

Investment Performance Review  
Period Ending September 30, 2020

# **Employees' Retirement System of the City of Norfolk**

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## **Executive Summary**

### HIGHLIGHTS

#### Winners for the recent quarter

- MSCI Emerging Markets +9.6%
- Russell 1000 +9.5%
- Russell 3000 +9.2%

#### Losers for the recent quarter

- Alerian MLP -16.3%

#### Areas of strength for the recent quarter

- Domestic Equity
- Emerging Markets

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#### Winners for the trailing year

- Russell 1000 +16.0%
- S&P 500 +15.1%
- Russell 3000 +15.0%

#### Losers for the trailing year

- Alerian MLP -48.35%

#### Areas of strength for the trailing year

- Domestic Stocks
- Emerging Markets
- TIPS Bonds

### COMMENTARY

- Allocation to equities ended the quarter at 57%, inside the target range of 45%-65%. Market value for the **Total Fund** was \$1.11 billion by quarter-end versus \$1.05 Billion in the previous quarter. The Total Fund posted a +4.2% return for the trailing quarter and +4.8% for the trailing 12 months. The Total Fund underperformed the Policy Index by 112 bps for the quarter and underperformed its Policy Index by 445 bps over the trailing year. Versus the Strategic Index, the Total Fund outperformed by 83 bps for the quarter and outperformed by 44 bps for the trailing year.

- The **Total Fund** ranked in the 79<sup>th</sup> percentile in the peer universe for the quarter and 83<sup>rd</sup> percentile over the last 12 months.
- The **Global Equity Composite** returned 8.2% for the quarter, outperforming the index by 6 bps and ranking in the 47<sup>th</sup> percentile versus peers. Over the trailing 12 months, the portfolio returned +10.4%, outperforming the benchmark by 47 bps and ranking in the 51<sup>st</sup> percentile of the peer universe.
- The **Fixed Income Composite** returned +1.1% for the quarter, outperforming the Bloomberg Barclays U.S. Aggregate by 45 bps and ranking in the 70<sup>th</sup> percentile versus universe peers. Over the trailing 12 months, the composite returned 7.9% and outperformed the Index by 87 bps and ranked in the 42<sup>nd</sup> percentile of the peer universe.
- The **Real Estate Composite** returned -0.1% for the quarter and -0.1% for the trailing 12 months.
- The **MLP Composite** returned -12.4% for the quarter, underperforming the index by 388 bps and ranking in the 56<sup>th</sup> percentile versus peers. For the trailing year, the composite has returned -41.9% and has outperformed the benchmark by 646 bps, ranking in the 29<sup>th</sup> percentile versus peers. Since inception, the MLP Composite is ahead of its Alerian MLP Index benchmark by 456 bps and has returned -5.7%.

# Employees' Retirement System of the City of Norfolk

## Executive Summary

### REBALANCING ACTIVITY FOR THE QUARTER

Raise cash for benefit payments:

#### City Contribution

To cash \$7,500,000

July 2020

#### Pimco Bond & Cash

To cash \$7,321,000

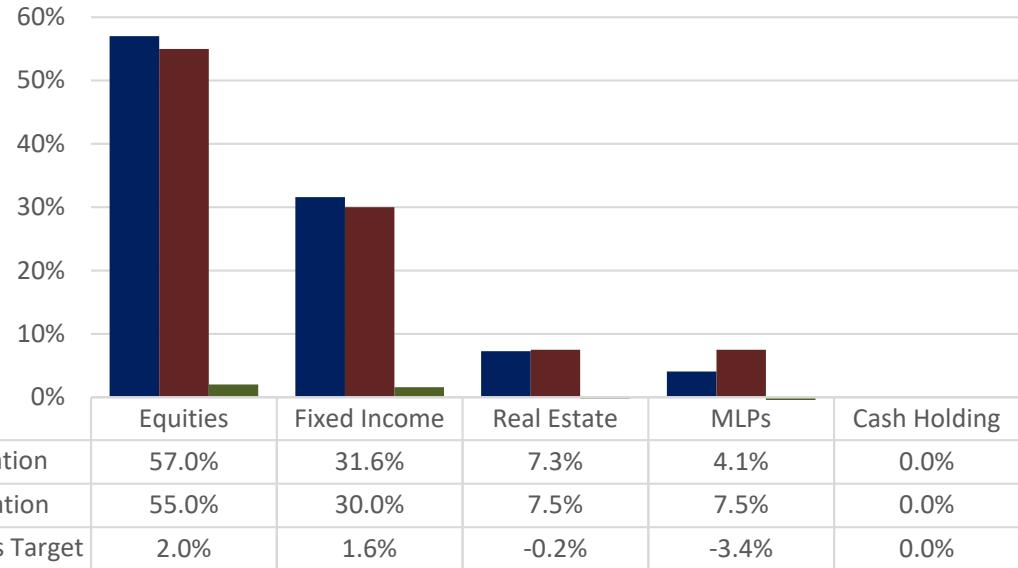
August 2020

#### State Street ACWI IMI

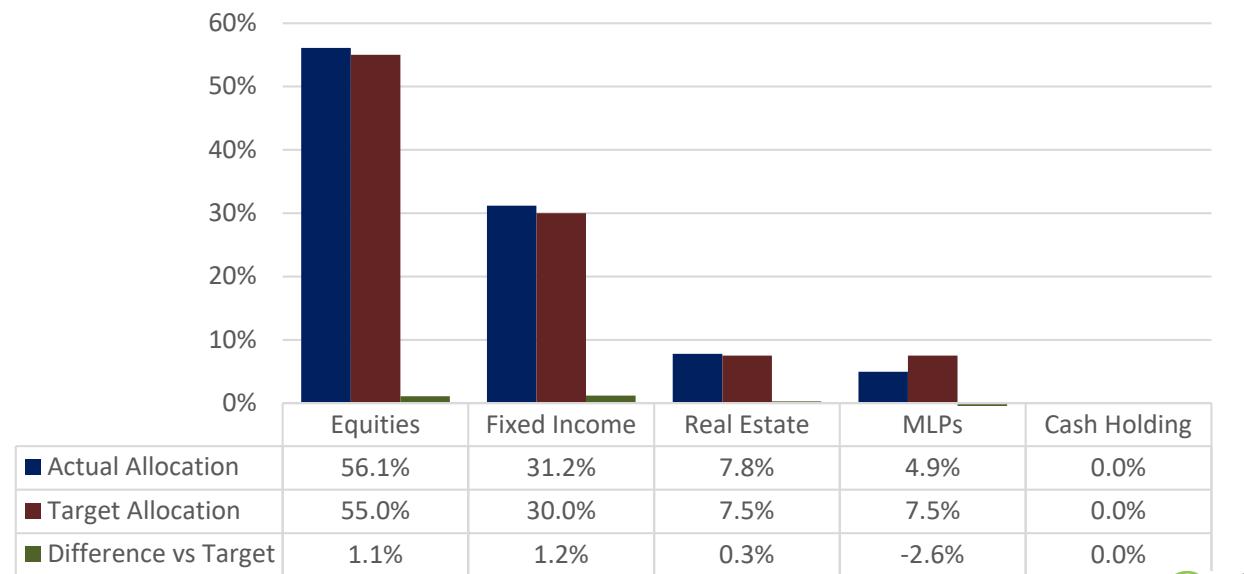
To cash \$8,000,000

September 2020

Asset Allocation – September 30, 2020



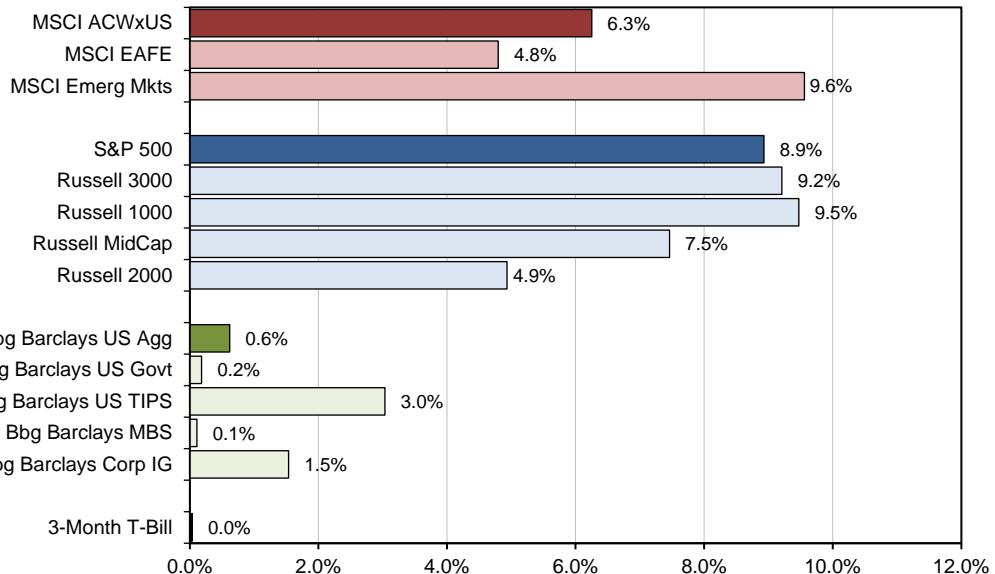
Asset Allocation – June 30, 2020



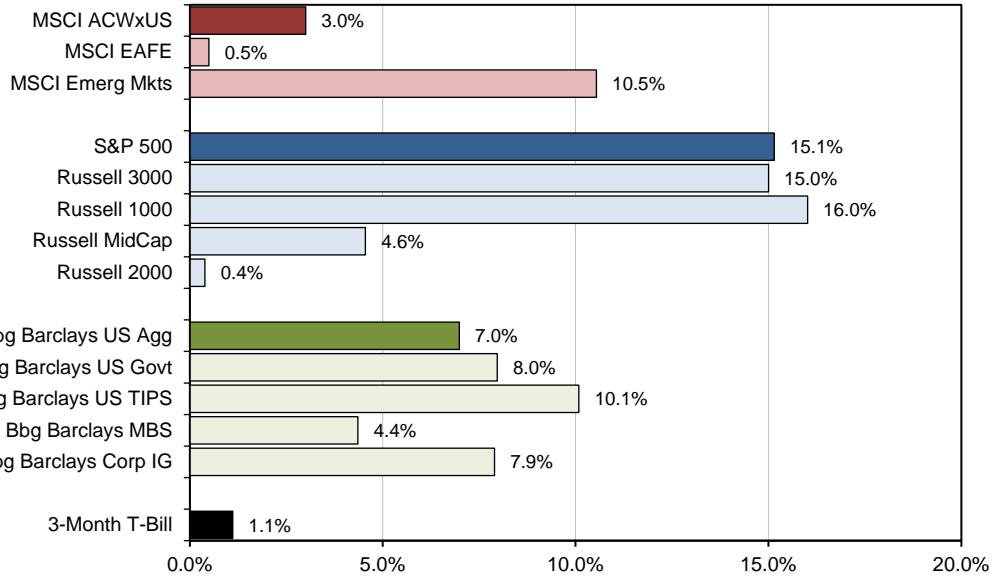
## **3rd Quarter 2020 Market Environment**

- Broad asset class returns were positive in the 3rd quarter continuing their rebound from the 2nd quarter. In general, US monetary policy remains supportive as the Federal Reserve Bank (Fed) continues to hold interest rates near zero with the goal of providing the markets with liquidity. Importantly, the Fed indicated that interest rates in the US would remain low for an extended period as GDP growth and business activity remains subdued as the COVID-19 pandemic lingers. The Fed also commented that it was comfortable allowing inflation to exceed its 2% target in the near-term with the goal of averaging its target over the long-term. The final reading of US GDP growth in the 2nd quarter showed the economy contracted by -31.4%. While expectations for growth in the 3rd quarter vary widely, the general outlook is for a strong positive reading. Within domestic equity markets, we saw a reversal during the quarter with large cap stocks outperforming small cap stocks with the S&P 500 returning 8.9% compared to 4.9% for the Russell 2000 Index. Over the trailing 1-year period, large cap stocks significantly outperformed both small and mid-cap stocks with the S&P 500 returning 15.1% while small and mid-cap stocks returned 0.4% and 4.6%, respectively.
- Similar to US markets, international markets posted strong returns for the period despite concerns about a potential “second wave” of the pandemic flowing through Europe. While neither the European Central Bank nor the Bank of England changed their policies, global central banks remain accommodative and prepared to provide additional support if required. International investors also benefited from a weakening USD which declined against most major currencies during the period. Emerging market economies continued to outperform relative to developed markets during the period with China showing signs of improvement. For the quarter, the MSCI Emerging Market Index returned 9.6% compared to 4.8% for the MSCI EAFE Index. Following the strong quarter, both developed and emerging market indices turned positive over the 1-year trailing period with the developed market index returning 0.5% and the emerging market index returning 10.5%.
- Fixed income returns were mixed during the 3rd quarter as interest rates remained relatively stable. For the quarter, the BB US Aggregate Index returned 0.6% while the BB Corporate Investment Grade Index returned 1.5%. TIPS were an area of strength during the quarter, benefiting from higher inflation expectations. For the trailing 1-year period, fixed income returns were solid with the BB US Aggregate Index returning 7.0%, while corporate bonds returned 7.9%. TIPS outperformed nominal bonds by posting a respectable 10.1% return over the trailing 1-year period as investors' inflation expectations rose.

### Quarter Performance

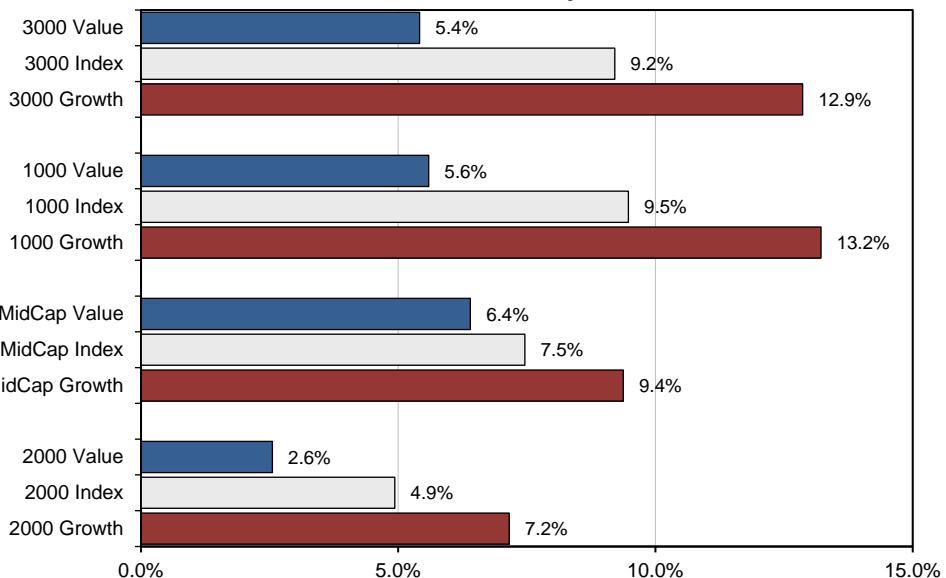


### 1-Year Performance

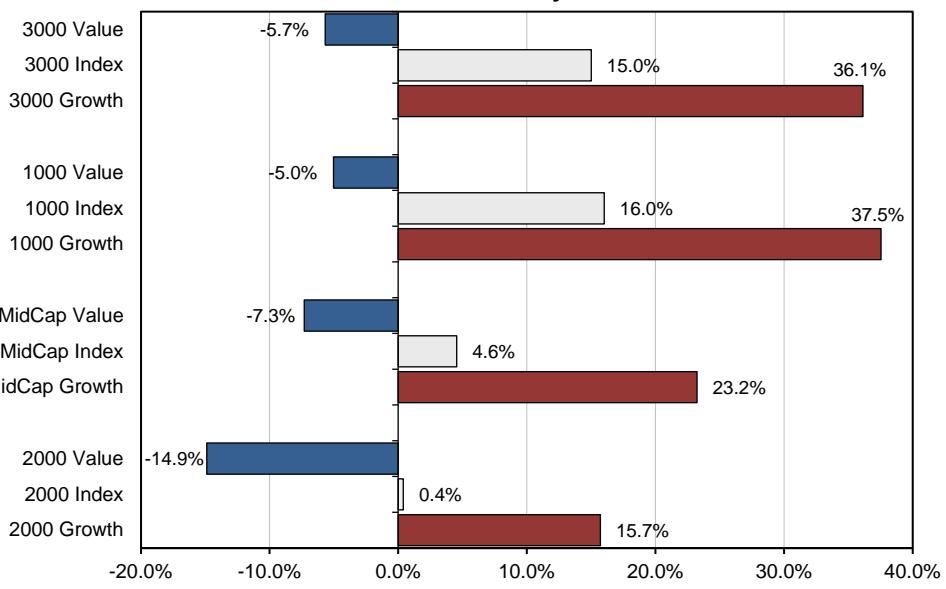


- Continuing their recent trend, US equities posted their second straight quarter of positive returns across the style and market capitalization spectrum. During the quarter, large cap stocks resumed their leadership, outpacing both mid and small-cap stocks as investors gravitated toward large companies for their relatively attractive profitability profile, lower leverage, and diversified business models. The Russell 1000 Index returned 9.5% compared with 7.5% and 4.9% for the Russell MidCap and Russell 2000 indices, respectively. While small cap stocks have historically performed well in periods following a recession, the relative uncertainty surrounding the path of global economic growth and the upcoming US Presidential election pushed investors toward the relative safety of large cap stocks.
- Growth stocks maintained their dominance relative to value-oriented stocks across all market capitalizations for the 3rd quarter. The Russell 1000 Growth Index returned 13.2% and was the best performing index across style and market capitalization for the period. The index benefitted from favorable relative weightings to consumer discretionary, materials and technology-related companies, which powered large cap returns during the period. Small cap value stocks trailed their index peers during the quarter with the Russell 2000 Value Index returning 2.6%. Exposures to financial-related companies and real estate acted as a headwind as those sectors lagged during the period.
- When viewed over the trailing 1-year period, the performance dispersion between large cap and small cap stocks across styles is glaring. While some of the difference in relative performance between market capitalizations can be attributed to the drawdown experienced during the 1st quarter, large cap stocks have benefited from investors favoring companies with healthier financial profiles that can weather a protracted period of weak growth due to the pandemic. Additionally, the sector weights within the respective indices and a tilt towards growth-oriented, higher P/E companies in large caps has acted as a tailwind for growth index performance.
- Results over the trailing 1-year reflect the continued strength of growth compared to value benchmarks with each growth index earning double digit gains while each value index posted negative results for the period. The widest performance gap was in the large cap space with the Russell 1000 Growth Index returning 37.5%, which outpaced the large cap value benchmark by more than 40% for the year. The dispersion between both mid and small cap growth benchmarks was also substantial relative to their value counterparts with each growth index outpacing its respective value benchmark by more than 30% for the year.

**Quarter Performance - Russell Style Series**

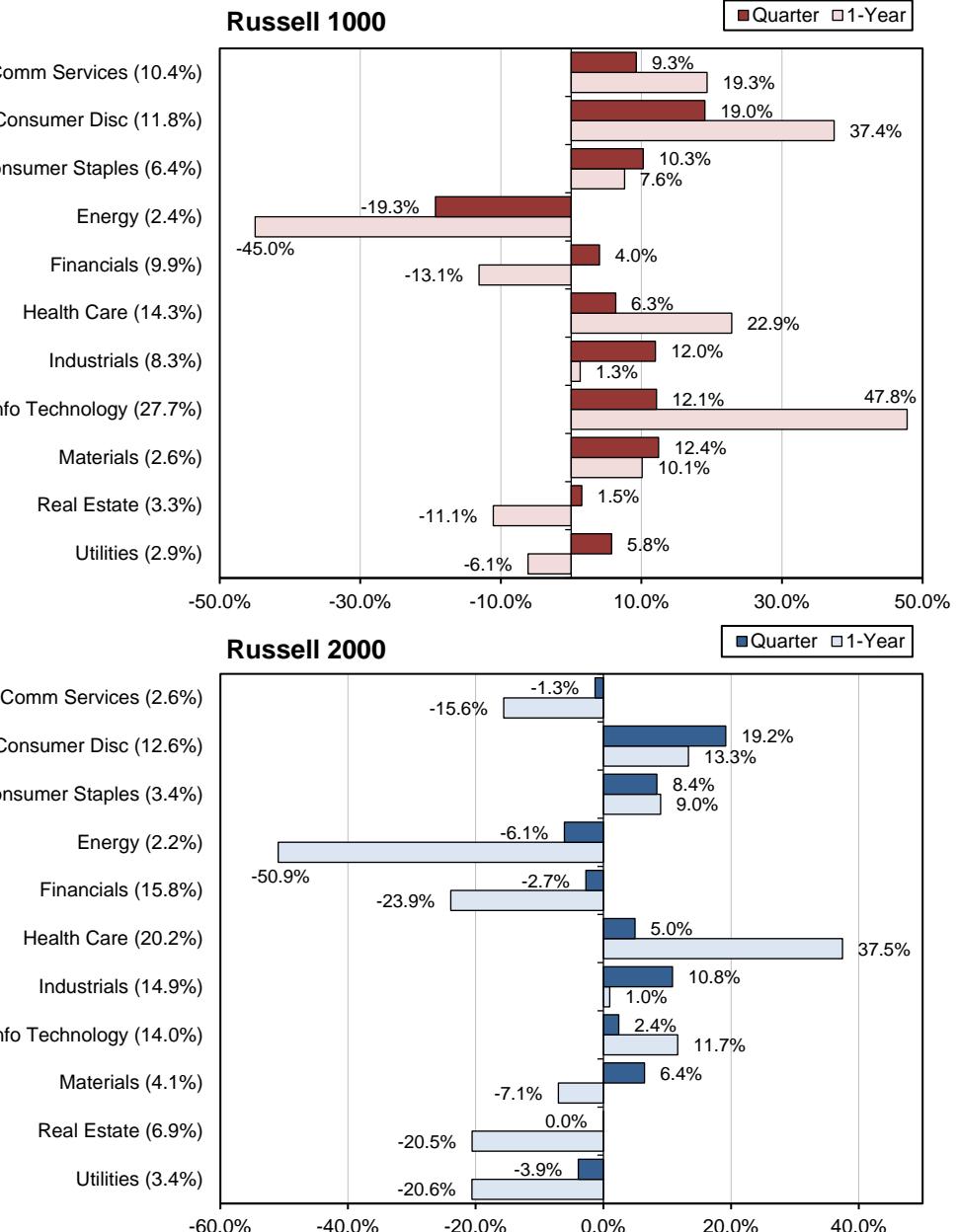


**1-Year Performance - Russell Style Series**



**The Market Environment**  
**GICS Sector Performance & (Sector Weight)**  
As of September 30, 2020

- Ten of eleven economic sectors within the large cap Russell 1000 Index were positive for the 3rd quarter with only the energy sector posting a negative return. Five sectors outpaced the return of the broad index during the period. Growth-oriented sectors such as consumer discretionary, materials and technology were some of the best performers for the quarter returning 19.0%, 12.4%, and 12.1%, respectively. The energy sector continues to lag due to reduced consumption and the threat of bankruptcies resulting from stubbornly low oil prices. While the sectors were positive, financials and real estate were laggards relative to the broad index results, posting returns of 4.0% and 1.5% respectively. With the Fed indicating that interest rates will remain lower for longer, both sectors faced headwinds due to their sensitivity to US interest rates.
- Over the trailing 1-year period, technology-related and consumer discretionary stocks were the best performers returning 47.8% and 37.4% respectively. For the full-year, five sectors exceeded the return of the broad benchmark: technology, consumer discretionary, health care, communication services, and materials. In contrast, traditional value sectors such as energy, financials, real estate and utilities posted returns of -45.0%, -13.1%, -11.1%, and -6.1%, respectively, for the trailing 1-year period. This sector performance shows a staggering dispersion of more than 90% from best to worst performing sector in the large cap benchmark.
- Five of eleven small cap sectors posted returns greater than the Russell 2000 Index for the 3rd quarter. Similar to large cap stocks, sectors sensitive to the consumer and improving economic conditions were the primary drivers of return during the quarter. That said, only the consumer discretionary sector outpaced its large cap counterpart during the period, returning 19.2% compared to 19.0%.
- As previously noted, small cap stocks have significantly trailed large caps over the previous 1-year period. Specifically, energy-related companies have faced significant headwinds due primarily to low oil prices while interest rate sensitive sectors such as financials and real estate have failed to produce gains as a result of historically low US interest rates. The lone bright spot has been health care stocks which outperformed their large cap equivalents by more than 14% over the period (37.5% versus 22.9%).



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 September 30, 2020

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	6.04%	27.2%	108.9%	Information Technology
Microsoft Corp	5.02%	3.6%	53.0%	Information Technology
Amazon.com Inc	4.25%	14.1%	81.4%	Consumer Discretionary
Facebook Inc A	2.00%	15.3%	47.1%	Communication Services
Alphabet Inc A	1.40%	3.4%	20.0%	Communication Services
Alphabet Inc Class C	1.39%	4.0%	20.6%	Communication Services
Berkshire Hathaway Inc Class B	1.32%	19.3%	2.4%	Financials
Johnson & Johnson	1.25%	6.6%	18.2%	Health Care
Procter & Gamble Co	1.08%	17.0%	14.6%	Consumer Staples
Visa Inc Class A	1.08%	3.7%	17.0%	Information Technology

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Penn National Gaming Inc	0.59%	138.0%	290.3%	Consumer Discretionary
Sunrun Inc	0.49%	290.8%	361.4%	Industrials
Caesars Entertainment Inc	0.41%	39.9%	40.6%	Consumer Discretionary
MyoKardia Inc	0.37%	41.1%	161.4%	Health Care
Novavax Inc	0.35%	30.0%	2058.4%	Health Care
iRhythm Technologies Inc	0.35%	105.5%	221.3%	Health Care
LHC Group Inc	0.34%	21.9%	87.2%	Health Care
Mirati Therapeutics Inc	0.33%	45.4%	113.1%	Health Care
Churchill Downs Inc	0.33%	23.0%	33.3%	Consumer Discretionary
Momenta Pharmaceuticals Inc	0.33%	57.7%	304.9%	Health Care

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Immunomedics Inc	0.06%	139.9%	541.3%	Health Care
L Brands Inc	0.02%	112.5%	67.3%	Consumer Discretionary
Tesla Inc	1.01%	98.7%	790.5%	Consumer Discretionary
NovoCure Ltd	0.04%	87.7%	48.8%	Health Care
Pinterest Inc	0.05%	87.2%	56.9%	Communication Services
Livongo Health Inc	0.02%	86.3%	703.0%	Health Care
Carvana Co Class A	0.04%	85.6%	238.0%	Consumer Discretionary
Zoom Video Communications Inc	0.25%	85.4%	516.9%	Information Technology
FedEx Corp	0.19%	79.9%	75.8%	Industrials
Zillow Group Inc A	0.02%	76.7%	243.7%	Communication Services

Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Whiting Petroleum Corp	0.00%	1430.1%	115.3%	Energy
Seres Therapeutics Inc	0.08%	494.7%	606.0%	Health Care
Vivint Solar Inc	0.11%	327.8%	547.6%	Industrials
Tupperware Brands Corp	0.05%	324.4%	27.0%	Consumer Discretionary
Eastman Kodak Co	0.01%	295.5%	234.1%	Information Technology
Sunrun Inc	0.49%	290.8%	361.4%	Industrials
Cassava Sciences Inc	0.01%	273.7%	859.2%	Health Care
Owens & Minor Inc	0.08%	229.6%	332.8%	Health Care
Gogo Inc	0.03%	192.4%	53.2%	Communication Services
Pacific Biosciences of California Inc	0.09%	186.1%	91.3%	Health Care

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Occidental Petroleum Corp	0.03%	-45.2%	-75.5%	Energy
Coty Inc Class A	0.00%	-39.6%	-73.8%	Consumer Staples
Biomarin Pharmaceutical Inc	0.04%	-38.3%	12.9%	Health Care
Reata Pharmaceuticals Inc A	0.01%	-37.6%	21.3%	Health Care
Murphy Oil Corp	0.00%	-34.8%	-58.0%	Energy
Agios Pharmaceuticals Inc	0.01%	-34.6%	8.0%	Health Care
Marathon Oil Corp	0.01%	-33.2%	-66.4%	Energy
Kirby Corp	0.01%	-32.5%	-56.0%	Industrials
HollyFrontier Corp	0.01%	-31.6%	-61.8%	Energy
Alteryx Inc Class A	0.02%	-30.9%	5.7%	Information Technology

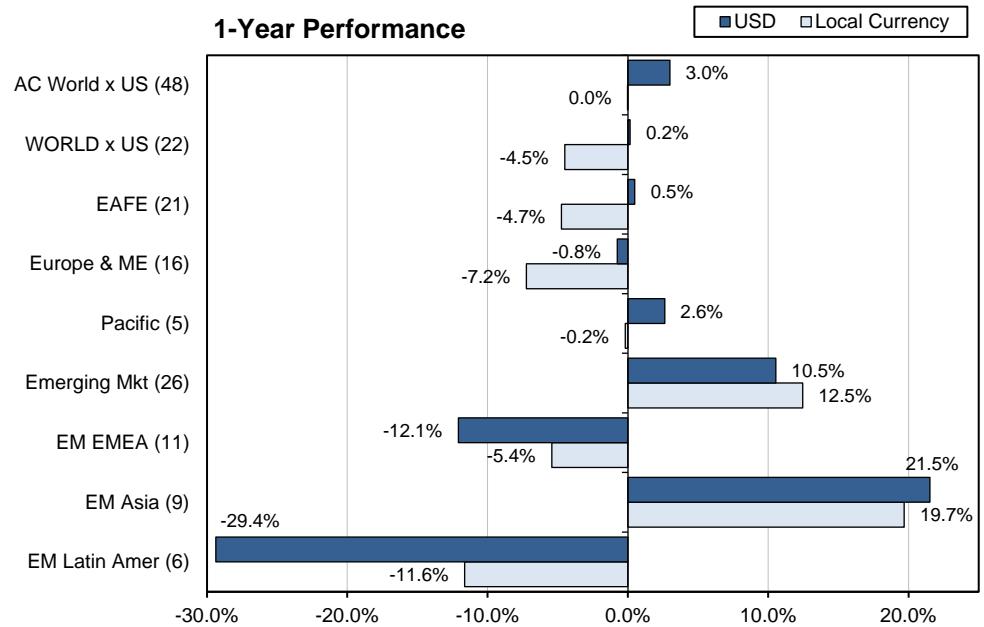
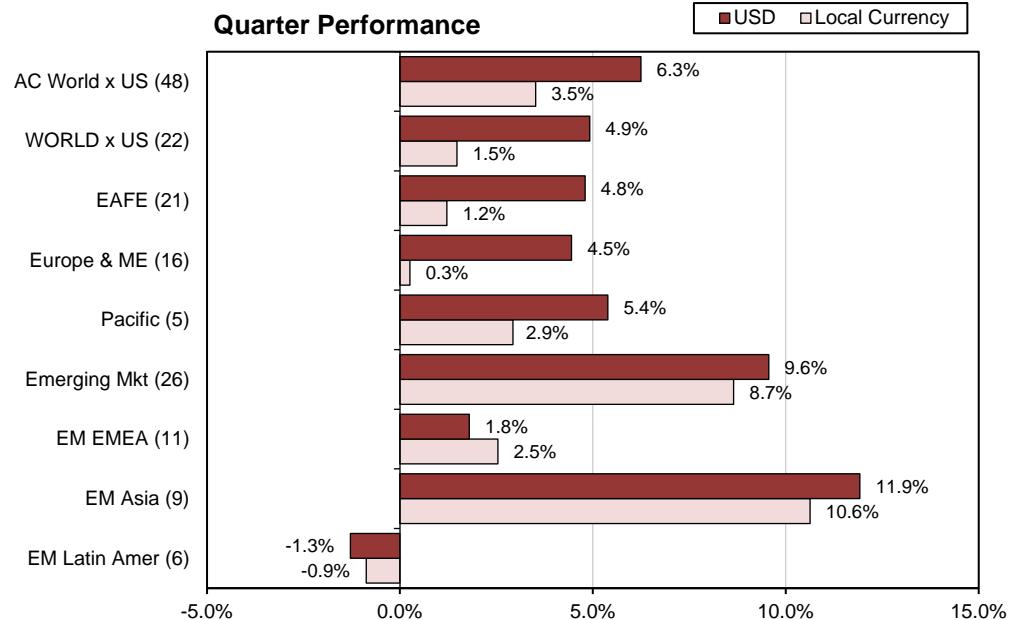
Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Satsuma Pharmaceuticals Inc Ord. Shr.	0.00%	-86.5%	-74.1%	Health Care
Akebia Therapeutics Inc	0.02%	-81.5%	-36.0%	Health Care
Corbus Pharmaceuticals Holdings Inc	0.01%	-78.5%	-63.0%	Health Care
Odonate Therapeutics Inc	0.01%	-68.3%	-48.4%	Health Care
Tricida Inc	0.01%	-67.0%	-70.7%	Health Care
Abeona Therapeutics Inc	0.00%	-65.0%	-54.9%	Health Care
Mallinckrodt PLC	0.00%	-63.7%	-59.6%	Health Care
Nemaura Medical Inc	0.00%	-61.6%	-51.4%	Health Care
Express, Inc.	0.00%	-60.4%	-82.3%	Consumer Discretionary
Unity Biotechnology Inc	0.01%	-60.1%	-43.3%	Health Care

Source: Morningstar Direct



**The Market Environment**  
**International and Regional Market Index Performance (Country Count)**  
**As September 30, 2020**

- Nearly all broad international equity indices posted positive returns in both USD and local currency terms for the 3rd quarter. Similar to US markets, international markets continued to benefit from sustained monetary and fiscal stimulus in addition to economic recovery following the onset of the pandemic. Importantly, US investors benefited from the foreign exchange element of investing internationally as the USD declined relative to most developed market currencies during the quarter.
- For the 3rd quarter, emerging markets outperformed developed markets by nearly 5%. The MSCI Emerging Markets Index gained 9.6% in USD and 8.7% in local currency terms for the period. Emerging markets were led higher by China (12.5% for the quarter) which showed signs of accelerating economic growth during the quarter and represents more than 10% of 26 country emerging market benchmark. Developed international markets also delivered solid returns during the period with the MSCI EAFE Index rising by 4.8% in USD and 1.2% in local currency returns.



Source: MSCI Global Index Monitor (Returns are Net)

**The Market Environment**  
**US Dollar International Index Attribution & Country Detail**  
**As of September 30, 2020**

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.5%	4.1%	1.4%
Consumer Discretionary	11.9%	9.7%	3.4%
Consumer Staples	11.9%	4.5%	0.7%
Energy	2.8%	-13.4%	-42.7%
Financials	15.1%	-1.3%	-16.9%
Health Care	14.4%	2.9%	20.4%
Industrials	15.2%	10.3%	5.3%
Information Technology	8.6%	8.1%	23.7%
Materials	7.6%	10.8%	10.9%
Real Estate	3.1%	2.9%	-15.5%
Utilities	4.0%	3.0%	5.9%
<b>Total</b>	<b>100.0%</b>	<b>4.8%</b>	<b>0.5%</b>

MSCI - ACWixUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	7.5%	3.3%	11.8%
Consumer Discretionary	13.8%	16.5%	18.1%
Consumer Staples	9.7%	4.6%	0.2%
Energy	4.2%	-7.6%	-33.5%
Financials	16.9%	-0.2%	-17.2%
Health Care	10.5%	2.6%	22.2%
Industrials	11.7%	9.9%	4.5%
Information Technology	11.7%	13.4%	34.6%
Materials	7.9%	11.1%	12.0%
Real Estate	2.7%	2.3%	-14.1%
Utilities	3.4%	2.0%	0.2%
<b>Total</b>	<b>100.0%</b>	<b>6.3%</b>	<b>3.0%</b>

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	12.7%	2.5%	25.4%
Consumer Discretionary	20.2%	26.8%	48.4%
Consumer Staples	6.1%	4.3%	-2.7%
Energy	5.4%	-0.5%	-19.2%
Financials	17.2%	-0.5%	-19.0%
Health Care	4.3%	1.9%	47.0%
Industrials	4.4%	2.9%	-6.7%
Information Technology	18.5%	20.5%	41.9%
Materials	6.9%	11.6%	8.0%
Real Estate	2.4%	0.9%	-7.8%
Utilities	2.0%	-4.4%	-18.4%
<b>Total</b>	<b>100.0%</b>	<b>9.6%</b>	<b>10.5%</b>

Country	MSCI-EAFE Weight	MSCI-ACWixUS Weight	Quarter Return	1- Year Return
Japan	25.8%	16.5%	6.9%	6.9%
United Kingdom	13.3%	8.5%	-0.2%	-15.8%
France	10.7%	6.8%	2.8%	-6.2%
Switzerland	10.4%	6.6%	5.1%	11.0%
Germany	9.6%	6.2%	8.3%	10.0%
Australia	6.6%	4.2%	2.8%	-7.7%
Netherlands	4.4%	2.8%	5.9%	12.6%
Sweden	3.3%	2.1%	14.6%	22.4%
Hong Kong	3.3%	2.1%	1.6%	-1.6%
Denmark	2.5%	1.6%	15.3%	42.5%
Spain	2.3%	1.4%	-3.8%	-21.0%
Italy	2.2%	1.4%	1.3%	-10.1%
Finland	1.1%	0.7%	11.9%	12.7%
Singapore	1.0%	0.7%	-1.0%	-16.4%
Belgium	1.0%	0.6%	2.0%	-23.2%
Ireland	0.7%	0.5%	14.5%	20.7%
Israel	0.6%	0.4%	-2.0%	3.5%
Norway	0.6%	0.4%	8.2%	-13.8%
New Zealand	0.3%	0.2%	-1.0%	24.4%
Portugal	0.2%	0.1%	-3.4%	2.3%
Austria	0.2%	0.1%	-4.8%	-29.1%
<b>Total EAFE Countries</b>	<b>100.0%</b>	<b>63.8%</b>	<b>4.8%</b>	<b>0.5%</b>
Canada			6.5%	6.2%
<b>Total Developed Countries</b>	<b>70.3%</b>		<b>4.9%</b>	<b>0.2%</b>
China		12.5%	12.5%	33.6%
Taiwan		3.8%	16.5%	35.0%
Korea		3.6%	12.8%	18.6%
India		2.5%	15.0%	0.5%
Brazil		1.4%	-3.3%	32.5%
South Africa		1.1%	3.7%	-11.1%
Russia		0.9%	-4.7%	-16.0%
Saudi Arabia		0.8%	9.3%	-2.9%
Thailand		0.5%	-14.1%	-30.2%
Malaysia		0.5%	2.6%	-2.9%
Mexico		0.5%	4.6%	-20.5%
Indonesia		0.4%	-6.9%	-25.4%
Qatar		0.2%	7.5%	-2.6%
Philippines		0.2%	-2.7%	-18.7%
Poland		0.2%	-0.9%	-20.9%
United Arab Emirates		0.2%	6.2%	-11.8%
Chile		0.2%	-4.2%	-33.0%
Turkey		0.1%	-15.7%	-30.0%
Peru		0.1%	3.5%	-22.2%
Hungary		0.1%	-8.9%	-22.5%
Colombia		0.1%	-1.3%	-37.6%
Argentina		0.0%	6.7%	7.3%
Greece		0.0%	3.3%	-29.3%
Czech Republic		0.0%	-6.2%	-22.1%
Egypt		0.0%	4.6%	-13.8%
Pakistan		0.0%	12.4%	-2.6%
<b>Total Emerging Countries</b>		<b>29.7%</b>	<b>9.6%</b>	<b>10.5%</b>
<b>Total ACWixUS Countries</b>		<b>100.0%</b>	<b>6.3%</b>	<b>3.0%</b>

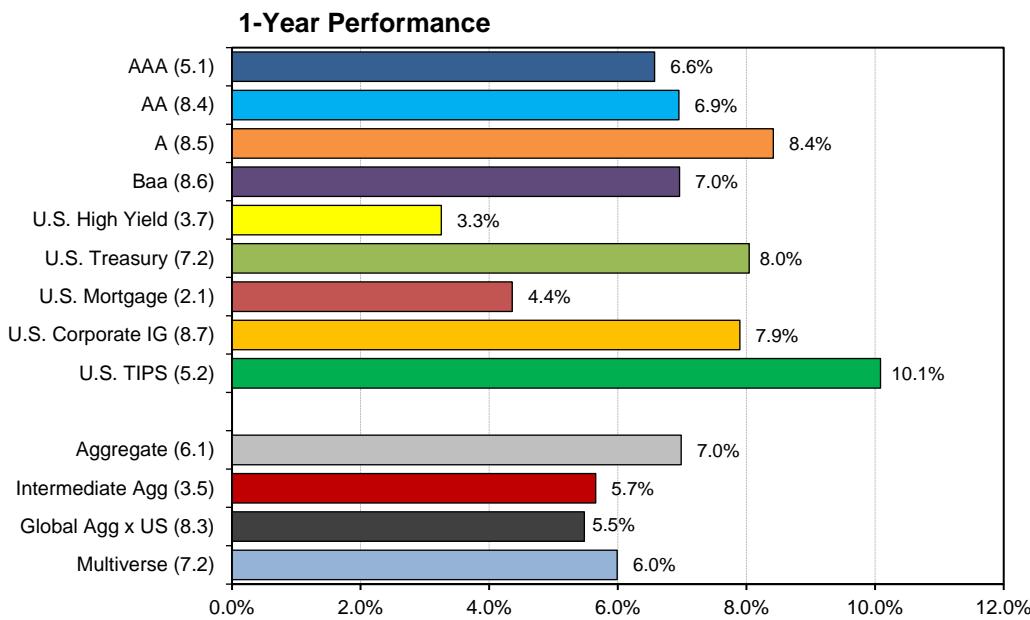
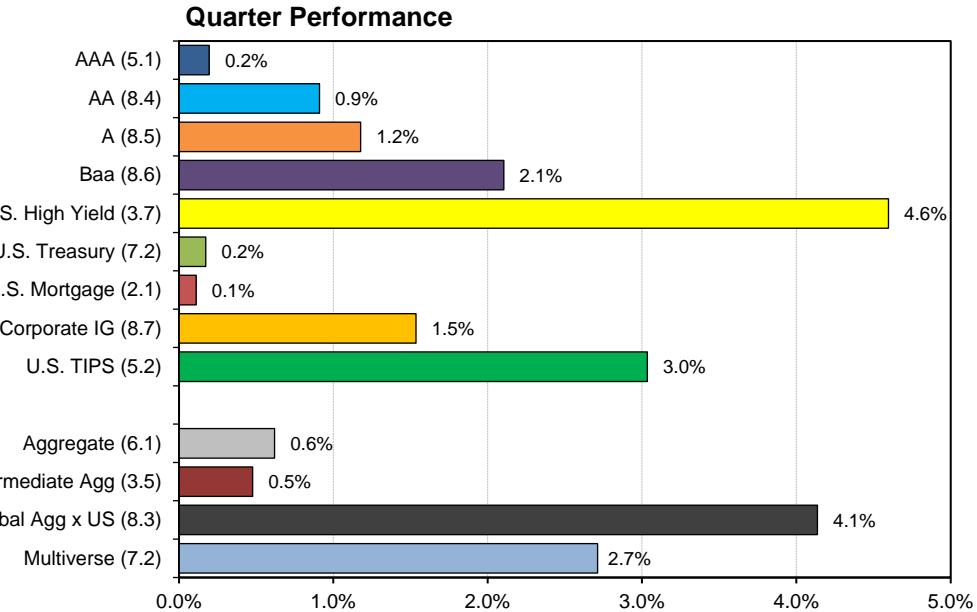
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

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.



**The Market Environment**  
**Domestic Bond Sector & Broad/Global Bond Market Performance (Duration)**  
As of September 30, 2020

- During the 3rd quarter, each fixed income benchmark posted positive results and returns were led by lower quality high yield bonds, international bonds and TIPS. During the period, US interest rates were roughly unchanged as investors vacillated between concerns related to the pandemic and a positive outlook on future economic growth. Despite declining during the month of September, US high yield bonds delivered strong returns for the quarter with the Bloomberg Barclays (BB) US High Yield Index returning 4.6%. High quality global bonds outperformed US bonds during the period largely due to a declining USD.
- During the quarter, the broad Bloomberg Barclays (BB) US Aggregate Index returned 0.6%. The primary contributor of performance to the index during the period were US Corporate IG bonds which delivered 1.5%. Despite near-record issuance, investors continue to gravitate towards corporate credit for its higher return potential as US interest rates look to remain low for some time. US TIPS also performed well during the quarter with the BB US TIPS Index returning 3.0% as investors remained concerned about the potential for rising US inflation as a result of the fiscal and monetary stimulus provided to combat the pandemic.
- Over the trailing 1-year period, each of the domestic and international fixed income indices delivered positive absolute returns. Longer duration, higher quality investment grade bonds outperformed lower quality, shorter duration high yield bonds as global interest rates fell while investors looked for less volatile assets. US TIPS were the best performing bonds with the BB US TIPS Index returning 10.1% followed by US Treasury bonds which returned 8.0%. High Yield bonds performed worst, returning 3.3% during the period as they continued to recover from the spread-widening drawdown during the 1st quarter.
- For the full year, both domestic and global bonds performed well. The US BB Aggregate Bond Index returned 7.0% compared to 5.5% for the BB Global Aggregate ex-US Index. Despite lower interest rates in both Europe and Japan, global bonds delivered solid returns primarily due to a decline in the USD compared to most major developed currencies.

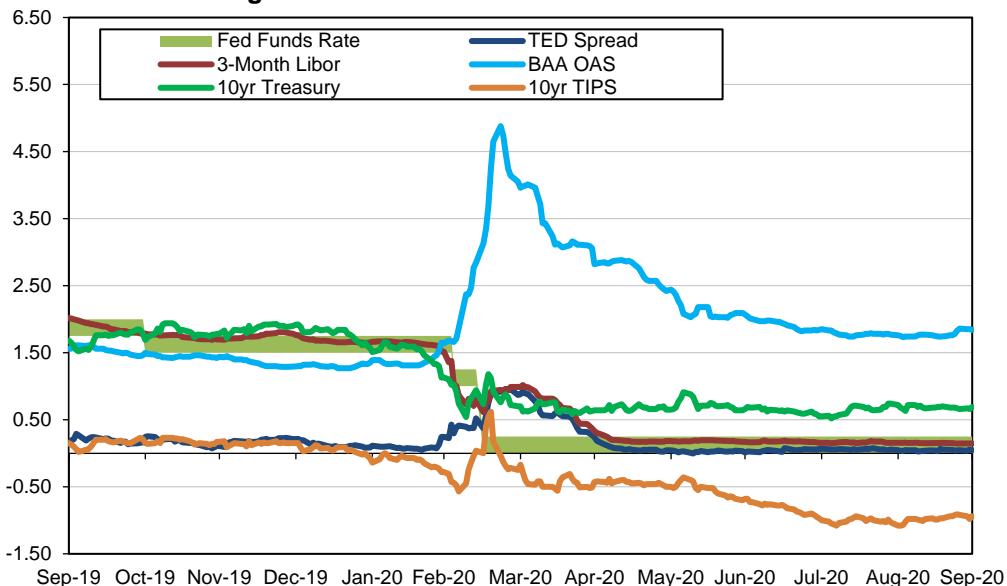


Source: Bloomberg

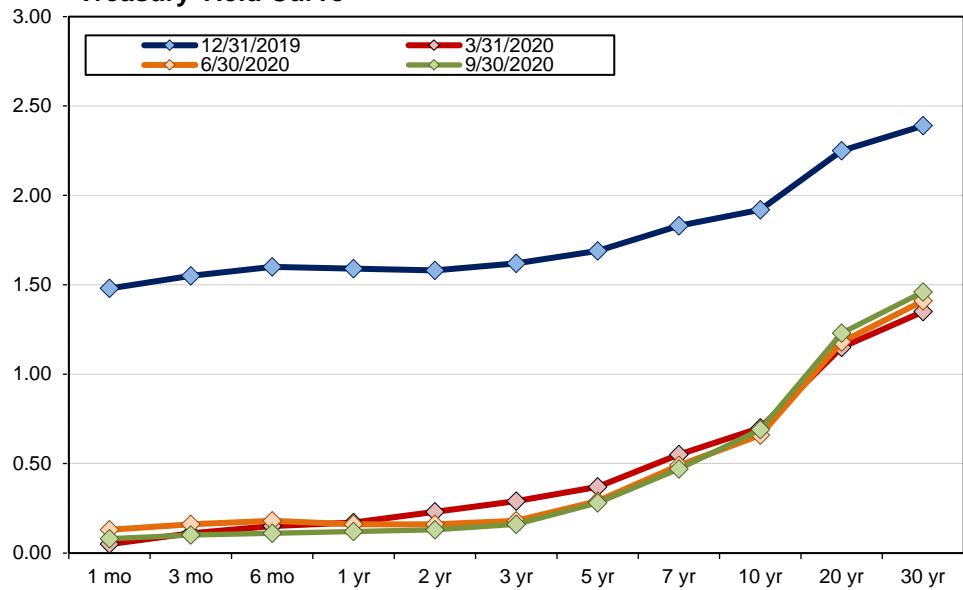
- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the yield graph to the right. The '1-Year Trailing Market Rates' chart illustrates that over the last year, the 10-year Treasury yield (green line) fell from yields of greater than 1.5%, to a low of roughly 0.5% before ending the quarter at roughly 0.7%. A decline in yields acts as a tailwind for bond performance. 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-Treasury investment grade issues. This line illustrates the dramatic increase in credit spreads in early 2020 as investors required additional compensation to hold riskier credit assets following the onset of the pandemic. Since that time, spreads have steadily declined as markets have largely normalized following the aggressive actions taken by the Treasury and Fed. During the quarter, the BB US High Yield OAS spread fell by roughly 1.1% but is still wider than pre-pandemic levels. Similar to Treasury yield declines, spread tightening in corporate bonds is equivalent to an interest rate decrease, which causes bond prices to rise. The green band across the graph illustrates the Fed Funds Rate. Following the onset of the pandemic, the Fed began aggressively cutting interest rates during the 1st quarter to between 0.0% to 0.25%, where it has remained since then.

- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. US interest rates were broadly higher at the end of 2019. Following the onset of the pandemic, interest rates fell dramatically as the Fed took unprecedented action to stimulate the economy. While short-term interest rates have remained anchored near 0.0%, intermediate-term interest rates between 2-years and 7-years declined as concerns over future US economic growth increased. Additionally, the Fed has indicated that US interest rates will remain low for the foreseeable future in an effort to provide the market with liquidity. Longer-term US Treasury interest rates moved slightly higher during the most recent quarter as investors balanced the Fed's statements with the need to increase the amount of US Treasury bond issuance to fund both the annual budget deficit and additional stimulus.

**1-Year Trailing Market Rates**



**Treasury Yield Curve**



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

# Employees' Retirement System of the City of Norfolk

## Annual Asset Class Performance

September 30, 2020

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD
Best ↑	MSCI Emerging Mkts (Net) 34.0 %	MSCI Emerging Mkts (Net) 32.2 %	MSCI Emerging Mkts (Net) 39.4 %	BImbg 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 24.3 %
	NCREIF ODCE (EW) (Net) 19.0 %	MSCI EAFFE (Net) 26.3 %	NCREIF ODCE (EW) (Net) 15.0 %	BImbg Barc Global Agg Ex USD 4.4 %	BImbg Barc US Corp High Yield 58.2 %	Russell 2000 Value 24.5 %	BImbg 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 %	BImbg Barc US Agg 0.0 %	BImbg Barc US Agg 6.8 %
	MSCI EAFFE (Net) 13.5 %	Russell 2000 Value 23.5 %	Russell 1000 Growth 11.8 %	NCREIF ODCE (EW) (Net) -11.1 %	Russell 1000 Growth 37.2 %	MSCI Emerging Mkts (Net) 18.9 %	BImbg 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 %	BImbg Barc US Corp High Yield 17.1 %	MSCI EAFFE (Net) 25.0 %	Russell 1000 Growth -1.5 %	S&P 500 5.6 %
	Russell 1000 Value 7.1 %	Russell 1000 Value 22.2 %	MSCI EAFFE (Net) 11.2 %	Strategic Policy -23.5 %	Russell 2000 Growth 34.5 %	Russell 1000 Growth 16.7 %	BImbg Barc Global Agg Ex USD 4.4 %	MSCI EAFFE (Net) 17.3 %	Russell 1000 Value 32.5 %	NCREIF ODCE (EW) (Net) 11.4 %	BImbg Barc US Agg 0.5 %	S&P 500 12.0 %	Russell 2000 Growth 22.2 %	BImbg Barc US Corp High Yield -2.1 %	BImbg Barc Global Agg Ex USD 4.8 %
	Russell 1000 Growth 5.3 %	S&P 500 15.8 %	BImbg Barc Global Agg Ex USD 11.0 %	BImbg Barc US Corp High Yield -26.2 %	MSCI EAFFE (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 EAFFE (Net) -0.8 %	Russell 2000 Growth 11.3 %	S&P 500 21.8 %	BImbg Barc Global Agg Ex USD -2.1 %	Russell 2000 Growth 3.9 %
	S&P 500 4.9 %	NCREIF ODCE (EW) (Net) 15.1 %	Strategic Policy 7.2 %	Russell 2000 Value -28.9 %	S&P 500 26.5 %	BImbg Barc US Corp High Yield 15.1 %	S&P 500 2.1 %	BImbg Barc US Corp High Yield 15.8 %	MSCI EAFFE (Net) 22.8 %	BImbg 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 %	BImbg Barc US Corp High Yield 0.6 %
	Russell 2000 Value 4.7 %	Russell 2000 Growth 13.3 %	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 %	Strategic Policy -0.4 %
	Russell 2000 Growth 4.2 %	BImbg Barc US Corp High Yield 11.9 %	BImbg 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 %	BImbg Barc Global Agg Ex USD 10.5 %	Russell 1000 Value -8.3 %	NCREIF ODCE (EW) (Net) -0.4 %
	Strategic Policy 4.0 %	Strategic Policy 11.2 %	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 %	BImbg Barc US Corp High Yield 7.4 %	BImbg Barc US Corp High Yield 2.5 %	BImbg Barc US Corp High Yield -4.5 %	Russell 1000 Growth 7.1 %	Russell 2000 Value 7.8 %	Russell 2000 Growth -9.3 %	MSCI Emerging Mkts (Net) -1.2 %
	BImbg Barc US Corp High Yield 2.7 %	Russell 1000 Growth 9.1 %	BImbg Barc US Corp High Yield 1.9 %	Russell 2000 Growth -38.5 %	BImbg Barc Global Agg Ex USD 7.5 %	MSCI EAFFE (Net) 7.8 %	Russell 2000 Value -5.5 %	NCREIF ODCE (EW) (Net) 9.9 %	BImbg Barc US Agg -2.0 %	MSCI Emerging Mkts (Net) -2.2 %	BImbg Barc Global Agg Ex USD -6.0 %	BImbg Barc US Agg 2.6 %	BImbg Barc US Corp High Yield 7.5 %	Russell 2000 Value -12.9 %	MSCI EAFFE (Net) -7.1 %
	BImbg Barc US Agg 2.4 %	BImbg Barc Global Agg Ex USD 8.2 %	Russell 1000 Value -0.2 %	MSCI EAFFE (Net) -43.4 %	BImbg Barc US Agg 5.9 %	MSCI EAFFE (Net) -12.1 %	BImbg Barc US Agg 4.2 %	MSCI Emerging Mkts (Net) -2.6 %	BImbg Barc Global Agg Ex USD -3.1 %	Russell 2000 Value -7.5 %	BImbg Barc Global Agg Ex USD 1.5 %	NCREIF ODCE (EW) (Net) 6.9 %	MSCI EAFFE (Net) -13.8 %	Russell 1000 Value -11.6 %	
Worst ↓	BImbg Barc Global Agg Ex USD -8.7 %	BImbg Barc US Agg 4.3 %	Russell 2000 Value -9.8 %	MSCI Emerging Mkts (Net) -53.3 %	NCREIF ODCE (EW) (Net) -31.3 %	BImbg Barc Global Agg Ex USD 4.9 %	MSCI Emerging Mkts (Net) -18.4 %	BImbg Barc Global Agg Ex USD 4.1 %	BImbg Barc Global Agg Ex USD -3.1 %	MSCI EAFFE (Net) -4.9 %	MSCI Emerging Mkts (Net) -14.9 %	MSCI EAFFE (Net) 1.0 %	BImbg Barc US Agg 3.5 %	MSCI Emerging Mkts (Net) -14.6 %	Russell 2000 Value -21.5 %

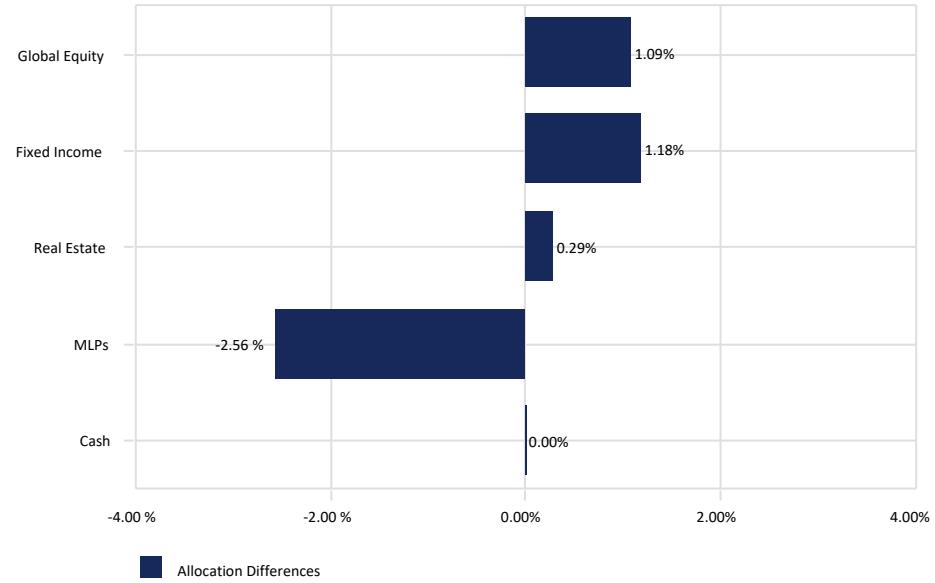
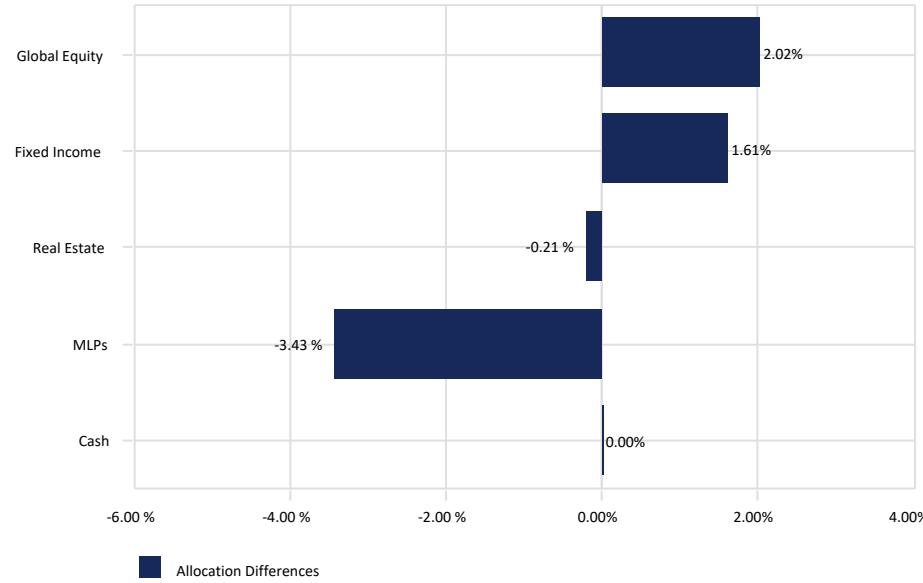


## **Total Fund**

# Employees' Retirement System of the City of Norfolk

## Asset Allocation vs. Target Allocation

September 30, 2020



September 30, 2020

	Market Value (\$)	Allocation (%)	Target (%)
Global Equity	632,970,343	57.02	55.00
Fixed Income	350,884,303	31.61	30.00
Real Estate	80,954,829	7.29	7.50
MLPs	45,228,404	4.07	7.50
Cash	12,197	0.00	0.00
Total Fund	1,110,050,076	100.00	100.00

June 30, 2020

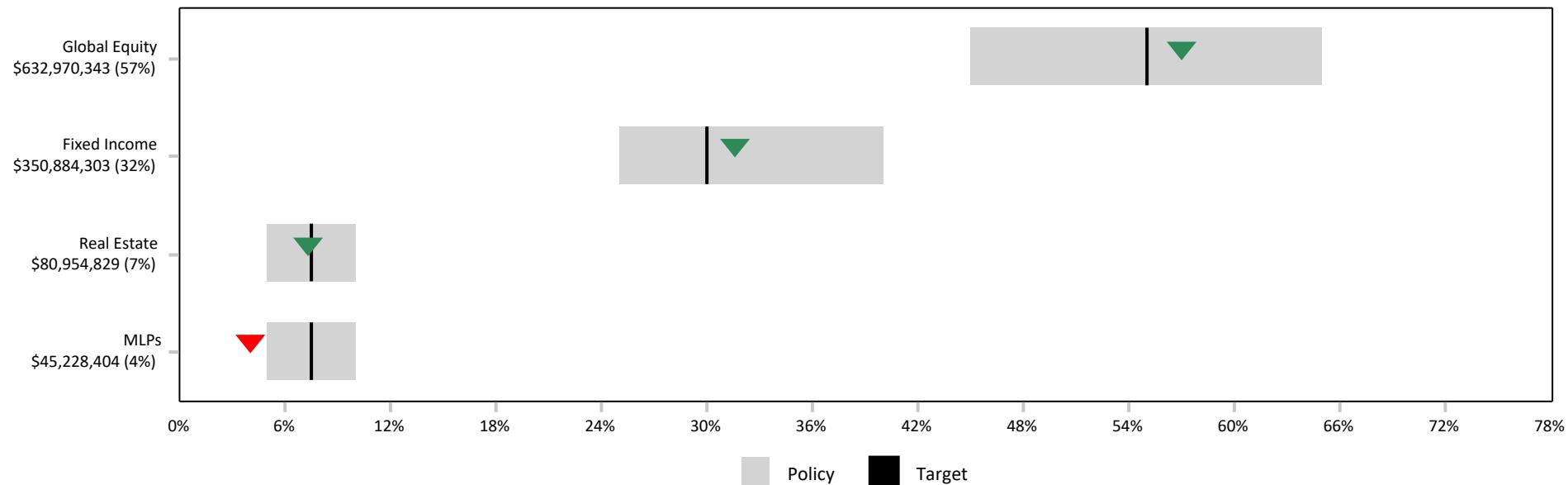
	Market Value (\$)	Allocation (%)	Target (%)
Global Equity	586,648,165	56.09	55.00
Fixed Income	326,129,608	31.18	30.00
Real Estate	81,444,905	7.79	7.50
MLPs	51,617,231	4.94	7.50
Cash	16,139	0.00	0.00
Total Fund	1,045,856,048	100.00	100.00

# Employees' Retirement System of the City of Norfolk

## Asset Allocation Compliance

September 30, 2020

### Executive Summary

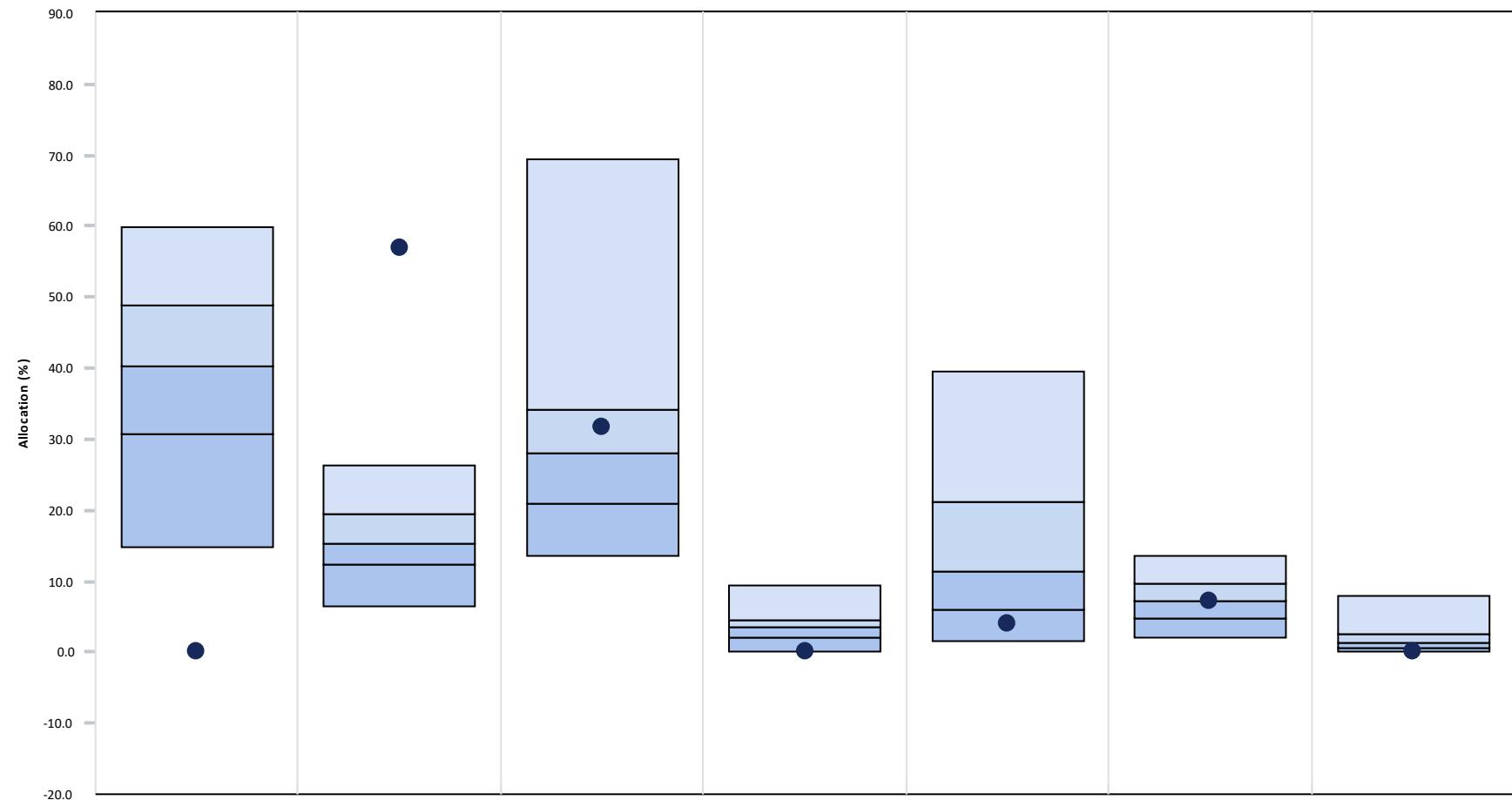


	Asset Allocation \$ (\$)	Current Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Rebalance (\$)
<b>Total Fund</b>	<b>1,110,050,076</b>	<b>100.00</b>	<b>100.00</b>			
<b>Global Equity</b>	<b>632,970,343</b>	<b>57.02</b>	<b>55.00</b>	<b>45.00</b>	<b>65.00</b>	<b>(22,442,802)</b>
SSgA MSCI ACWI IMI Index Fund	632,970,343	57.02				
<b>Fixed Income</b>	<b>350,884,303</b>	<b>31.61</b>	<b>30.00</b>	<b>25.00</b>	<b>40.00</b>	<b>(17,869,280)</b>
PIMCO Total Return	191,123,499	17.22				
SSgA Bond Market Index	159,760,804	14.39				
<b>Real Assets</b>	<b>126,183,233</b>	<b>11.37</b>	<b>15.00</b>			<b>40,324,279</b>
<b>Real Estate</b>	<b>80,954,829</b>	<b>7.29</b>	<b>7.50</b>	<b>5.00</b>	<b>10.00</b>	<b>2,298,927</b>
JP Morgan Asset Management Strategic Property Fund	42,755,347	3.85				
UBS Trumbull Property Fund	38,199,482	3.44				
<b>MLPs</b>	<b>45,228,404</b>	<b>4.07</b>	<b>7.50</b>	<b>5.00</b>	<b>10.00</b>	<b>38,025,352</b>
Harvest MLP	23,956,868	2.16				
Tortoise Capital Advisors	21,271,536	1.92				
Cash	12,197	0.00				

# Employees' Retirement System of the City of Norfolk

Plan Sponsor TF Asset Allocation: Total Fund Composite\* vs. All Public Plans-Total Fund

September 30, 2020



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
● Total Fund Composite*	0.00	57.02 (1)	31.61 (35)	0.00	4.07 (86)	7.29 (50)	0.00 (100)
5th Percentile	59.94	26.25	69.43	9.38	39.62	13.56	8.04
1st Quartile	48.84	19.43	34.15	4.61	21.20	9.58	2.59
<b>Median</b>	<b>40.21</b>	<b>15.24</b>	<b>27.98</b>	<b>3.50</b>	<b>11.38</b>	<b>7.29</b>	<b>1.23</b>
3rd Quartile	30.77	12.27	20.98	2.01	5.99	4.77	0.57
95th Percentile	14.83	6.49	13.64	0.07	1.47	1.98	0.08
Population	414	391	387	142	131	215	300

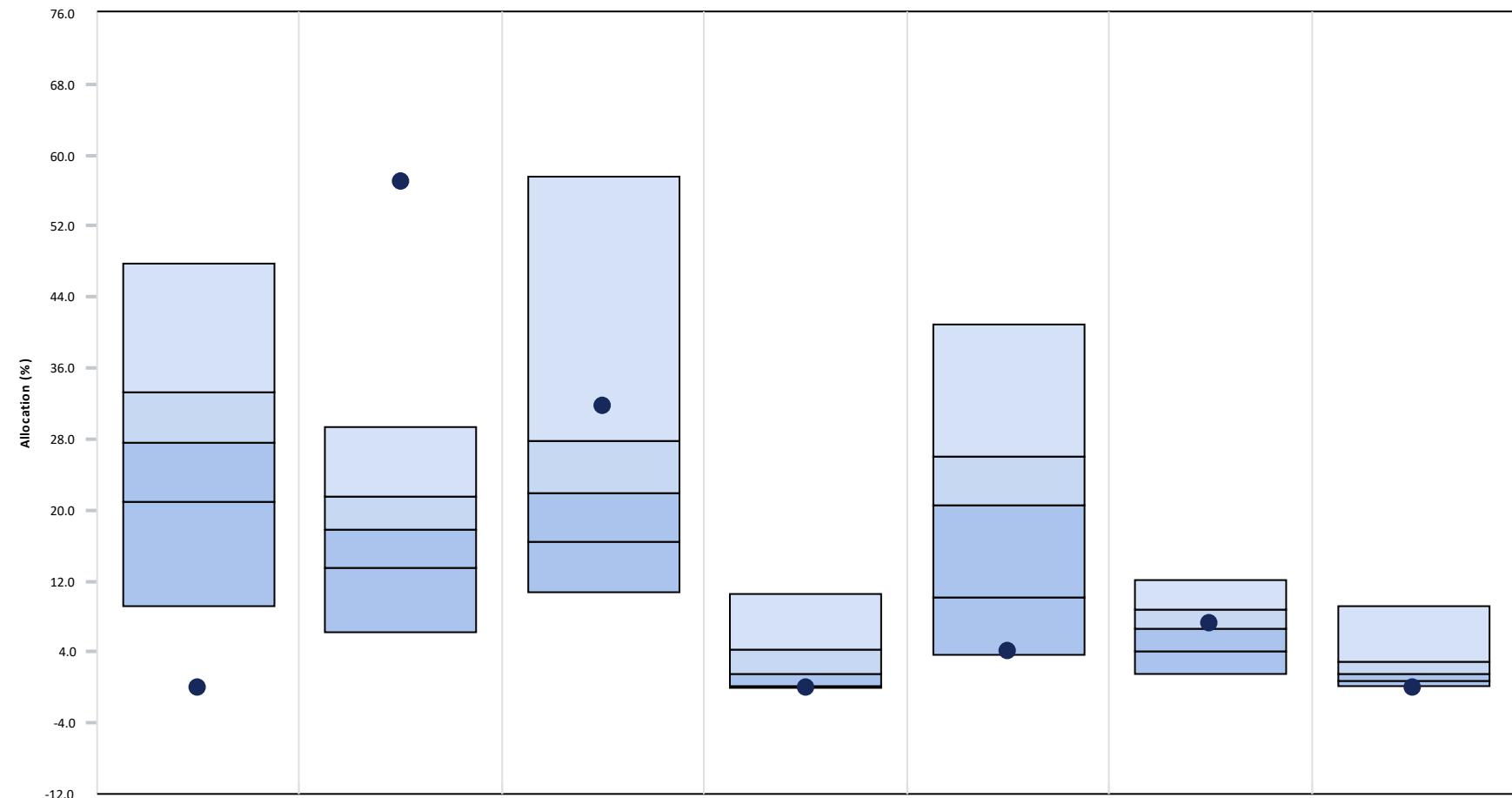
Parentheses contain percentile rankings. \*Please note that the Plan's International Equity allocation includes US Equity.



# Employees' Retirement System of the City of Norfolk

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

September 30, 2020



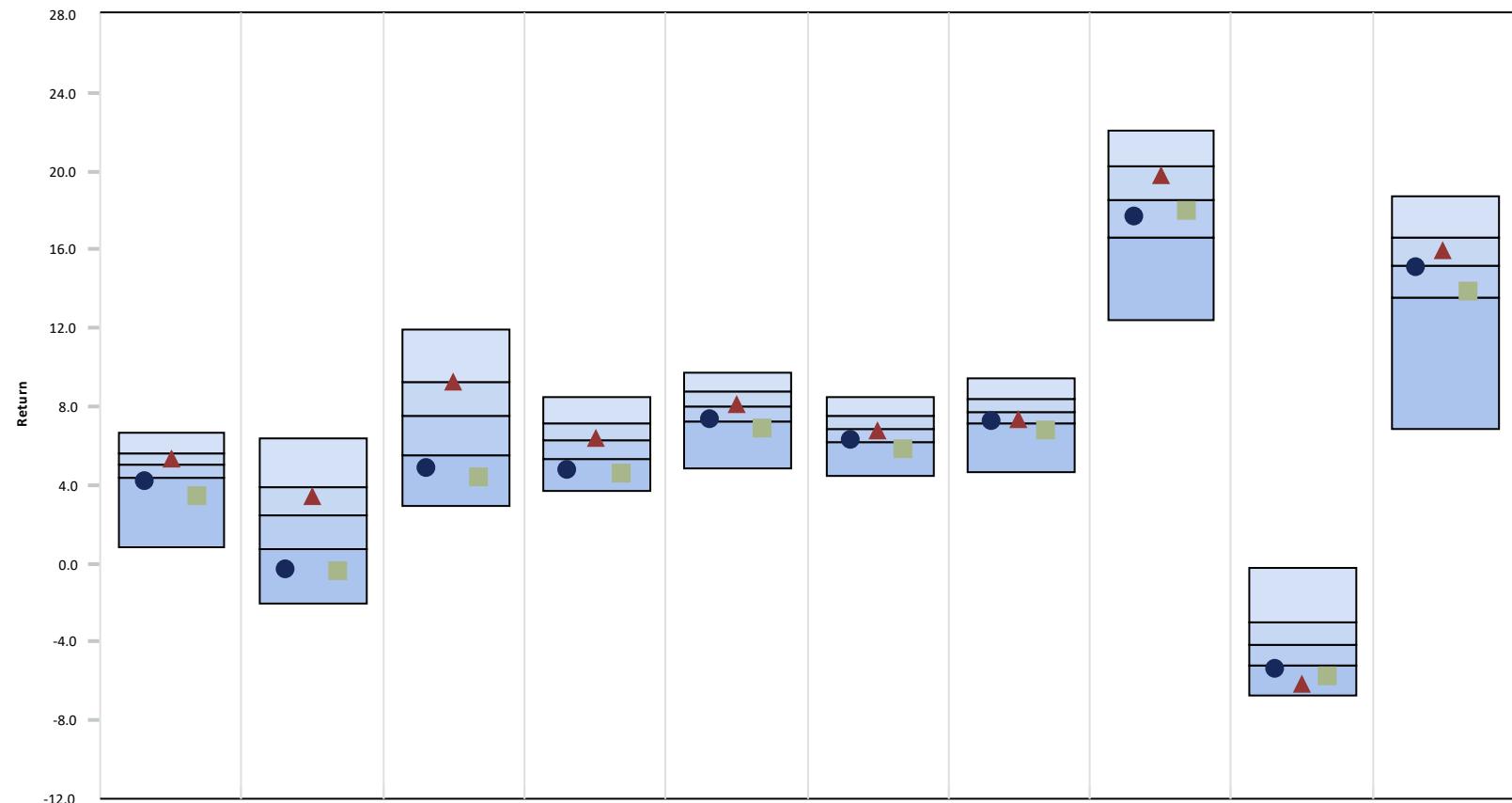
Parentheses contain percentile rankings. \*Please note that the Plan's International Equity allocation includes US Equity.



# Employees' Retirement System of the City of Norfolk

## Plan Sponsor Peer Group Analysis - All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

September 30, 2020



	<u>3 Month</u>	<u>CYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	<u>10 Year</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
● Total Fund Composite	4.20 (79)	-0.33 (89)	4.82 (83)	4.73 (86)	7.33 (73)	6.25 (74)	7.22 (69)	17.67 (62)	-5.43 (81)	15.10 (54)
▲ Fund Policy (62.5% ACWI/37.5% Agg)	5.32 (39)	3.41 (33)	9.27 (25)	6.40 (46)	8.05 (49)	6.72 (57)	7.33 (66)	19.72 (33)	-6.19 (90)	15.91 (38)
■ Fund Strategic Index	3.37 (89)	-0.39 (89)	4.38 (88)	4.57 (88)	6.89 (83)	5.79 (84)	6.79 (84)	17.92 (58)	-5.80 (86)	13.79 (73)
5th Percentile	6.62	6.42	11.95	8.51	9.71	8.50	9.40	22.08	-0.21	18.72
1st Quartile	5.59	3.89	9.20	7.16	8.72	7.50	8.43	20.26	-2.96	16.61
<b>Median</b>	<b>5.02</b>	<b>2.43</b>	<b>7.49</b>	<b>6.29</b>	<b>8.03</b>	<b>6.87</b>	<b>7.68</b>	<b>18.52</b>	<b>-4.16</b>	<b>15.22</b>
3rd Quartile	4.34	0.74	5.47	5.36	7.26	6.22	7.09	16.66	-5.21	13.57
95th Percentile	0.80	-2.05	2.92	3.73	4.86	4.51	4.68	12.37	-6.76	6.81
Population	353	343	341	329	313	301	276	615	509	613

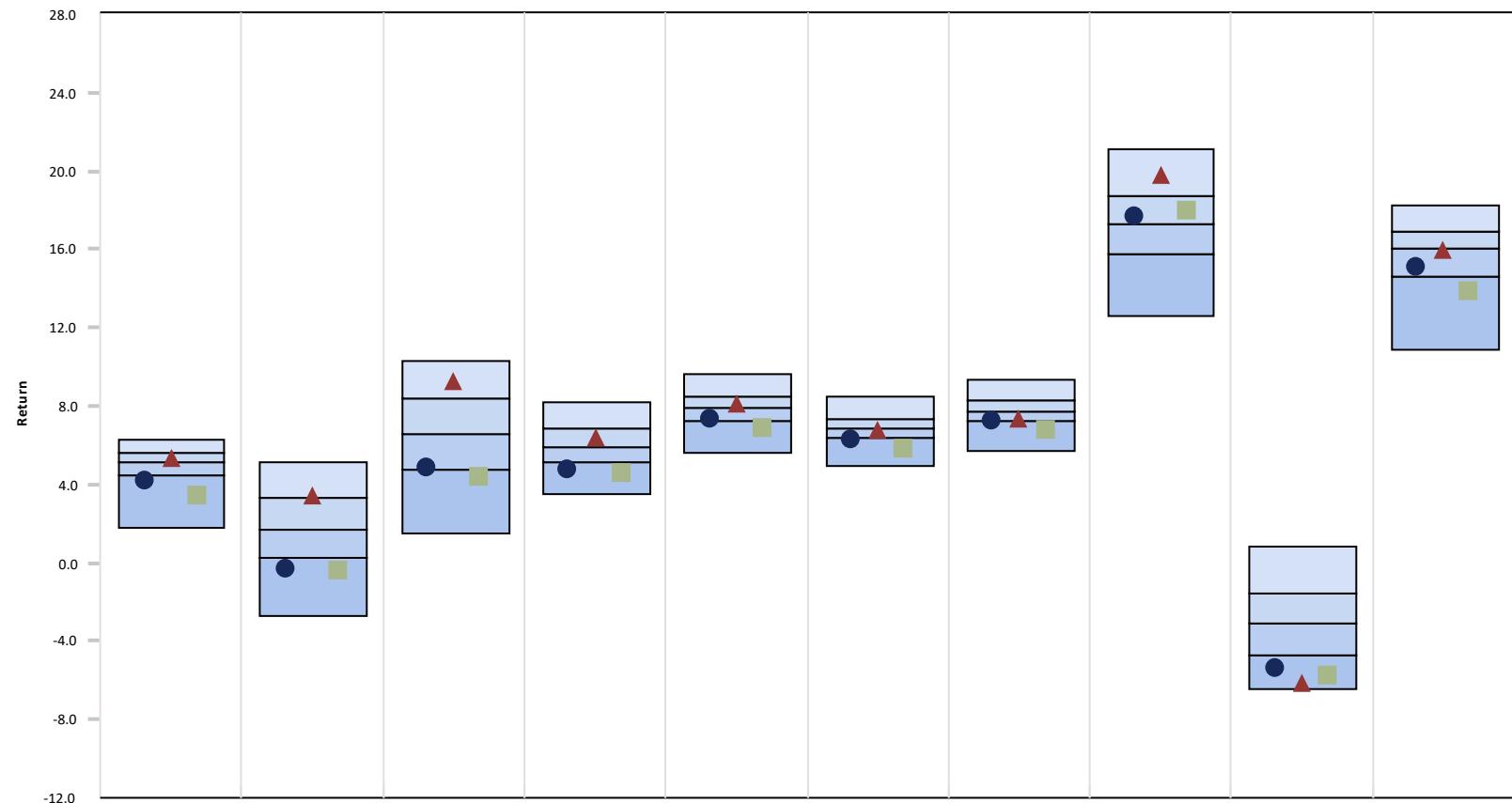
Parentheses contain percentile rankings.



# Employees' Retirement System of the City of Norfolk

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

September 30, 2020



	<u>3 Month</u>	<u>CYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	<u>10 Year</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
● Total Fund Composite	4.20 (79)	-0.33 (85)	4.82 (72)	4.73 (84)	7.33 (74)	6.25 (77)	7.22 (74)	17.67 (42)	-5.43 (87)	15.10 (67)
▲ Fund Policy (62.5% ACWI/37.5% Agg)	5.32 (45)	3.41 (23)	9.27 (14)	6.40 (39)	8.05 (48)	6.72 (55)	7.33 (71)	19.72 (16)	-6.19 (94)	15.91 (54)
■ Fund Strategic Index	3.37 (91)	-0.39 (85)	4.38 (80)	4.57 (86)	6.89 (83)	5.79 (87)	6.79 (87)	17.92 (37)	-5.80 (91)	13.79 (87)
5th Percentile	6.32	5.09	10.29	8.18	9.60	8.48	9.30	21.10	0.81	18.21
1st Quartile	5.64	3.33	8.36	6.89	8.46	7.36	8.26	18.74	-1.61	16.94
<b>Median</b>	<b>5.10</b>	<b>1.68</b>	<b>6.52</b>	<b>5.93</b>	<b>7.90</b>	<b>6.81</b>	<b>7.76</b>	<b>17.29</b>	<b>-3.14</b>	<b>16.01</b>
3rd Quartile	4.42	0.24	4.73	5.14	7.19	6.35	7.19	15.74	-4.71	14.57
95th Percentile	1.78	-2.71	1.54	3.54	5.59	4.97	5.75	12.58	-6.47	10.87
Population	100	99	99	97	94	93	89	184	145	126

Parentheses contain percentile rankings.

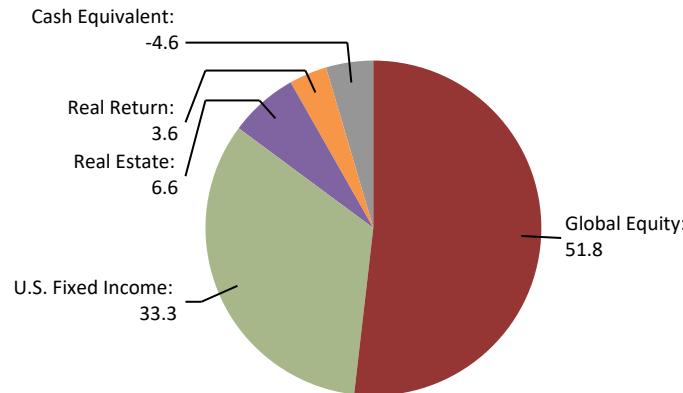


# Employees' Retirement System of the City of Norfolk

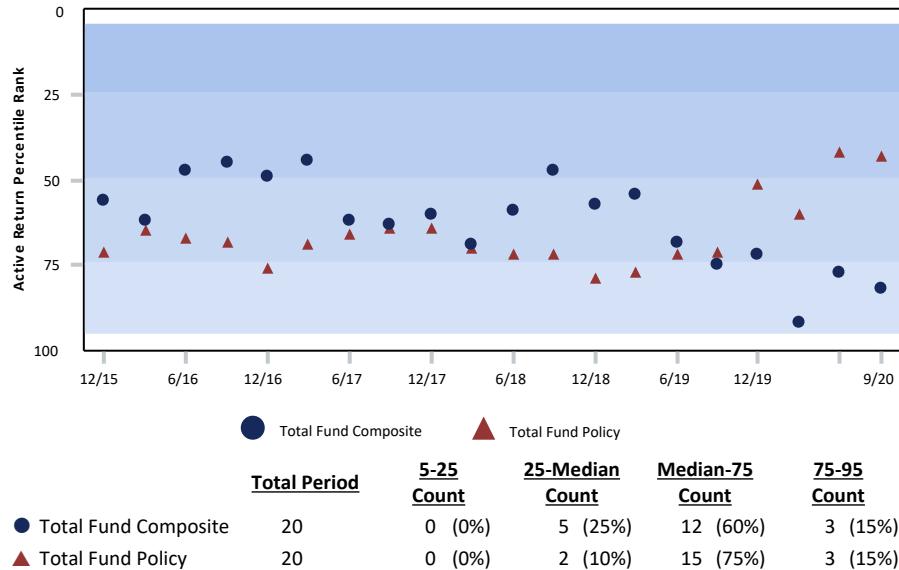
Total Fund Composite

September 30, 2020

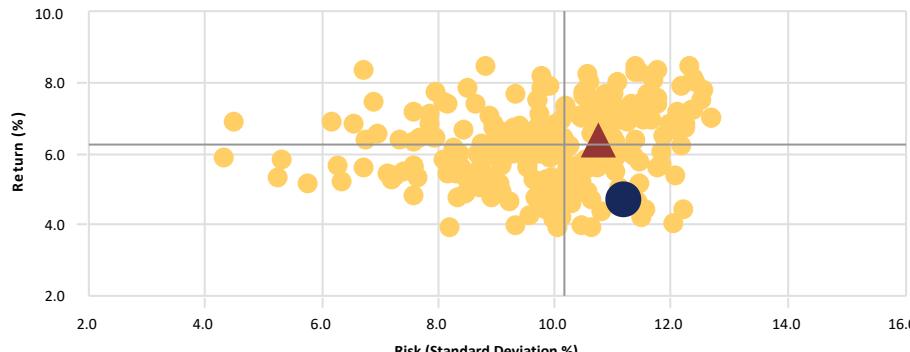
## Asset Allocation by Segment



## 3 Year Rolling Return Rank



## Risk vs. Return (10/01/17 - 09/30/20)



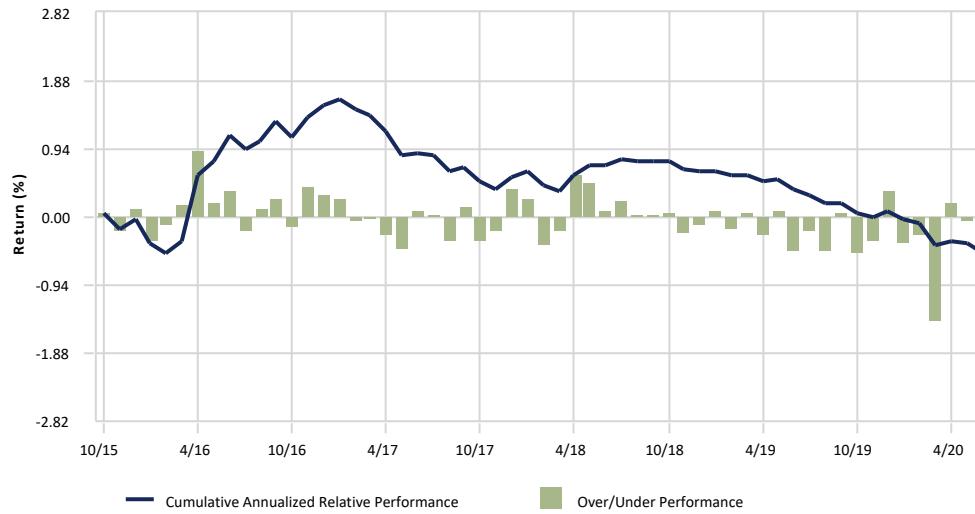
## Return

● Total Fund Composite 4.73 11.19

▲ Total Fund Policy 6.40 10.73

— Median 6.29 10.18

## Relative Performance vs. Total Fund Policy



Note: Cash Equivalent allocation includes manager cash.



## **Global Equity**

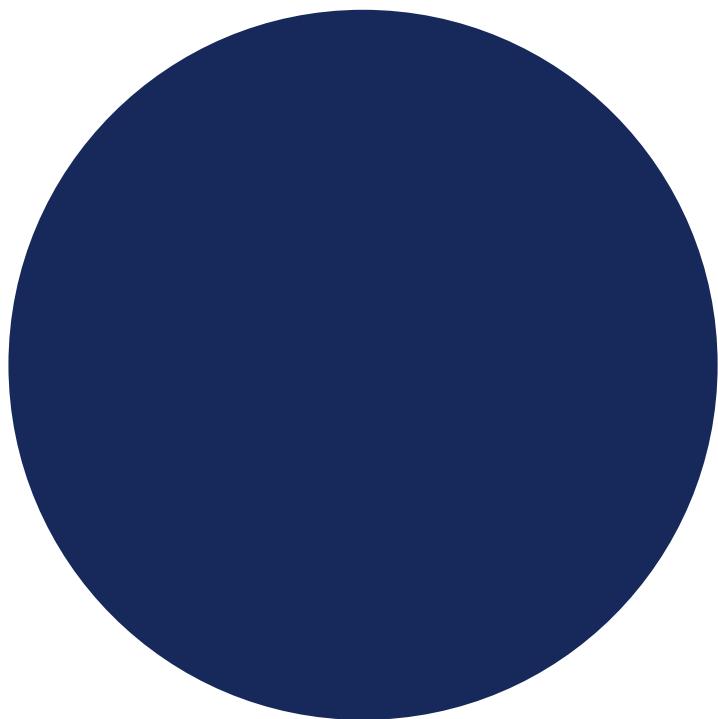
# Employees' Retirement System of the City of Norfolk

Global Equity Composite vs. MSCI AC World IMI (Net)

September 30, 2020

## Manager Allocation

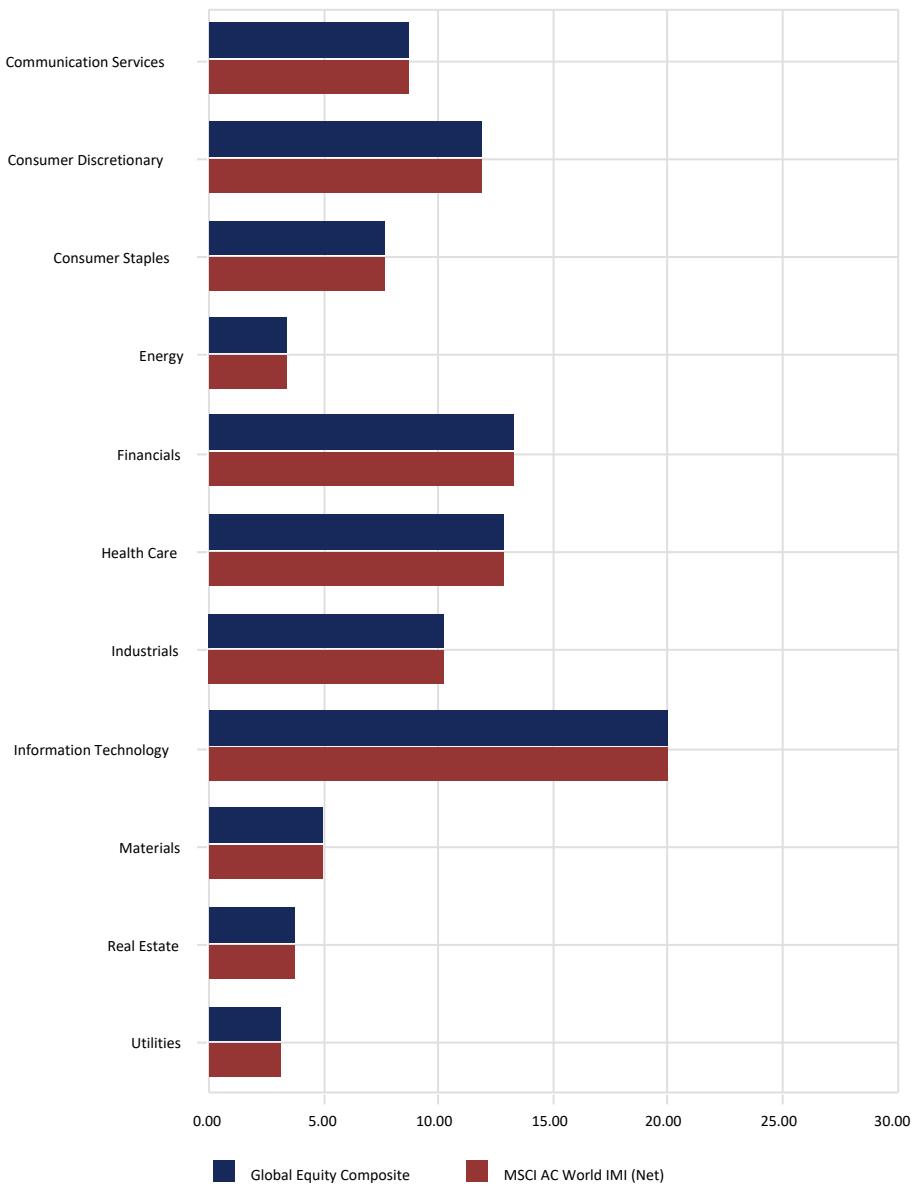
September 30, 2020 : \$632,970,343



■ SSgA MSCI ACWI IMI Index Fund

Market Value (\$)	Allocation (%)
632,970,343	100.00

## Sector Allocation - Holdings Based

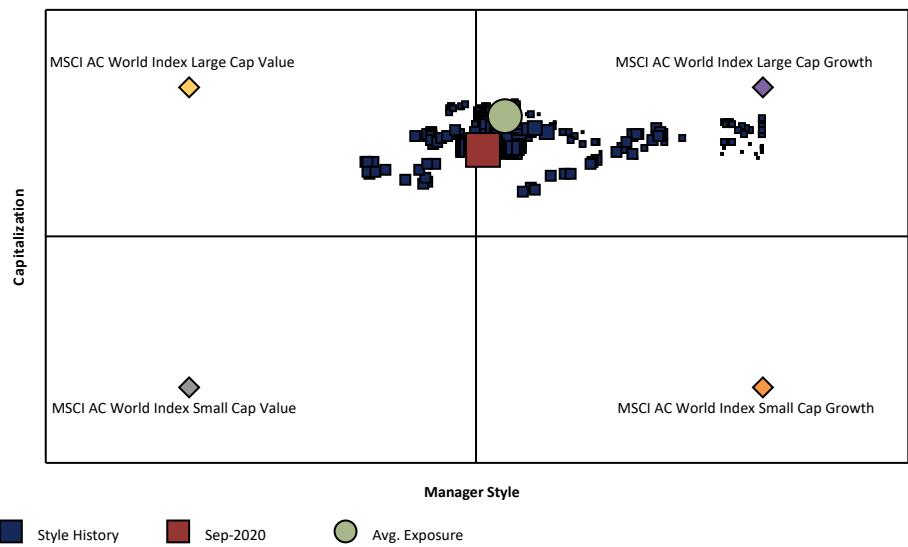


# Employees' Retirement System of the City of Norfolk

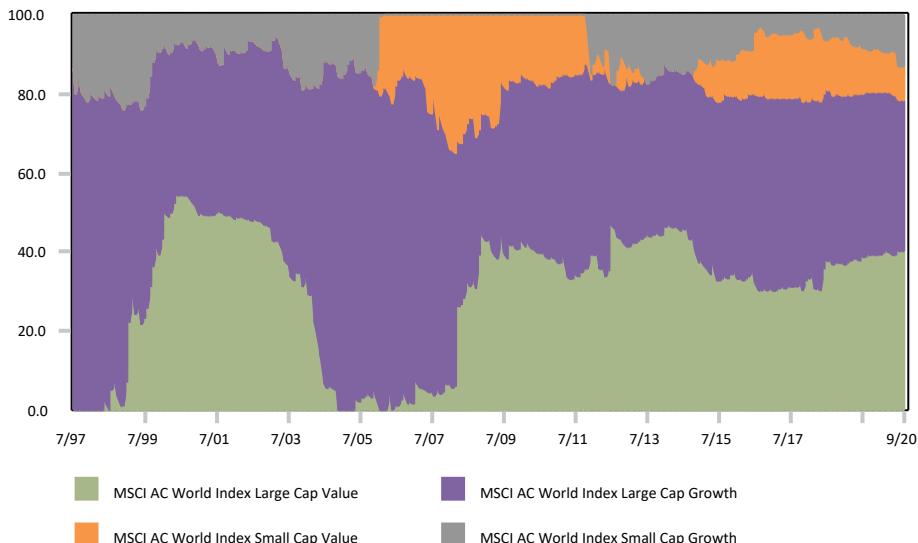
Global Equity Composite vs. MSCI AC World IMI (Net)

September 30, 2020

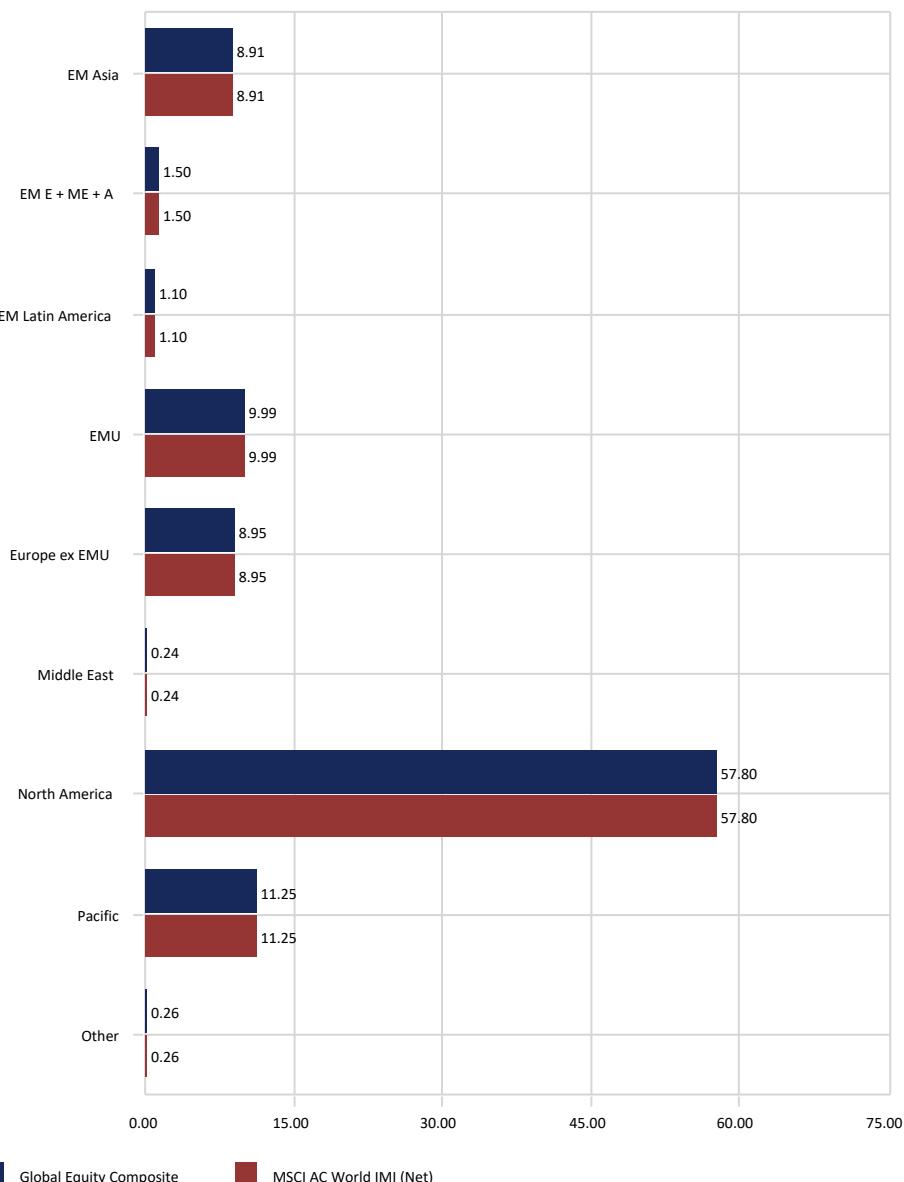
## Style Analysis - Returns Based



## 3 Year Style Analysis



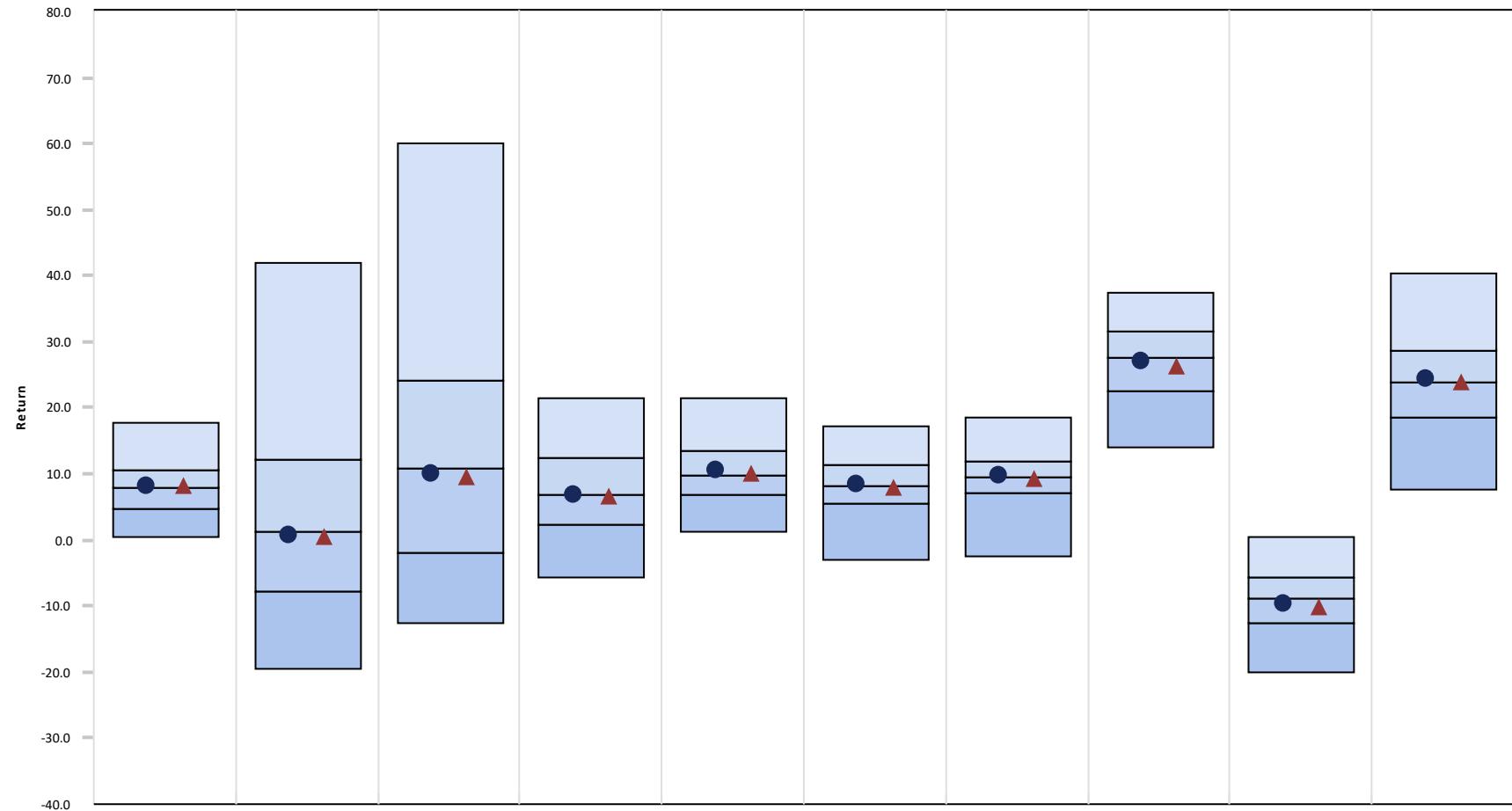
## Region Allocation - Holdings Based



# Employees' Retirement System of the City of Norfolk

Global Equity Composite vs. IM Global Equity (MF)

September 30, 2020



	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2019	2018	2017
● Global Equity Composite	8.17 (47)	0.84 (52)	10.04 (51)	6.92 (46)	10.50 (43)	8.43 (48)	9.64 (49)	26.92 (55)	-9.73 (62)	24.48 (47)
▲ Global Equity Policy	8.11 (48)	0.48 (53)	9.57 (52)	6.47 (52)	10.00 (48)	8.02 (55)	9.32 (53)	26.35 (58)	-10.08 (65)	23.95 (49)
5th Percentile	17.84	41.96	60.07	21.58	21.33	17.19	18.62	37.55	0.46	40.35
1st Quartile	10.56	12.11	24.16	12.33	13.58	11.28	11.88	31.60	-5.77	28.55
<b>Median</b>	<b>7.95</b>	<b>1.33</b>	<b>10.83</b>	<b>6.77</b>	<b>9.82</b>	<b>8.25</b>	<b>9.52</b>	<b>27.62</b>	<b>-8.75</b>	<b>23.73</b>
3rd Quartile	4.63	-7.81	-1.82	2.37	6.81	5.58	7.02	22.53	-12.46	18.60
95th Percentile	0.40	-19.44	-12.51	-5.75	1.33	-2.89	-2.61	14.08	-19.93	7.57

gross of fees

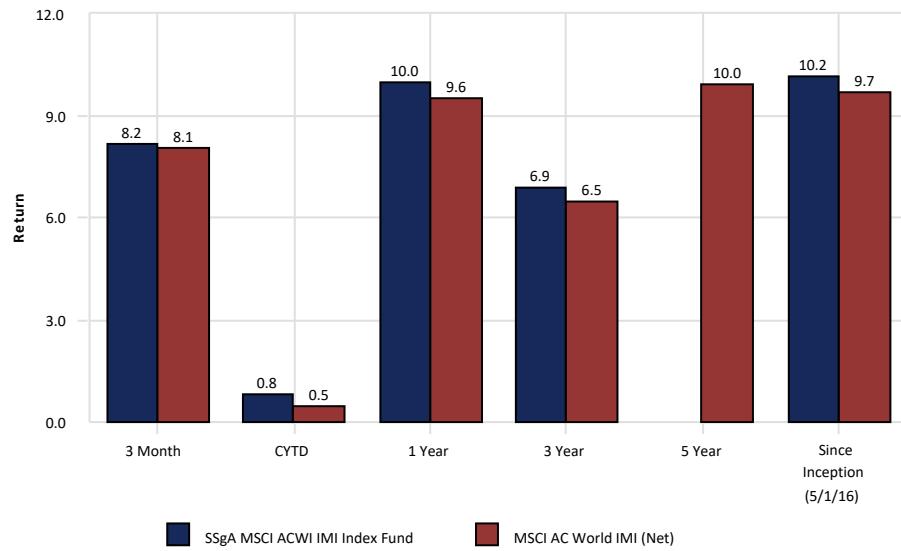


# Employees' Retirement System of the City of Norfolk

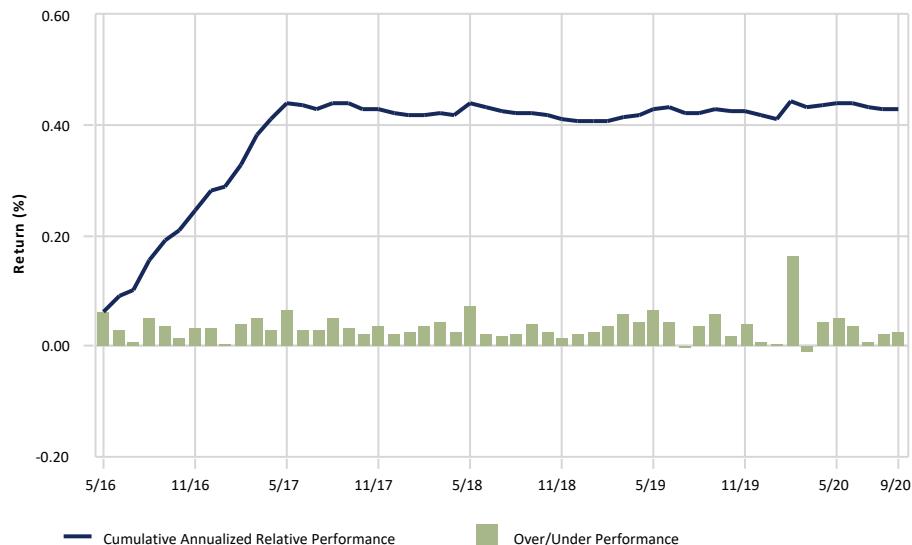
SSgA MSCI ACWI IMI Index Fund vs. IM Global Equity (SA+CF)

September 30, 2020

## Comparative Performance

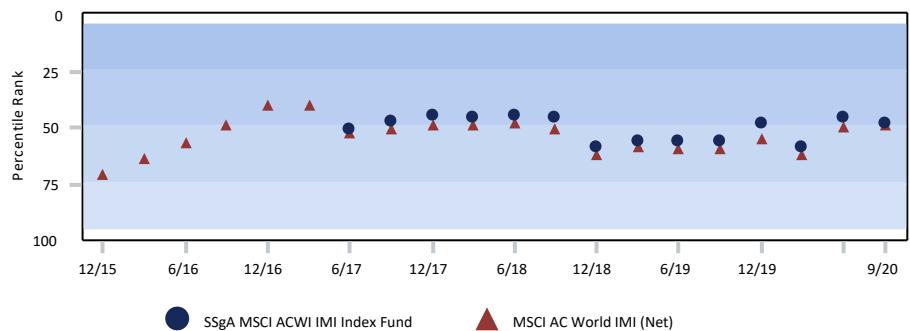


## Relative Performance vs MSCI AC World IMI (Net)

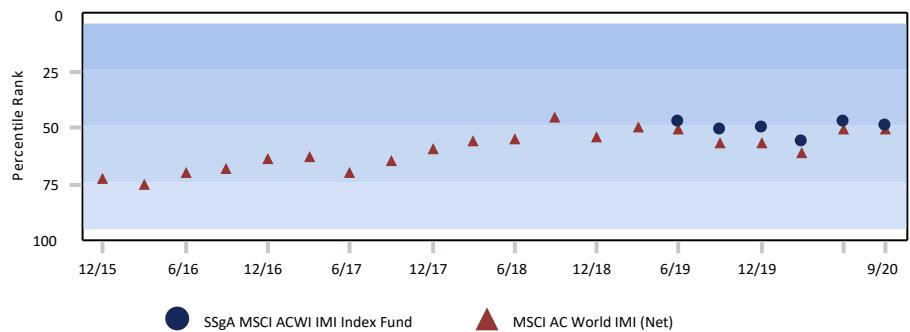


gross of fees

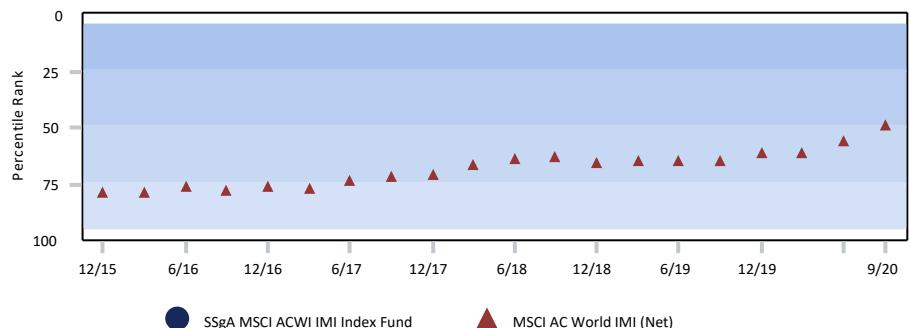
## 1 Year Rolling Percentile Ranking



## 3 Year Rolling Percentile Ranking



## 5 Year Rolling Percentile Ranking



# Employees' Retirement System of the City of Norfolk

SSgA MSCI ACWI IMI vs. MSCI AC World IMI (Net)

September 30, 2020

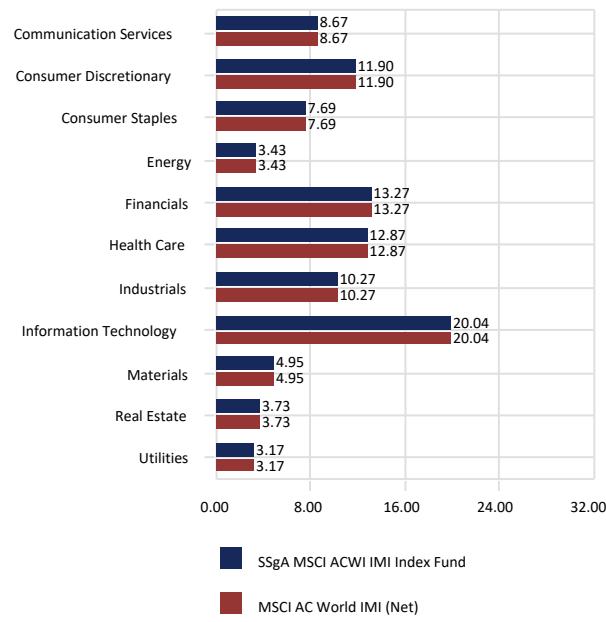
## Portfolio Characteristics

	Portfolio
Wtd. Avg. Mkt. Cap (\$000)	255,671,985
Median Mkt. Cap (\$000)	1,719,909
Price/Earnings ratio	22.22
Price/Book ratio	3.63
5 Yr. EPS Growth Rate (%)	10.13
Current Yield (%)	2.02
Beta (3 Years, Monthly)	1.00
Number of Stocks	8,766

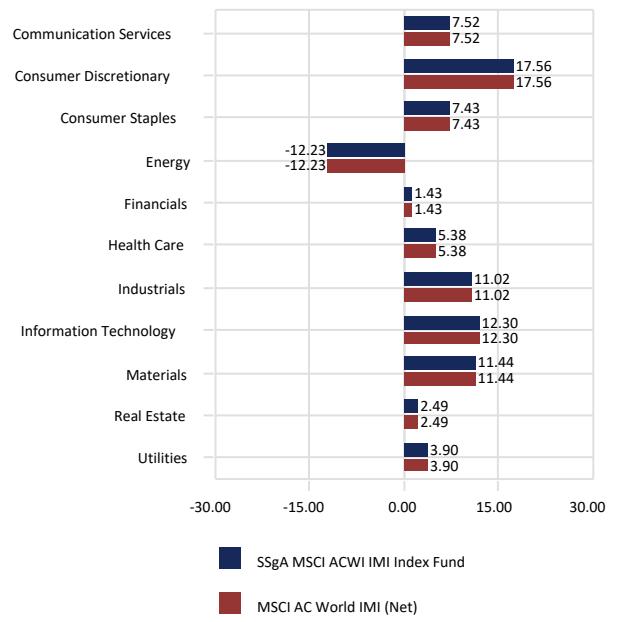
## Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Apple Inc	3.47	3.47	0.00	27.22
Microsoft Corp	2.62	2.62	0.00	3.60
Amazon.com Inc	2.30	2.30	0.00	14.13
Facebook Inc	1.09	1.09	0.00	15.34
Alibaba Group Holding Ltd	0.95	0.95	0.00	36.29
Alphabet Inc	0.77	0.77	0.00	3.96
Alphabet Inc Class A	0.76	0.76	0.00	3.35
Johnson & Johnson	0.68	0.68	0.00	6.57
Tencent Holdings LTD	0.65	0.65	0.00	2.59
Taiwan Semiconductor Manufacturing Co Ltd	0.64	0.64	0.00	41.41
% of Portfolio		13.93	13.93	0.00

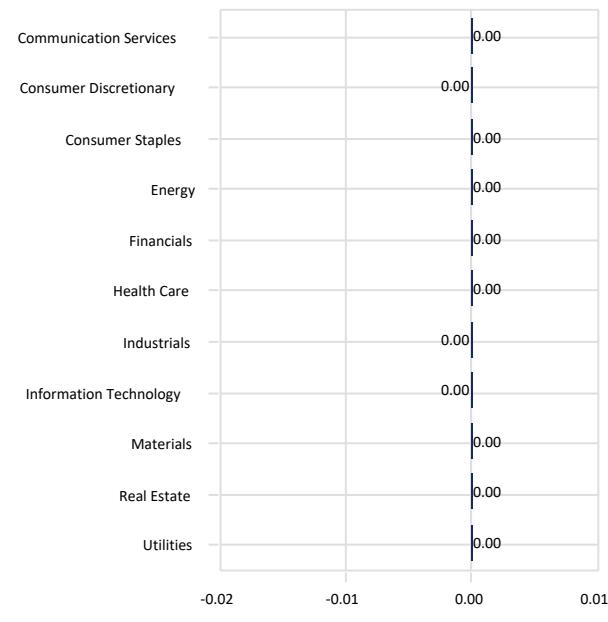
## Sector Allocation



## Sector Performance



## Total Sector Attribution

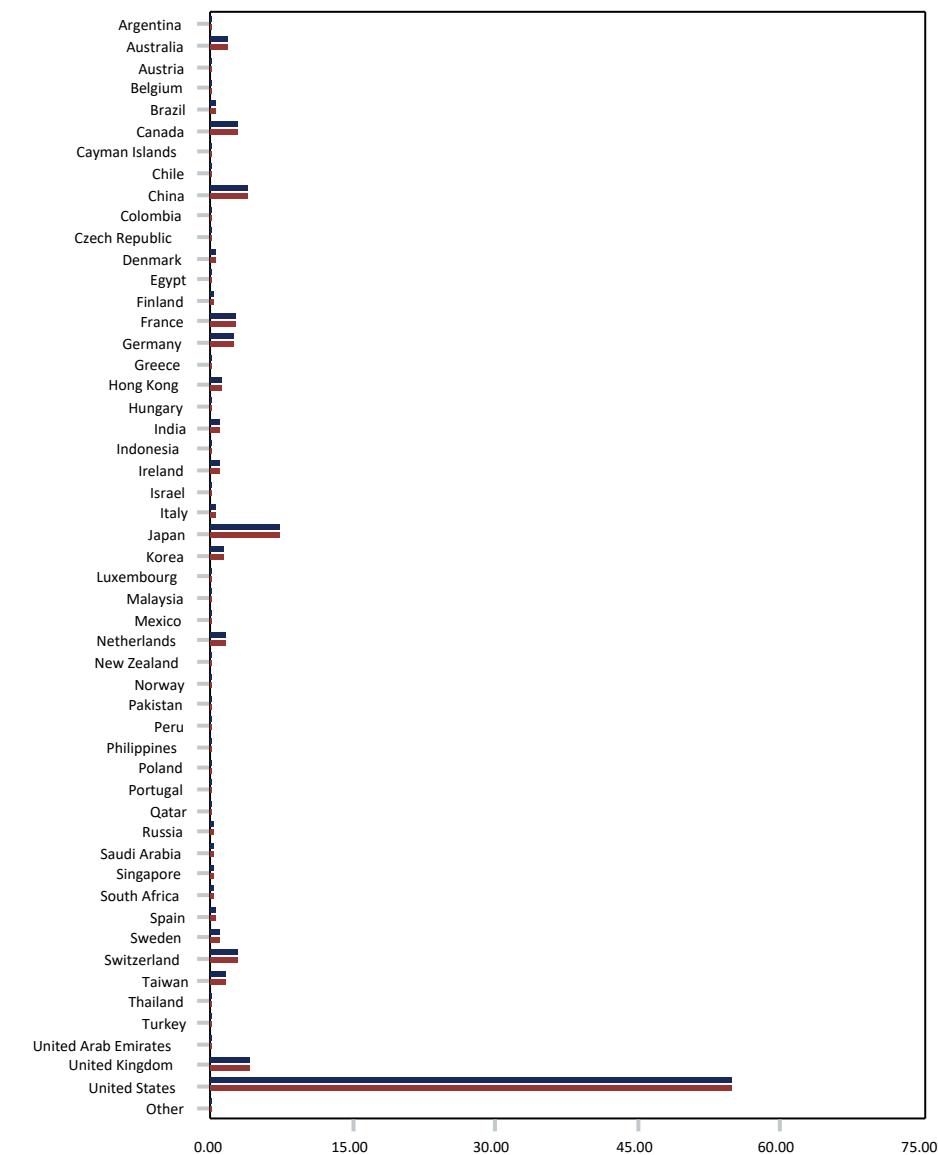


# Employees' Retirement System of the City of Norfolk

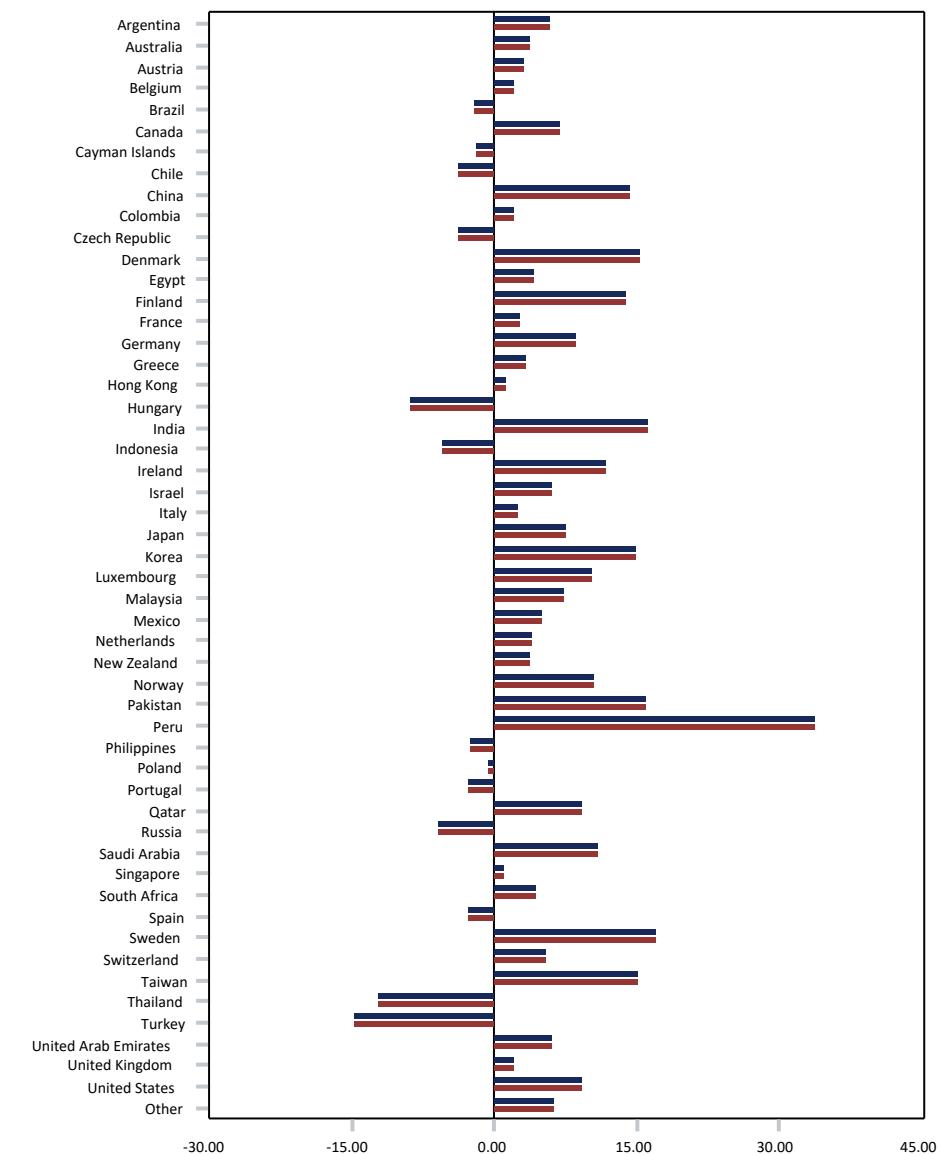
SSgA MSCI ACWI IMI vs. MSCI AC World IMI (Net)

September 30, 2020

## Country Allocation



## Country Performance



SSgA MSCI ACWI IMI

MSCI AC World IMI (Net)

SSgA MSCI ACWI IMI

MSCI AC World IMI (Net)

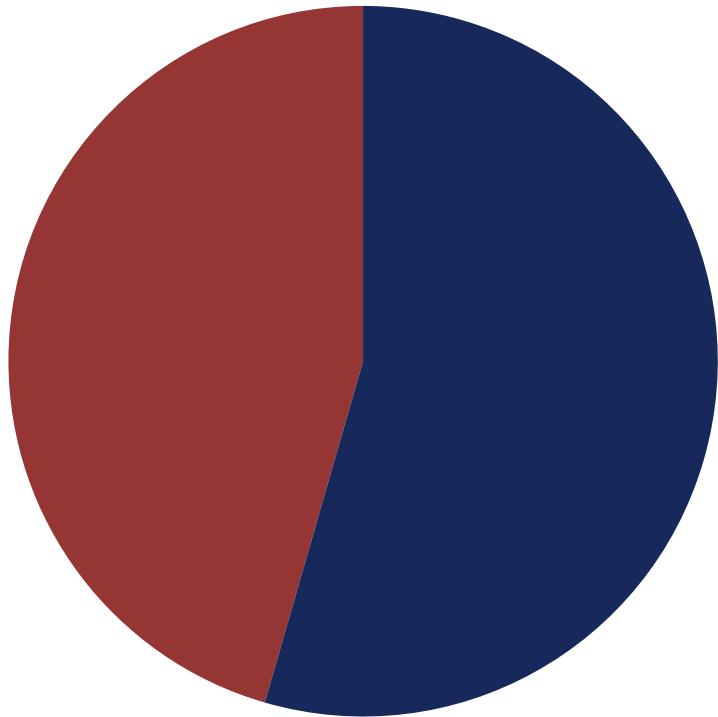
## **Fixed Income**

# Employees' Retirement System of the City of Norfolk

Fixed Income  
September 30, 2020

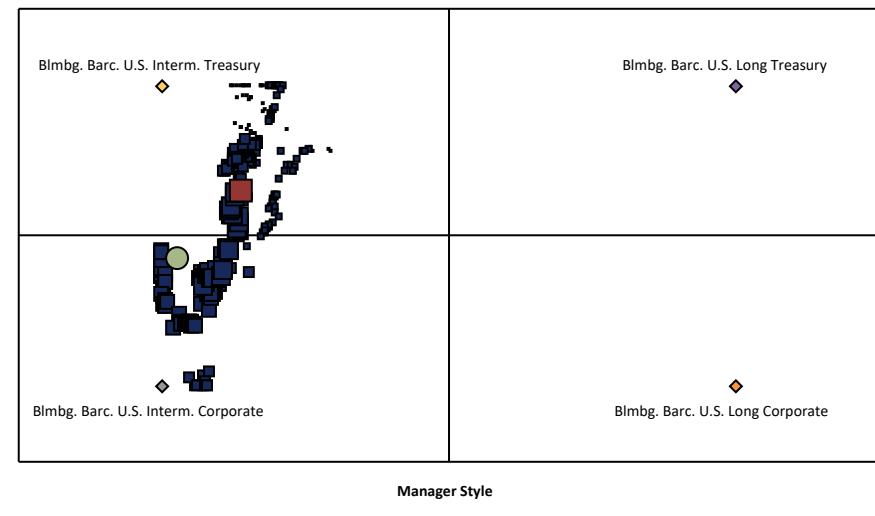
## Manager Allocation

September 30, 2020 : \$350,884,303

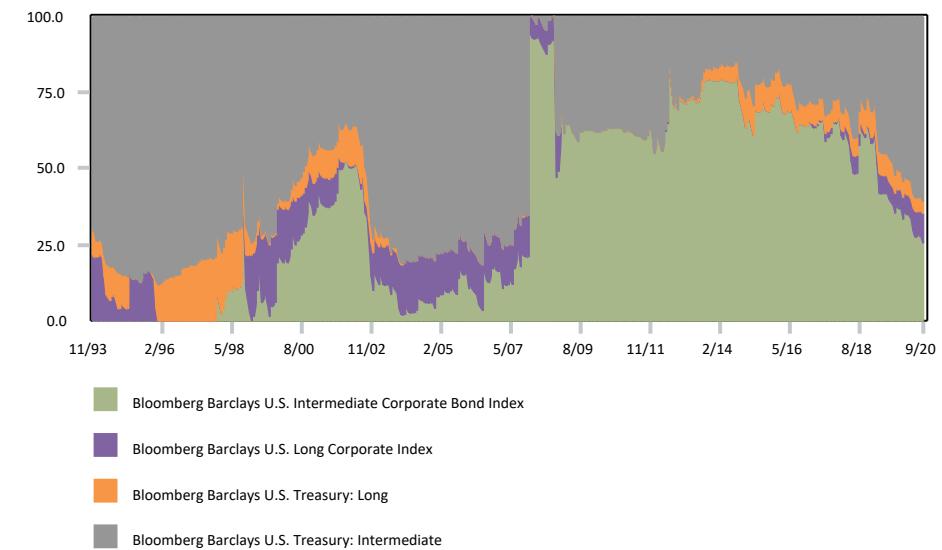


	Market Value (\$)	Allocation (%)
PIMCO Total Return	191,123,499	54.47
SSgA Bond Market Index	159,760,804	45.53

## Style Analysis - Returns Based



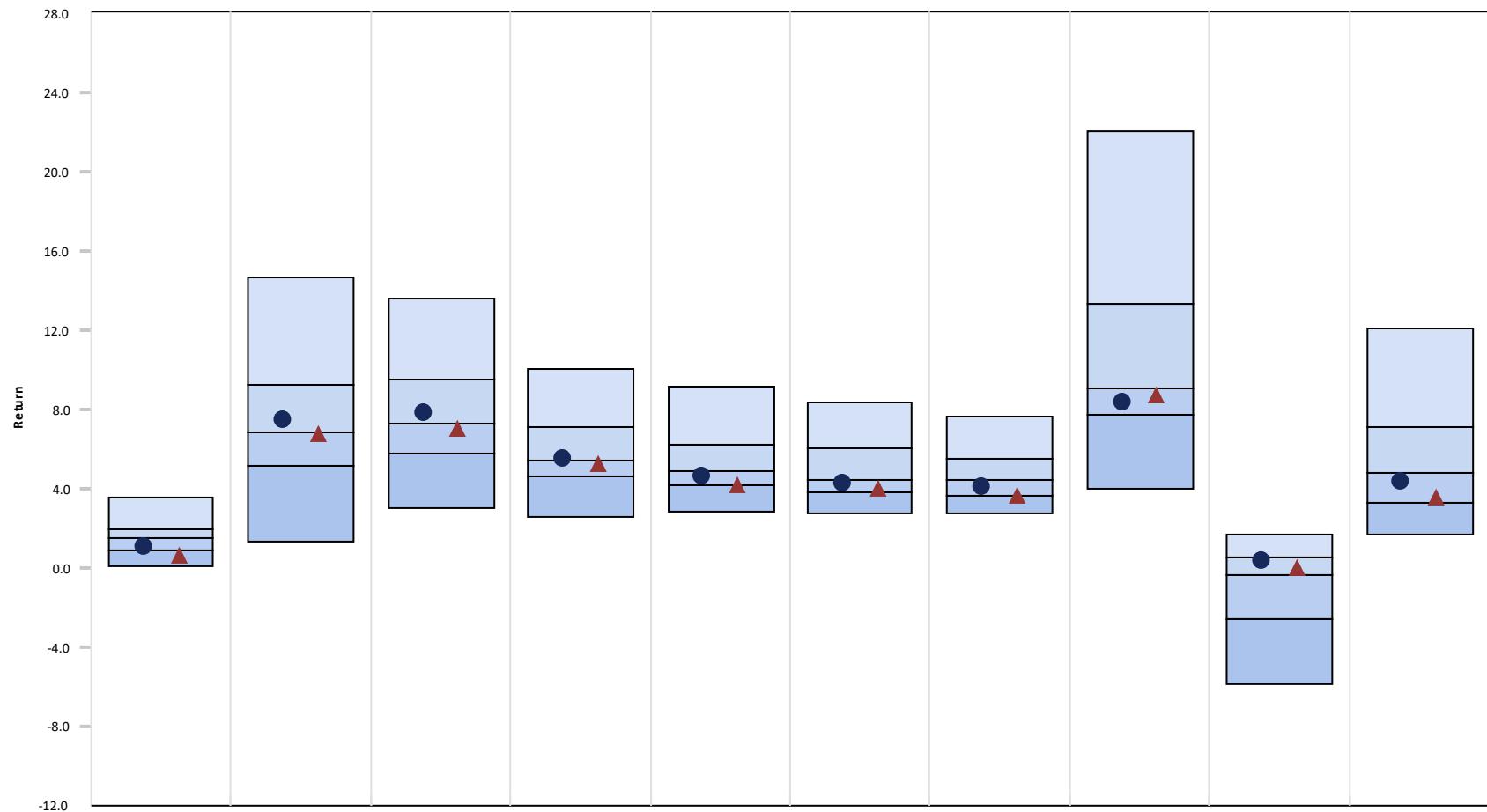
## 3 Year Style Analysis



# Employees' Retirement System of the City of Norfolk

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

September 30, 2020



	<b>3 Month</b>	<b>CYTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>7 Year</b>	<b>10 Year</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
● Fixed Income	1.07 (70)	7.50 (43)	7.85 (42)	5.49 (48)	4.60 (62)	4.23 (61)	4.07 (63)	8.39 (64)	0.35 (28)	4.34 (56)
▲ Blmbg. Barc. U.S. Aggregate	0.62 (84)	6.79 (52)	6.98 (57)	5.24 (56)	4.18 (75)	3.97 (70)	3.64 (75)	8.72 (58)	0.01 (36)	3.54 (69)
5th Percentile	3.56	14.70	13.61	10.02	9.18	8.36	7.63	22.08	1.73	12.12
1st Quartile	1.95	9.26	9.48	7.13	6.24	6.06	5.53	13.37	0.49	7.13
<b>Median</b>	<b>1.48</b>	<b>6.84</b>	<b>7.31</b>	<b>5.44</b>	<b>4.88</b>	<b>4.48</b>	<b>4.48</b>	<b>9.09</b>	<b>-0.39</b>	<b>4.78</b>
3rd Quartile	0.87	5.12	5.79	4.65	4.17	3.80	3.61	7.69	-2.54	3.32
95th Percentile	0.10	1.34	2.99	2.60	2.87	2.77	2.71	4.02	-5.83	1.65

**gross of fees**

Parentheses contain percentile rankings.

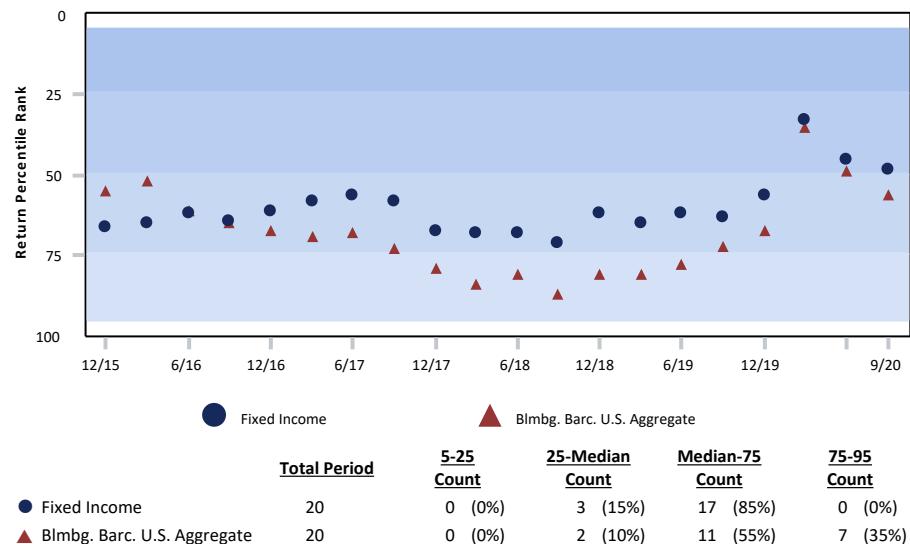


# Employees' Retirement System of the City of Norfolk

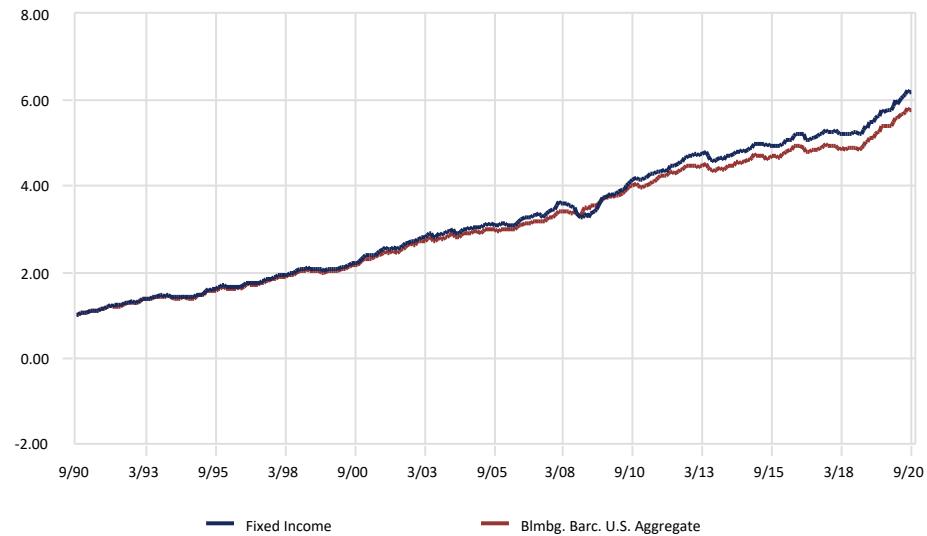
## Fixed Income

September 30, 2020

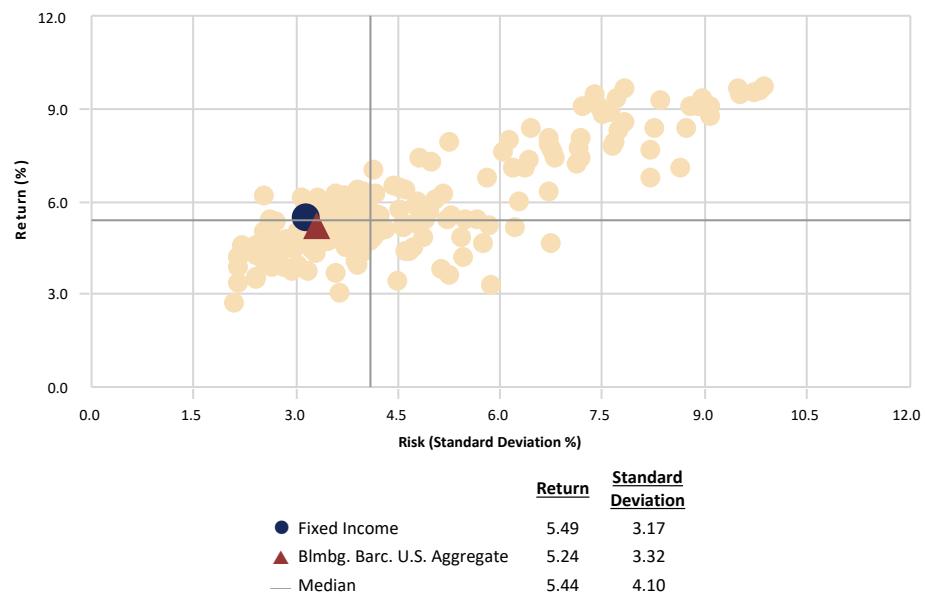
### 3 Year Rolling Return Rank



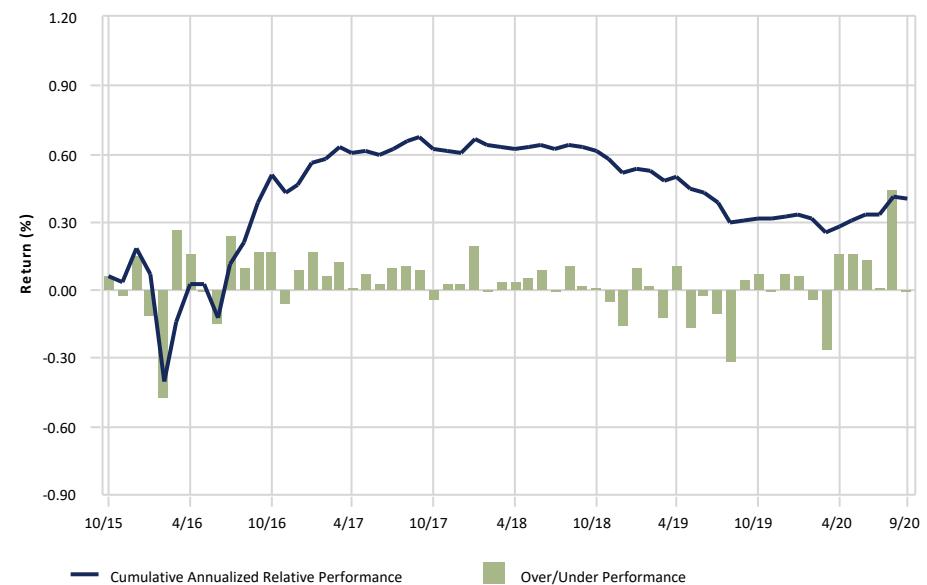
### Growth of \$1 - Since Inception (10/01/90)



### Risk vs. Return (10/01/17 - 09/30/20)



### Relative Performance vs. Blmbg. Barc. U.S. Aggregate

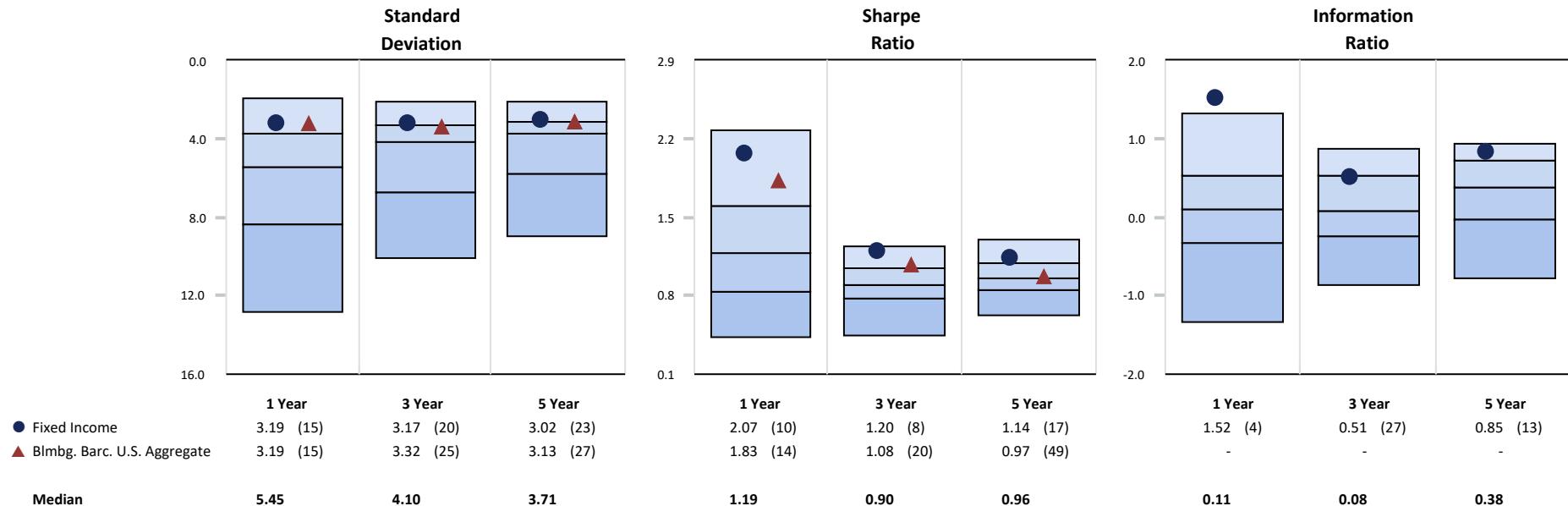


# Employees' Retirement System of the City of Norfolk

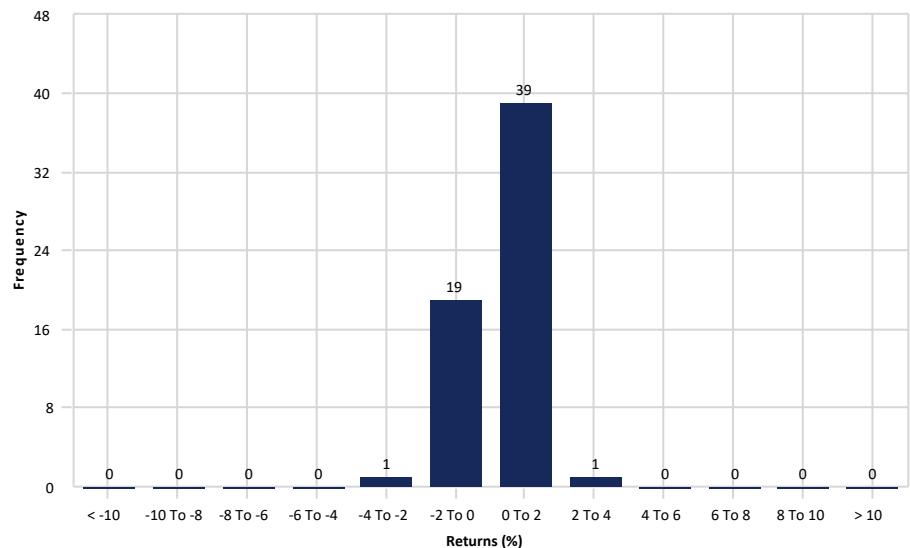
## Fixed Income

September 30, 2020

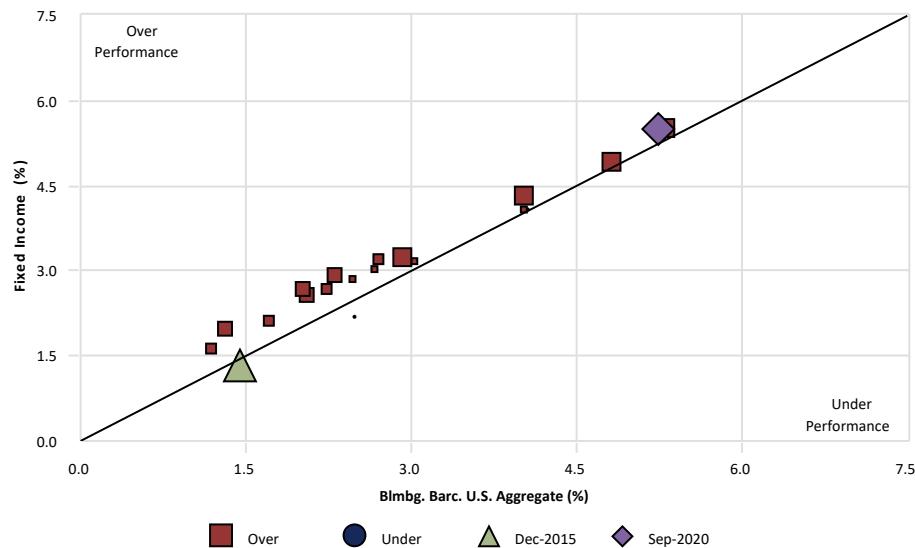
### Peer Group Analysis: All Master Trust-US Fixed Income Segment



### Monthly Distribution of Returns



### 3 Year Rolling Under/Over Performance

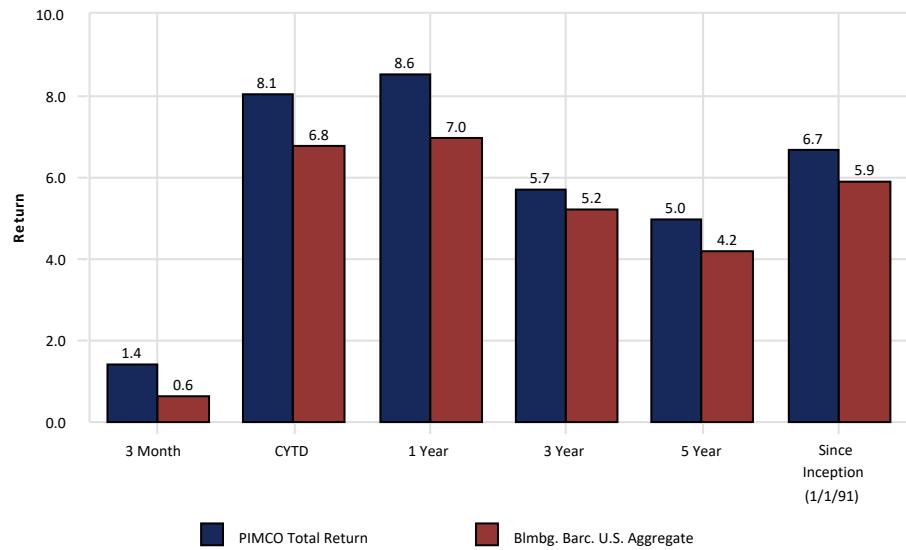


# Employees' Retirement System of the City of Norfolk

PIMCO Total Return vs. IM U.S. Broad Market Core Fixed Income (SA+CF)

September 30, 2020

## Comparative Performance

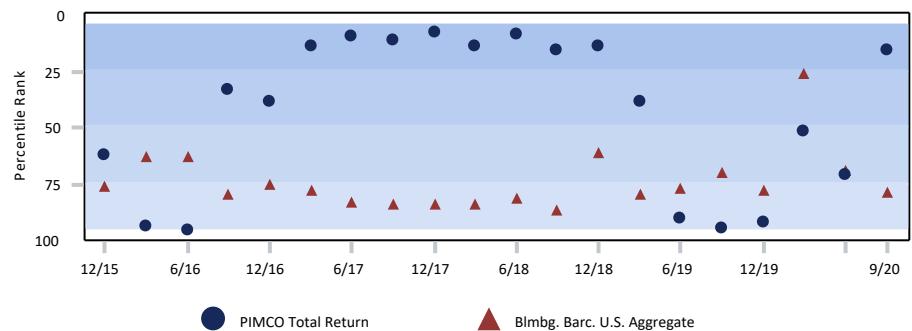


## Relative Performance vs Blmbg. Barc. U.S. Aggregate

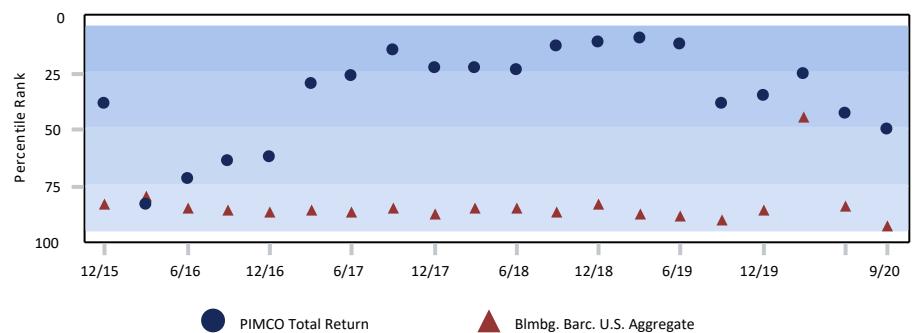


gross of fees

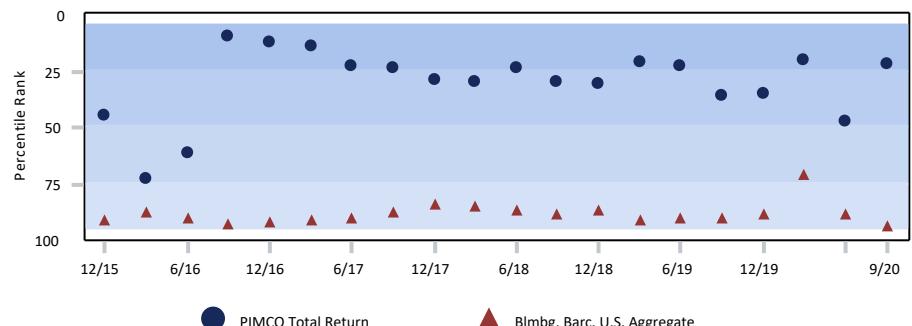
## 1 Year Rolling Percentile Ranking



## 3 Year Rolling Percentile Ranking



## 5 Year Rolling Percentile Ranking



# Employees' Retirement System of the City of Norfolk

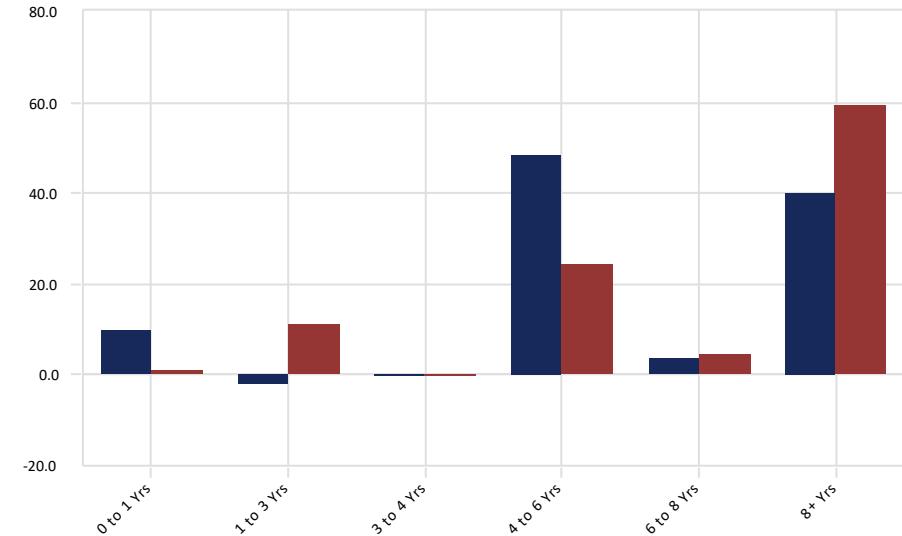
PIMCO Total Return vs. Blmbg. Barc. U.S. Aggregate

September 30, 2020

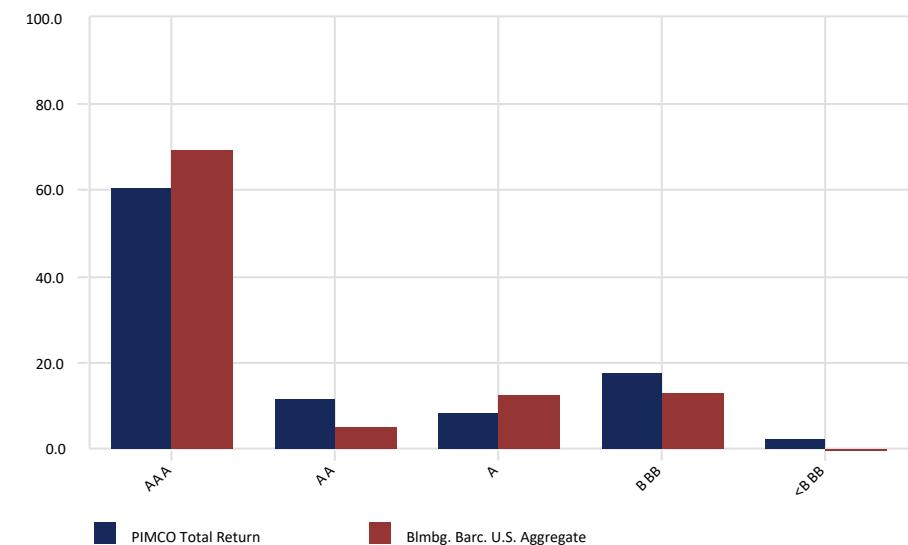
## Portfolio Characteristics

	<u>Portfolio</u>	<u>Benchmark</u>
Avg. Maturity	9.28	8.18
Avg. Quality	AA	AA
Coupon Rate (%)	2.85	3.01
Convexity	-	-
Effective Duration	5.91	5.91

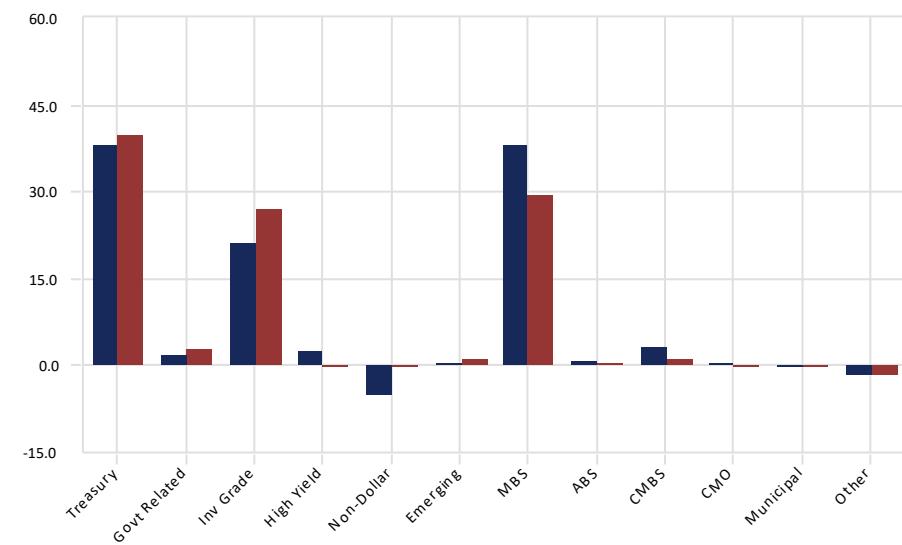
## Duration Distribution (%)



## Credit Quality Distribution (%)



## Sector Distribution (%)

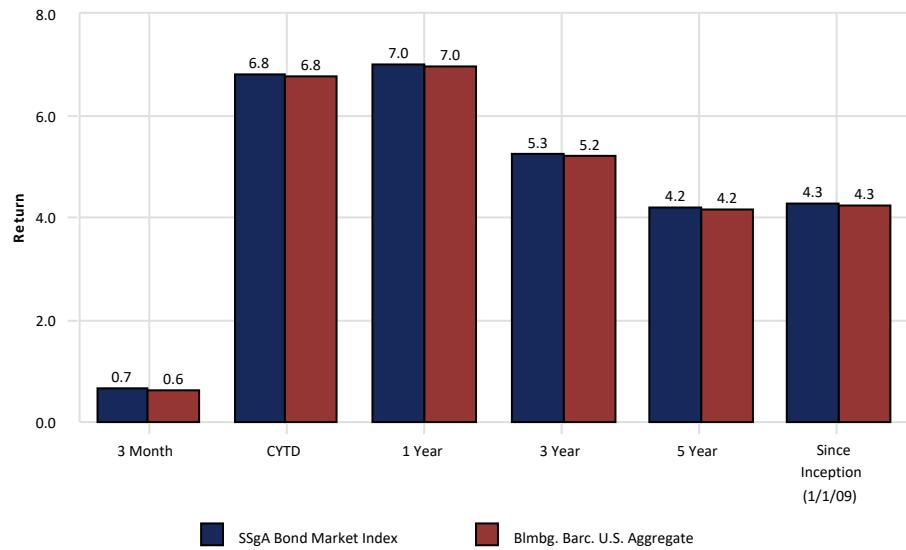


# Employees' Retirement System of the City of Norfolk

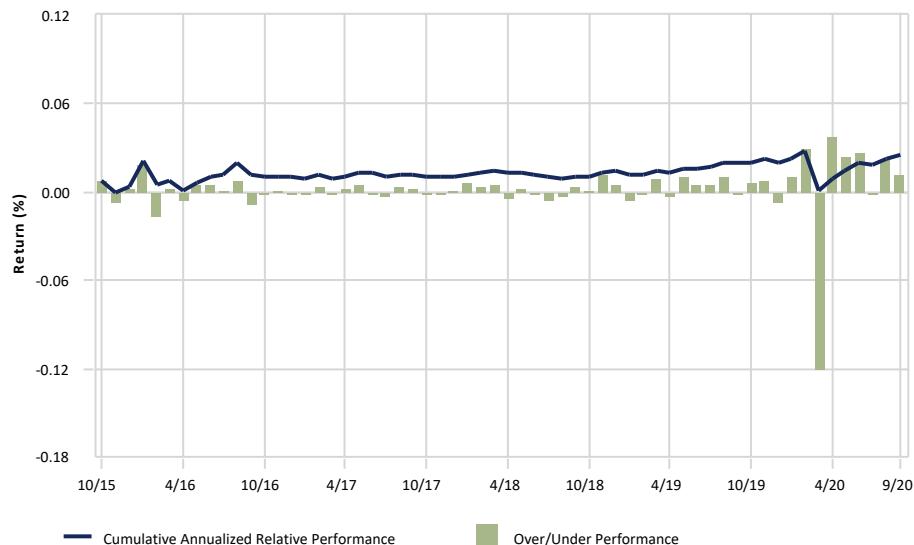
SSgA Bond Market Index vs. IM U.S. Broad Market Core Fixed Income (SA+CF)

September 30, 2020

## Comparative Performance

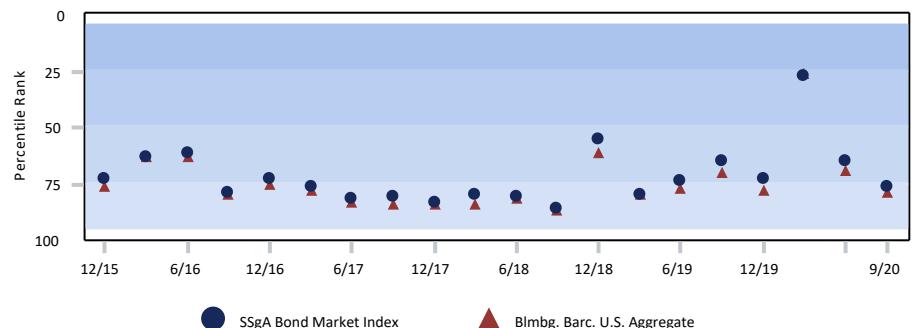


## Relative Performance vs Blmbg. Barc. U.S. Aggregate

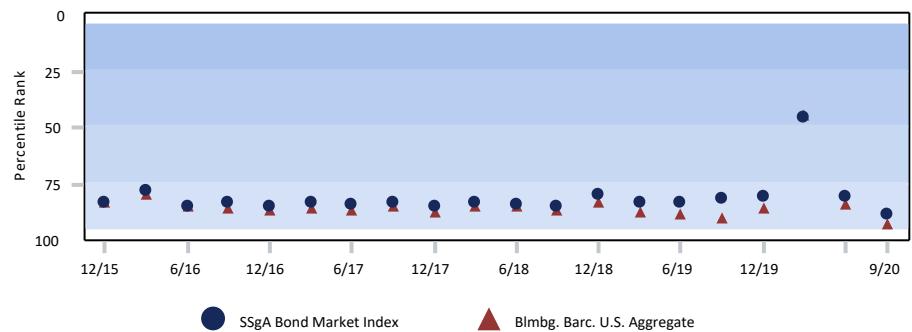


gross of fees

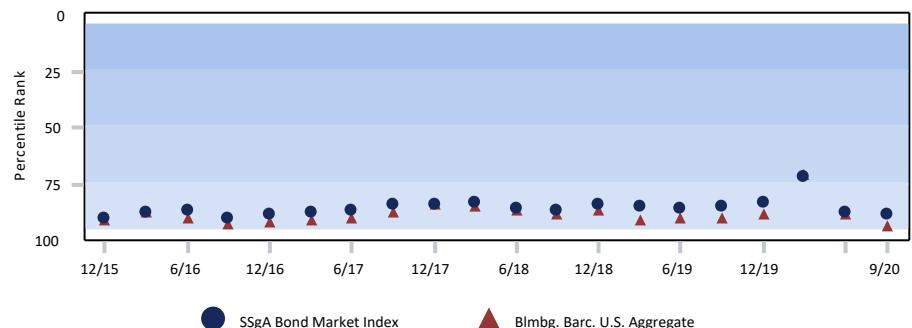
## 1 Year Rolling Percentile Ranking



## 3 Year Rolling Percentile Ranking



## 5 Year Rolling Percentile Ranking



# Employees' Retirement System of the City of Norfolk

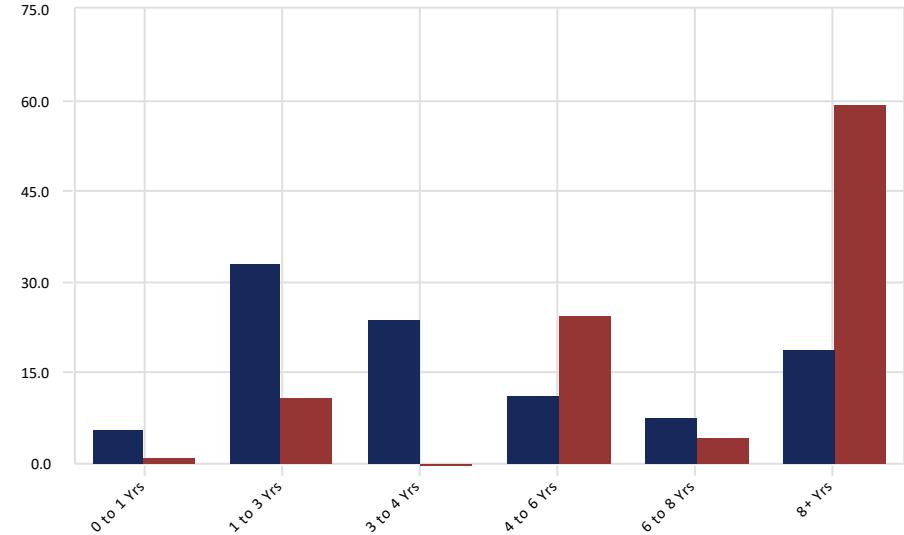
SSgA Bond Market Index vs. Blmbg. Barc. U.S. Aggregate

September 30, 2020

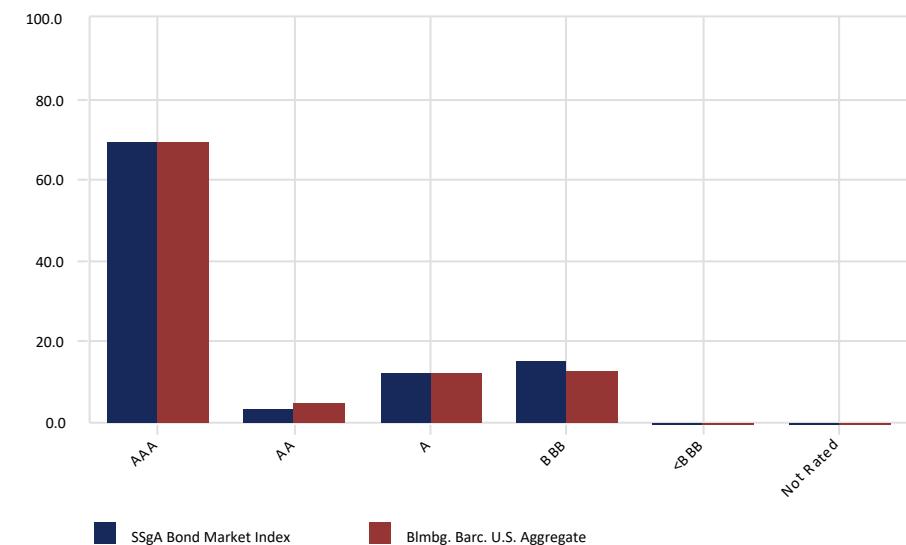
## Portfolio Characteristics

	<u>Portfolio</u>	<u>Benchmark</u>
Avg. Maturity	8.12	8.18
Avg. Quality	Aa2	AA
Yield To Maturity (%)	1.20	1.19
Effective Duration	6.16	5.91
Convexity	0.42	-

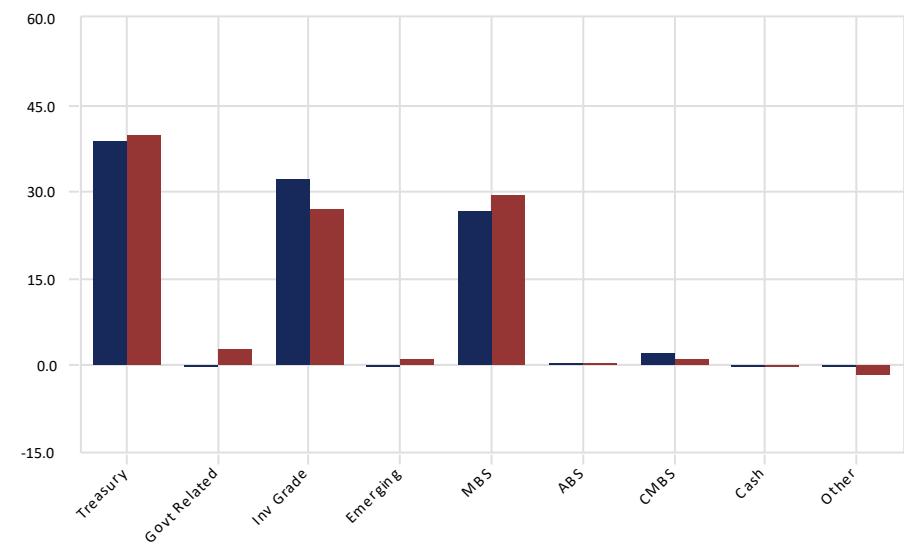
## Duration Distribution (%)



## Credit Quality Distribution (%)



## Sector Distribution (%)



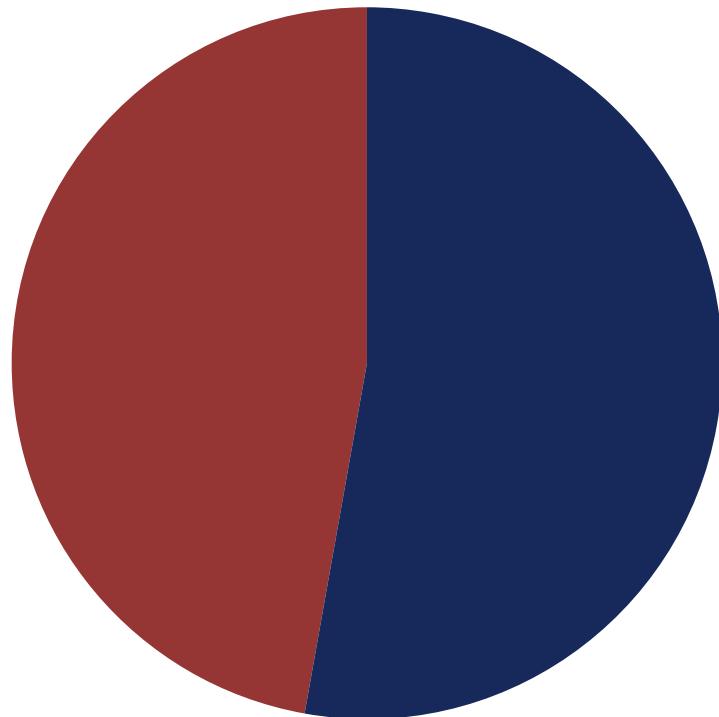
**Real Estate**

## Employees' Retirement System of the City of Norfolk

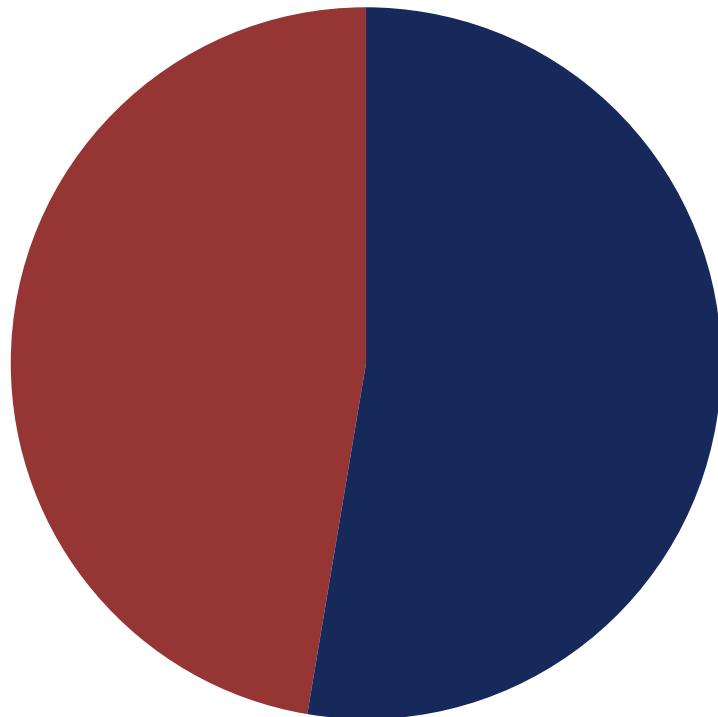
Asset Allocation By Manager - Real Estate

September 30, 2020

September 30, 2020 : \$80,954,829



June 30, 2020 : \$81,444,905



	Market Value (\$)	Allocation (%)
JP Morgan Asset Management Strategic Property Fund	42,755,347	52.81
UBS Trumbull Property Fund	38,199,482	47.19

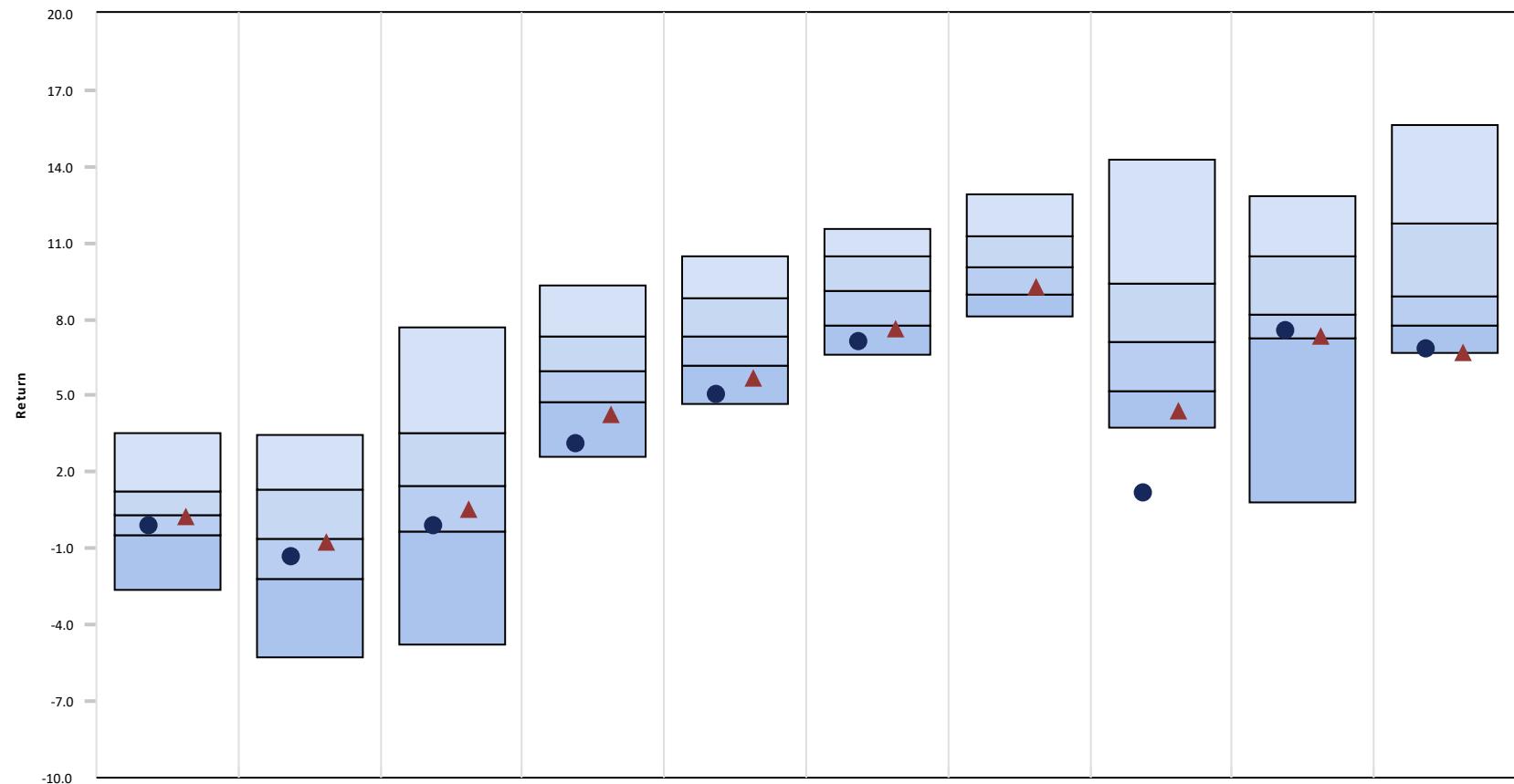
	Market Value (\$)	Allocation (%)
JP Morgan Asset Management Strategic Property Fund	42,876,784	52.65
UBS Trumbull Property Fund	38,568,122	47.35



# Employees' Retirement System of the City of Norfolk

Plan Sponsor Peer Group Analysis - All Master Trust-Real Estate Segment

September 30, 2020



	<u>3 Month</u>	<u>CYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	<u>10 Year</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
● Real Estate	-0.10 (68)	-1.31 (59)	-0.12 (72)	3.09 (91)	5.01 (94)	7.14 (87)	-	1.18 (100)	7.52 (72)	6.81 (92)
▲ NCREIF Fund Index-ODCE (Net)	0.27 (52)	-0.75 (52)	0.52 (62)	4.25 (80)	5.69 (87)	7.62 (76)	9.26 (71)	4.39 (85)	7.36 (73)	6.66 (96)
5th Percentile	3.53	3.47	7.67	9.33	10.50	11.54	12.93	14.29	12.86	15.63
1st Quartile	1.25	1.32	3.55	7.31	8.85	10.48	11.24	9.37	10.49	11.74
<b>Median</b>	<b>0.29</b>	<b>-0.63</b>	<b>1.48</b>	<b>5.96</b>	<b>7.35</b>	<b>9.14</b>	<b>10.02</b>	<b>7.14</b>	<b>8.21</b>	<b>8.88</b>
3rd Quartile	-0.46	-2.23	-0.31	4.73	6.16	7.73	9.00	5.16	7.28	7.74
95th Percentile	-2.61	-5.29	-4.79	2.58	4.67	6.62	8.12	3.73	0.81	6.69
Population	128	101	95	65	50	36	25	91	70	70

gross of fees

Parentheses contain percentile rankings.



## **Master Limited Partnerships**

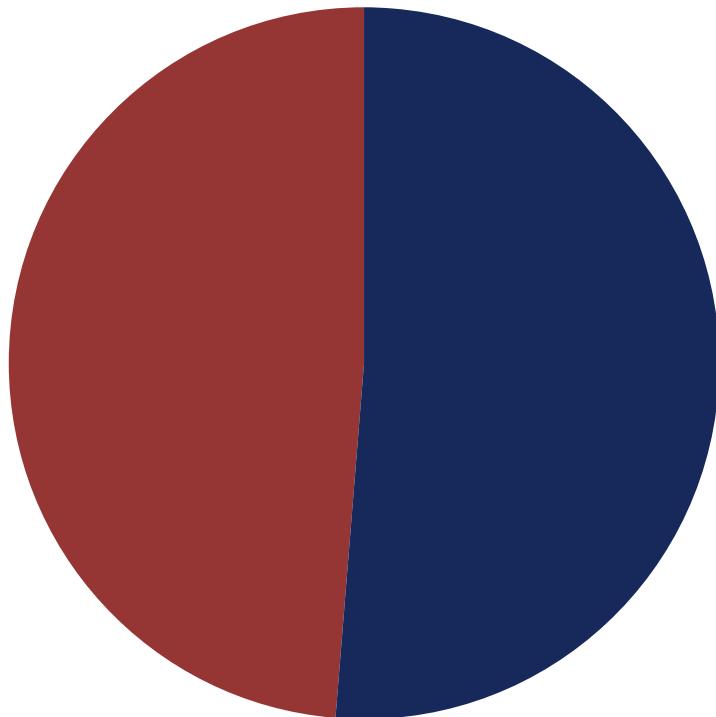
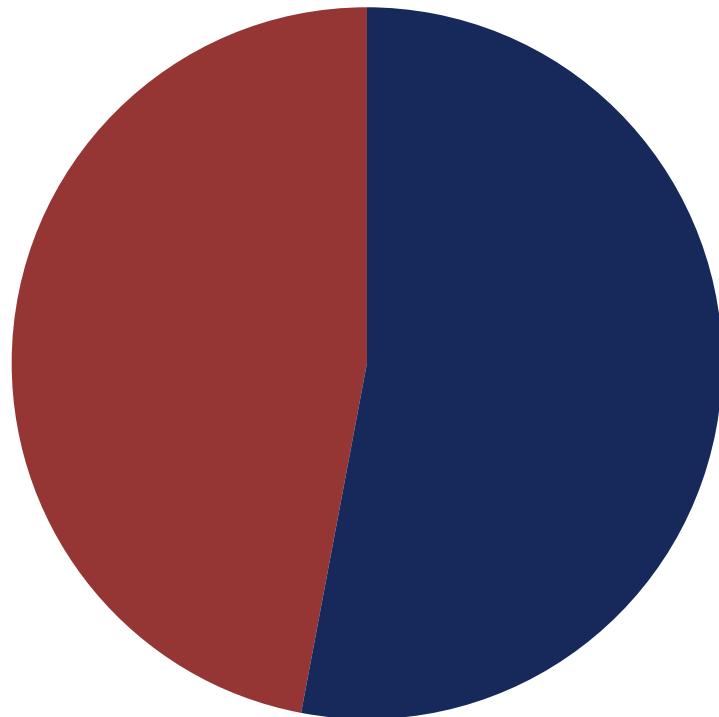
## Employees' Retirement System of the City of Norfolk

Asset Allocation By Manager - MLPs

September 30, 2020

September 30, 2020 : \$45,228,404

June 30, 2020 : \$51,617,231



	Market Value (\$)	Allocation (%)
Harvest MLP	23,956,868	52.97
Tortoise Capital Advisors	21,271,536	47.03

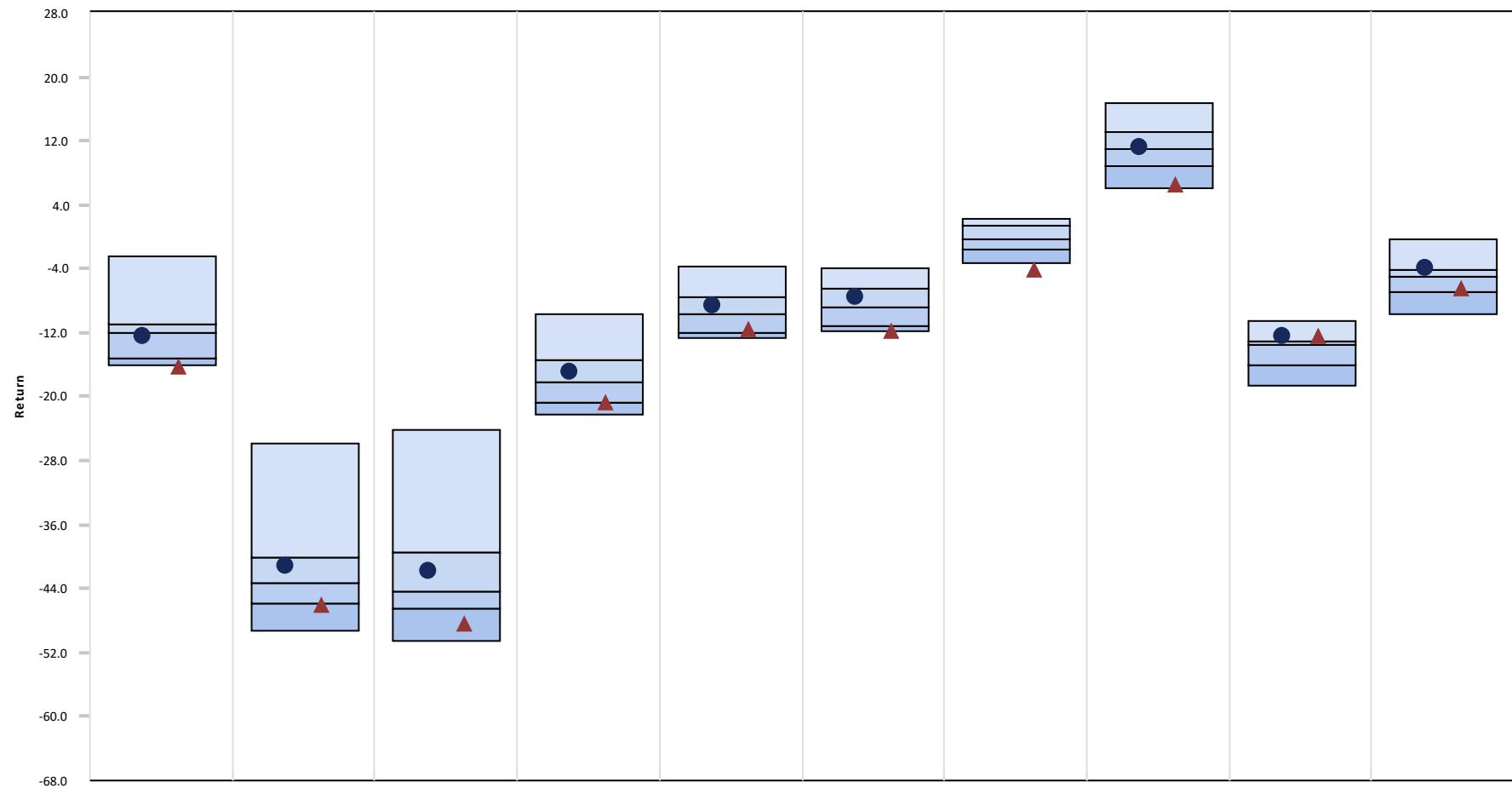
	Market Value (\$)	Allocation (%)
Harvest MLP	26,472,375	51.29
Tortoise Capital Advisors	25,144,856	48.71



# Employees' Retirement System of the City of Norfolk

MLPs vs. Master Limited Partnerships (SA+CF)

September 30, 2020



	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2019	2018	2017
● MLPs	-12.38 (53)	-41.22 (30)	-41.89 (30)	-17.01 (30)	-8.64 (30)	-7.47 (30)	-	11.16 (35)	-12.45 (12)	-3.96 (20)
▲ Alerian MLP Index	-16.26 (100)	-46.16 (82)	-48.35 (91)	-20.75 (74)	-11.58 (71)	-11.86 (100)	-4.17 (100)	6.56 (89)	-12.42 (11)	-6.52 (69)
5th Percentile	-2.52	-25.82	-24.09	-9.59	-3.82	-3.89	2.18	16.67	-10.56	-0.23
1st Quartile	-10.92	-40.15	-39.39	-15.41	-7.60	-6.41	1.41	13.20	-12.99	-4.14
<b>Median</b>	<b>-12.05</b>	<b>-43.41</b>	<b>-44.39</b>	<b>-18.24</b>	<b>-9.65</b>	<b>-8.72</b>	<b>-0.30</b>	<b>11.00</b>	<b>-13.48</b>	<b>-4.94</b>
3rd Quartile	-15.12	-45.89	-46.47	-20.79	-11.98	-11.13	-1.64	8.86	-15.97	-7.00
95th Percentile	-16.07	-49.19	-50.65	-22.33	-12.73	-11.78	-3.29	6.17	-18.63	-9.57

gross of fees

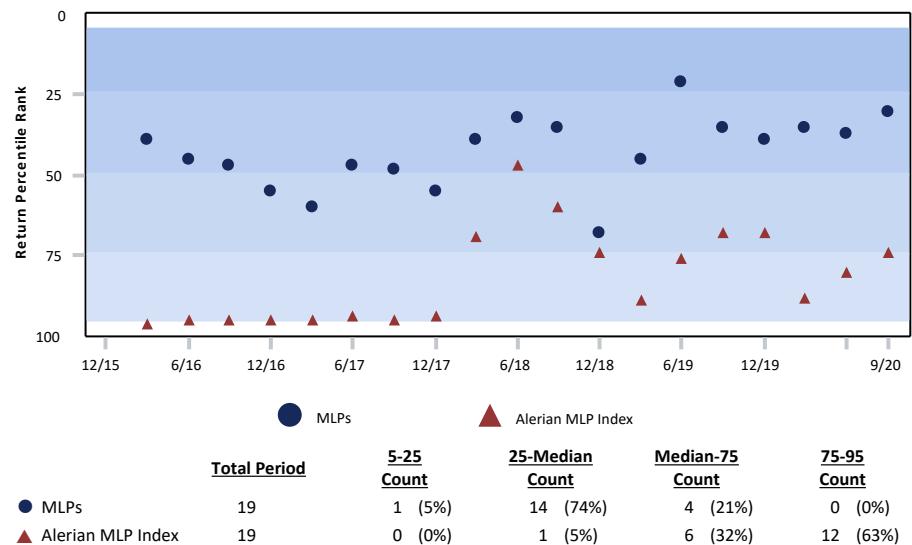


# Employees' Retirement System of the City of Norfolk

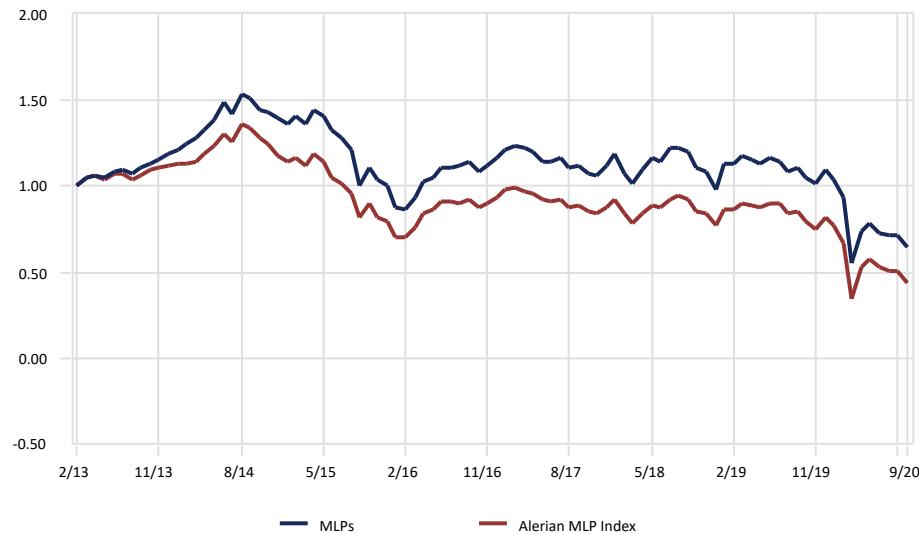
MLPs

September 30, 2020

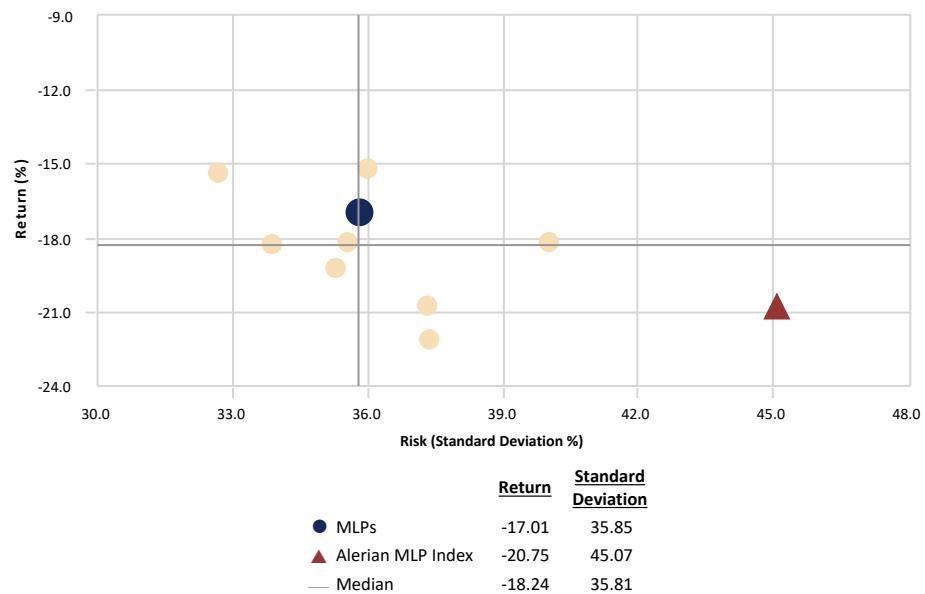
## 3 Year Rolling Return Rank



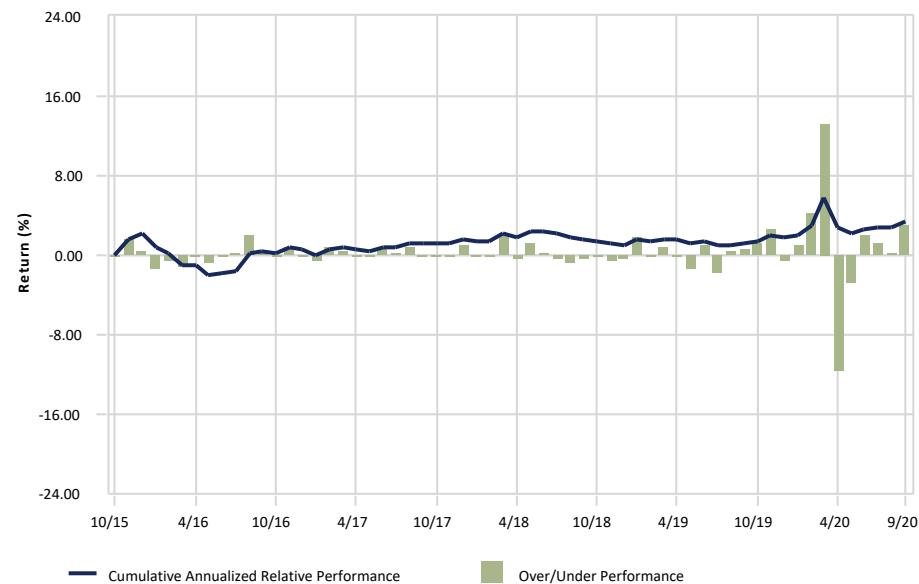
## Growth of \$1 - Since Inception (03/01/13)



## Risk vs. Return (10/01/17 - 09/30/20)



## Relative Performance vs. Alerian MLP Index

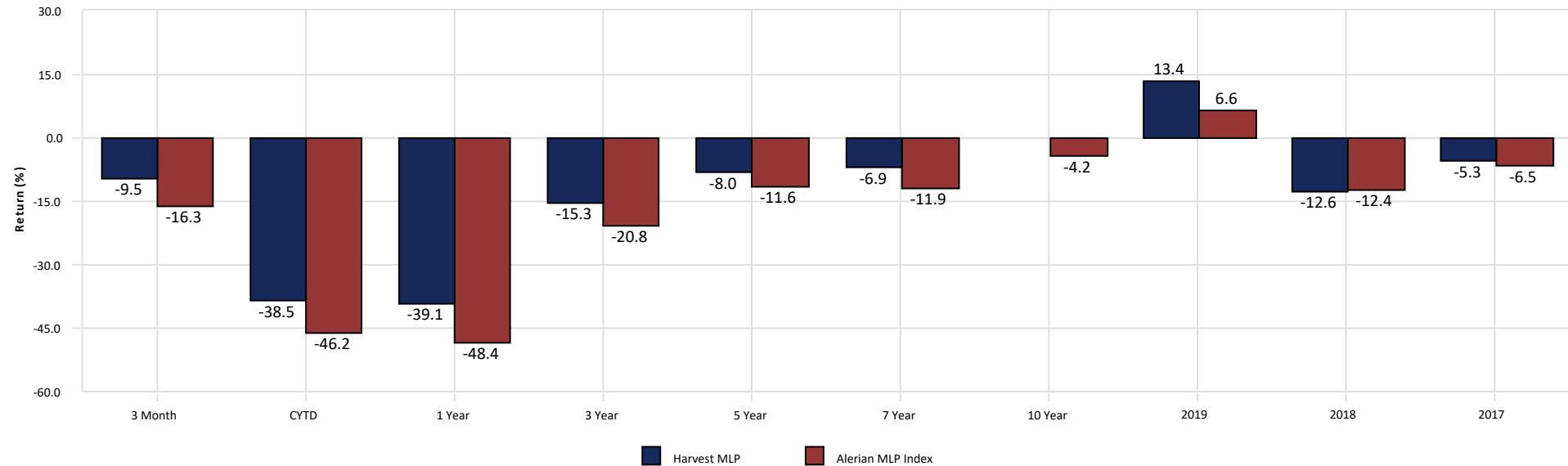


# Employees' Retirement System of the City of Norfolk

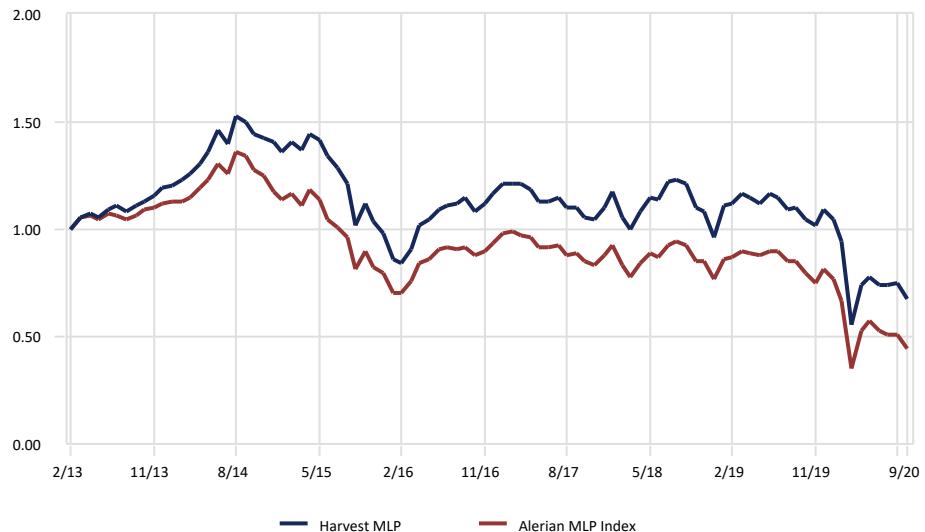
Harvest MLP

September 30, 2020

## Comparative Performance

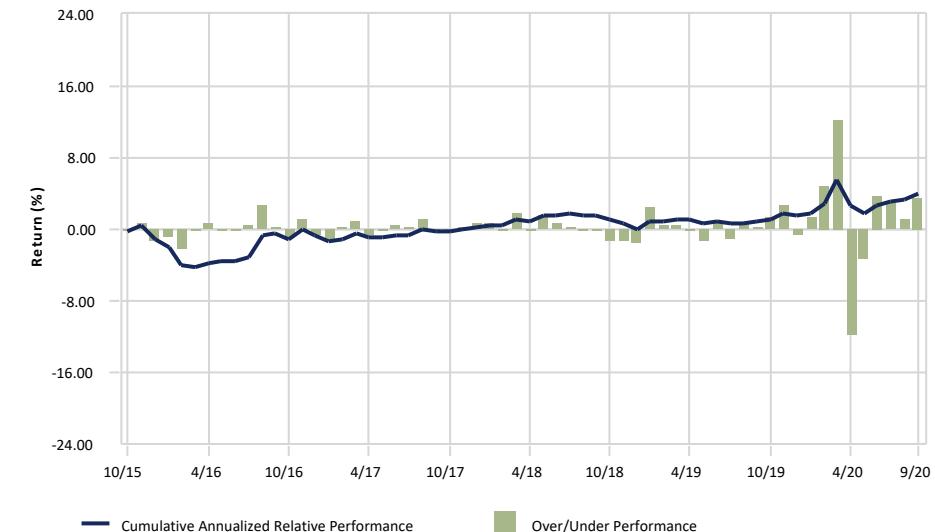


## Growth of \$1 - Since Inception (03/01/13)



gross of fees

## Relative Performance vs. Alerian MLP Index

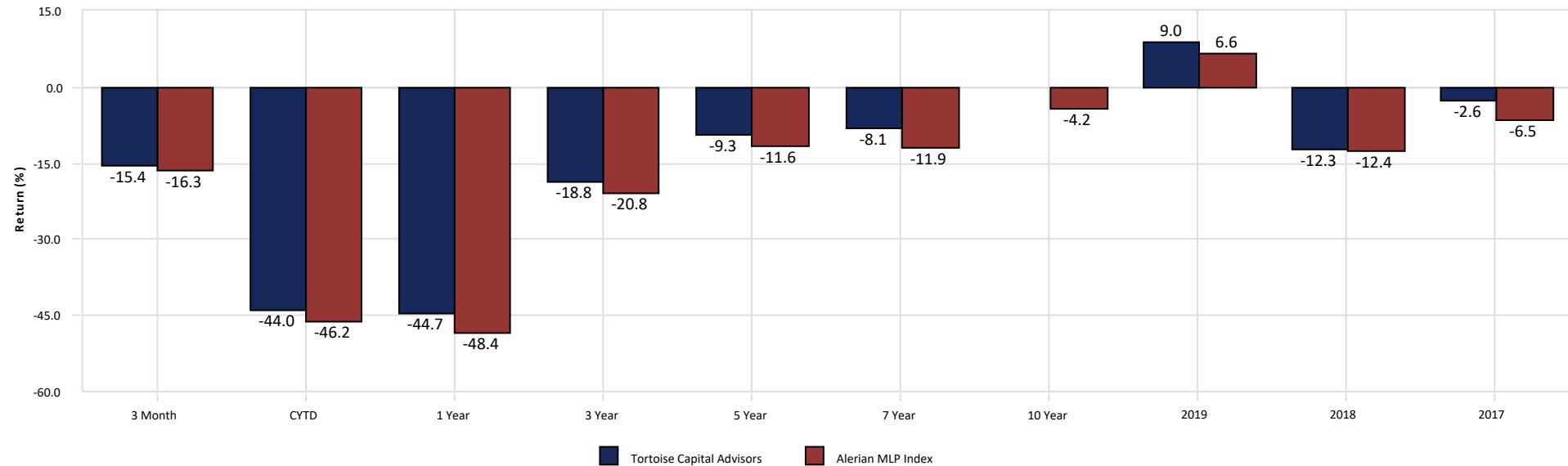


# Employees' Retirement System of the City of Norfolk

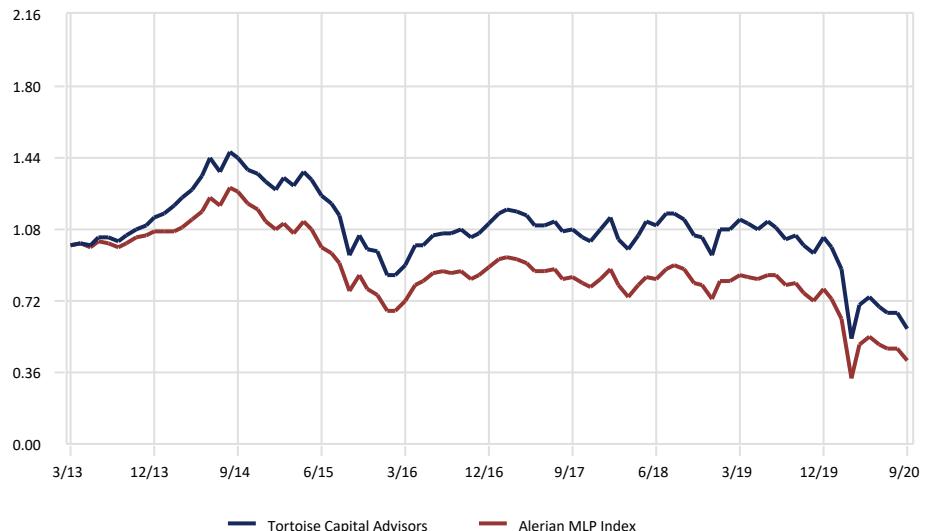
Tortoise Capital Advisors

September 30, 2020

## Comparative Performance

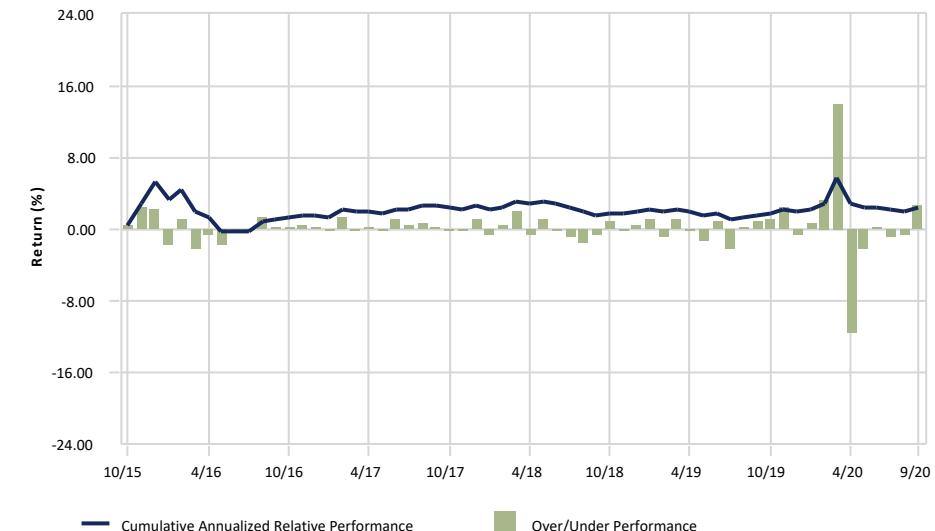


## Growth of \$1 - Since Inception (04/01/13)



gross of fees

## Relative Performance vs. Alerian MLP Index



## **Appendix**

# Employees' Retirement System for the City of Norfolk

## Asset Liability Scorecard Net of Fees\*

### Assets, Liabilities and Funded Status Over Time



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

As of July 1, 2019, Total Plan Actuarial Liability (AL) is \$1.398 billion and the Actuarial Value of assets (AVA) is \$1.097 billion for an Actuarial funded ratio (AVA/AL) of 79%.  
Using the Market Value of Assets (MVA), the Market Funded Ratio (MVA/AL) was approximately 80% in August 2020 and 77% in September 2020.

# Employees' Retirement System of the City of Norfolk

Asset Allocation & Performance (gross of fees)

September 30, 2020

	Asset \$	Asset %	3 Month	CYTD	1 Year	2 Year	3 Year	5 Year	Since Inception	Inception Date
<b>Total Fund</b>	<b>1,110,050,076</b>	<b>100.00</b>	<b>4.20 (79)</b>	<b>-0.33 (89)</b>	<b>4.82 (83)</b>	<b>3.85 (90)</b>	<b>4.73 (86)</b>	<b>7.33 (73)</b>	<b>8.06 (71)</b>	<b>Oct-1990</b>
<i>Total Fund Policy</i>			5.32	3.41	9.27	6.84	6.40	8.05	8.12	
Excess Return			-1.12	-3.74	-4.45	-2.99	-1.67	-0.72	-0.06	
<i>Total Fund Strategy Index</i>			3.37	-0.39	4.38	3.88	4.57	6.89	7.93	
Excess Return			0.83	0.06	0.44	-0.03	0.16	0.44	0.13	
Global Equity	632,970,343	57.02	8.17 (47)	0.84 (52)	10.04 (51)	5.38 (54)	6.92 (46)	10.50 (43)	9.11 (68)	Oct-1990
<i>Global Equity Policy</i>			8.11	0.48	9.57	4.92	6.47	10.00	9.20	
Excess Return			0.06	0.36	0.47	0.46	0.45	0.50	-0.09	
Fixed Income	350,884,303	31.61	1.07 (70)	7.50 (43)	7.85 (42)	8.71 (45)	5.49 (48)	4.60 (62)	6.27 (-)	Oct-1990
<i>Blmbg. Barc. U.S. Aggregate</i>			0.62	6.79	6.98	8.63	5.24	4.18	6.01	
Excess Return			0.45	0.71	0.87	0.08	0.25	0.42	0.26	
Real Estate	80,954,829	7.29	-0.10 (68)	-1.31 (59)	-0.12 (72)	0.83 (96)	3.09 (91)	5.01 (94)	8.74 (76)	Apr-2011
<i>NCREIF Fund Index-ODCE (Net)</i>			0.27	-0.75	0.52	2.56	4.25	5.69	8.81	
Excess Return			-0.37	-0.56	-0.64	-1.73	-1.16	-0.68	-0.07	
MLPs	45,228,404	4.07	-12.38 (56)	-41.22 (29)	-41.89 (29)	-26.99 (43)	-17.01 (29)	-8.64 (29)	-5.68 (30)	Mar-2013
<i>Alerian MLP Index</i>			-16.26	-46.16	-48.35	-31.12	-20.75	-11.58	-10.24	
Excess Return			3.88	4.94	6.46	4.13	3.74	2.94	4.56	
Cash	12,197	0.00								

# Employees' Retirement System of the City of Norfolk

Asset Allocation & Performance (gross of fees)

September 30, 2020

	Asset \$	3 Month	CYTD	1 Year	2 Year	3 Year	5 Year	Since Inception	Inception Date
<b>Global Equity</b>									
SSgA MSCI ACWI IMI Index Fund	632,970,343	8.17 (47)	0.84 (52)	10.04 (51)	5.38 (54)	6.92 (46)	-	10.17 (46)	May-2016
<i>MSCI AC World IMI (Net)</i>		<b>8.11</b>	<b>0.48</b>	<b>9.57</b>	<b>4.92</b>	<b>6.47</b>	-	<b>9.70</b>	
Excess Return		<b>0.06</b>	<b>0.36</b>	<b>0.47</b>	<b>0.46</b>	<b>0.45</b>	-	<b>0.47</b>	
<b>Fixed Income</b>									
PIMCO Total Return	191,123,499	1.41 (28)	8.05 (27)	8.56 (15)	8.78 (69)	5.69 (49)	4.98 (22)	6.67 (8)	Jan-1991
<i>Blmbg. Barc. U.S. Aggregate</i>		<b>0.62</b>	<b>6.79</b>	<b>6.98</b>	<b>8.63</b>	<b>5.24</b>	<b>4.18</b>	<b>5.89</b>	
Excess Return		<b>0.79</b>	<b>1.26</b>	<b>1.58</b>	<b>0.15</b>	<b>0.45</b>	<b>0.80</b>	<b>0.78</b>	
SSgA Bond Market Index	159,760,804	0.65 (84)	6.84 (73)	7.04 (76)	8.68 (77)	5.28 (89)	4.20 (89)	4.29 (92)	Jan-2009
<i>Blmbg. Barc. U.S. Aggregate</i>		<b>0.62</b>	<b>6.79</b>	<b>6.98</b>	<b>8.63</b>	<b>5.24</b>	<b>4.18</b>	<b>4.27</b>	
Excess Return		<b>0.03</b>	<b>0.05</b>	<b>0.06</b>	<b>0.05</b>	<b>0.04</b>	<b>0.02</b>	<b>0.02</b>	
<b>Real Assets</b>									
JP Morgan Asset Mgmt Strategic Property Fund	42,755,347	-0.03 (84)	-0.51 (69)	1.77 (47)	2.88 (91)	4.54 (92)	6.15 (92)	9.80 (73)	Apr-2011
<i>NCREIF Fund Index-ODCE (Net)</i>		<b>0.27</b>	<b>-0.75</b>	<b>0.52</b>	<b>2.56</b>	<b>4.25</b>	<b>5.69</b>	<b>8.81</b>	
Excess Return		<b>-0.30</b>	<b>0.24</b>	<b>1.25</b>	<b>0.32</b>	<b>0.29</b>	<b>0.46</b>	<b>0.99</b>	
UBS Trumbull Property Fund	38,199,482	-0.18 (93)	-2.17 (81)	-2.13 (85)	-1.30 (99)	1.59 (100)	3.75 (100)	6.78 (-)	Dec-2011
<i>NCREIF Fund Index-ODCE (Net)</i>		<b>0.27</b>	<b>-0.75</b>	<b>0.52</b>	<b>2.56</b>	<b>4.25</b>	<b>5.69</b>	<b>8.41</b>	
Excess Return		<b>-0.45</b>	<b>-1.42</b>	<b>-2.65</b>	<b>-3.86</b>	<b>-2.66</b>	<b>-1.94</b>	<b>-1.63</b>	
<b>MLPs</b>									
Harvest MLP	23,956,868	-9.50 (12)	-38.54 (13)	-39.10 (16)	-25.60 (34)	-15.25 (13)	-8.01 (25)	-5.10 (26)	Mar-2013
<i>Alerian MLP Index</i>		<b>-16.26</b>	<b>-46.16</b>	<b>-48.35</b>	<b>-31.12</b>	<b>-20.75</b>	<b>-11.58</b>	<b>-10.24</b>	
Excess Return		<b>6.76</b>	<b>7.62</b>	<b>9.25</b>	<b>5.52</b>	<b>5.50</b>	<b>3.57</b>	<b>5.14</b>	
Tortoise Capital Advisors	21,271,536	-15.40 (87)	-43.98 (60)	-44.74 (67)	-28.42 (58)	-18.79 (62)	-9.35 (34)	-6.99 (35)	Apr-2013
<i>Alerian MLP Index</i>		<b>-16.26</b>	<b>-46.16</b>	<b>-48.35</b>	<b>-31.12</b>	<b>-20.75</b>	<b>-11.58</b>	<b>-10.97</b>	
Excess Return		<b>0.86</b>	<b>2.18</b>	<b>3.61</b>	<b>2.70</b>	<b>1.96</b>	<b>2.23</b>	<b>3.98</b>	



# Employees' Retirement System of the City of Norfolk

## Asset Allocation & Performance - (net of fees)

September 30, 2020

	Asset \$	Asset %	1 Month	3 Month	CYTD	FYTD	1 Year	3 Year	5 Year	Since Inception	Inception Date
<b>Total Fund Composite</b>	<b>1,110,050,076</b>	<b>100.00</b>	<b>-2.30</b>	<b>4.17</b>	<b>-0.41</b>	<b>4.17</b>	<b>4.66</b>	<b>4.56</b>	<b>7.15</b>	<b>7.87</b>	<b>Oct -1990</b>
Total Fund Policy (62.5% ACWI/37.5% Agg)			-1.96	5.32	3.41	5.32	9.27	6.40	8.05	8.12	
Excess Return			-0.33	-1.15	-3.82	-1.15	-4.61	-1.84	-0.90	-0.25	
<b>Total Fund Strategy Index</b>			<b>-2.72</b>	<b>3.37</b>	<b>-0.39</b>	<b>3.37</b>	<b>4.38</b>	<b>4.57</b>	<b>6.89</b>	<b>7.93</b>	
Excess Return			0.43	0.80	-0.02	0.80	0.28	-0.01	0.26	-0.06	
<b>Composite Returns</b>											
Global Equity	632,970,343	57.02	-3.07	8.16	0.82	8.16	10.00	6.89	10.47	8.94	Oct -1990
<i>Global Equity Policy</i>			-3.10	8.11	0.48	8.11	9.57	6.47	10.00	9.20	
Excess Return			0.03	0.05	0.34	0.05	0.43	0.42	0.47	-0.26	
Fixed Income	350,884,303	31.61	-0.05	1.04	7.45	1.04	7.73	5.35	4.49	6.08	Oct -1990
<i>Blmbg. Barc. U.S. Aggregate</i>			-0.05	0.62	6.79	0.62	6.98	5.24	4.18	6.01	
Excess Return			0.00	0.42	0.66	0.42	0.75	0.11	0.31	0.07	
Real Estate	80,954,829	7.29	-0.28	-0.20	-1.86	-0.20	-0.91	2.24	4.08	7.75	Apr -2011
<i>NCREF Fund Index-ODCE (VW) (Net)</i>			0.27	0.27	-0.75	0.27	0.52	4.25	5.69	8.81	
Excess Return			-0.55	-0.47	-1.11	-0.47	-1.43	-2.01	-1.61	-1.06	
MLPs	45,228,404	4.07	-10.98	-12.46	-41.38	-12.46	-42.26	-17.54	-9.25	-6.29	Mar -2013
<i>Alerian MLP Index</i>			-13.62	-16.26	-46.16	-16.26	-48.35	-20.75	-11.58	-10.24	
Excess Return			2.64	3.80	4.78	3.80	6.09	3.21	2.33	3.95	
Cash	12,197	0.00									



# Employees' Retirement System of the City of Norfolk

## Asset Allocation & Performance - (net of fees)

September 30, 2020

	Asset \$	Asset %	1 Month	3 Month	CYTD	FYTD	1 Year	3 Year	5 Year	Since Inception	Inception Date
<b>Global Equity</b>											
SSgA MSCI ACWI IMI Index Fund	632,970,343	57.02	-3.07	8.16	0.82	8.16	10.00	6.89	-	10.13	May -2016
<i>MSCI AC World IMI (Net)</i>			<i>-3.10</i>	<i>8.11</i>	<i>0.48</i>	<i>8.11</i>	<i>9.57</i>	<i>6.47</i>	-	<i>9.70</i>	
Excess Return			<b>0.03</b>	<b>0.05</b>	<b>0.34</b>	<b>0.05</b>	<b>0.43</b>	<b>0.42</b>	-	<b>0.43</b>	
<b>Fixed Income</b>											
PIMCO Total Return	191,123,499	17.22	-0.06	1.37	7.97	1.37	8.35	5.44	4.77	6.42	Jan -1991
<i>Blmbg. Barc. U.S. Aggregate</i>			<i>-0.05</i>	<i>0.62</i>	<i>6.79</i>	<i>0.62</i>	<i>6.98</i>	<i>5.24</i>	<i>4.18</i>	<i>5.89</i>	
Excess Return			<b>-0.01</b>	<b>0.75</b>	<b>1.18</b>	<b>0.75</b>	<b>1.37</b>	<b>0.20</b>	<b>0.59</b>	<b>0.53</b>	
SSgA Bond Market Index	159,760,804	14.39	-0.04	0.65	6.82	0.65	7.01	5.26	4.19	4.28	Jan -2009
<i>Blmbg. Barc. U.S. Aggregate</i>			<i>-0.05</i>	<i>0.62</i>	<i>6.79</i>	<i>0.62</i>	<i>6.98</i>	<i>5.24</i>	<i>4.18</i>	<i>4.27</i>	
Excess Return			<b>0.01</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.02</b>	<b>0.01</b>	<b>0.01</b>	
<b>Real Estate</b>											
JP Morgan Asset Mgmt Strategic Property Fund	42,755,347	3.85	-0.18	-0.03	-1.00	-0.03	1.02	3.68	5.22	8.84	Apr -2011
<i>NCREIF Fund Index-ODCE (VW) (Net)</i>			<i>0.27</i>	<i>0.27</i>	<i>-0.75</i>	<i>0.27</i>	<i>0.52</i>	<i>4.25</i>	<i>5.69</i>	<i>8.81</i>	
Excess Return			<b>-0.45</b>	<b>-0.30</b>	<b>-0.25</b>	<b>-0.30</b>	<b>0.50</b>	<b>-0.57</b>	<b>-0.47</b>	<b>0.03</b>	
UBS Trumbull Property Fund	38,199,482	3.44	-0.40	-0.40	-2.80	-0.40	-2.97	0.73	2.81	5.79	Jan -2012
<i>NCREIF Fund Index-ODCE (VW) (Net)</i>			<i>0.27</i>	<i>0.27</i>	<i>-0.75</i>	<i>0.27</i>	<i>0.52</i>	<i>4.25</i>	<i>5.69</i>	<i>8.33</i>	
Excess Return			<b>-0.67</b>	<b>-0.67</b>	<b>-2.05</b>	<b>-0.67</b>	<b>-3.49</b>	<b>-3.52</b>	<b>-2.88</b>	<b>-2.54</b>	
<b>MLPs</b>											
Harvest MLP	23,956,868	2.16	-10.61	-9.50	-38.54	-9.50	-39.33	-15.72	-8.58	-5.68	Mar -2013
<i>Alerian MLP Index</i>			<i>-13.62</i>	<i>-16.26</i>	<i>-46.16</i>	<i>-16.26</i>	<i>-48.35</i>	<i>-20.75</i>	<i>-11.58</i>	<i>-10.24</i>	
Excess Return			<b>3.01</b>	<b>6.76</b>	<b>7.62</b>	<b>6.76</b>	<b>9.02</b>	<b>5.03</b>	<b>3.00</b>	<b>4.56</b>	
Tortoise Capital Advisors	21,271,536	1.92	-11.38	-15.57	-44.27	-15.57	-45.24	-19.38	-9.99	-7.63	Apr -2013
<i>Alerian MLP Index</i>			<i>-13.62</i>	<i>-16.26</i>	<i>-46.16</i>	<i>-16.26</i>	<i>-48.35</i>	<i>-20.75</i>	<i>-11.58</i>	<i>-10.97</i>	
Excess Return			<b>2.24</b>	<b>0.69</b>	<b>1.89</b>	<b>0.69</b>	<b>3.11</b>	<b>1.37</b>	<b>1.59</b>	<b>3.34</b>	

# Employees' Retirement System of the City of Norfolk

## Fee Schedule

September 30, 2020

	Fee Schedule	Market Value As of 09/30/2020 (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
<b>Total Fund</b>		<b>1,110,050,076</b>	<b>2,143,019</b>	<b>0.19</b>
<b>Global Equity</b>		<b>632,970,343</b>	<b>253,188</b>	<b>0.04</b>
SSgA MSCI ACWI IMI Index Fund	0.04 % of Assets	632,970,343	253,188	0.04
<b>Fixed Income</b>		<b>350,884,303</b>	<b>815,559</b>	<b>0.23</b>
PIMCO Total Return	0.41 % of Assets	191,123,499	783,606	0.41
SSgA Bond Market Index	0.02 % of Assets	159,760,804	31,952	0.02
<b>Real Assets</b>		<b>126,183,233</b>	<b>1,074,272</b>	<b>0.85</b>
<b>Real Estate</b>		<b>80,954,829</b>	<b>735,059</b>	<b>0.91</b>
JP Morgan Strategic Property Fund	1.00 % of Assets	42,755,347	427,553	1.00
UBS Trumbull Property Fund	0.81 % of Assets	38,199,482	307,506	0.81
<b>MLPs</b>		<b>45,228,404</b>	<b>339,213</b>	<b>0.75</b>
Harvest MLP	0.75 % of Assets	23,956,868	179,677	0.75
Tortoise Capital Advisors	0.75 % of Assets	21,271,536	159,537	0.75
Cash		12,197	-	-

Pimco has a minimum base fee of 15 bps. The maximum fee includes the base fee of 15 bps and a performance fee of 26 bps, with a total cap of 0.41%. UBS Trumbull has waived the TPF Variable fee (0-25 bps) through March 2020.



# Employees' Retirement System of the City of Norfolk

## Financial Reconciliation

1 Quarter Ending September 30, 2020

	Market Value As of 07/01/2020	Net Transfers	Contributions	Distributions	Mgmt Fees	Income	Apprec./ Deprec.	Market Value As of 09/30/2020
Total Fund Composite	1,045,856,048	-	40,822,317	-21,821,000	-274,777	7,241,951	38,335,211	1,110,050,076
<b>Global Equity</b>	<b>586,648,165</b>	<b>-2,000,000</b>	<b>-</b>	<b>-</b>	<b>-60,127</b>	<b>-</b>	<b>48,382,306</b>	<b>632,970,343</b>
SSgA MSCI ACWI IMI Index	586,648,165	-2,000,000	-	-	-60,127	-	48,382,306	632,970,343
<b>Fixed Income</b>	<b>326,129,608</b>	<b>21,098,246</b>	<b>76,925</b>	<b>-</b>	<b>-84,928</b>	<b>6,041,690</b>	<b>-2,377,239</b>	<b>350,884,303</b>
PIMCO Total Return	167,396,914	21,098,246	76,925	-	-76,925	6,041,690	-3,413,351	191,123,499
SSgA Bond Market Index	158,732,694	-	-	-	-8,003	-	1,036,112	159,760,804
<b>Real Estate</b>	<b>81,444,905</b>	<b>-215,848</b>	<b>-</b>	<b>-</b>	<b>-82,576</b>	<b>339,359</b>	<b>-421,338</b>	<b>80,954,829</b>
JP Morgan Strategic Property	42,876,784	-17	-	-	-	123,528	-135,274	42,755,347
UBS Trumbull Property	38,568,122	-215,831	-	-	-82,576	215,831	-286,064	38,199,482
<b>MLPs</b>	<b>51,617,231</b>	<b>-</b>	<b>47,146</b>	<b>-</b>	<b>-47,146</b>	<b>859,350</b>	<b>-7,248,178</b>	<b>45,228,404</b>
Harvest MLP	26,472,375	-	-	-	-	224,196	-2,739,703	23,956,868
Tortoise Capital Advisors	25,144,856	-	47,146	-	-47,146	635,154	-4,508,475	21,271,536
Cash	16,139	-18,882,398	40,698,246	-21,821,000	-	1,551	-341	12,197

# Employees' Retirement System of the City of Norfolk

## Financial Reconciliation

Year To Date Ending September 30, 2020

	Market Value As of 01/01/2020	Net Transfers	Contributions	Distributions	Mgmt Fees	Income	Apprec./ Deprec.	Market Value As of 09/30/2020
Total Fund Composite	1,139,814,463	-	40,988,415	-65,121,000	-908,893	19,426,780	-23,979,667	1,110,050,076
<b>Global Equity</b>	<b>652,198,055</b>	<b>-23,100,000</b>	-	-	<b>-127,559</b>	-	<b>4,060,195</b>	<b>632,970,343</b>
SSgA MSCI ACWI IMI Index	652,198,055	-23,100,000	-	-	-127,559	-	4,060,195	632,970,343
<b>Fixed Income</b>	<b>327,169,943</b>	<b>-435,754</b>	<b>135,659</b>	-	<b>-160,270</b>	<b>15,080,094</b>	<b>9,094,631</b>	<b>350,884,303</b>
PIMCO Total Return	163,535,203	14,264,246	135,659	-	-135,659	15,080,094	-1,756,044	191,123,499
SSgA Bond Market Index	163,634,740	-14,700,000	-	-	-24,611	-	10,850,675	159,760,804
<b>Real Estate</b>	<b>83,154,542</b>	<b>-550,866</b>	-	-	<b>-466,554</b>	<b>888,537</b>	<b>-1,961,156</b>	<b>80,954,829</b>
JP Morgan Strategic Property	43,297,922	-17	-	-	-214,325	672,705	-891,265	42,755,347
UBS Trumbull Property	39,856,620	-550,849	-	-	-252,229	215,831	-1,069,892	38,199,482
<b>MLPs</b>	<b>76,948,958</b>	-	<b>154,509</b>	-	<b>-154,509</b>	<b>3,452,843</b>	<b>-35,173,397</b>	<b>45,228,404</b>
Harvest MLP	38,981,214	-	-	-	-	1,532,585	-16,556,931	23,956,868
Tortoise Capital Advisors	37,967,744	-	154,509	-	-154,509	1,920,258	-18,616,466	21,271,536
Cash	342,965	24,086,620	40,698,246	-65,121,000	-	5,306	60	12,197

## Employees' Retirement System of the City of Norfolk

Historical Hybrid Composition

September 30, 2020

	<u>(%)</u>		<u>(%)</u>
<b>Total Fund Policy : May-2016</b>		<b>Total Fund Strategy Index : Jul-2016</b>	
MSCI AC World IMI (Net)	62.50	MSCI AC World IMI (Net)	55.00
Bloomberg Barc. U.S. Aggregate	37.50	Bloomberg Barc. U.S. Aggregate	30.00
		NCREIF Fund Index-ODCE (VW) (Net)	7.50
		Alerian MLP Index	7.50

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



# Employees' Retirement System of the City of Norfolk

## Historical Hybrid Composition

September 30, 2020

### Global Equity Policy

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



<b>Active Return</b>	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
<b>Alpha</b>	- 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.
<b>Beta</b>	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
<b>Consistency</b>	- 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.
<b>Distributed to Paid In (DPI)</b>	- 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.
<b>Down Market Capture</b>	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
<b>Downside Risk</b>	- 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.
<b>Excess Return</b>	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
<b>Excess Risk</b>	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
<b>Information Ratio</b>	- 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.
<b>Public Market Equivalent (PME)</b>	- 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.
<b>R-Squared</b>	- 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.
<b>Return</b>	- Compounded rate of return for the period.
<b>Sharpe Ratio</b>	- 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.
<b>Standard Deviation</b>	- 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.
<b>Total Value to Paid In (TVPI)</b>	- 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
<b>Tracking Error</b>	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
<b>Treynor Ratio</b>	- 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.
<b>Up Market Capture</b>	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

AndCo compiled this report for the sole use of the client for which it was prepared. AndCo is responsible for evaluating the performance results of the Total Fund along with the investment advisors by comparing their performance with indices and other related peer universe data that is deemed appropriate. AndCo uses the results from this evaluation to make observations and recommendations to the client.

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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