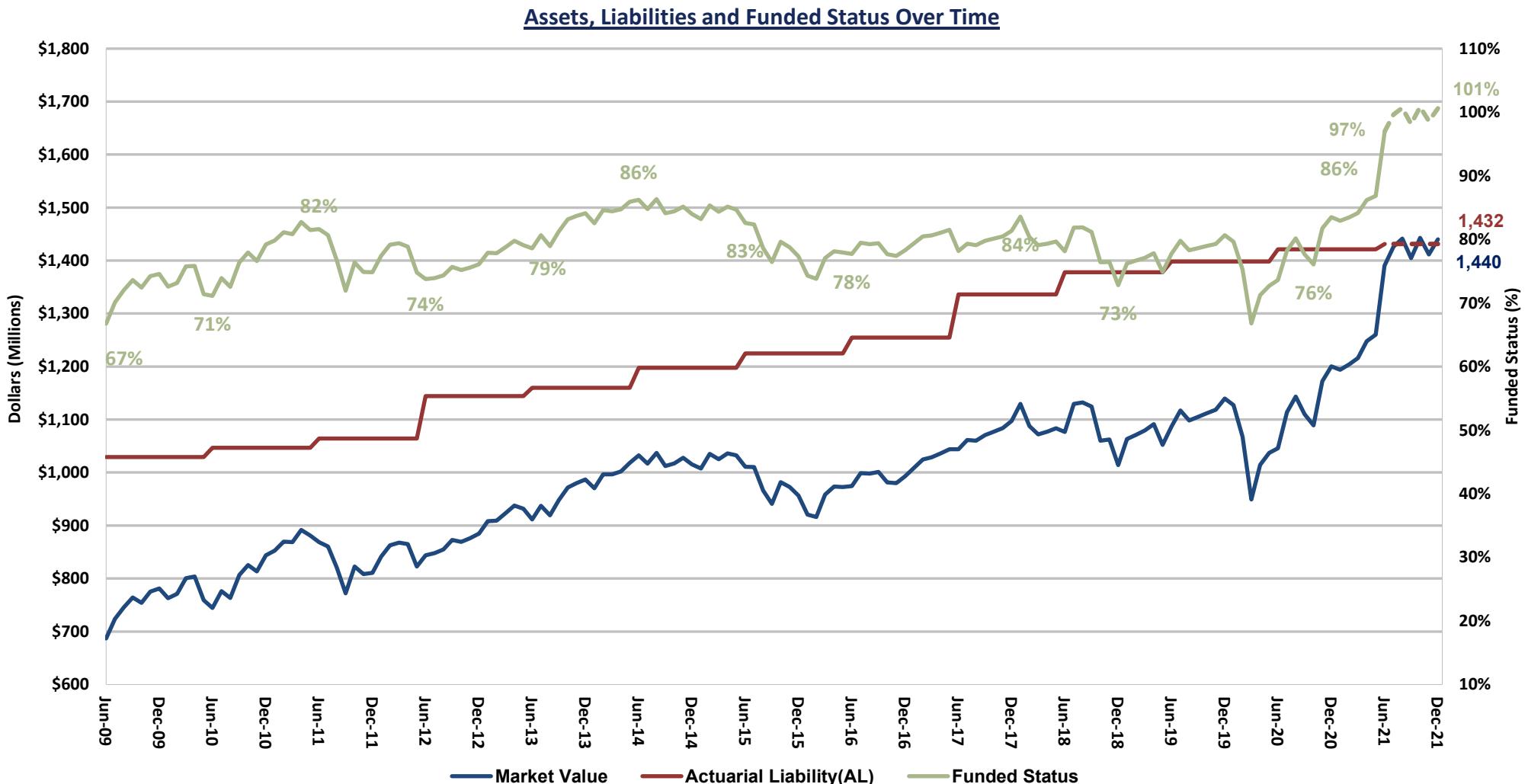
Relative Performance vs. Alerian MLP Index



Appendix

Employees' Retirement System for the City of Norfolk

Asset Liability Scorecard 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 December 31, 2021, the Plan's current market value of assets (MVA) was \$1,439,740,900.

As of December 31, 2021, the Plan's market value funded ratio (current MVA/fiscal year end AL) was 100.6%

Employees' Retirement System of the City of Norfolk
Fee Analysis
As of December 31, 2021

	Fee Schedule	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Total Fund		1,441,473,978	2,660,809	0.18
Global Equity		802,843,392	321,137	0.04
SSgA MSCI ACWI IMI Index Fund	0.04 % of Assets	802,843,392	321,137	0.04
Fixed Income		424,934,237	914,747	0.22
PIMCO Total Return	0.41 % of Assets	212,759,090	872,312	0.41
SSgA Bond Market Index	0.02 % of Assets	212,175,147	42,435	0.02
Real Assets		213,691,450	1,424,924	0.67
Real Estate		115,605,758	762,057	0.66
JP Morgan Asset Management Strategic Property Fund	1.00 % of Assets	52,095,003	520,950	1.00
UBS Trumbull Property Fund	0.60 % of Assets	35,519,186	213,115	0.60
Vanguard Real Estate Index (VGSNX)	0.10 % of Assets	27,991,569	27,992	0.10
MLPs		98,085,692	662,867	0.68
Harvest MLP	0.75 % of Assets	49,568,773	371,766	0.75
Tortoise Capital Advisors	0.60 % of Assets	48,516,920	291,102	0.60
Cash		4,899	-	



Employees' Retirement System of the City of Norfolk
Historical Hybrid Composition
As of December 31, 2021

Total Fund Policy		Total Fund Strategy Index	
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
May-2016			
MSCI AC World IMI (Net)	62.50	MSCI AC World IMI (Net)	55.00
Blmbg. U.S. Aggregate Index	37.50	Blmbg. U.S. Aggregate Index	30.00
Jul-2016			
		NCREF 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.



Employees' Retirement System of the City of Norfolk
Historical Hybrid Composition

As of December 31, 2021

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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AndCo uses time-weighted calculations which are founded on standards recommended by the CFA Institute. The calculations and values shown are based on information that is received from custodians. AndCo analyzes transactions as indicated on the custodian statements and reviews the custodial market values of the portfolio. As a result, this provides AndCo with a reasonable basis that the investment information presented is free from material misstatement. This methodology of evaluating and measuring performance provides AndCo with a practical foundation for our observations and recommendations. Nothing came to our attention that would cause AndCo to believe that the information presented is significantly misstated.

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