

Investment Performance Review  
Period Ending June 30, 2020

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

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## **Executive Summary**

### HIGHLIGHTS

#### Winners for the recent quarter

- Russell 2000 +25.4%
- Russell Mid Cap +24.6%
- Russell 3000 +22.0%

#### Losers for the recent quarter

- N/A

#### Areas of strength for the recent quarter

- Domestic Equity
- International Equity

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#### Winners for the trailing year

- Blmb. Barclays US Govt +10.3
- Blmb. Barclays Corp IG +9.5
- Blmb. Barclays Agg +8.7%

#### Losers for the trailing year

- Russell 2000 -6.6%
- MSCI EAFE -5.1%
- MSCI ACWI x US -4.8%

#### Areas of strength for the trailing year

- US Government Bonds
- US Corporate Bonds

### COMMENTARY

- Allocation to equities ended the quarter at 56%, inside the target range of 45%-65%. Market value for the **Total Fund** was \$1.04 billion by quarter-end versus \$949 million in the previous quarter. The Total Fund posted a +12.7% return for the trailing quarter and -0.8% for the trailing 12 months. The Total Fund underperformed the Policy Index by 40 bps for the quarter and underperformed its Policy Index by 381 bps over the trailing year.

- The **Total Fund** ranked in the 40<sup>th</sup> percentile in the peer universe for the quarter and 84<sup>th</sup> percentile over the last 12 months.

- The **Global Equity Composite** returned 20.0% for the quarter, outperforming the index by 16 bps and ranking in the 52<sup>nd</sup> percentile versus peers. Over the trailing 12 months, the portfolio returned +1.64%, outperforming the benchmark by 47 bps and ranking in the 52<sup>nd</sup> percentile of the peer universe.

- The **Fixed Income Composite** returned +3.4% for the quarter, outperforming the Bloomberg Barclays U.S. Aggregate by 46 bps and ranking in the 75<sup>th</sup> percentile versus universe peers. Over the trailing 12 months, the composite returned 8.7% and underperformed the Index by 1 bps and ranked in the 44<sup>th</sup> percentile of the peer universe.

- The **Real Estate Composite** returned -2.2% for the quarter and 0.7% for the trailing 12 months.

- The **MLP Composite** returned 31.6% for the quarter, underperforming the index by 1858 bps and ranking in the 58<sup>th</sup> percentile versus peers. For the trailing year, the composite has returned -37.4% and has outperformed the benchmark by 399 bps, ranking in the 49<sup>th</sup> percentile versus peers. Since inception, the MLP Composite is ahead of its Alerian MLP Index benchmark by 423 bps and has returned -4.2%.

# Employees' Retirement System of the City of Norfolk

## Executive Summary

### REBALANCING ACTIVITY FOR THE QUARTER

Raise cash for benefit payments:

#### State Street Bond Market Idx

To cash \$7,900,000

April 2020

#### State Street Bond Market Idx

To cash \$7,400,000

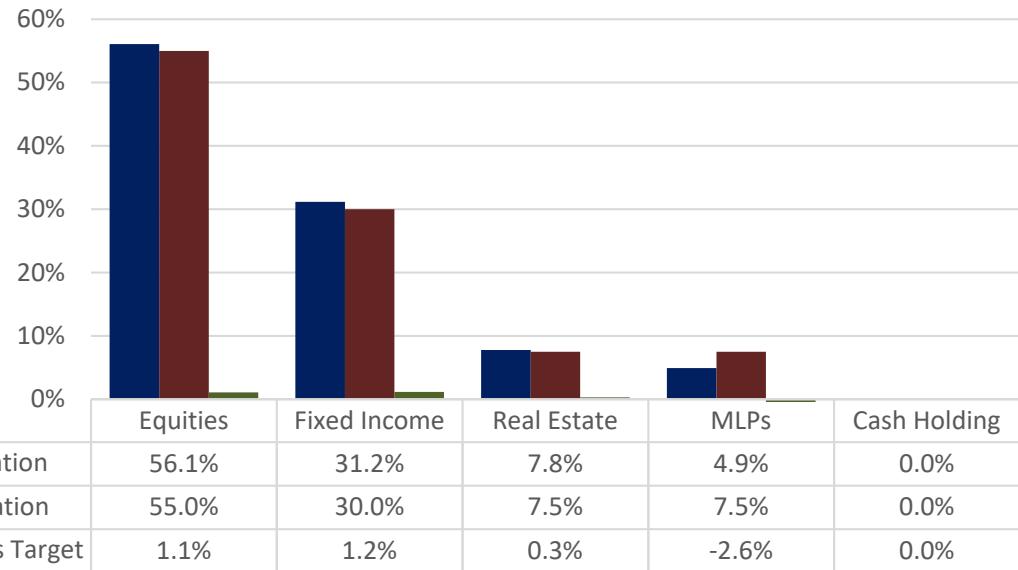
May 2020

#### State Street ACWI IMI

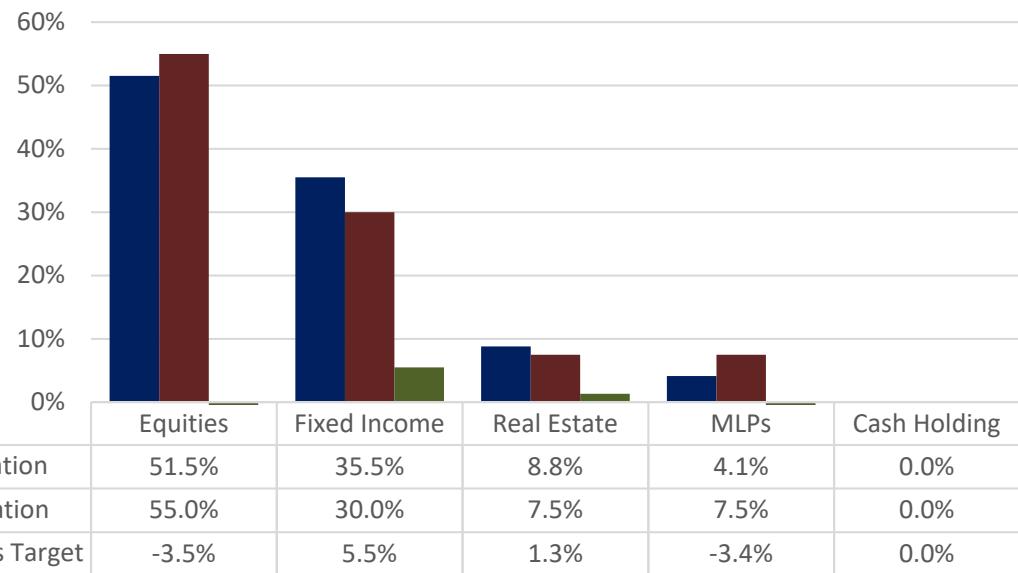
To cash \$6,900,000

June 2020

Asset Allocation – June 30, 2020



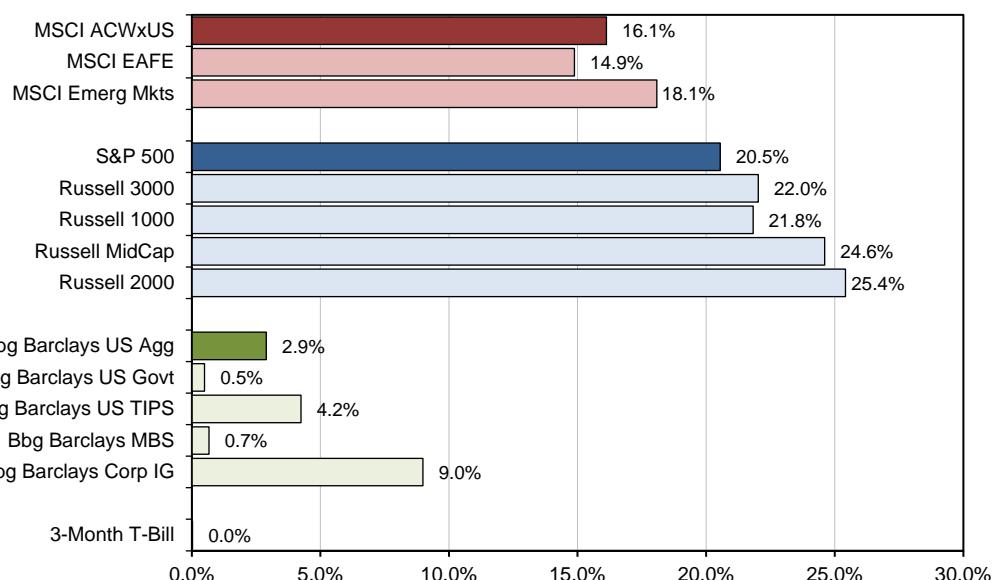
Asset Allocation – March 31, 2020



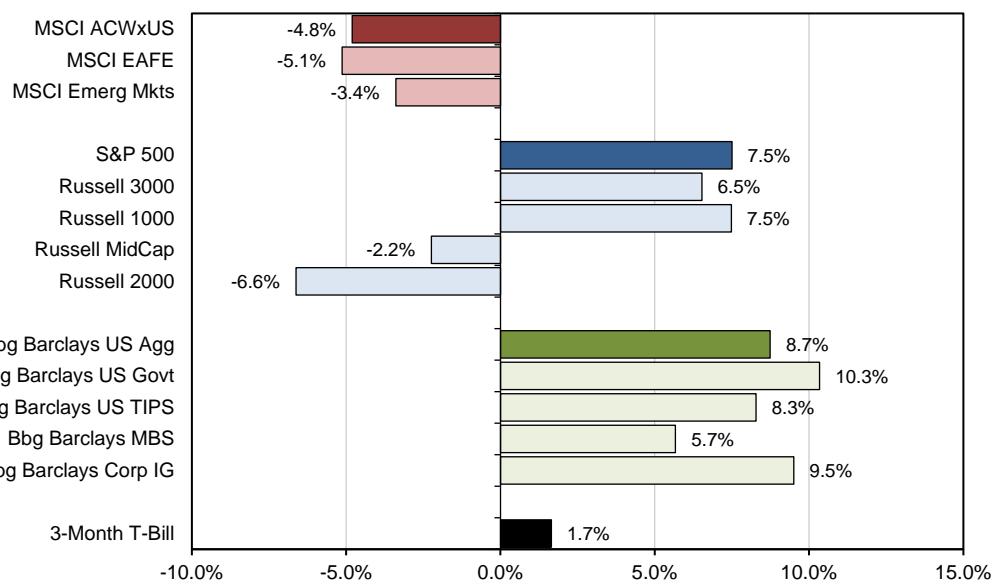
## **2nd Quarter 2020 Market Environment**

- Broad asset class returns rebounded sharply in the 2nd quarter following their harsh drawdown during the 1st quarter. The US government and Federal Reserve Bank (Fed) implemented a myriad of programs designed to provide the economy with liquidity while also mitigating the affects from the shelter-in-place response to the COVID-19 (Coronavirus) pandemic. Despite having officially entered a recession in February, US economic data began to show improvement in May with regards to manufacturing, housing and employment as many States began the process of re-opening. Geopolitical tensions rose during the quarter following the vote by China to impose security measures in Hong Kong. Despite these risks, markets reacted positively to continued monetary easing from the Fed which supported markets directly through bond purchases and a variety of lending facilities. Within domestic equity markets, higher beta small cap stocks outperformed large cap stocks during the quarter with the Russell 2000 Index returning 25.4% versus a 20.5% return for the S&P 500 Index. US stocks also outperformed international stocks during the period. US equity results over the trailing 1-year period tell a different story with large cap stocks, returning 7.5% while mid- and small cap stocks were negative, returning -2.2% and -6.6%, respectively.
- Broad international equity markets posted positive returns for the 2nd quarter. Similar to US markets, international markets benefited from coordinated central bank policies which provided liquidity following the onset of the pandemic and subsequent re-opening of local economies. International returns also benefited from a weakening US dollar (USD) which declined against both the Euro and British pound during the period. Emerging markets outperformed relative to developed markets during the period with the MSCI Emerging Market Index returning 18.1% compared to 14.9% for the MSCI EAFE Index. Both developed and emerging market indices were negative over the 1-year period with the developed market index returning -5.1% and the emerging market index returning -3.4%.
- Fixed income returns remained strong during the 2nd quarter as investors benefited from declining interest rates globally. The broad market Bloomberg Barclays (BB) Aggregate Index gained 2.9% for the quarter as the Fed ramped up its purchases of US Treasury and Agency securities to boost market liquidity. In addition, the Fed announced that it would begin purchasing US corporate bonds to keep borrowing costs low and further support liquidity. For the quarter, the BB Corporate Investment Grade Index returned 9.0% as investors continued to seek out higher yielding assets. Over the trailing 1-year period, the bond market outperformed stocks with the BB Aggregate posting a solid return of 8.7%, while corporate bonds posted a higher 9.5%. US TIPS, which have been a laggard for some time, posted a respectable 8.3% over the trailing 1-year period despite low expectations for inflation.

### Quarter Performance

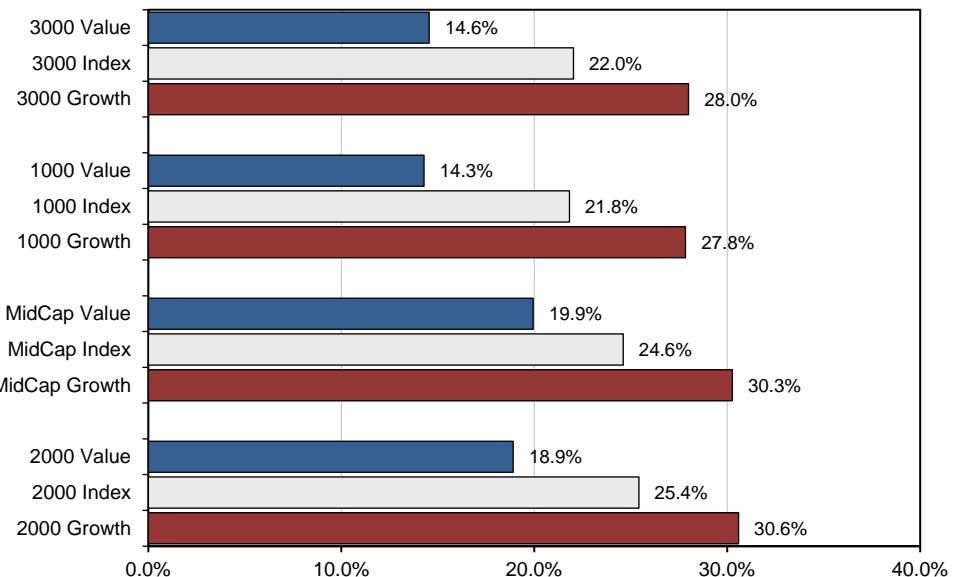


### 1-Year Performance

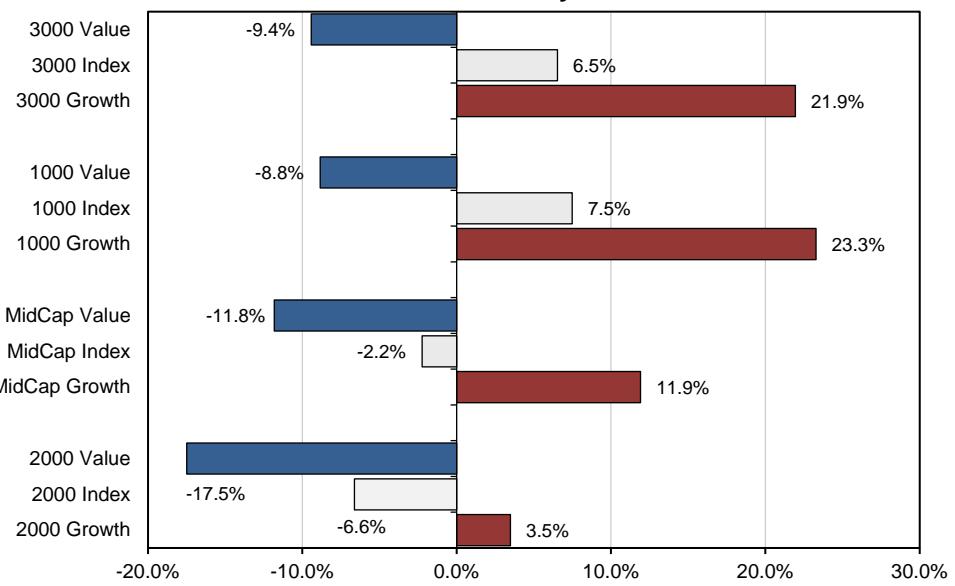


- US equity returns were strongly positive during the 2nd quarter, but results varied considerably across the style and capitalization spectrum. Following one of the sharpest drawdowns in history during the previous quarter, various capitalization and style indices experienced their strongest quarterly performance in over 20-years. The US labor market showed dramatic improvement in May and June with more than 7 million jobs added for the period. However, the unemployment rate remained high at 11.1% in June with more than 14.7 million people unemployed. While States have taken steps to re-open by loosening stay-at-home orders, several States such as Florida, Texas, and Arizona, have experienced significant increases in Coronavirus cases since the orders were eased causing many States to consider rollbacks. Several potential treatments and vaccines are in various stages of development that will hopefully prove effective in treating the virus.
- During the quarter, small capitalization (cap) stocks broadly outperformed large cap stocks across the style spectrum. The small cap Russell 2000 Index gained a stellar 25.4% for the quarter versus a return of 21.8% for the large cap Russell 1000 Index. Investors were attracted to potentially faster growing small cap stocks which were disproportionately sold during the 1st quarter's drawdown. Small cap stocks have historically outperformed when the market enters a recovery phase. When viewed over the most recent 1-year period the trend has reversed with large cap stocks far outpacing their small cap counterparts. The Russell 1000 posted a return of 7.5% over the trailing 1-year relative to a negative return of -6.6% for the Russell 2000.
- Value stocks continued their recent trend of underperformance relative to growth stocks during the 2nd quarter recovery as investors gravitated toward companies perceived to have the potential to grow revenue and earnings faster. Within large cap, growth significantly outperformed value due to favorable weightings to the strong-performing technology and consumer discretionary sectors. The small cap Russell 2000 Growth Index was the best performing style index for the quarter, returning an outsized 30.6%. At the other extreme, the large cap value index posted the quarter's weakest relative style performance with a still solid 14.3% return. Results over the 1-year period also reflect the strength of the "growth over value" trend with value benchmarks posting negative results across the capitalization spectrum with a range of relative underperformance to growth of greater than 20% at each level.

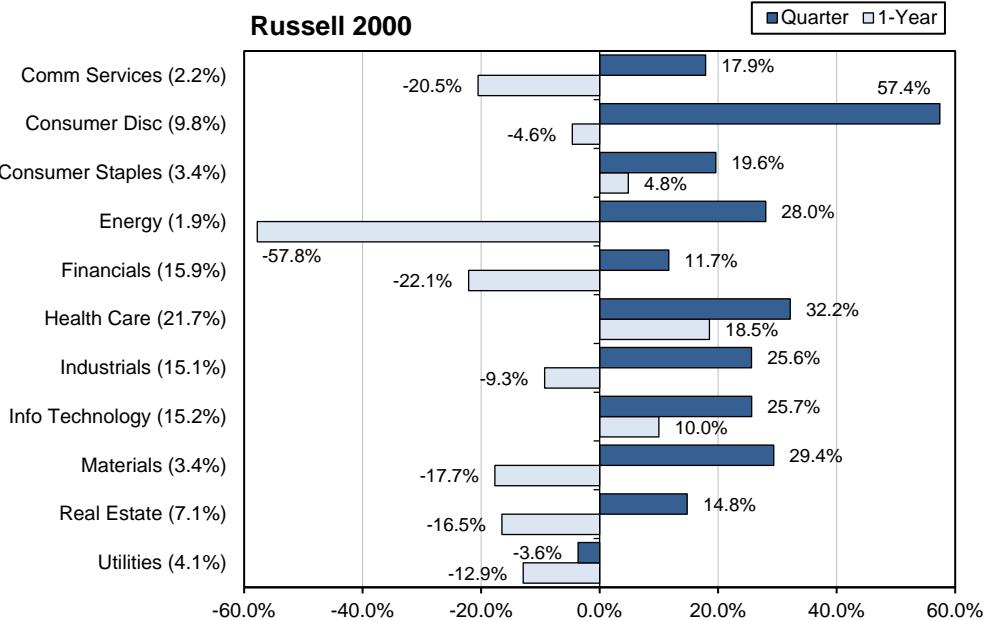
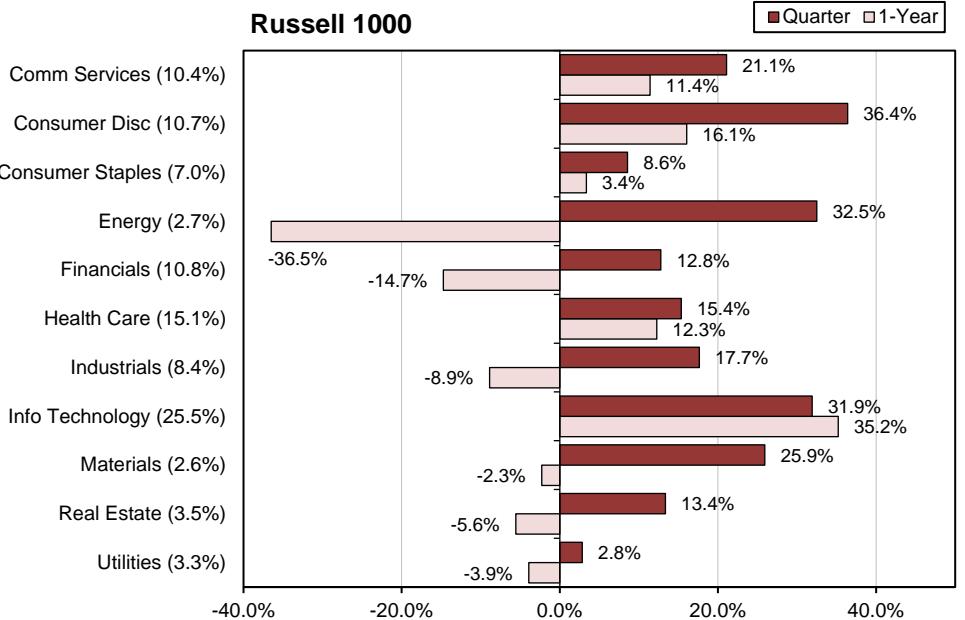
### Quarter Performance - Russell Style Series



### 1-Year Performance - Russell Style Series



- All eleven economic sectors within the large cap Russell 1000 Index were positive for the 2nd quarter with four sectors outpacing the return of the broad index. Growth-oriented sectors such as consumer discretionary and technology were some of the best performers for the quarter returning 36.4% and 32.5%, respectively. The energy sector, which had lagged considerably during the 1st quarter sell-off, also posted a strong return of 32.5% for the quarter as oil prices recovered on expectations of future economic growth. Defensive sectors such as consumer staples and utilities were the lowest performers during the period, but still posted positive returns of 8.6% and 2.8%, respectively. Traditional growth sectors also showed their dominance in the trailing 1-year period. The technology, consumer discretionary, health care and communication services sectors returned 35.2%, 16.1%, 15.4% and 11.4%, respectively, versus the core Russell 1000 index return of 7.5%. In contrast, traditional value sectors such as energy and financials, posted returns of -36.5% and -14.7%, respectively, for the trailing 1-year period.
- Ten of eleven small cap sectors posted results of greater than 10% for the 2nd quarter with only the utilities sector falling into negative territory with a return of -3.6%. In addition, seven of eleven economic sectors in the small cap index outpaced their respective large cap sector performance. While ten small cap sectors posting returns of more than 10% would be impressive in any period, six of them managed to exceed the 25.4% return of the broad Russell 2000 index. Like large caps, sectors sensitive to the consumer and economic growth were the strongest performers as investors gravitated toward those companies with the highest growth potential. Performance in consumer discretionary and health care sectors was particularly impressive with returns of 57.4% and 32.2% respectively for the quarter. Within the health care sector, many biotechnology stocks rose on hopes and speculation regarding potentially viable treatments or vaccines for the Coronavirus. Over the trailing 1-year period, the majority of small cap sector returns were negative with only three sectors contributing positive absolute performance. The traditional growth sectors also led the small cap index's performance over the trailing 1-year period with health care posting 18.5% and the technology sector returning 10%. On the opposite end of the spectrum, while the energy sector's 28.0% return for the quarter is certainly an impressive recovery, the sector led the 1-year trailing sector performance declines with the return of -57.8%.



**The Market Environment**  
**Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000**  
As of June 30, 2020

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Microsoft Corp	5.30%	29.4%	53.8%	Information Technology
Apple Inc	5.19%	43.8%	86.5%	Information Technology
Amazon.com Inc	4.07%	41.5%	45.7%	Consumer Discretionary
Facebook Inc A	1.90%	36.1%	17.7%	Communication Services
Alphabet Inc A	1.48%	22.0%	31.0%	Communication Services
Alphabet Inc Class C	1.46%	21.6%	30.8%	Communication Services
Johnson & Johnson	1.29%	8.0%	3.8%	Health Care
Berkshire Hathaway Inc Class B	1.21%	-2.4%	-16.3%	Financials
Visa Inc Class A	1.13%	20.1%	12.0%	Information Technology
Procter & Gamble Co	1.01%	9.4%	11.8%	Consumer Staples

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Deckers Outdoor Corp	0.31%	46.6%	11.6%	Consumer Discretionary
LHC Group Inc	0.30%	24.3%	45.8%	Health Care
BJ's Wholesale Club Holdings Inc	0.29%	46.3%	41.2%	Consumer Staples
Churchill Downs Inc	0.29%	29.3%	16.2%	Consumer Discretionary
Novavax Inc	0.27%	513.8%	1322.4%	Health Care
MyoKardia Inc	0.27%	106.1%	92.7%	Health Care
Helen Of Troy Ltd	0.27%	30.9%	44.4%	Consumer Discretionary
SiteOne Landscape Supply Inc	0.27%	54.8%	64.5%	Industrials
EastGroup Properties Inc	0.26%	14.3%	4.9%	Real Estate
Ultragenyx Pharmaceutical Inc	0.25%	76.1%	23.2%	Health Care

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Fastly Inc	0.02%	348.5%	319.8%	Information Technology
Wayfair Inc Class A	0.05%	269.8%	35.3%	Consumer Discretionary
Apache Corp	0.02%	223.9%	-51.9%	Energy
Targa Resources Corp	0.02%	192.7%	-44.7%	Energy
Etsy Inc	0.04%	176.4%	73.1%	Consumer Discretionary
Bill.com Holdings Inc Ordinary Shares	0.01%	163.8%	N/A	Information Technology
Livongo Health Inc	0.01%	163.5%	N/A	Health Care
Immunomedics Inc	0.03%	162.9%	155.5%	Health Care
Antero Midstream Corp	0.01%	159.5%	-45.7%	Energy
Thor Industries Inc	0.02%	156.2%	87.0%	Consumer Discretionary

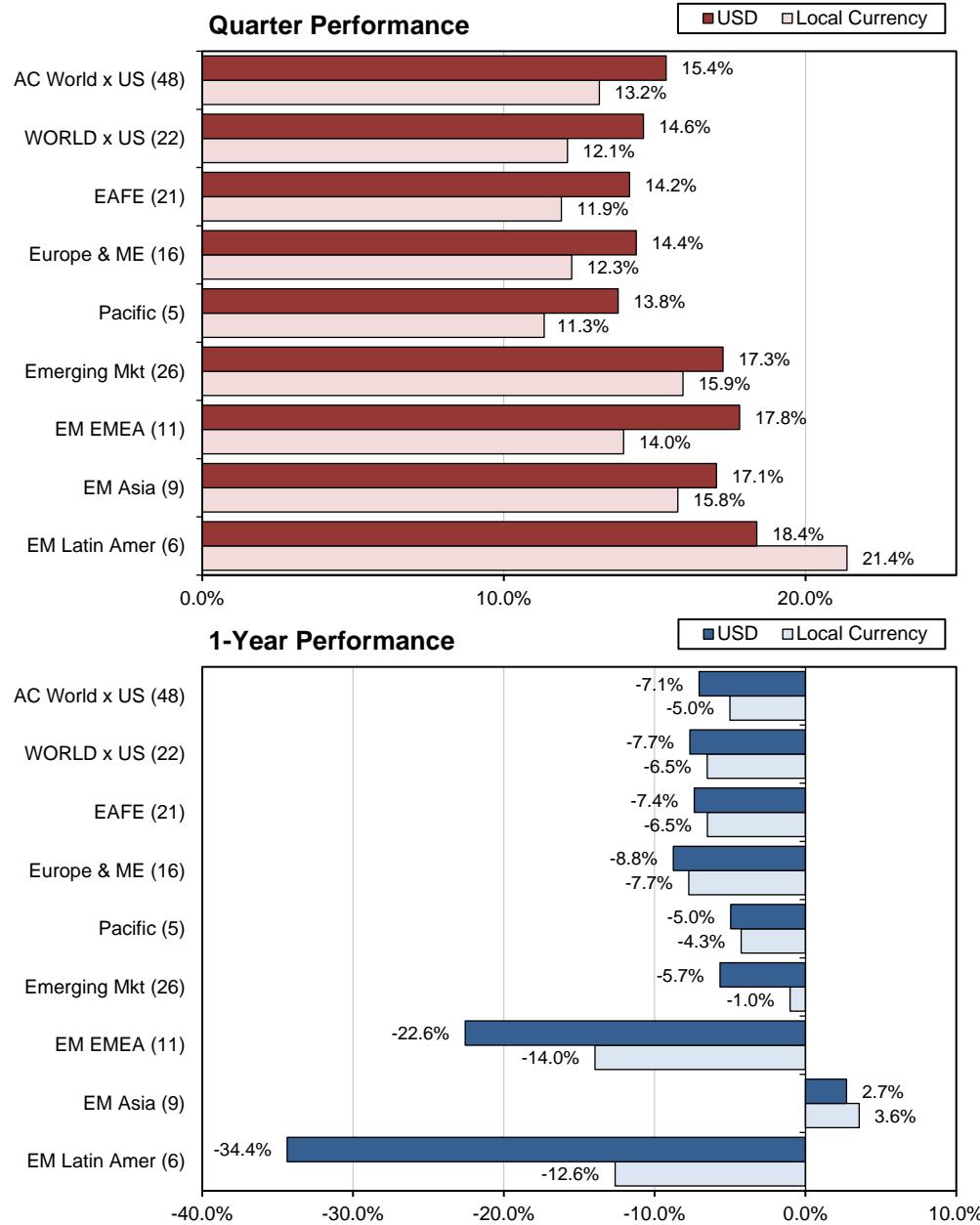
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Workhorse Group Inc	0.06%	860.8%	491.5%	Consumer Discretionary
Veritone Inc	0.02%	537.8%	77.8%	Information Technology
Novavax Inc	0.27%	513.8%	1322.4%	Health Care
Overstock.com Inc	0.06%	469.7%	109.0%	Consumer Discretionary
Vaxart Inc	0.02%	400.0%	1220.7%	Health Care
U.S. Auto Parts Network Inc	0.01%	394.9%	592.8%	Consumer Discretionary
Camping World Holdings Inc Class A	0.05%	380.5%	131.4%	Consumer Discretionary
Macrogenics Inc	0.08%	379.7%	64.5%	Health Care
Aspira Womens Health Inc	0.01%	361.3%	331.5%	Health Care
Retractable Technologies Inc	0.01%	350.0%	868.9%	Health Care

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Empire State Realty Trust Inc Class A	0.00%	-20.7%	-50.8%	Real Estate
Xerox Holdings Corp	0.01%	-18.0%	-54.8%	Information Technology
Hawaiian Electric Industries Inc	0.01%	-15.5%	-14.7%	Utilities
Biogen Inc	0.15%	-15.4%	14.4%	Health Care
Cincinnati Financial Corp	0.03%	-14.3%	-36.6%	Financials
General Electric Co	0.21%	-13.8%	-34.7%	Industrials
Coty Inc Class A	0.00%	-13.4%	-65.5%	Consumer Staples
EchoStar Corp	0.00%	-12.5%	-24.3%	Information Technology
NovoCure Ltd	0.02%	-11.9%	-6.2%	Health Care
Molson Coors Beverage Co B	0.02%	-11.9%	-36.5%	Consumer Staples

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Chesapeake Energy Corp	0.00%	-85.8%	-98.7%	Energy
Hertz Global Holdings Inc	0.01%	-77.2%	-91.2%	Industrials
SeaChange International Inc	0.00%	-59.4%	5.6%	Information Technology
CorEnergy Infrastructure Trust Inc	0.01%	-50.0%	-75.6%	Real Estate
Evofem Biosciences Inc	0.01%	-46.8%	-57.4%	Health Care
Recro Pharma Inc	0.00%	-44.3%	-48.6%	Health Care
NextCure Inc	0.02%	-42.2%	43.1%	Health Care
NeuroBo Pharmaceuticals Inc	0.00%	-42.1%	-60.2%	Health Care
LendingClub Corp	0.02%	-42.0%	-72.3%	Financials
ProAssurance Corp	0.04%	-41.9%	-58.6%	Financials

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

- Broad international equity index returns were positive in US dollar (USD) and local currency terms for the 2nd quarter as international markets rebounded following the meaningful drawdown during the previous period. USD denominated international equity index performance also benefited from a weakening USD which fell against most major currencies during the period. The MSCI ACWI ex US Index posted a return of 15.4% in USD and a slightly lower 13.2% in local currency terms. Like US equity market performance, international equity benchmarks also benefited from a strong monetary policy response from central banks in reaction to the Coronavirus. Since the virus ravaged Asia and Europe earlier than the US, many countries also began the process of re-opening their respective economies earlier than the US, resulting in improving economic datapoints. Both the ECB and Bank of Japan committed to significant lending programs designed to provide the capital markets with liquidity while continuing to purchase bonds under their existing economic recovery programs.
- Results for developed market international indices were strongly positive in both USD and local currency terms during the 2nd quarter. The MSCI EAFE Index returned 14.2% in USD and 11.0% in local currency terms. The spread of the pandemic slowed in Europe during the quarter allowing countries like Austria and Italy to begin the process of re-opening. ECB President Christine Lagarde announced that the bank was expanding its bond purchase program to \$1.5 trillion, and in the UK, the Bank of England increased its bond purchasing program by roughly \$125 billion. Both measures were targeted at providing the capital markets with liquidity.
- Emerging markets outperformed developed markets by just over 3% during the 2nd quarter. The MSCI Emerging Markets Index rose by 17.3% in USD terms and 15.9% in local currency. Emerging markets benefited relative to developed markets during the quarter as global economic activity increased despite increased geopolitical tensions from China's new security measures in Hong Kong. The rebound in commodity prices in anticipation of future economic growth was particularly beneficial to the emerging countries dependent on export demand.
- In contrast to the strong 2nd quarter returns, the 1-year trailing performance of international equity indices was broadly negative with only the Emerging Market Asia Index posting a positive return of 2.7% in USD for the period. The 1-year trailing currency impact on international index performance also contrasts with the 2nd quarter's USD weakness. Persistent strength of the USD over the 1-year period was a drag on the results realized by domestic holders of international equities for each of the indices tracked in the graph. This USD strength is particularly visible in the Emerging Market Middle East & Africa (EMEA) Index and Emerging Market Latin America Index.



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

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.4%	12.3%	-6.5%
Consumer Discretionary	11.3%	17.6%	-6.9%
Consumer Staples	12.0%	8.5%	-3.8%
Energy	3.4%	-1.5%	-41.3%
Financials	16.1%	12.6%	-20.4%
Health Care	14.5%	13.8%	17.6%
Industrials	14.5%	17.5%	-8.0%
Information Technology	8.3%	23.0%	12.4%
Materials	7.3%	22.7%	-8.6%
Real Estate	3.2%	7.9%	-21.4%
Utilities	4.0%	11.4%	2.4%
<b>Total</b>	<b>100.0%</b>	<b>14.2%</b>	<b>-7.4%</b>

MSCI - ACWIxUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	7.6%	16.9%	2.6%
Consumer Discretionary	12.6%	19.8%	-0.6%
Consumer Staples	10.0%	9.4%	-4.8%
Energy	4.8%	8.5%	-34.5%
Financials	18.1%	10.3%	-22.4%
Health Care	10.7%	16.0%	18.3%
Industrials	11.4%	17.1%	-8.9%
Information Technology	11.0%	24.1%	19.2%
Materials	7.6%	24.6%	-8.7%
Real Estate	2.8%	6.8%	-21.4%
Utilities	3.5%	10.3%	-3.2%
<b>Total</b>	<b>100.0%</b>	<b>15.4%</b>	<b>-7.1%</b>

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	13.5%	22.6%	14.2%
Consumer Discretionary	17.4%	22.1%	12.7%
Consumer Staples	6.5%	12.6%	-9.1%
Energy	6.0%	21.6%	-25.3%
Financials	19.1%	6.6%	-27.4%
Health Care	4.3%	37.1%	33.5%
Industrials	4.7%	16.0%	-15.9%
Information Technology	16.9%	19.9%	21.3%
Materials	6.9%	23.3%	-16.2%
Real Estate	2.6%	3.6%	-20.3%
Utilities	2.3%	9.2%	-20.3%
<b>Total</b>	<b>100.0%</b>	<b>17.3%</b>	<b>-5.7%</b>

Country	MSCI-EAFE Weight	MSCI-ACWIxUS Weight	Quarter Return	1- Year Return
Japan	25.4%	16.5%	11.5%	0.9%
United Kingdom	14.1%	9.1%	7.4%	-20.8%
France	10.9%	7.1%	15.3%	-11.4%
Switzerland	10.3%	6.7%	9.7%	3.8%
Germany	9.3%	6.0%	24.5%	-4.4%
Australia	6.7%	4.4%	28.6%	-14.6%
Netherlands	4.3%	2.8%	24.0%	7.1%
Hong Kong	3.4%	2.2%	7.7%	-17.4%
Sweden	3.1%	2.0%	19.5%	0.8%
Spain	2.4%	1.6%	9.6%	-22.5%
Denmark	2.3%	1.5%	18.8%	20.7%
Italy	2.3%	1.5%	15.0%	-13.1%
Singapore	1.1%	0.7%	7.3%	-23.8%
Finland	1.0%	0.7%	18.6%	-3.6%
Belgium	0.9%	0.6%	11.9%	-23.3%
Ireland	0.6%	0.4%	19.6%	3.6%
Israel	0.6%	0.4%	20.0%	0.8%
Norway	0.5%	0.3%	13.2%	-25.1%
New Zealand	0.3%	0.2%	28.0%	19.6%
Austria	0.2%	0.1%	20.6%	-28.2%
Portugal	0.2%	0.1%	9.2%	4.2%
<b>Total EAFE Countries</b>	<b>100.0%</b>	<b>64.9%</b>	<b>14.2%</b>	<b>-7.4%</b>
Canada		6.5%	19.4%	-10.5%
<b>Total Developed Countries</b>		<b>71.4%</b>	<b>14.6%</b>	<b>-7.7%</b>
China		11.7%	14.2%	11.2%
Taiwan		3.5%	20.8%	17.8%
Korea		3.3%	19.3%	-1.4%
India		2.3%	20.4%	-18.2%
Brazil		1.5%	22.6%	-35.3%
South Africa		1.1%	25.8%	-26.9%
Russia		0.9%	17.6%	-17.7%
Saudi Arabia		0.8%	12.2%	-22.7%
Thailand		0.7%	22.4%	-25.8%
Malaysia		0.5%	12.6%	-14.8%
Mexico		0.5%	10.6%	-26.8%
Indonesia		0.4%	22.4%	-26.0%
Philippines		0.2%	19.3%	-21.4%
Qatar		0.2%	6.7%	-13.1%
Poland		0.2%	20.8%	-31.2%
Chile		0.2%	13.5%	-36.9%
United Arab Emirates		0.2%	14.4%	-21.7%
Turkey		0.1%	18.3%	-8.5%
Peru		0.1%	5.5%	-35.7%
Hungary		0.1%	14.1%	-18.3%
Colombia		0.1%	7.2%	-43.6%
Argentina		0.0%	43.7%	-47.0%
Greece		0.0%	9.6%	-35.1%
Czech Republic		0.0%	24.1%	-26.8%
Egypt		0.0%	4.9%	-13.7%
Pakistan		0.0%	11.7%	-17.3%
<b>Total Emerging Countries</b>		<b>28.6%</b>	<b>17.3%</b>	<b>-5.7%</b>
<b>Total ACWIxUS Countries</b>		<b>100.0%</b>	<b>15.4%</b>	<b>-7.1%</b>

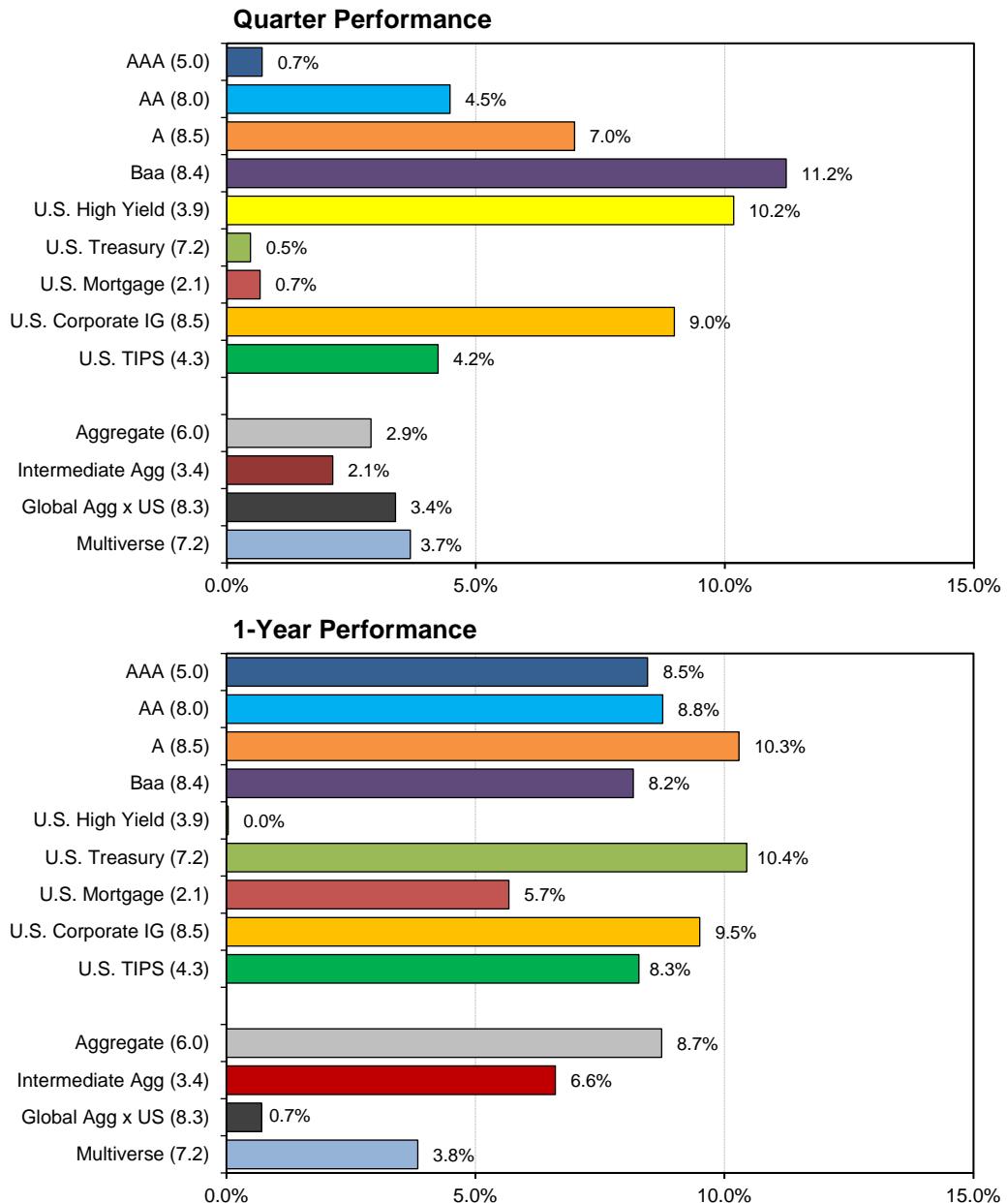
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

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 June 30, 2020

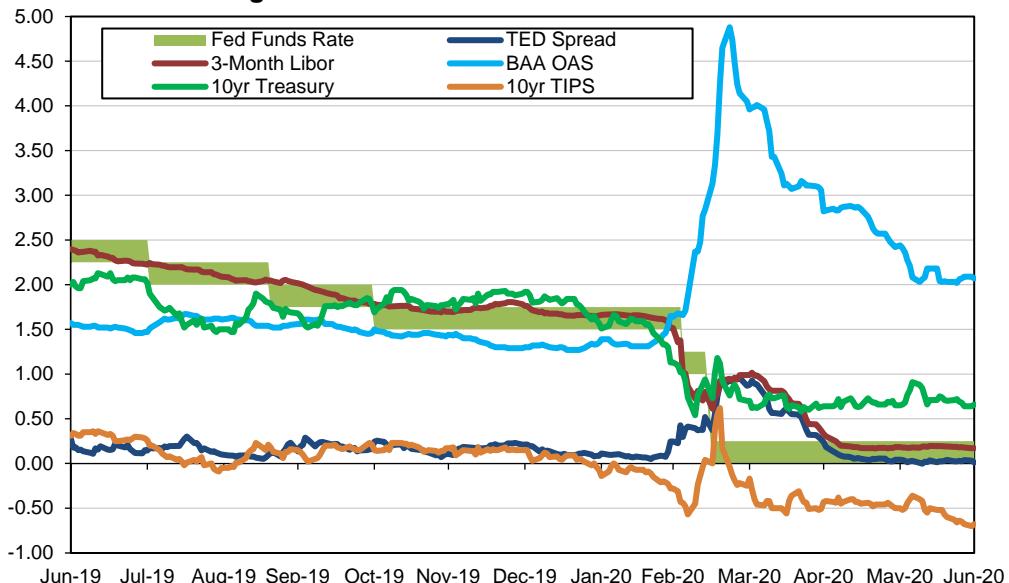
- Broad fixed income benchmarks rose sharply in the 2nd quarter as interest rates fell globally in response to the economic implications of the pandemic. The Fed continued purchasing bonds under programs announced during the first quarter to support capital markets and mitigate the damage to the economy. With US interest rates already near zero, the Fed announced several additional lending facilities to bridge the gap until economic activity picks up. These combined programs swelled the Fed's balance sheet to \$7.0 trillion, an increase of more than \$3 trillion since the beginning of the year. Late in the quarter the Fed commented that the economy faces a number of future challenges and expects interest rates to remain low for a prolonged period of time. Last August, the US Treasury yield curve inverted with the 2-year yield briefly surpassing the 10-year yield. Historically, a 2-10 inversion in the yield curve has preceded a US recession within the next 6-24 months. Recently, the National Bureau of Economic Research reported that the US economy entered a recession in February. While long-term US interest rates have moved lower recently, the Treasury yield curve has actually steepened which historically portends better economic growth.
- During the quarter, the Bloomberg Barclays (BB) US Aggregate Index returned 2.9%. Within the broad BB US Aggregate index, the US Treasury and mortgage-backed segments dramatically underperformed the corporate bond sector during the 2nd quarter. Investment grade corporate credit returned a strong 9.0% due to narrowing credit spreads and a high demand for yield. In contrast, over the 1-year period, US Treasuries outpaced both corporate and mortgage-backed issues with US Treasuries posting 10.4% versus returns of 9.5% and 5.7% for corporate and mortgage bonds, respectively. Outside of domestic markets, the BB Global Aggregate ex US Index increased by 3.4% for the quarter and 0.7% for the year.
- Within investment grade credit, lower quality issues outperformed higher quality issues during the 2nd quarter. Lower quality issues benefitted from both spread compression and investors seeking out higher yields when compared to US Treasury or mortgage bonds. On an absolute basis without adjusting for the duration differences in the sub-indices, Baa rated credit was the best performing investment grade (IG) segment, returning 11.2% for the quarter. AAA issues were the worst performing IG credit segment, returning just 0.7%. Despite a much lower duration, the high yield index returned 10.2% for the quarter. These issues benefited from credit spreads narrowing significantly following the drawdown in the first quarter. Outside of high yield performance, which was flat on the year, credit returns were all impressive with each segment returning greater than 8% for the period.



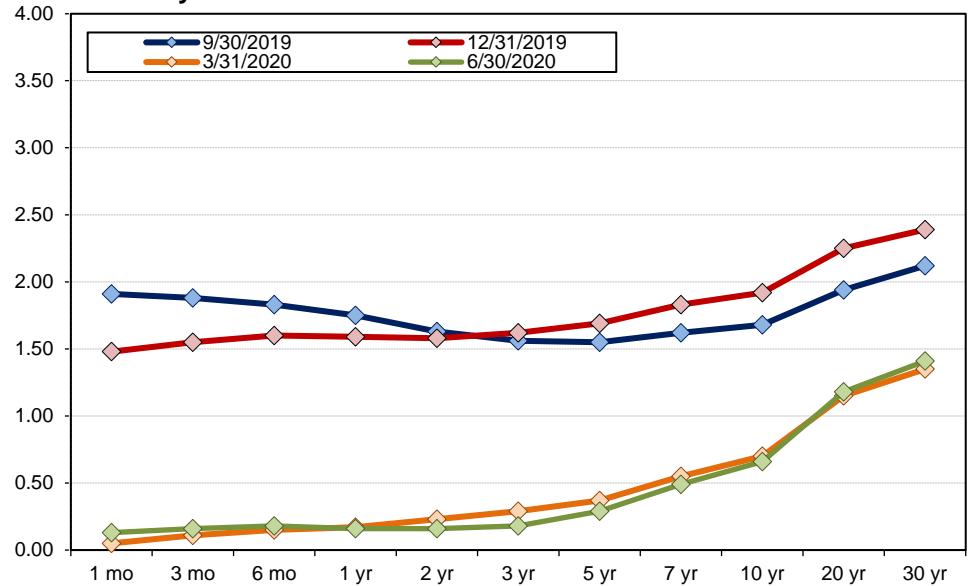
- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the yield graph to the right. The '1-Year Trailing Market Rates' chart illustrates that over the last year, the 10-year Treasury yield (green line) fell from yields of greater than 2.0%, to a low of roughly 0.5% before ending the quarter at 0.66%. A decrease in yields provides a boost to 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 an abrupt increase in credit spreads beginning in early 2020 as investors moved to higher quality assets during the quarter's risk-off environment. Spreads increased dramatically in February following the US onset of the pandemic, reaching a high of 4.88% on March 23rd. Since then, spreads have steadily declined as markets stabilized following the aggressive actions taken by the Treasury and Fed. During the quarter, the BAA OAS spread fell by 1.98%. Similar to Treasury yield declines, spread tightening in corporate bonds is equivalent to an interest rate decrease, which causes bond prices to rise. This compression produces an additional tailwind for corporate bond index returns. The green band across the graph illustrates the decrease in the Fed Funds Rate range due to the recent US monetary policy easing. The Fed began the year with a rate range of 1.50%-1.75%, which it aggressively cut to a range of 0.00%-0.25% during the 1st quarter, where it remained at the end of the quarter.

- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. The higher yields and curve inversion experienced in the 2nd half of 2019 have given way to 2020's extremely low interest rate environment. The curve continued to flatten during the 2nd quarter, particularly between the 1- and 5-year maturities. On the longer end of the curve, rates rose slightly during the period as the US Treasury issued longer-dated bonds to lock in low borrowing costs. An increase in Treasury supply, in conjunction with concerns about the potential for rising inflation, resulted in slightly higher yields during the quarter.

#### 1-Year Trailing Market Rates



#### Treasury Yield Curve



# Employees' Retirement System of the City of Norfolk

## Annual Asset Class Performance

June 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 9.8 %
	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 6.1 %
	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 %	BImbg Barc Global Agg Ex USD 0.6 %
	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 %	NCREIF ODCE (EW) (Net) -0.8 %
	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 -3.1 %
	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 %	S&P 500 -3.1 %
	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 -3.6 %
	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 %	BImbg Barc US Corp High Yield -3.8 %
	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) -9.8 %
	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) -11.3 %
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 -23.5 %
	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 -23.5 %

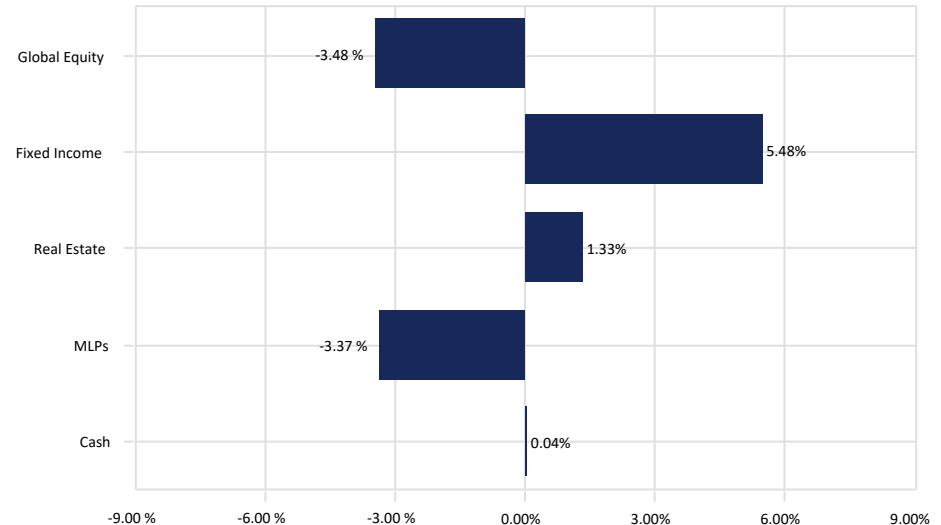
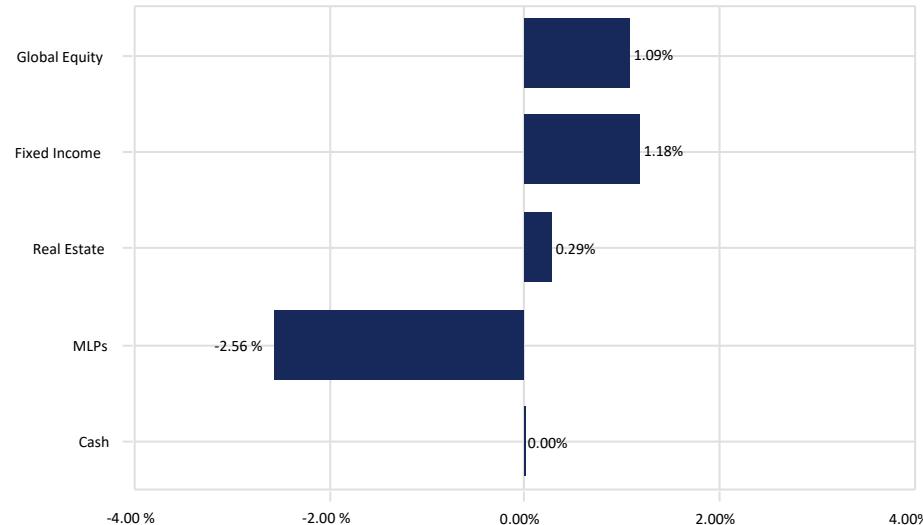


## **Total Fund**

# Employees' Retirement System of the City of Norfolk

## Asset Allocation vs. Target Allocation

June 30, 2020



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

March 31, 2020

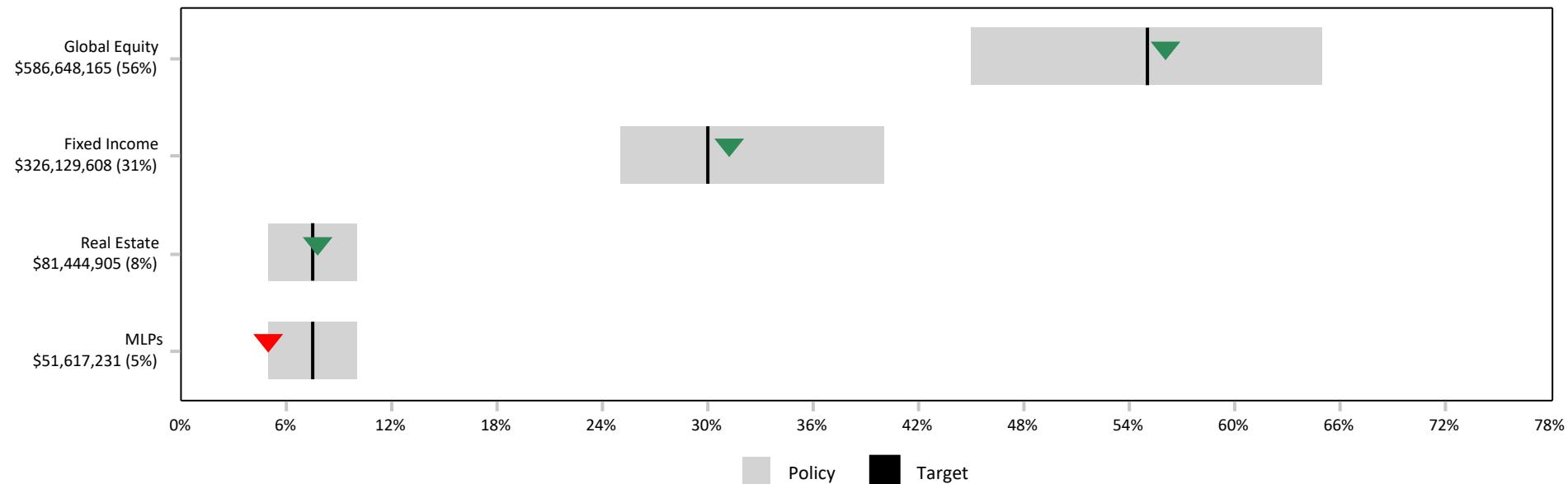
	Market Value (\$)	Allocation (%)	Target (%)
Global Equity	488,955,908	51.52	55.00
Fixed Income	336,660,936	35.48	30.00
Real Estate	83,816,713	8.83	7.50
MLPs	39,223,572	4.13	7.50
Cash	345,909	0.04	0.00
Total Fund	949,003,038	100.00	100.00

# Employees' Retirement System of the City of Norfolk

## Asset Allocation Compliance

June 30, 2020

### Executive Summary

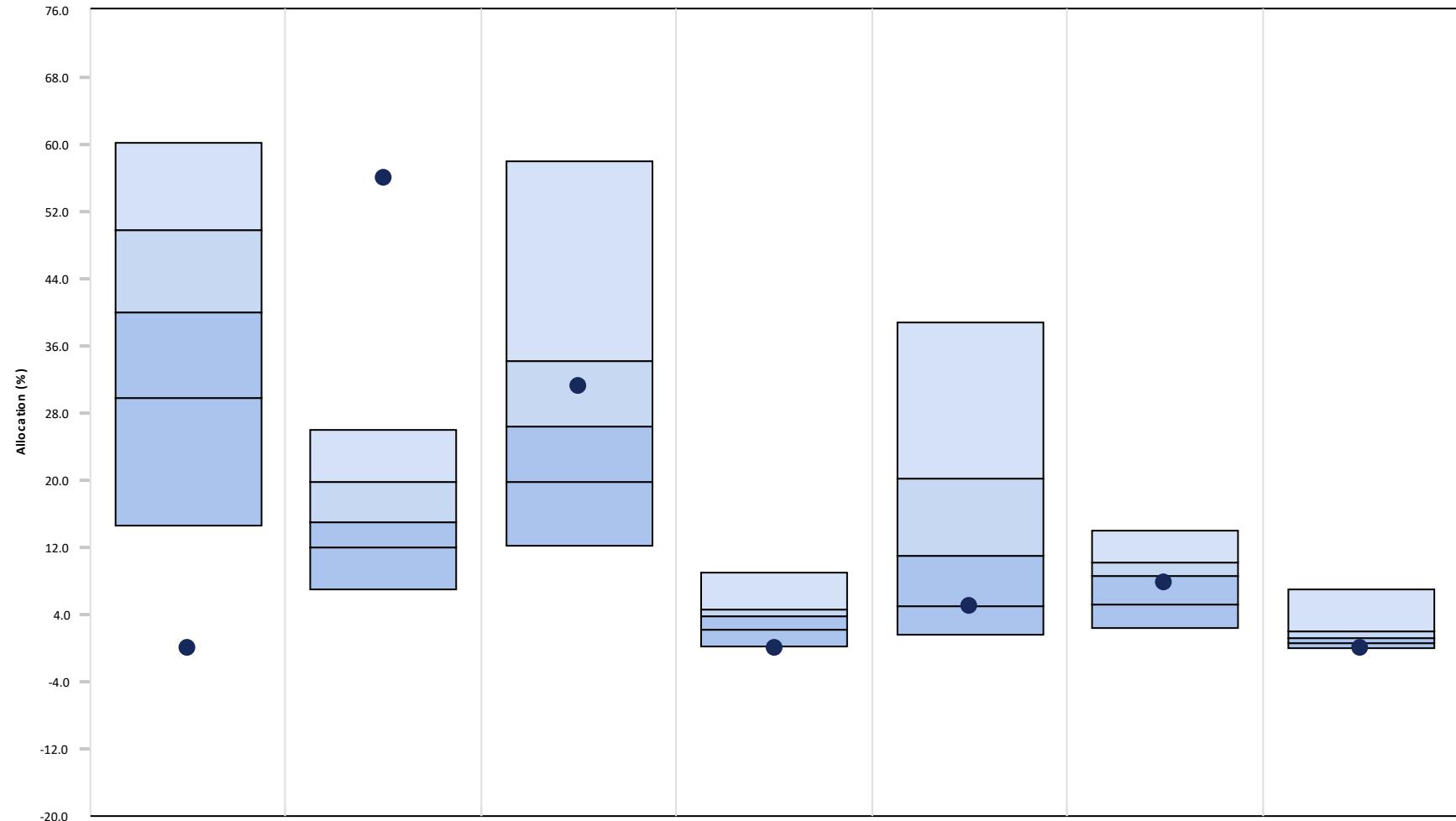


	Asset Allocation \$ (\$)	Current Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Rebalance (\$)
<b>Total Fund</b>	<b>1,045,856,048</b>	<b>100.00</b>	<b>100.00</b>			
<b>Global Equity</b>	<b>586,648,165</b>	<b>56.09</b>	<b>55.00</b>	<b>45.00</b>	<b>65.00</b>	<b>(11,427,338)</b>
SSgA MSCI ACWI IMI Index Fund	586,648,165	56.09				
<b>Fixed Income</b>	<b>326,129,608</b>	<b>31.18</b>	<b>30.00</b>	<b>25.00</b>	<b>40.00</b>	<b>(12,372,794)</b>
PIMCO Total Return	167,396,914	16.01				
SSgA Bond Market Index	158,732,694	15.18				
<b>Real Assets</b>	<b>133,062,137</b>	<b>12.72</b>	<b>15.00</b>			<b>23,816,271</b>
<b>Real Estate</b>	<b>81,444,905</b>	<b>7.79</b>	<b>7.50</b>	<b>5.00</b>	<b>10.00</b>	<b>(3,005,702)</b>
JP Morgan Asset Management Strategic Property Fund	42,876,784	4.10				
UBS Trumbull Property Fund	38,568,122	3.69				
<b>MLPs</b>	<b>51,617,231</b>	<b>4.94</b>	<b>7.50</b>	<b>5.00</b>	<b>10.00</b>	<b>26,821,972</b>
Harvest MLP	26,472,375	2.53				
Tortoise Capital Advisors	25,144,856	2.40				
Cash	16,139	0.00				

## Employees' Retirement System of the City of Norfolk

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

June 30, 2020



	<b>US Equity</b>	<b>Intl. Equity</b>	<b>US Fixed Income</b>	<b>Intl. Fixed Income</b>	<b>Alternative Inv.</b>	<b>Real Estate</b>	<b>Cash</b>
● Total Fund Composite*	0.00	56.09 (1)	31.18 (34)	0.00	4.94 (76)	7.79 (55)	0.00 (100)
5th Percentile	60.21	25.91	58.04	9.09	38.72	13.92	6.98
1st Quartile	49.81	19.82	34.14	4.63	20.26	10.13	2.04
<b>Median</b>	<b>39.91</b>	<b>14.93</b>	<b>26.30</b>	<b>3.74</b>	<b>10.96</b>	<b>8.55</b>	<b>1.12</b>
3rd Quartile	29.83	11.95	19.84	2.23	5.00	5.25	0.56
95th Percentile	14.67	6.99	12.27	0.17	1.61	2.47	0.07

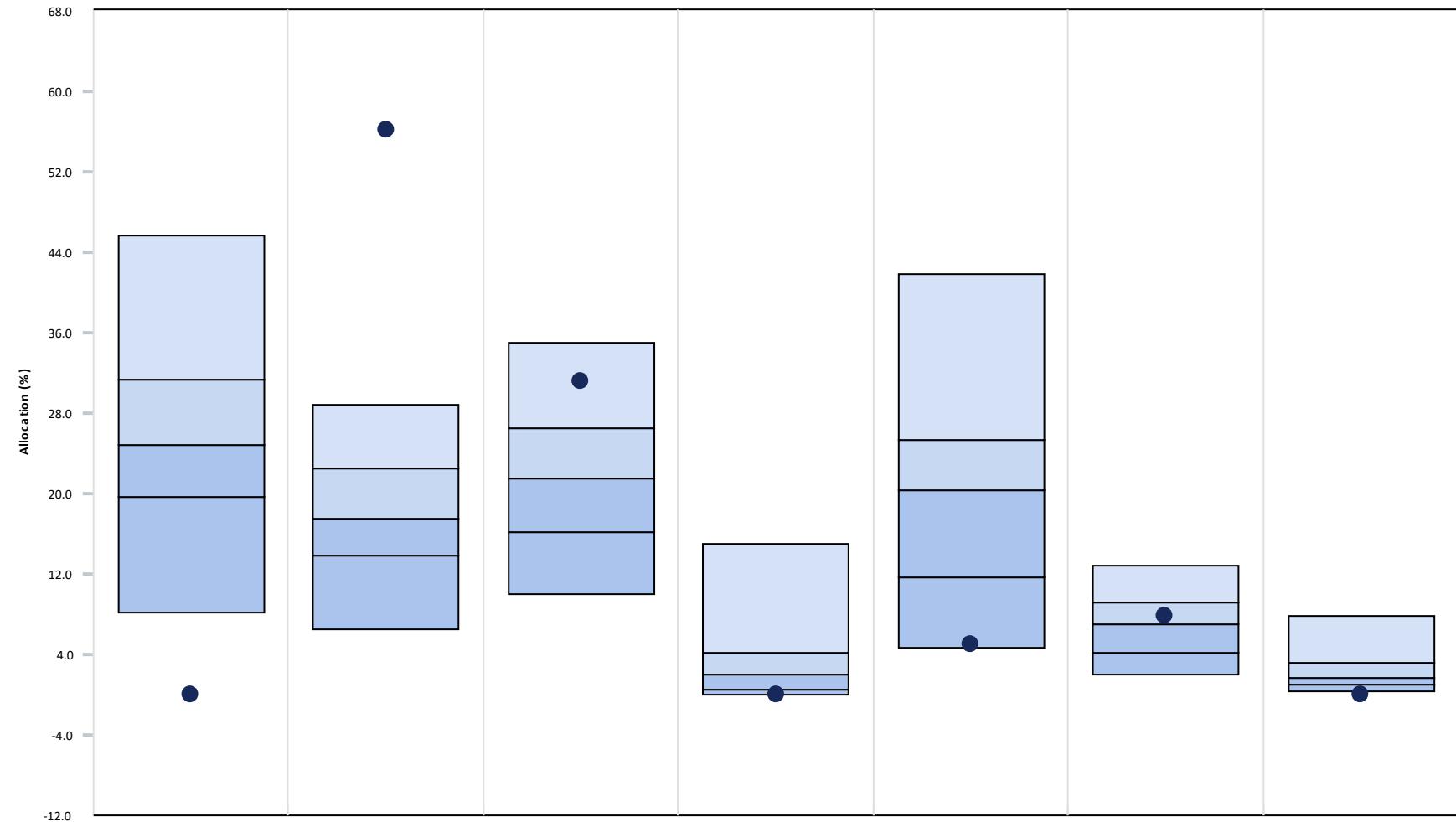
Parentheses contain percentile rankings. \*Please note that the Plan's International Equity allocation includes US Equity.



# Employees' Retirement System of the City of Norfolk

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

June 30, 2020



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
● Total Fund Composite*	0.00	56.09 (1)	31.18 (12)	0.00	4.94 (94)	7.79 (36)	0.00 (100)
5th Percentile	45.59	28.75	34.96	15.02	41.79	12.78	7.89
1st Quartile	31.41	22.45	26.43	4.10	25.31	9.11	3.09
<b>Median</b>	<b>24.77</b>	<b>17.49</b>	<b>21.53</b>	<b>2.07</b>	<b>20.30</b>	<b>7.01</b>	<b>1.69</b>
3rd Quartile	19.69	13.77	16.14	0.44	11.60	4.23	0.99
95th Percentile	8.16	6.57	9.98	0.02	4.68	2.08	0.38

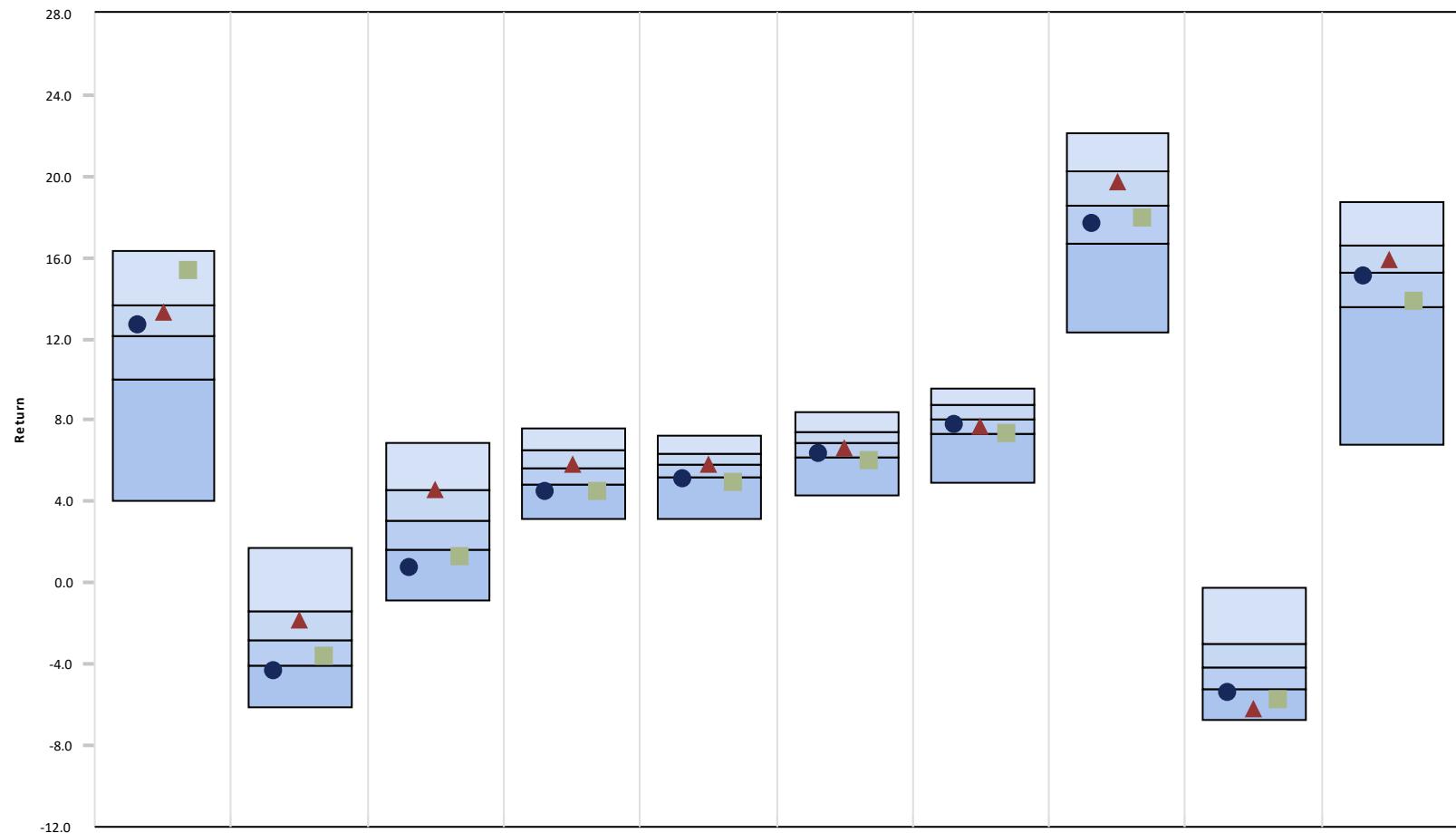
Parentheses contain percentile rankings. \*Please note that the Plan's International Equity allocation includes US Equity.



# Employees' Retirement System of the City of Norfolk

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

June 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>
<b>Total Fund Composite</b>	12.67 (40)	-4.34 (80)	0.75 (84)	4.48 (83)	5.12 (77)	6.36 (69)	7.75 (62)	17.67 (62)	-5.43 (81)	15.10 (54)
<b>Fund Policy (62.5% ACWI/37.5% Agg)</b>	13.31 (30)	-1.81 (34)	4.56 (26)	5.83 (44)	5.82 (52)	6.66 (57)	7.72 (63)	19.72 (33)	-6.19 (90)	15.91 (38)
<b>Fund Strategic Index</b>	15.39 (9)	-3.64 (69)	1.30 (80)	4.46 (83)	4.95 (81)	5.98 (80)	7.38 (74)	17.92 (58)	-5.80 (86)	13.79 (73)
<b>5th Percentile</b>	16.32	1.72	6.91	7.57	7.26	8.40	9.59	22.13	-0.20	18.72
<b>1st Quartile</b>	13.67	-1.39	4.57	6.52	6.39	7.44	8.76	20.27	-2.97	16.61
<b>Median</b>	<b>12.12</b>	<b>-2.83</b>	<b>3.02</b>	<b>5.66</b>	<b>5.86</b>	<b>6.84</b>	<b>8.03</b>	<b>18.56</b>	<b>-4.16</b>	<b>15.24</b>
<b>3rd Quartile</b>	10.01	-4.04	1.59	4.83	5.22	6.14	7.36	16.66	-5.21	13.57
<b>95th Percentile</b>	4.00	-6.10	-0.90	3.13	3.12	4.28	4.97	12.36	-6.75	6.77

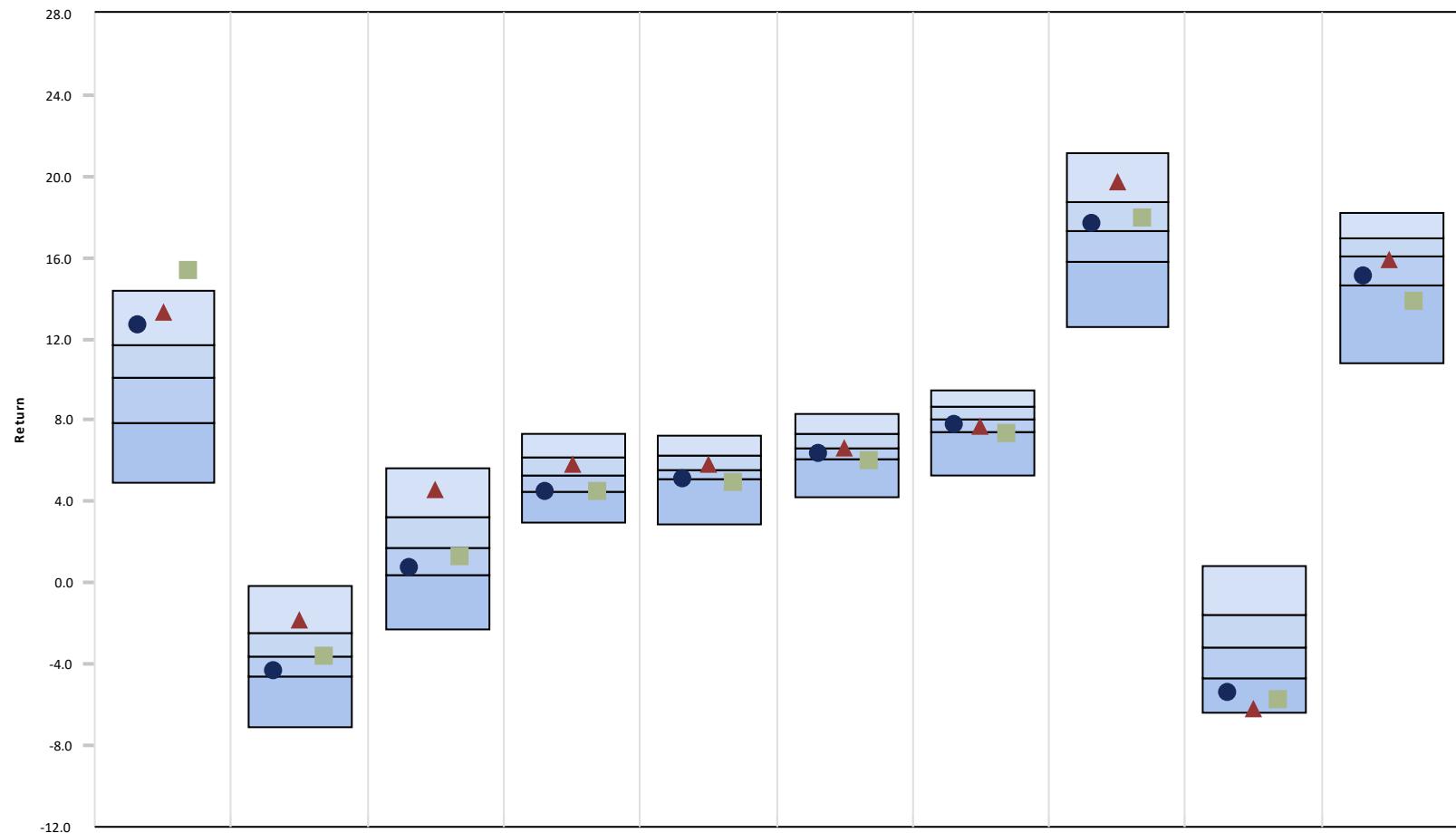
Parentheses contain percentile rankings.



# Employees' Retirement System of the City of Norfolk

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

June 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>
<b>Total Fund Composite</b>	12.67 (17)	-4.34 (66)	0.75 (70)	4.48 (75)	5.12 (73)	6.36 (64)	7.75 (60)	17.67 (42)	-5.43 (87)	15.10 (68)
<b>Fund Policy (62.5% ACWI/37.5% Agg)</b>	13.31 (12)	-1.81 (18)	4.56 (11)	5.83 (31)	5.82 (44)	6.66 (49)	7.72 (62)	19.72 (16)	-6.19 (95)	15.91 (55)
<b>Fund Strategic Index</b>	15.39 (3)	-3.64 (51)	1.30 (62)	4.46 (76)	4.95 (78)	5.98 (78)	7.38 (77)	17.92 (37)	-5.80 (91)	13.79 (87)
5th Percentile	14.33	-0.18	5.68	7.30	7.23	8.35	9.43	21.11	0.83	18.22
1st Quartile	11.67	-2.43	3.23	6.15	6.29	7.36	8.62	18.75	-1.60	16.95
<b>Median</b>	<b>10.07</b>	<b>-3.61</b>	<b>1.75</b>	<b>5.29</b>	<b>5.59</b>	<b>6.63</b>	<b>8.02</b>	<b>17.29</b>	<b>-3.14</b>	<b>16.02</b>
3rd Quartile	7.88	-4.64	0.39	4.47	5.07	6.08	7.42	15.75	-4.74	14.64
95th Percentile	4.92	-7.07	-2.27	2.96	2.86	4.21	5.31	12.55	-6.43	10.80

(Parentheses contain percentile rankings.)

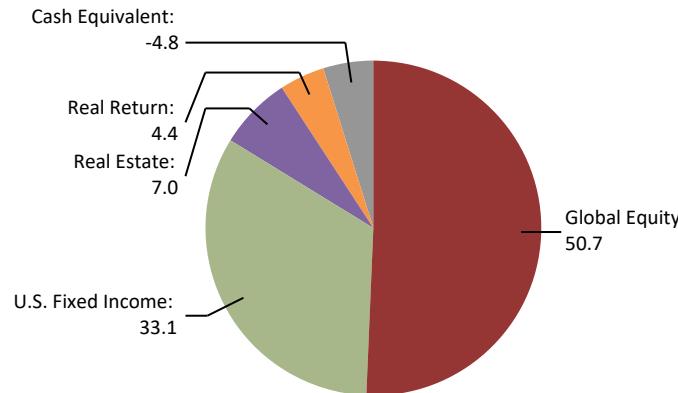


# Employees' Retirement System of the City of Norfolk

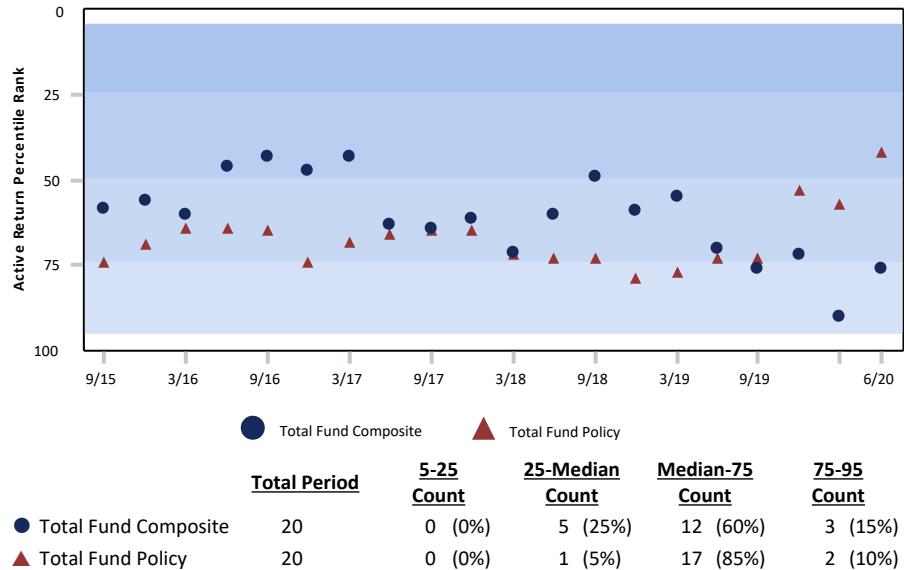
Total Fund Composite

June 30, 2020

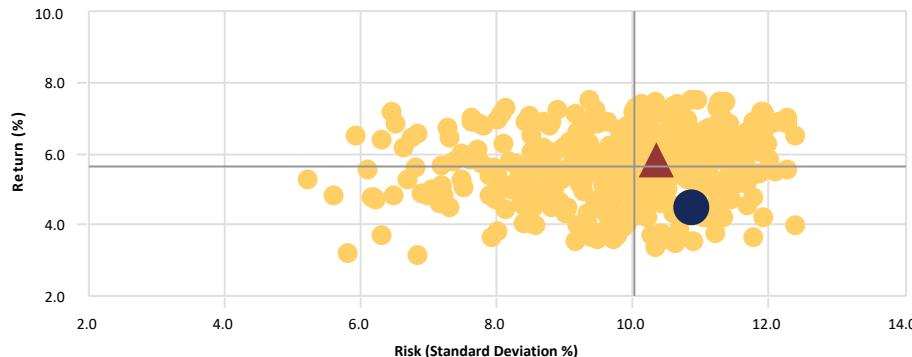
## Asset Allocation by Segment



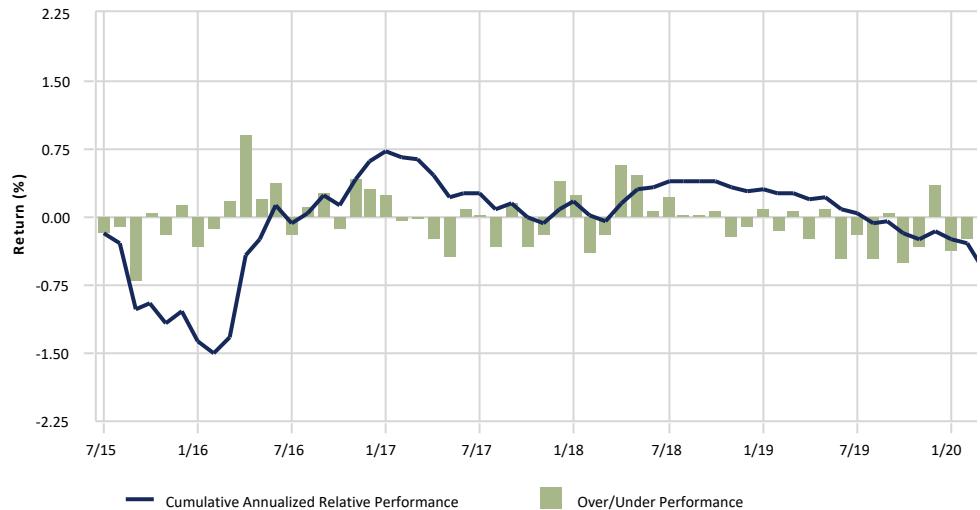
## 3 Year Rolling Return Rank



## Risk vs. Return (07/01/17 - 06/30/20)



## Relative Performance vs. Total Fund Policy



Note: Cash Equivalent allocation includes manager cash.



## **Global Equity**

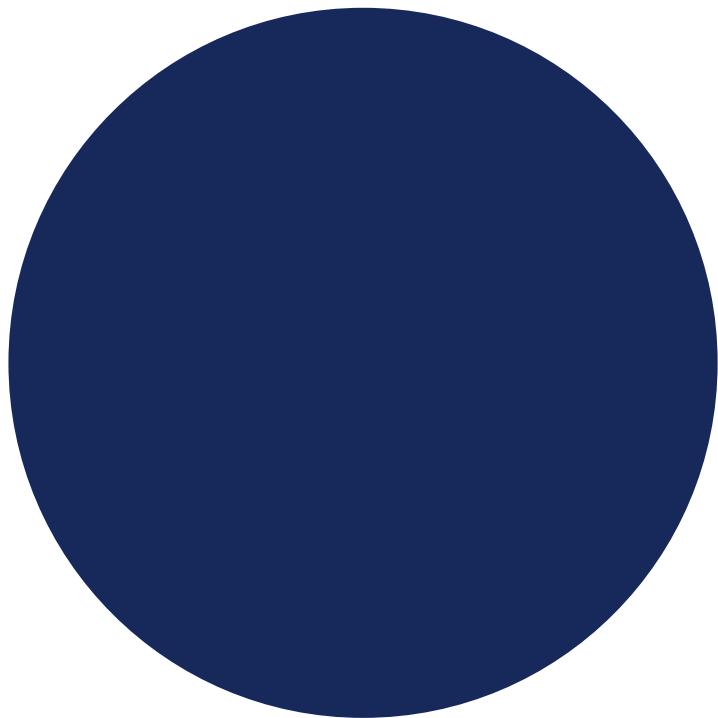
# Employees' Retirement System of the City of Norfolk

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

June 30, 2020

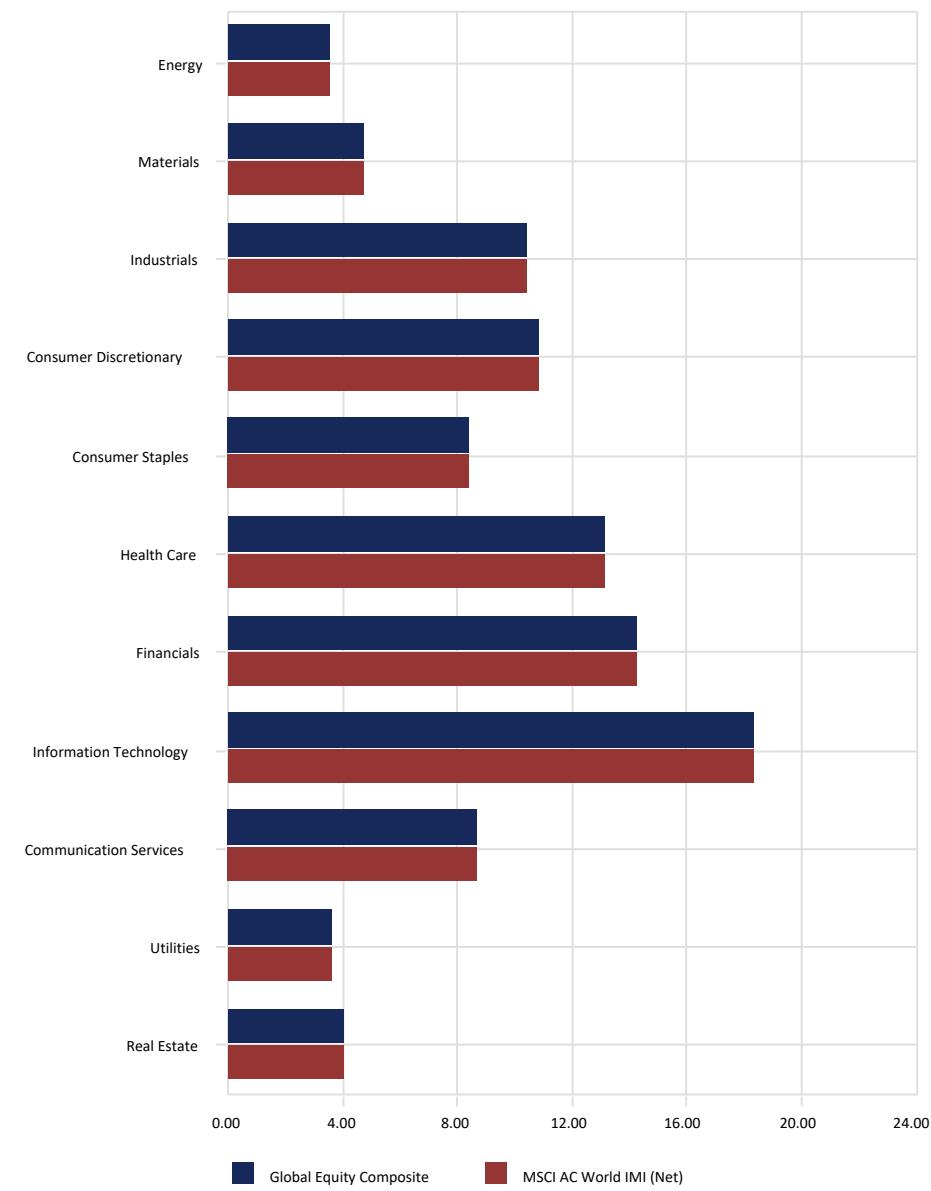
## Manager Allocation

June 30, 2020 : \$586,648,165



	Market Value (\$)	Allocation (%)
SSgA MSCI ACWI IMI Index Fund	586,648,165	100.00

## Sector Allocation - Holdings Based

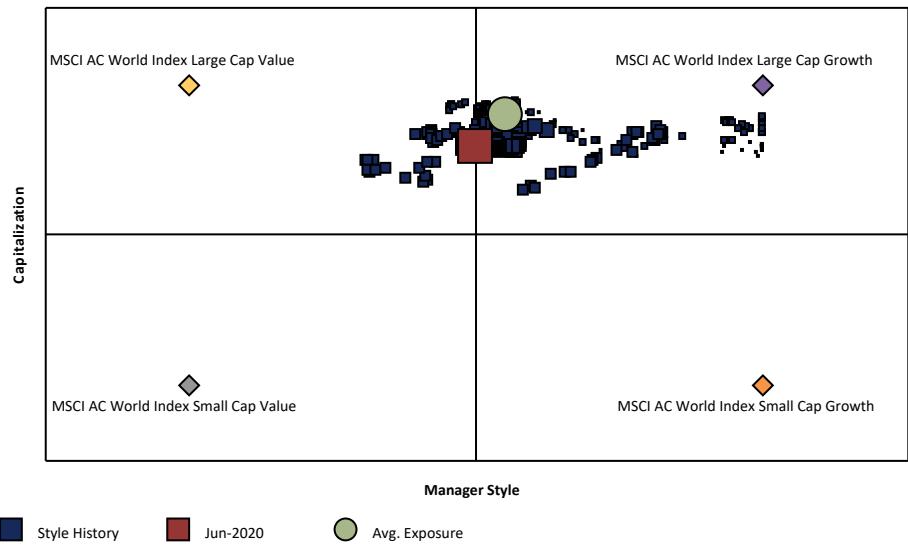


# Employees' Retirement System of the City of Norfolk

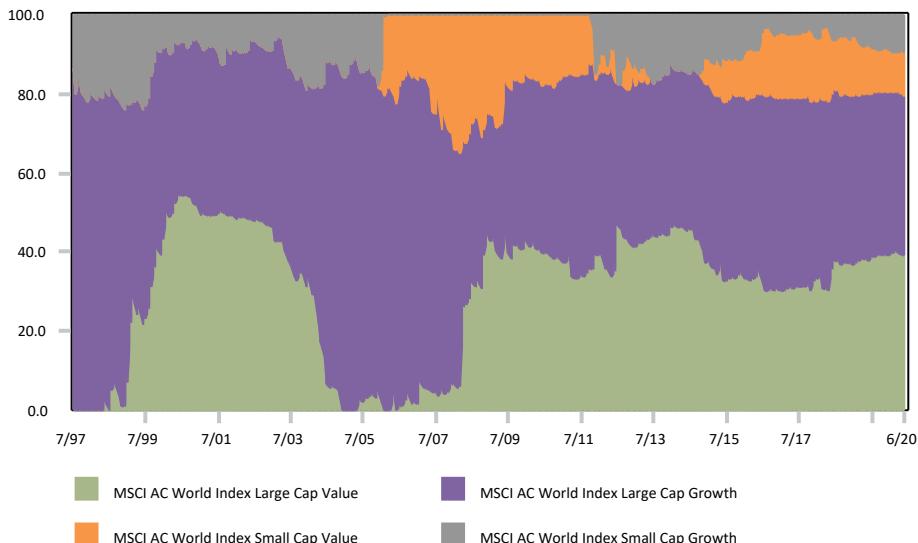
Global Equity Composite vs. MSCI AC World IMI (Net)

June 30, 2020

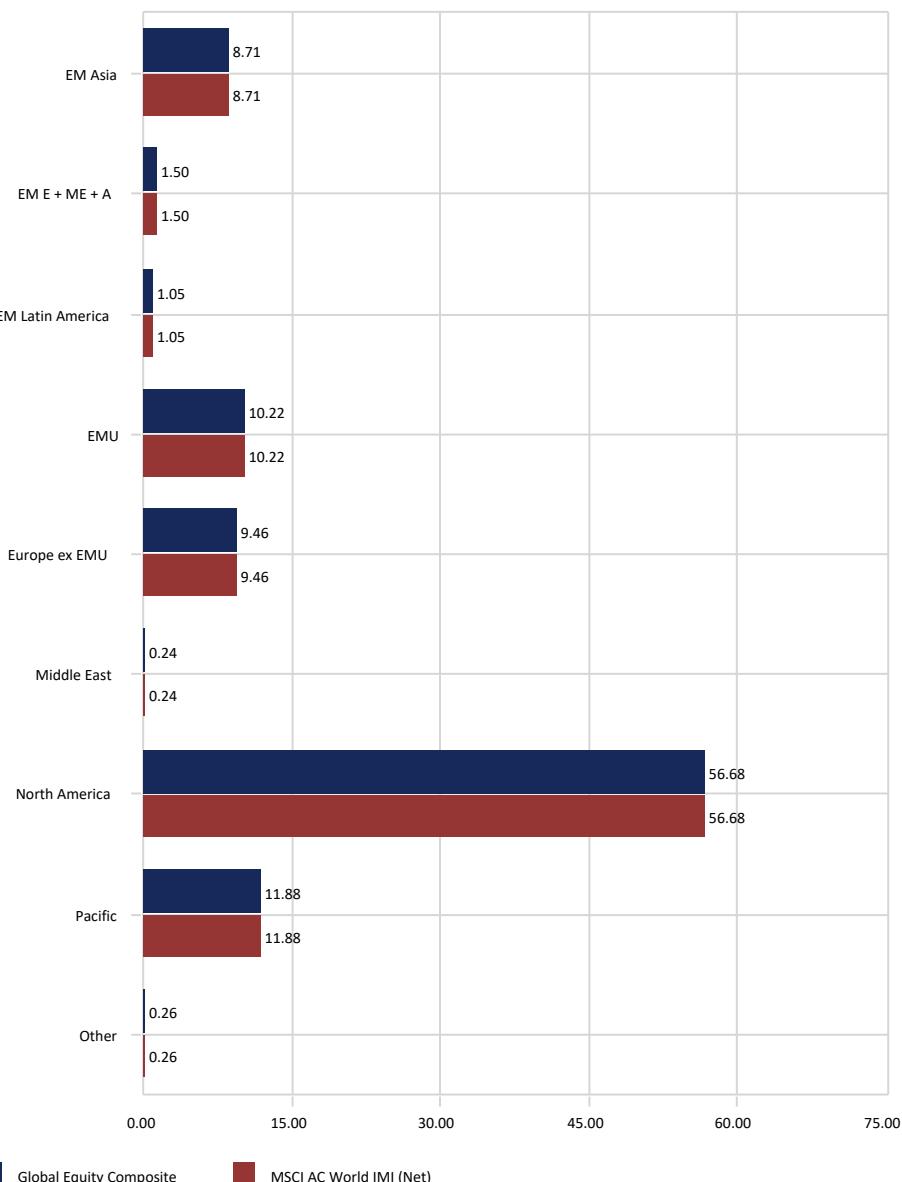
## Style Analysis - Returns Based



## 3 Year Style Analysis



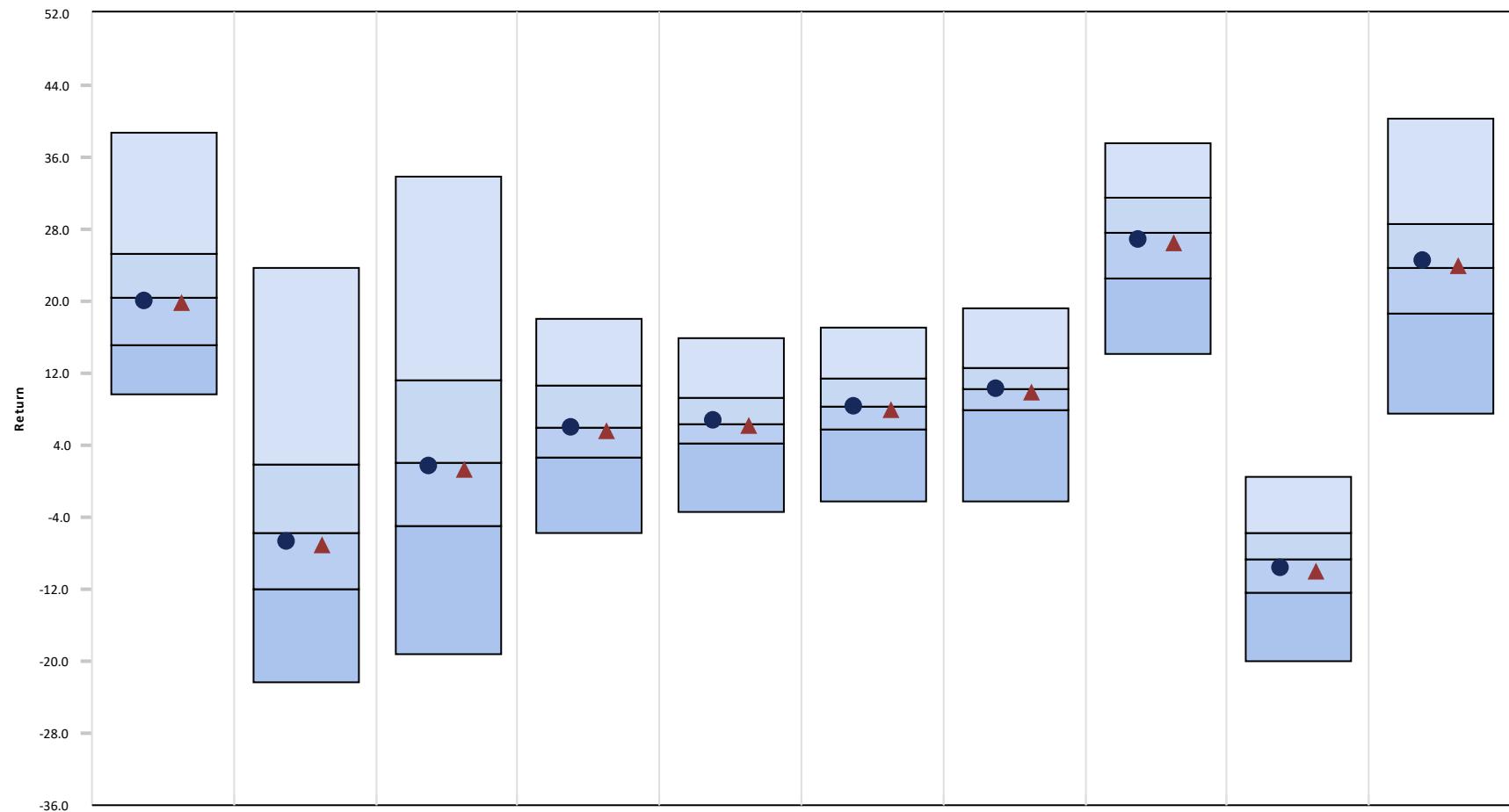
## Region Allocation - Holdings Based



# Employees' Retirement System of the City of Norfolk

Global Equity Composite vs. IM Global Equity (MF)

June 30, 2020



	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2019	2018	2017
● Global Equity Composite	19.99 (52)	-6.78 (52)	1.64 (52)	6.01 (50)	6.71 (47)	8.37 (50)	10.18 (51)	26.92 (55)	-9.73 (62)	24.48 (47)
▲ Global Equity Policy	19.83 (53)	-7.06 (54)	1.17 (52)	5.55 (54)	6.22 (52)	7.98 (54)	9.85 (59)	26.35 (58)	-10.08 (65)	23.95 (49)
5th Percentile	38.82	23.66	33.87	18.14	15.84	17.04	19.23	37.55	0.46	40.35
1st Quartile	25.21	1.86	11.25	10.57	9.34	11.35	12.59	31.60	-5.77	28.55
<b>Median</b>	<b>20.39</b>	<b>-5.79</b>	<b>1.97</b>	<b>5.87</b>	<b>6.35</b>	<b>8.35</b>	<b>10.19</b>	<b>27.62</b>	<b>-8.75</b>	<b>23.73</b>
3rd Quartile	15.13	-11.92	-4.97	2.68	4.17	5.70	7.81	22.53	-12.46	18.60
95th Percentile	9.68	-22.28	-19.21	-5.74	-3.34	-2.17	-2.25	14.08	-19.93	7.57

gross of fees

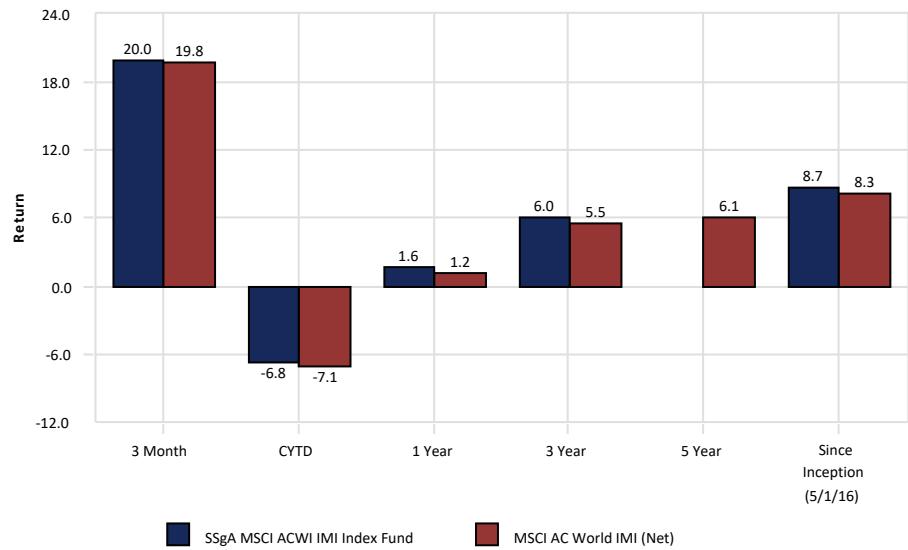


# Employees' Retirement System of the City of Norfolk

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

June 30, 2020

## Comparative Performance

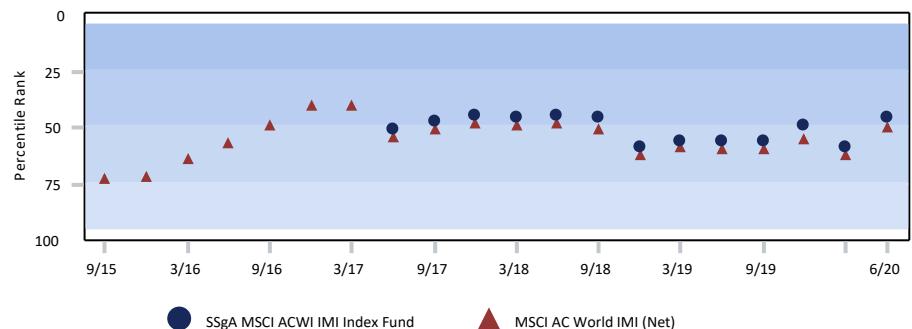


## Relative Performance vs MSCI AC World IMI (Net)

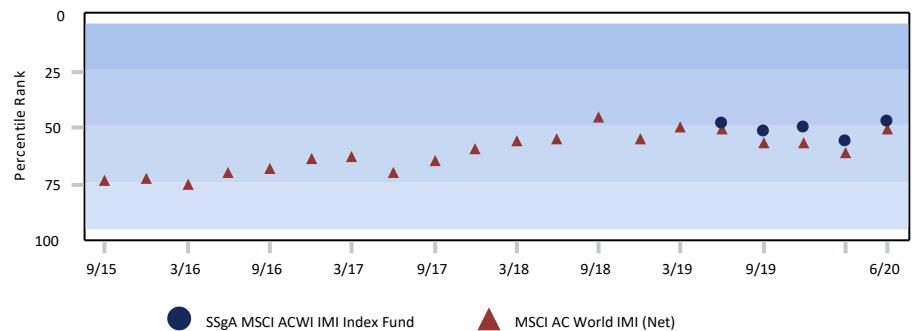


gross of fees

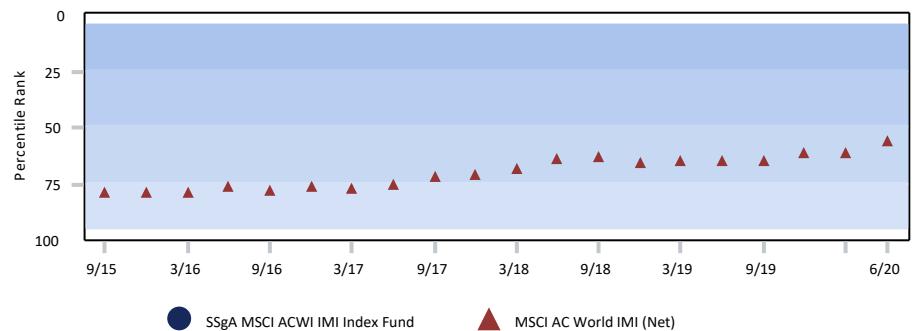
## 1 Year Rolling Percentile Ranking



## 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)

June 30, 2020

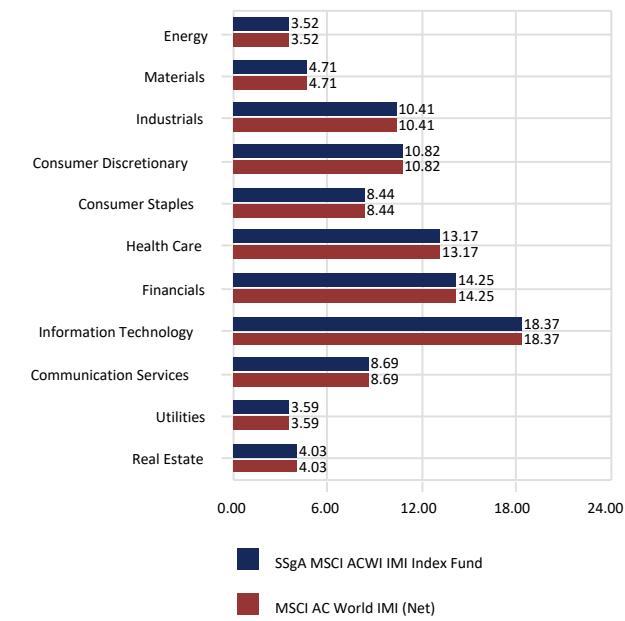
## Portfolio Characteristics

	Portfolio
Wtd. Avg. Mkt. Cap (\$000)	215,791,317
Median Mkt. Cap (\$000)	1,612,606
Price/Earnings ratio	19.32
Price/Book ratio	3.30
5 Yr. EPS Growth Rate (%)	10.08
Current Yield (%)	2.20
Beta (3 Years, Monthly)	1.00
Number of Stocks	8,786

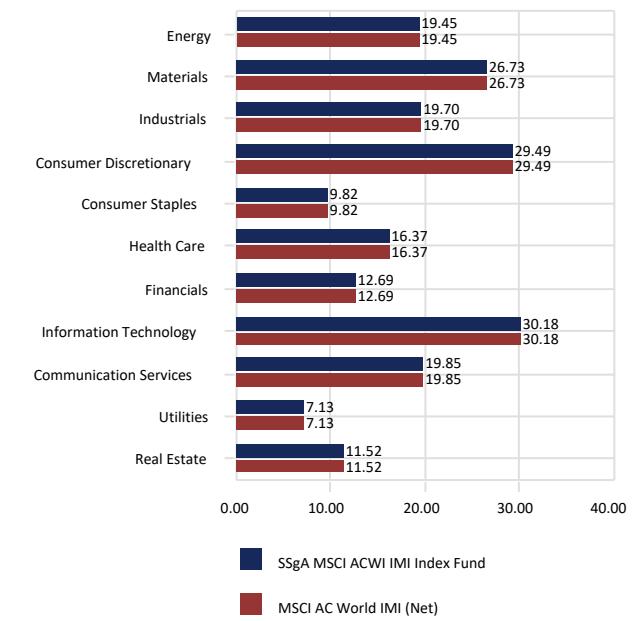
## Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Apple Inc	2.97	2.97	0.00	43.84
Microsoft Corp	2.73	2.73	0.00	29.40
Amazon.com Inc	2.17	2.17	0.00	41.50
Facebook Inc	1.02	1.02	0.00	36.13
Alphabet Inc	0.81	0.81	0.00	21.57
Alphabet Inc Class A	0.79	0.79	0.00	22.04
Alibaba Group Holding Ltd	0.75	0.75	0.00	10.91
Johnson & Johnson	0.69	0.69	0.00	8.00
Tencent Holdings LTD	0.69	0.69	0.00	31.53
Visa Inc	0.61	0.61	0.00	20.10
% of Portfolio		13.23	13.23	0.00

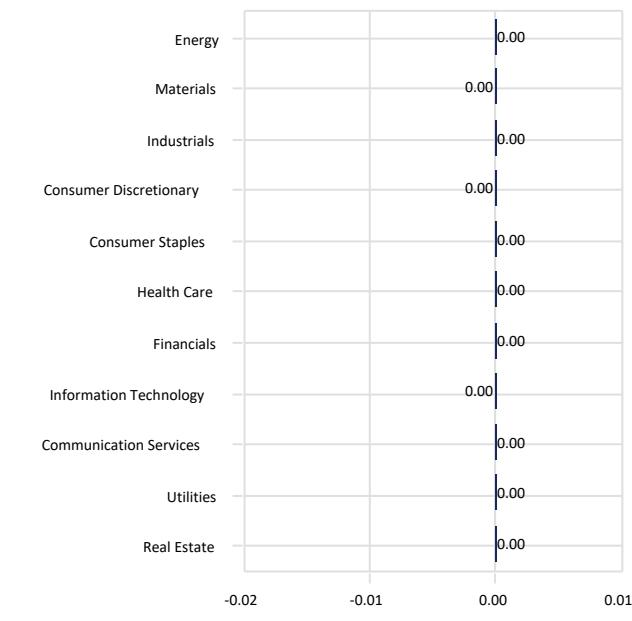
## Sector Allocation



## Sector Performance



## Total Sector Attribution

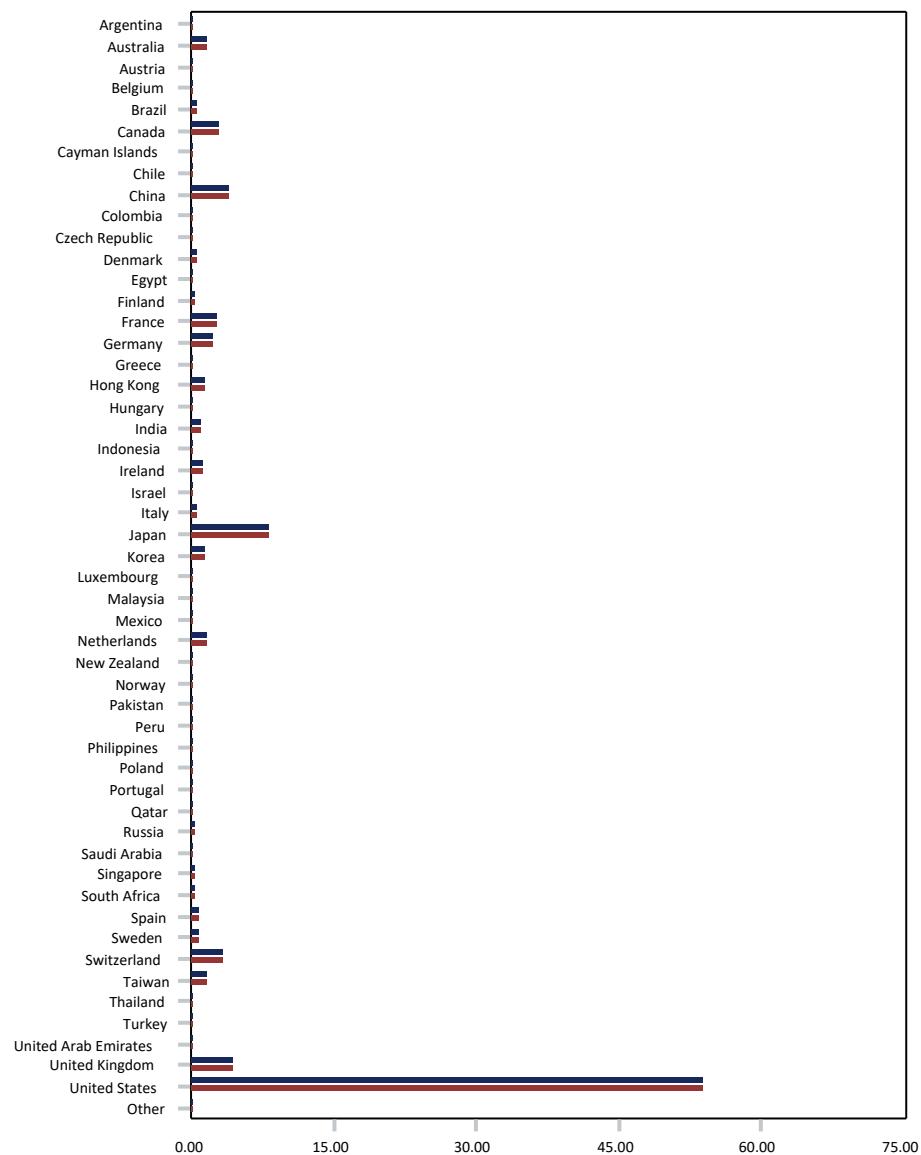


# Employees' Retirement System of the City of Norfolk

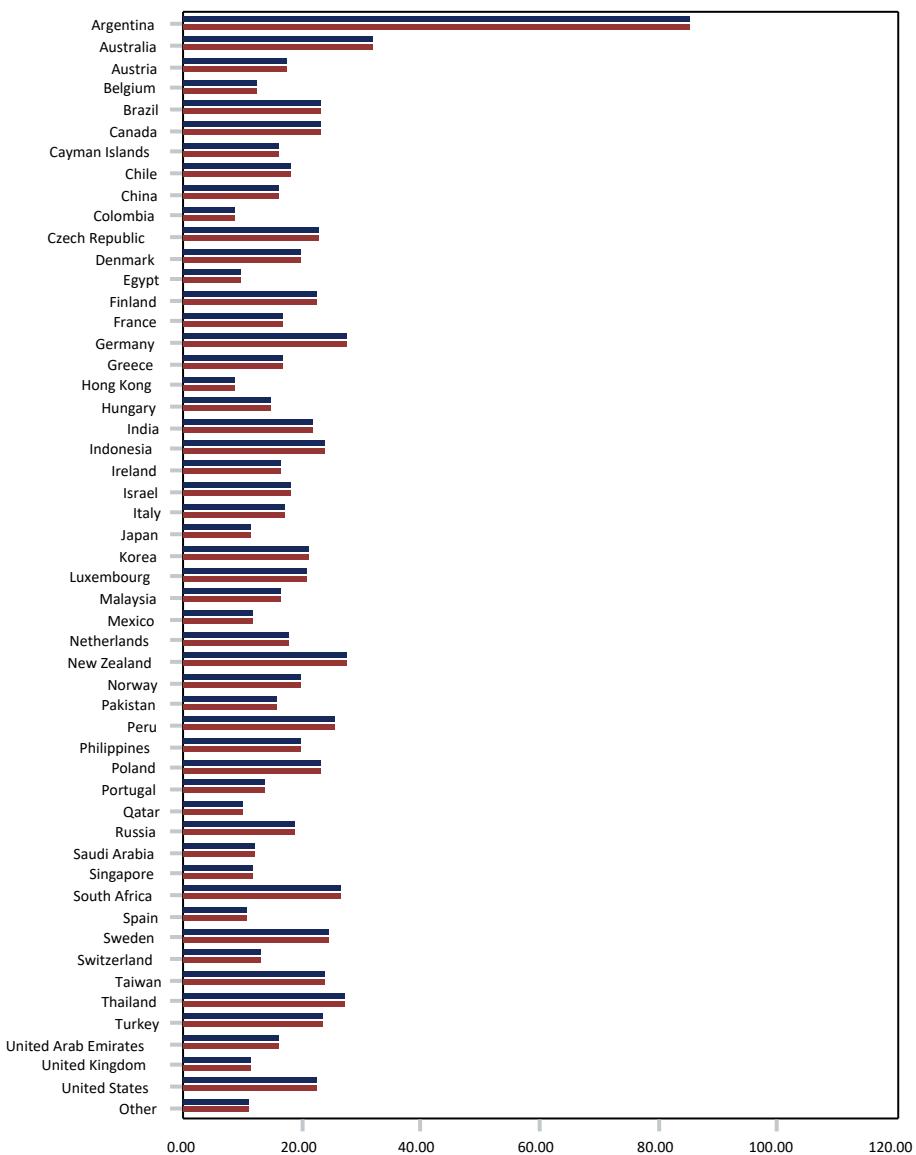
SSgA MSCI ACWI IMI vs. MSCI AC World IMI (Net)

June 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**

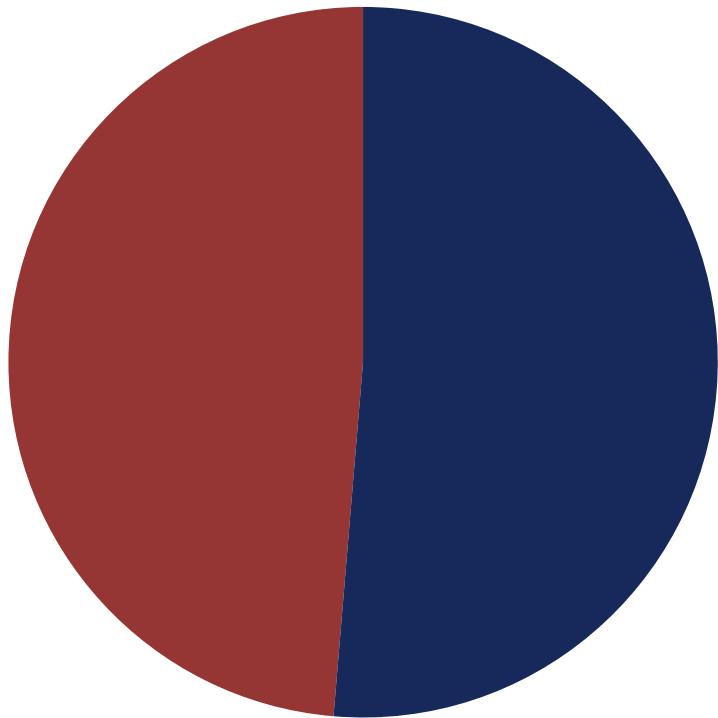
# Employees' Retirement System of the City of Norfolk

Fixed Income

June 30, 2020

## Manager Allocation

June 30, 2020 : \$326,129,608

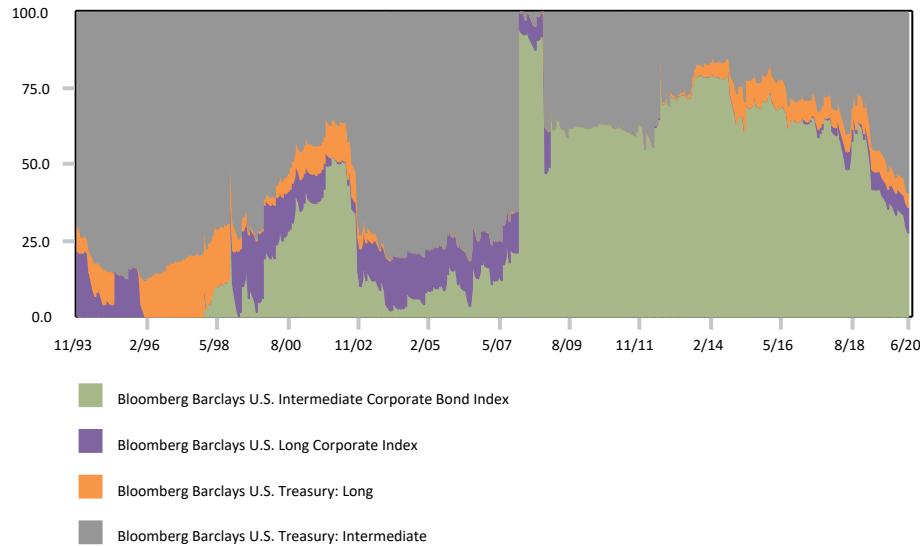


	Market Value (\$)	Allocation (%)
PIMCO Total Return	167,396,914	51.33
SSgA Bond Market Index	158,732,694	48.67

## Style Analysis - Returns Based



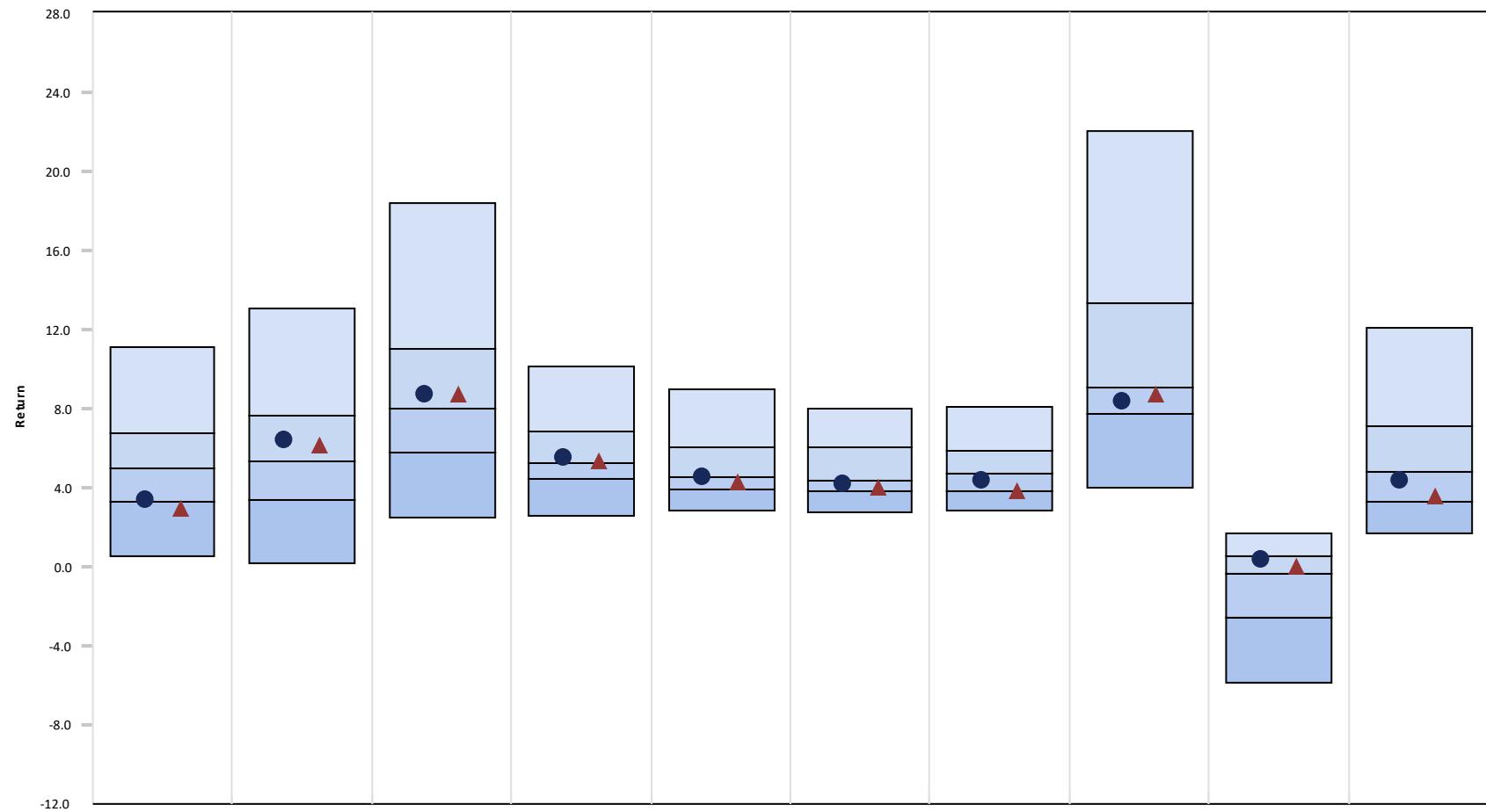
## 3 Year Style Analysis



# Employees' Retirement System of the City of Norfolk

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

June 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	3.36 (75)	6.36 (33)	8.73 (39)	5.51 (44)	4.50 (53)	4.21 (56)	4.37 (61)	8.39 (64)	0.35 (28)	4.34 (56)
▲ Blmbg. Barc. U.S. Aggregate	2.90 (82)	6.14 (39)	8.74 (39)	5.32 (48)	4.30 (62)	3.96 (69)	3.82 (75)	8.72 (58)	0.01 (36)	3.54 (69)
5th Percentile	11.09	13.03	18.37	10.12	8.98	8.01	8.04	22.08	1.73	12.12
1st Quartile	6.72	7.63	10.98	6.88	6.02	6.03	5.84	13.37	0.49	7.13
<b>Median</b>	<b>4.94</b>	<b>5.37</b>	<b>7.98</b>	<b>5.25</b>	<b>4.55</b>	<b>4.37</b>	<b>4.74</b>	<b>9.09</b>	<b>-0.39</b>	<b>4.78</b>
3rd Quartile	3.30	3.40	5.79	4.48	3.95	3.78	3.81	7.69	-2.54	3.32
95th Percentile	0.53	0.19	2.45	2.57	2.81	2.77	2.87	4.02	-5.83	1.65

**gross of fees**

Parentheses contain percentile rankings.

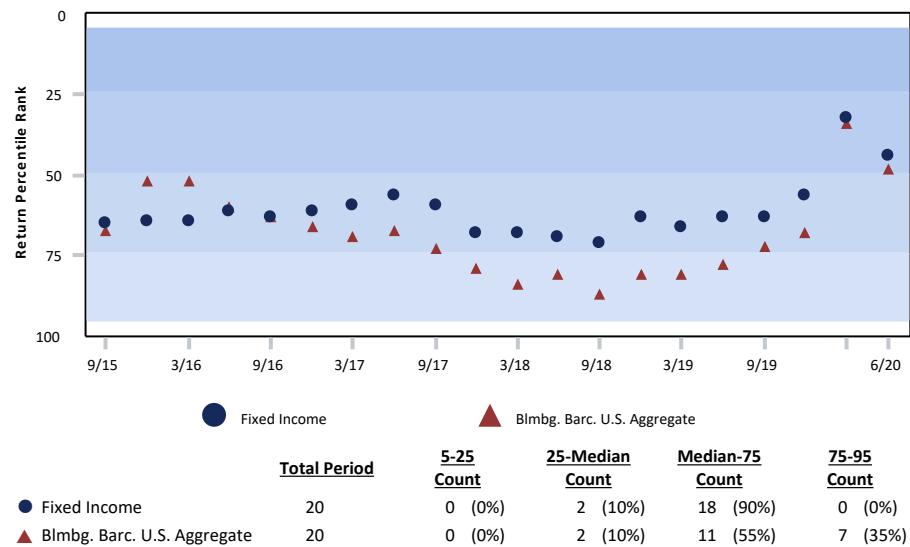


# Employees' Retirement System of the City of Norfolk

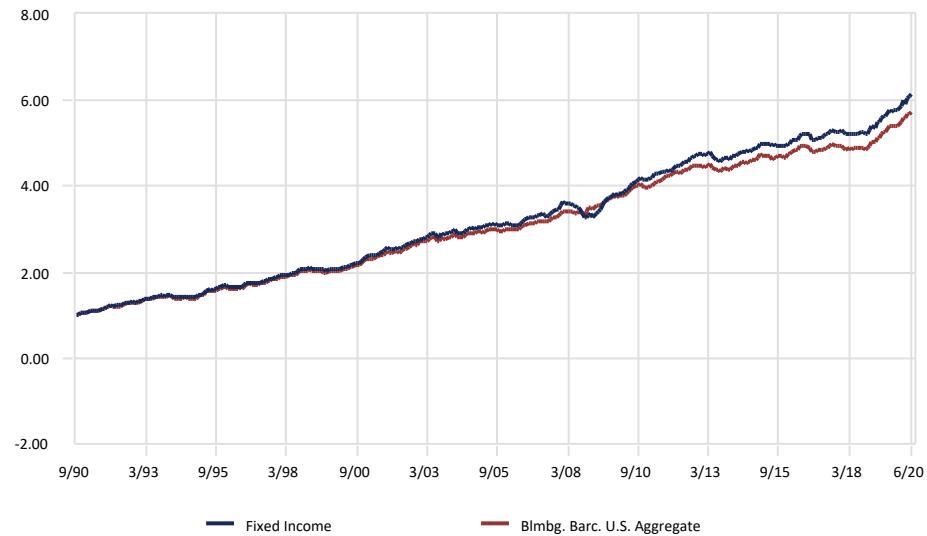
## Fixed Income

June 30, 2020

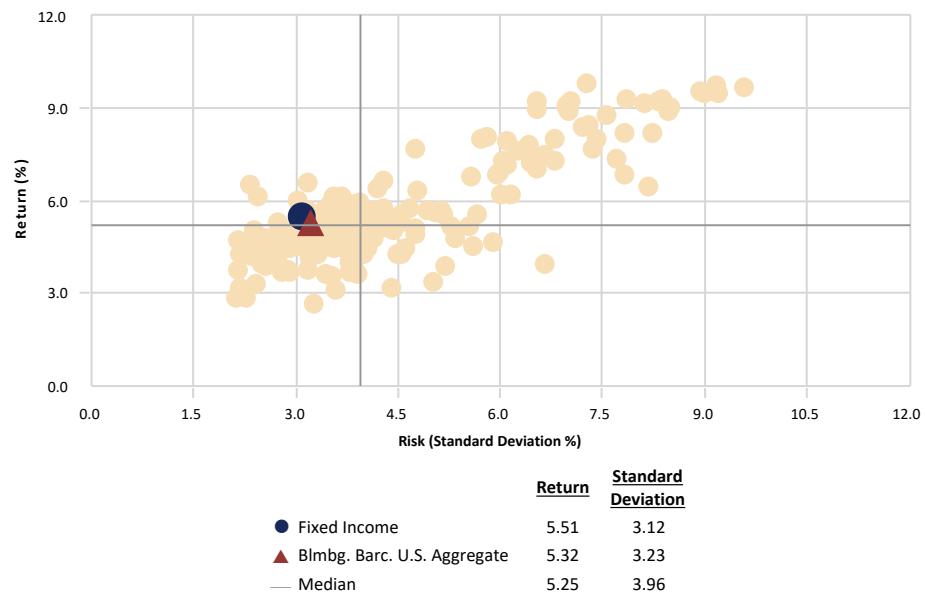
### 3 Year Rolling Return Rank



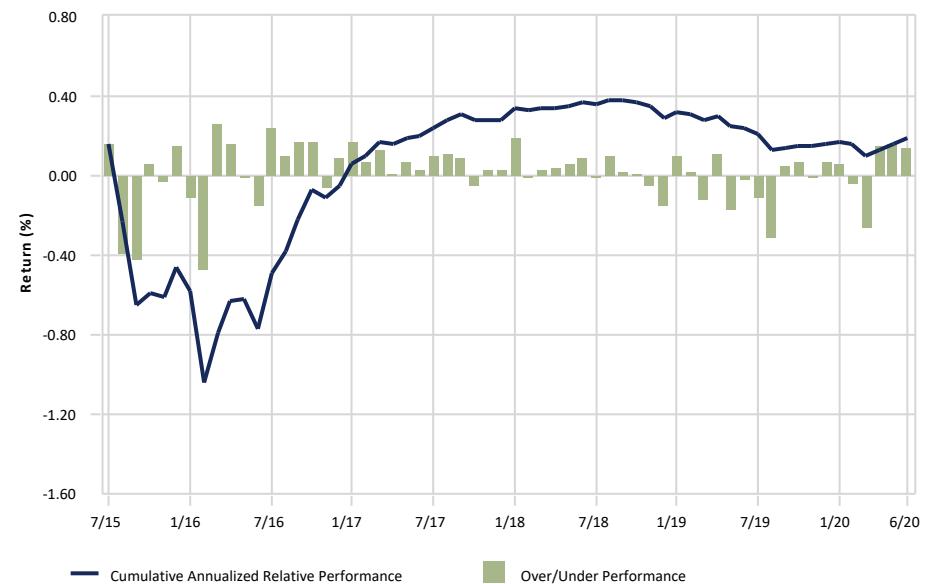
### Growth of \$1 - Since Inception (10/01/90)



### Risk vs. Return (07/01/17 - 06/30/20)



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

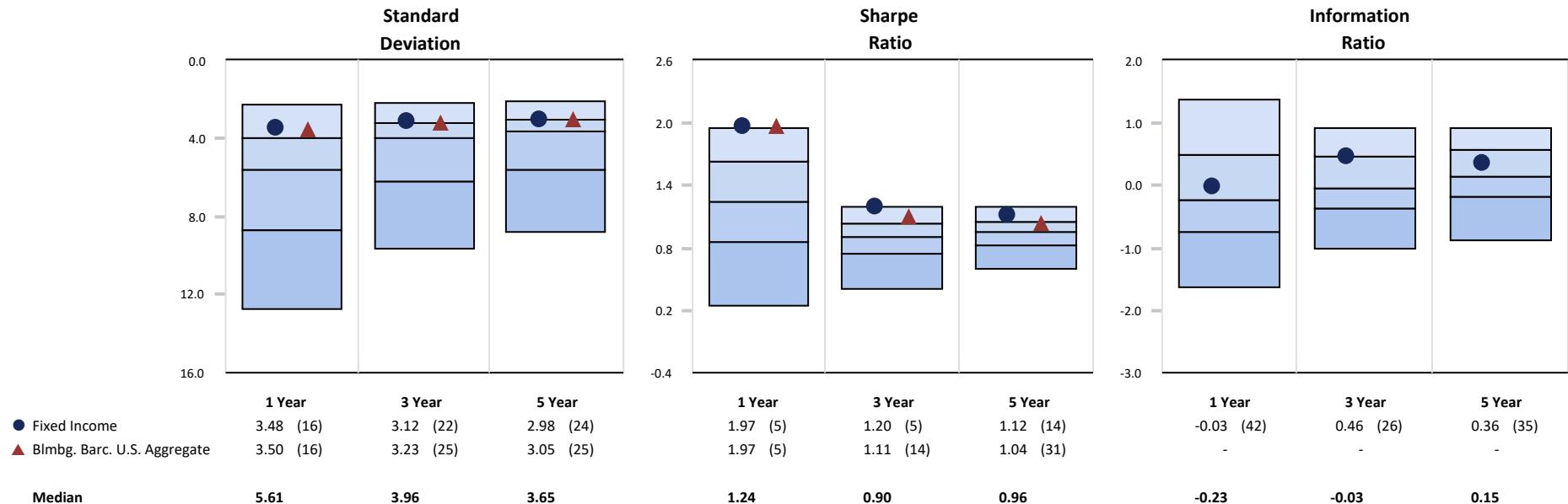


# Employees' Retirement System of the City of Norfolk

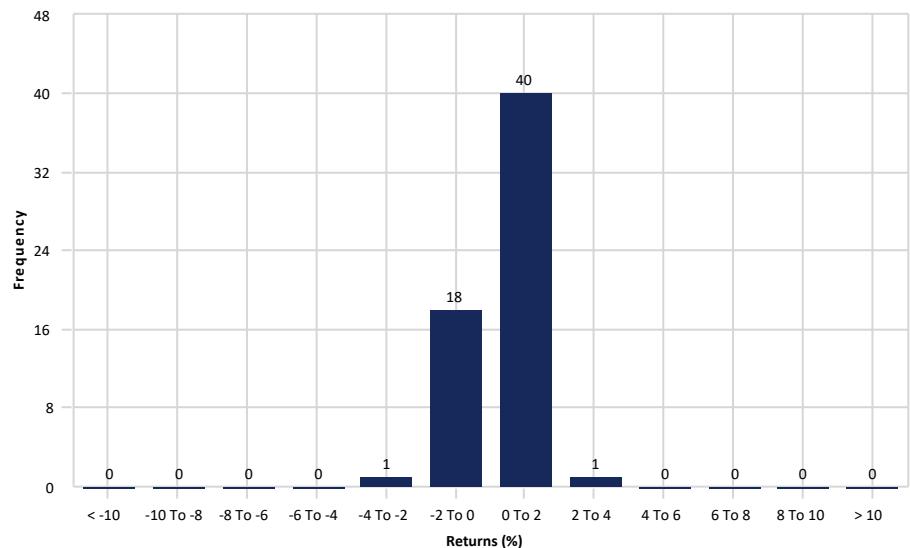
Fixed Income

June 30, 2020

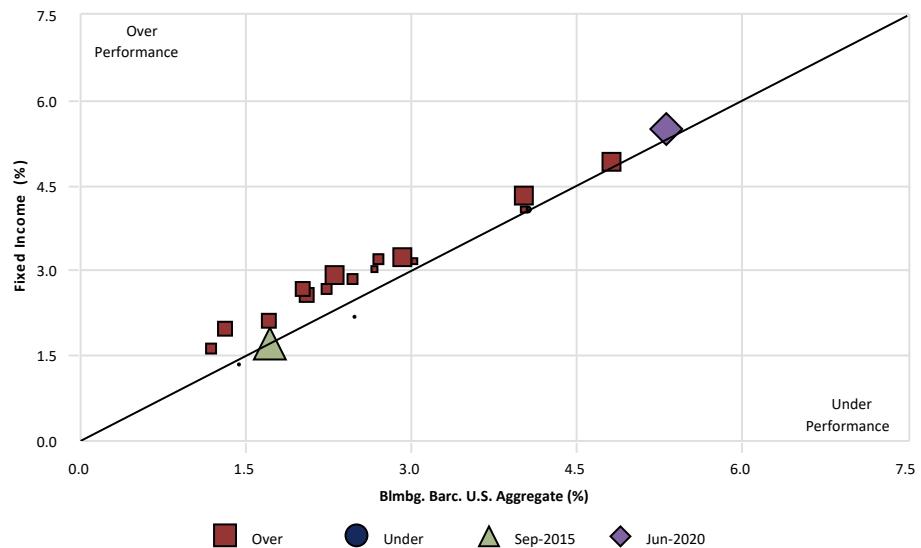
## Peer Group Analysis: All Master Trust-US Fixed Income Segment



## Monthly Distribution of Returns



## 3 Year Rolling Under/Over Performance

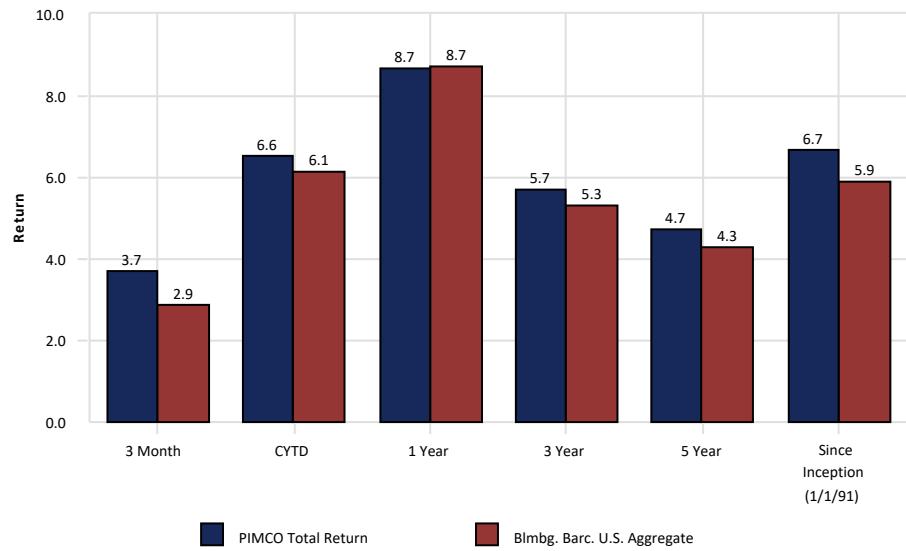


# Employees' Retirement System of the City of Norfolk

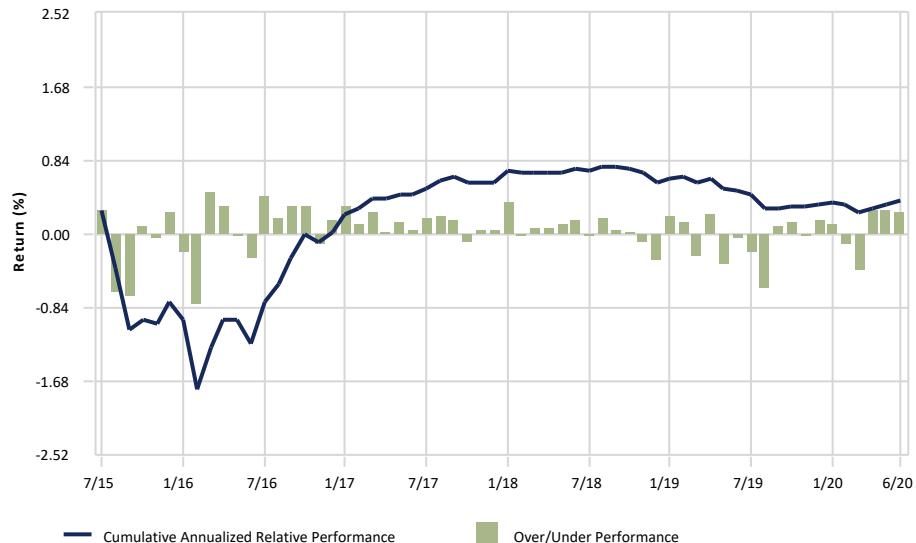
PIMCO Total Return vs. IM U.S. Broad Market Core Fixed Income (SA+CF)

June 30, 2020

## Comparative Performance

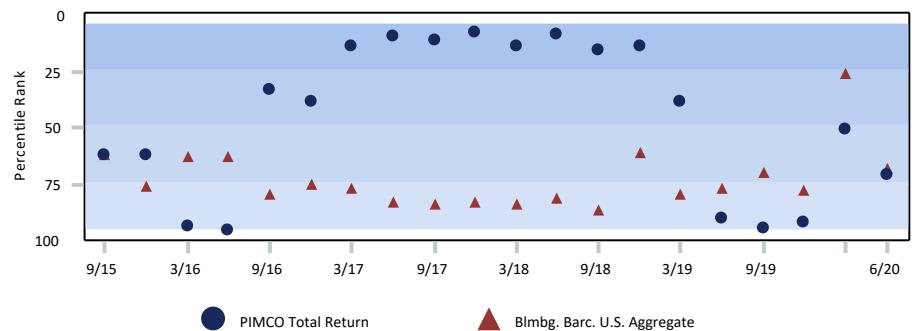


## Relative Performance vs Blmbg. Barc. U.S. Aggregate

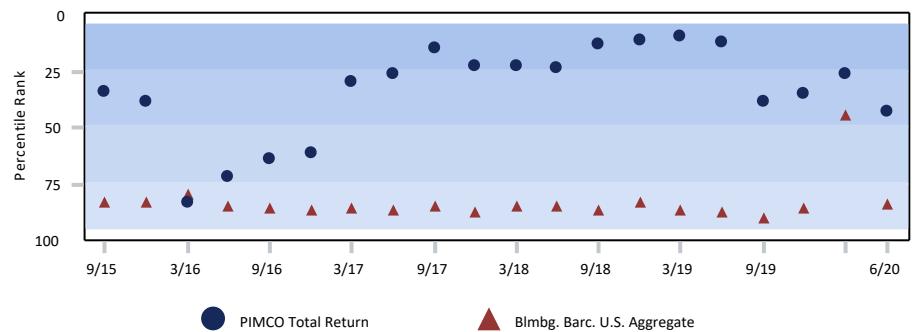


gross of fees

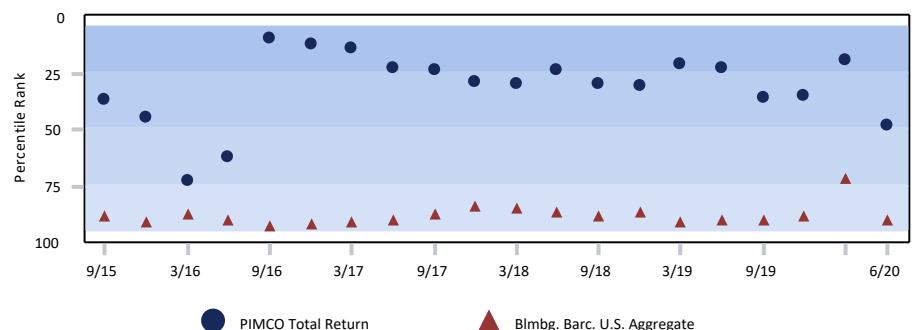
## 1 Year Rolling Percentile Ranking



## 3 Year Rolling Percentile Ranking



## 5 Year Rolling Percentile Ranking



# Employees' Retirement System of the City of Norfolk

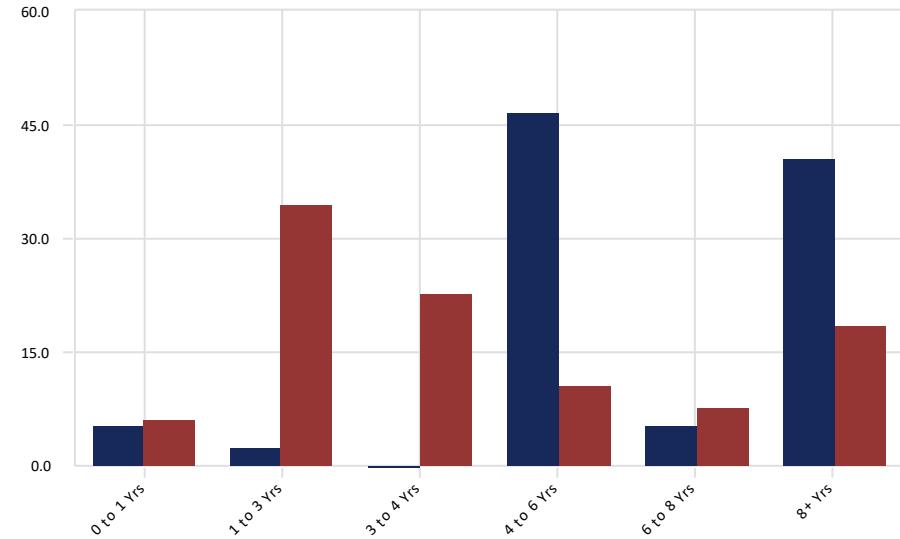
PIMCO Total Return vs. Blmbg. Barc. U.S. Aggregate

June 30, 2020

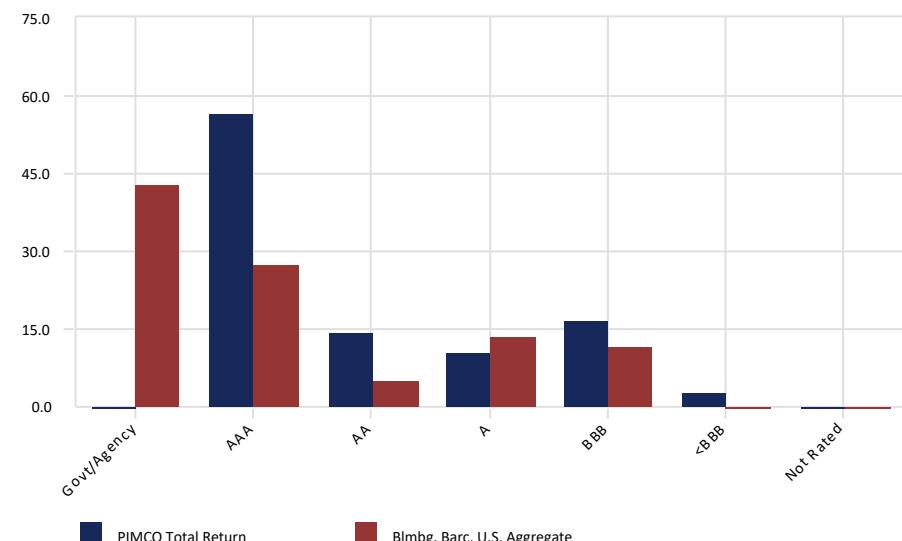
## Portfolio Characteristics

	<u>Portfolio</u>	<u>Benchmark</u>
Avg. Maturity	8.36	8.13
Avg. Quality	AA	AA-
Coupon Rate (%)	3.05	3.11
Convexity	-	0.44
Effective Duration	5.52	6.04

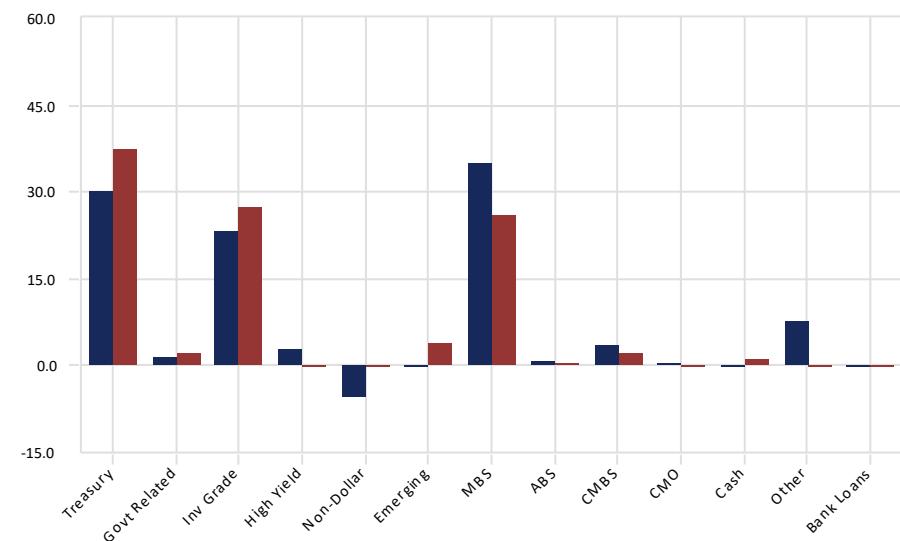
## Duration Distribution (%)



## Credit Quality Distribution (%)



## Sector Distribution (%)

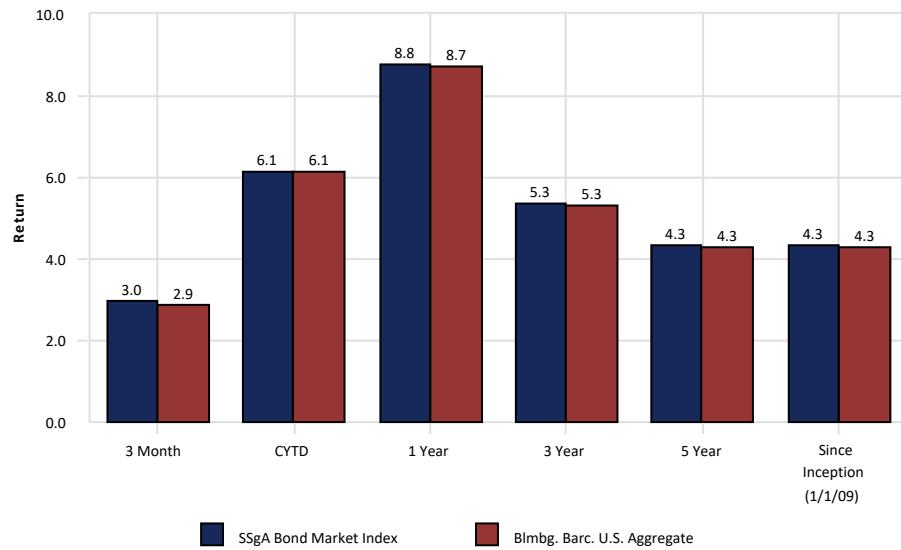


# Employees' Retirement System of the City of Norfolk

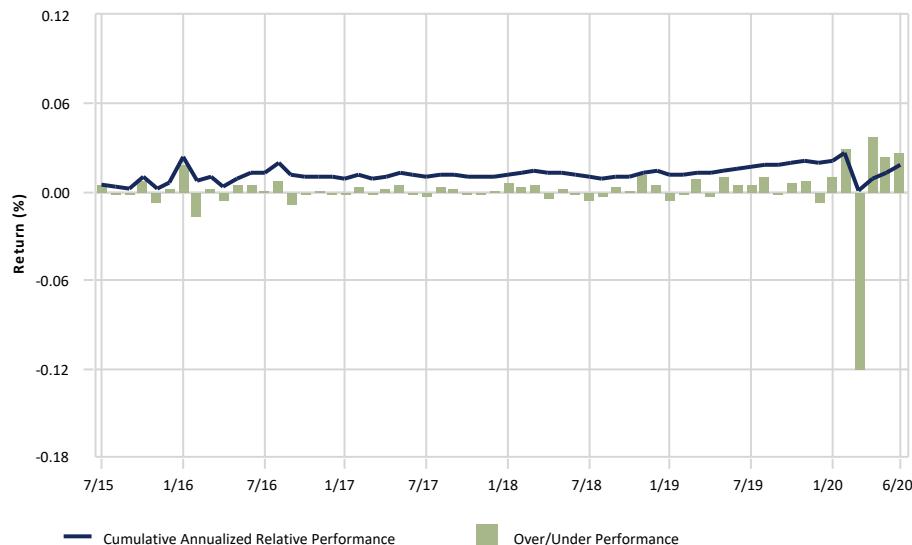
SSgA Bond Market Index vs. IM U.S. Broad Market Core Fixed Income (SA+CF)

June 30, 2020

## Comparative Performance



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

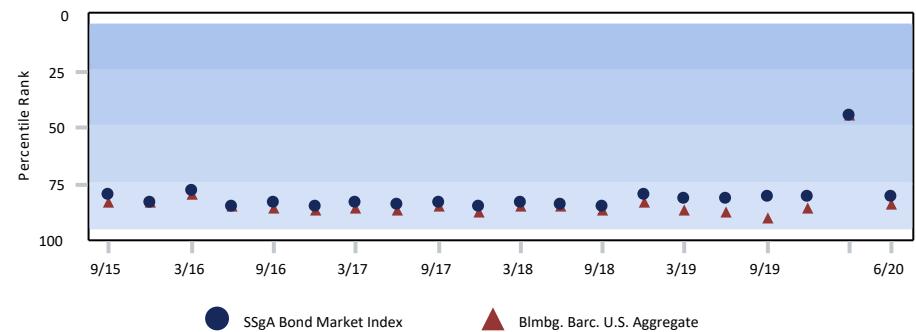


gross of fees

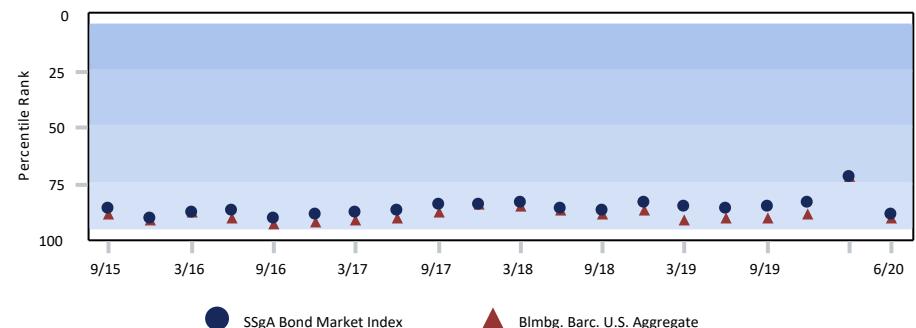
## 1 Year Rolling Percentile Ranking



## 3 Year Rolling Percentile Ranking



## 5 Year Rolling Percentile Ranking



# Employees' Retirement System of the City of Norfolk

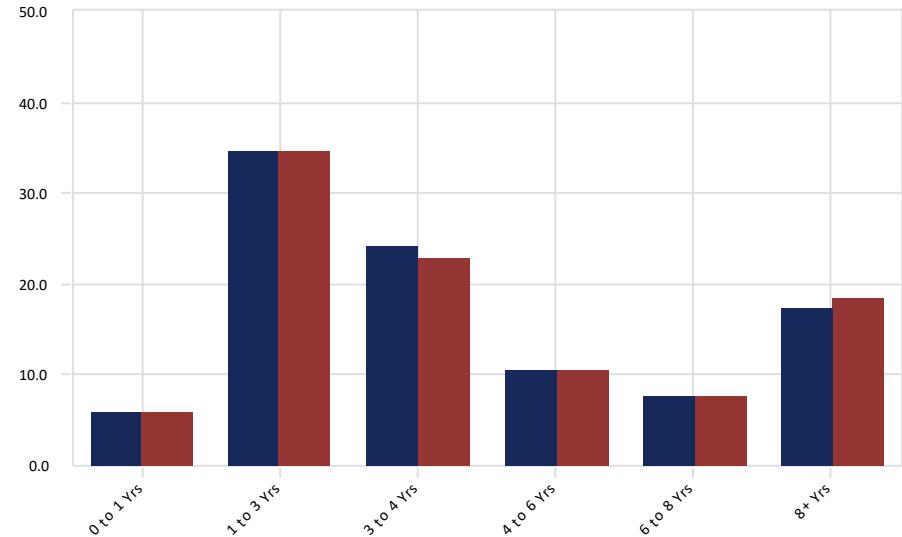
SSgA Bond Market Index vs. Blmbg. Barc. U.S. Aggregate

June 30, 2020

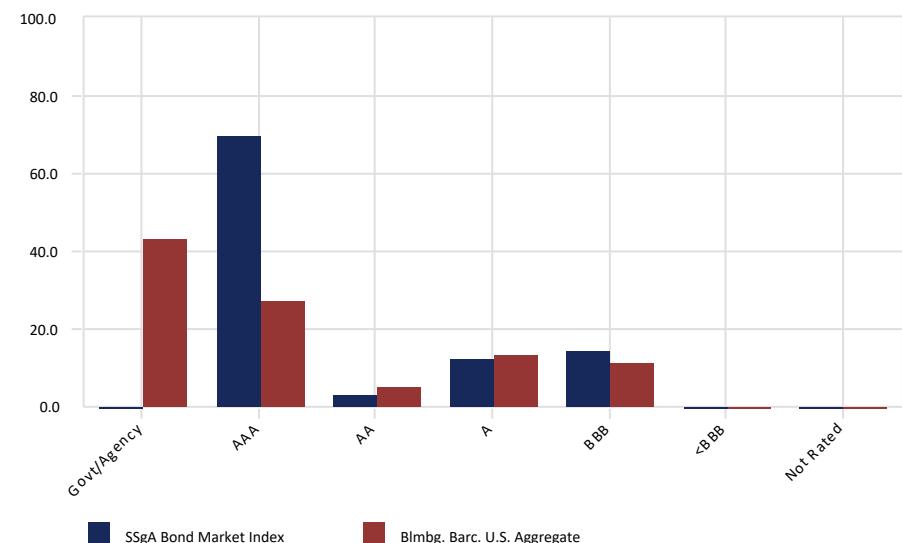
## Portfolio Characteristics

	<u>Portfolio</u>	<u>Benchmark</u>
Avg. Maturity	8.10	8.13
Avg. Quality	Aa2	AA-
Yield To Maturity (%)	1.28	1.27
Effective Duration	6.08	6.04
Convexity	0.44	0.44

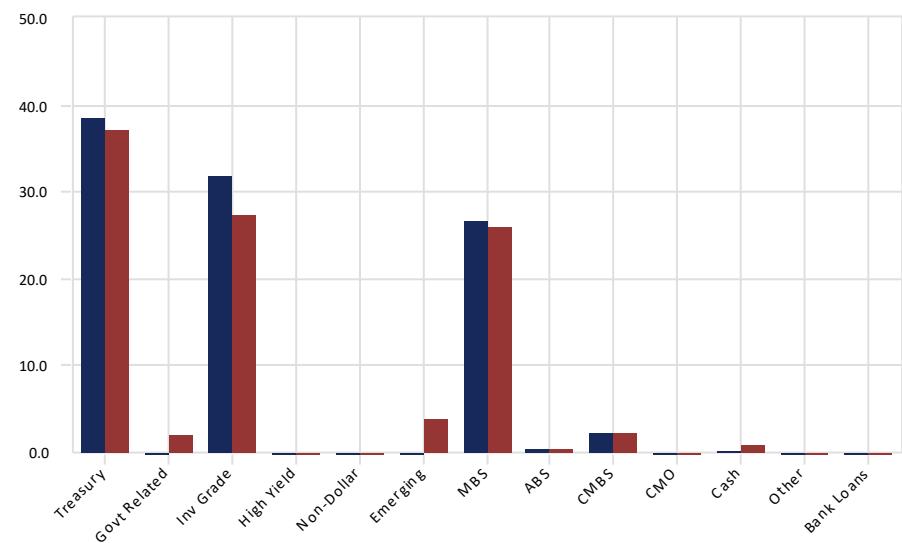
## Duration Distribution (%)



## Credit Quality Distribution (%)



## Sector Distribution (%)



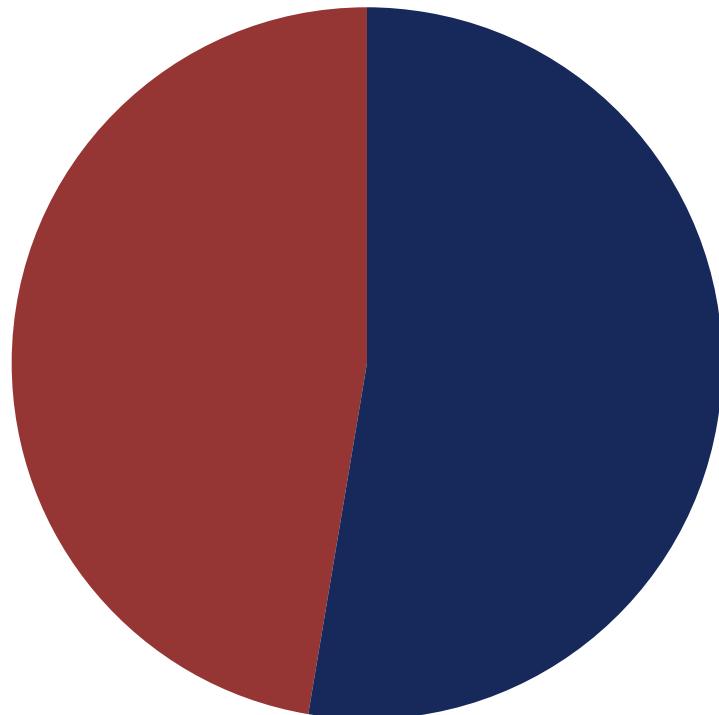
**Real Estate**

## Employees' Retirement System of the City of Norfolk

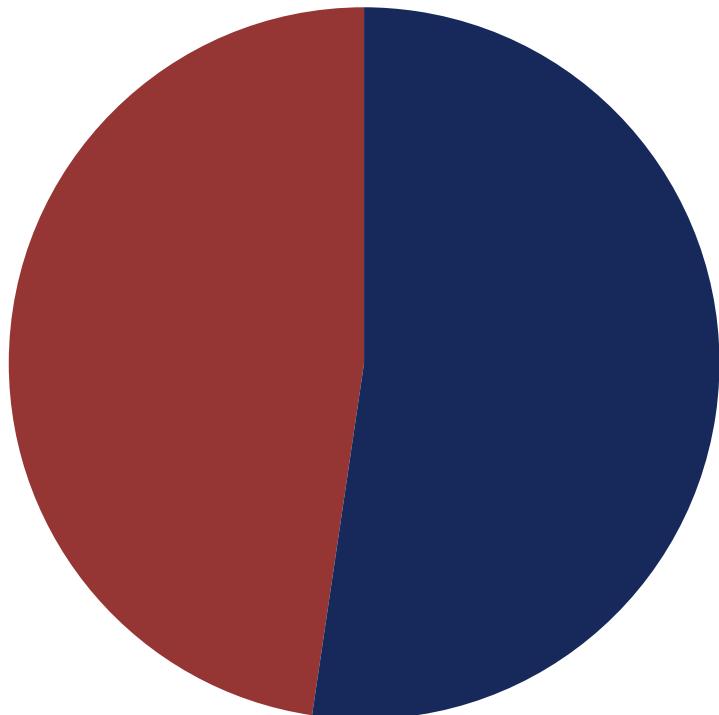
Asset Allocation By Manager - Real Estate

June 30, 2020

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



March 31, 2020 : \$83,816,713



■ JP Morgan Asset Management Strategic Property Fund  
■ UBS Trumbull Property Fund

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

■ JP Morgan Asset Management Strategic Property Fund  
■ UBS Trumbull Property Fund

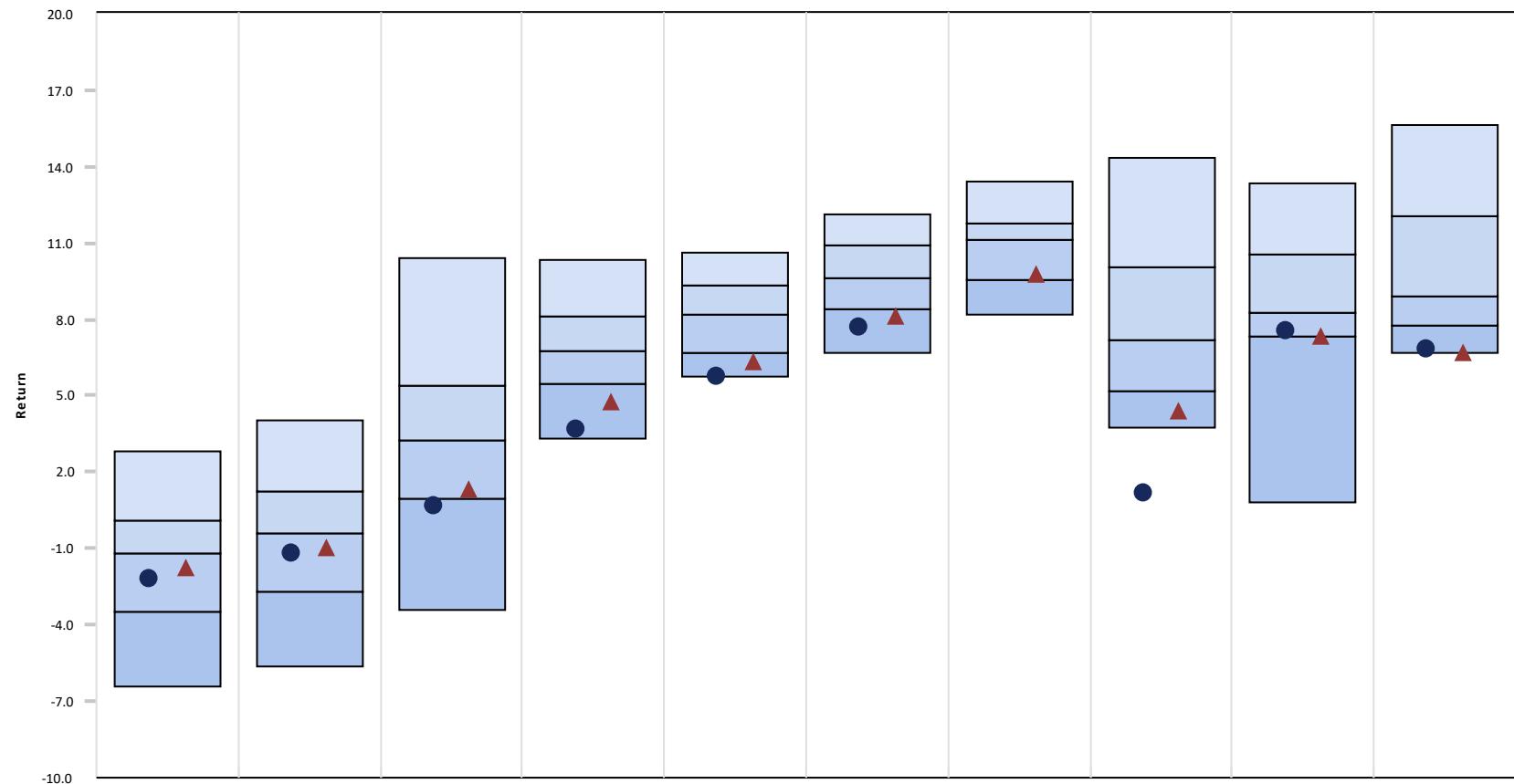
	Market Value (\$)	Allocation (%)
JP Morgan Asset Management Strategic Property Fund	43,869,511	52.34
UBS Trumbull Property Fund	39,947,201	47.66



# Employees' Retirement System of the City of Norfolk

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

June 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	-2.21 (65)	-1.21 (63)	0.65 (79)	3.68 (92)	5.74 (95)	7.69 (87)	-	1.18 (100)	7.52 (72)	6.81 (92)
▲ NCREIF Fund Index-ODCE (Net)	-1.75 (59)	-1.01 (61)	1.33 (71)	4.72 (84)	6.35 (79)	8.09 (82)	9.78 (71)	4.39 (86)	7.36 (73)	6.66 (96)
5th Percentile	2.78	4.06	10.43	10.36	10.61	12.09	13.40	14.34	13.34	15.63
1st Quartile	0.13	1.24	5.39	8.12	9.36	10.91	11.78	10.07	10.56	12.05
<b>Median</b>	<b>-1.23</b>	<b>-0.39</b>	<b>3.24</b>	<b>6.77</b>	<b>8.20</b>	<b>9.58</b>	<b>11.11</b>	<b>7.18</b>	<b>8.23</b>	<b>8.92</b>
3rd Quartile	-3.47	-2.69	0.96	5.50	6.69	8.38	9.56	5.19	7.30	7.77
95th Percentile	-6.41	-5.66	-3.44	3.33	5.73	6.70	8.17	3.77	0.81	6.70
Population	134	117	101	64	47	32	20	97	71	71

gross of fees

Parentheses contain percentile rankings.



## **Master Limited Partnerships**

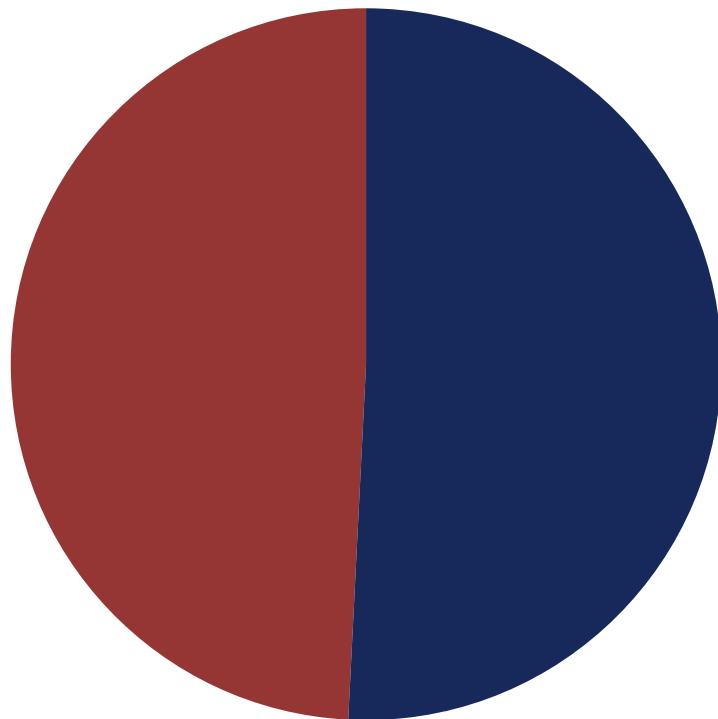
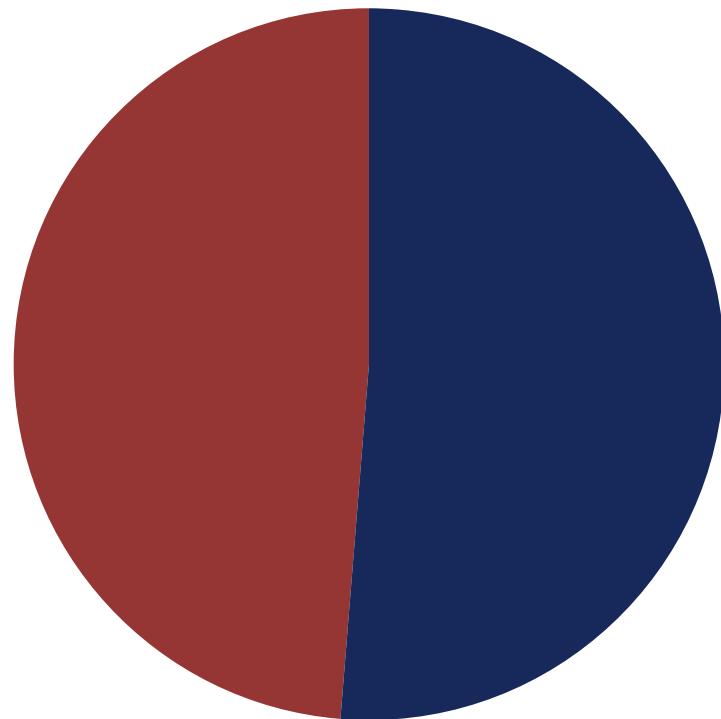
## Employees' Retirement System of the City of Norfolk

Asset Allocation By Manager - MLPs

June 30, 2020

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

March 31, 2020 : \$39,223,572



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

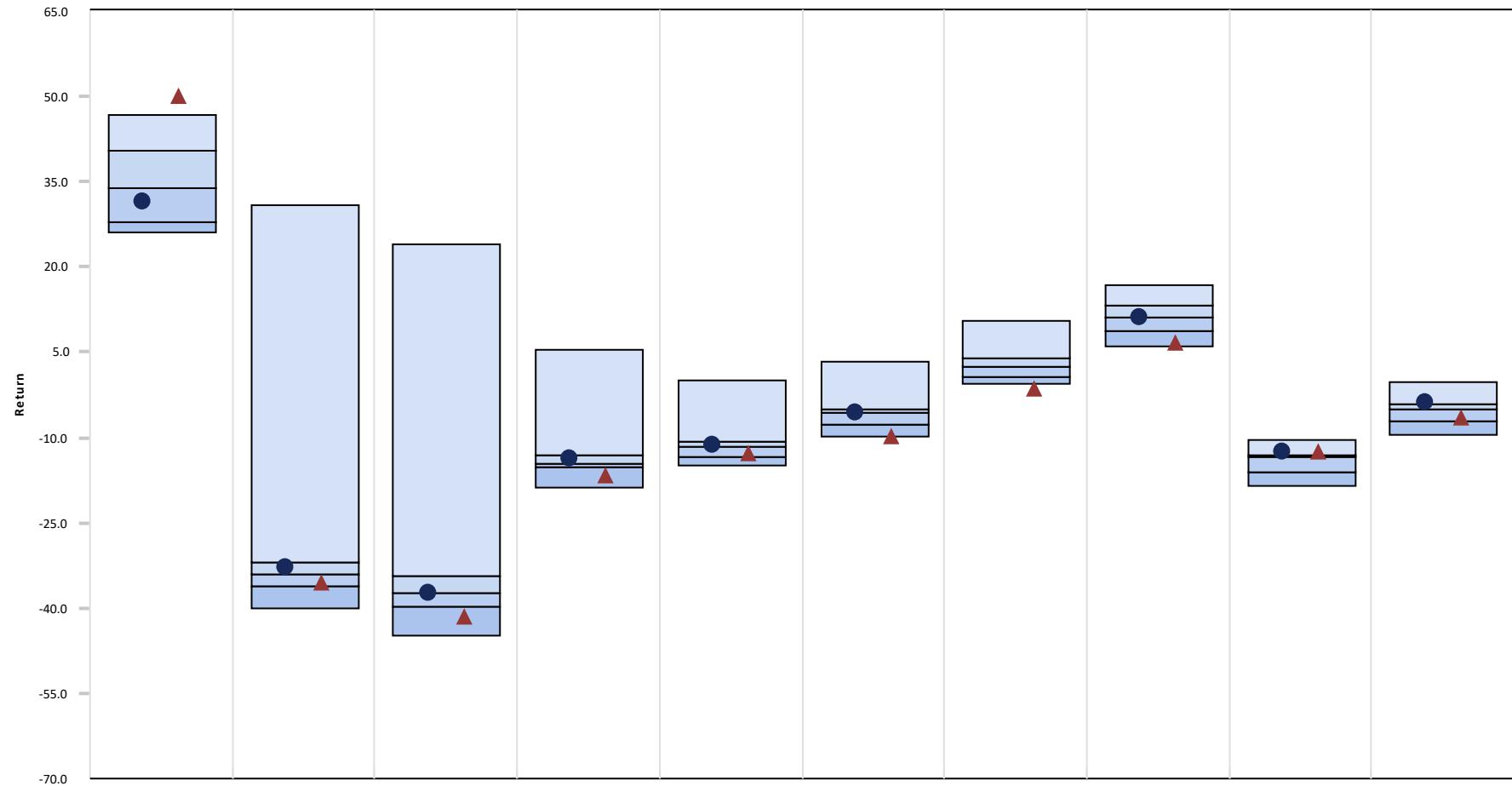
	Market Value (\$)	Allocation (%)
Harvest MLP	19,926,029	50.80
Tortoise Capital Advisors	19,297,543	49.20



# Employees' Retirement System of the City of Norfolk

MLPs vs. Master Limited Partnerships (SA+CF)

June 30, 2020



	3 Month	CYTD	1 Year	3 Year	5 Year	7 Year	10 Year	2019	2018	2017
● MLPs	31.60 (58)	-32.92 (34)	-37.44 (50)	-13.83 (37)	-11.24 (49)	-5.53 (44)	-	11.16 (35)	-12.45 (12)	-3.96 (20)
▲ Alerian MLP Index	50.18 (1)	-35.71 (72)	-41.43 (93)	-16.79 (80)	-12.85 (66)	-9.69 (95)	-1.41 (100)	6.56 (89)	-12.42 (11)	-6.52 (69)
5th Percentile	46.86	30.83	24.07	5.49	0.07	3.23	10.44	16.67	-10.56	-0.23
1st Quartile	40.36	-31.89	-34.46	-12.98	-10.68	-4.94	3.86	13.20	-12.99	-4.14
<b>Median</b>	<b>33.82</b>	<b>-33.94</b>	<b>-37.50</b>	<b>-14.55</b>	<b>-11.64</b>	<b>-5.72</b>	<b>2.56</b>	<b>11.00</b>	<b>-13.48</b>	<b>-4.94</b>
3rd Quartile	27.92	-36.24	-39.76	-15.19	-13.31	-7.74	0.73	8.86	-15.97	-7.00
95th Percentile	26.06	-39.98	-44.93	-18.86	-15.04	-9.81	-0.58	6.17	-18.63	-9.57

gross of fees

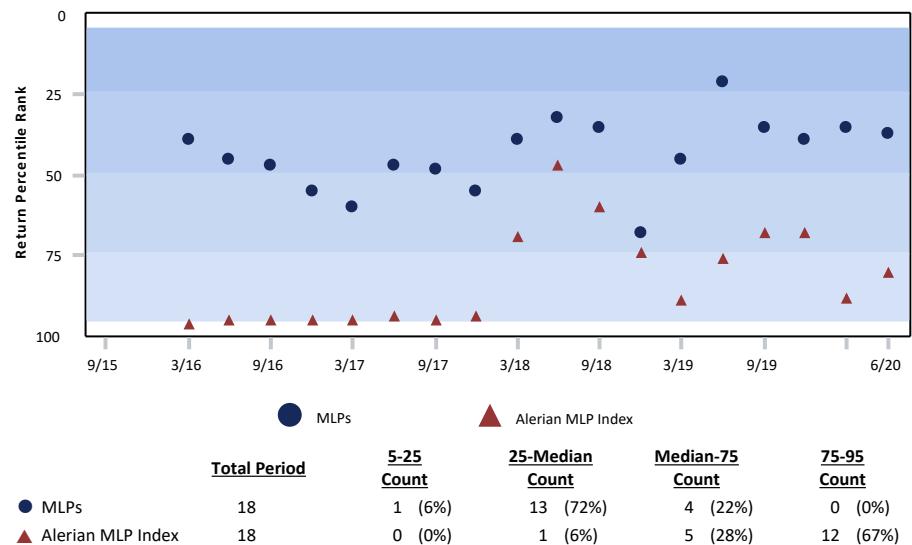


# Employees' Retirement System of the City of Norfolk

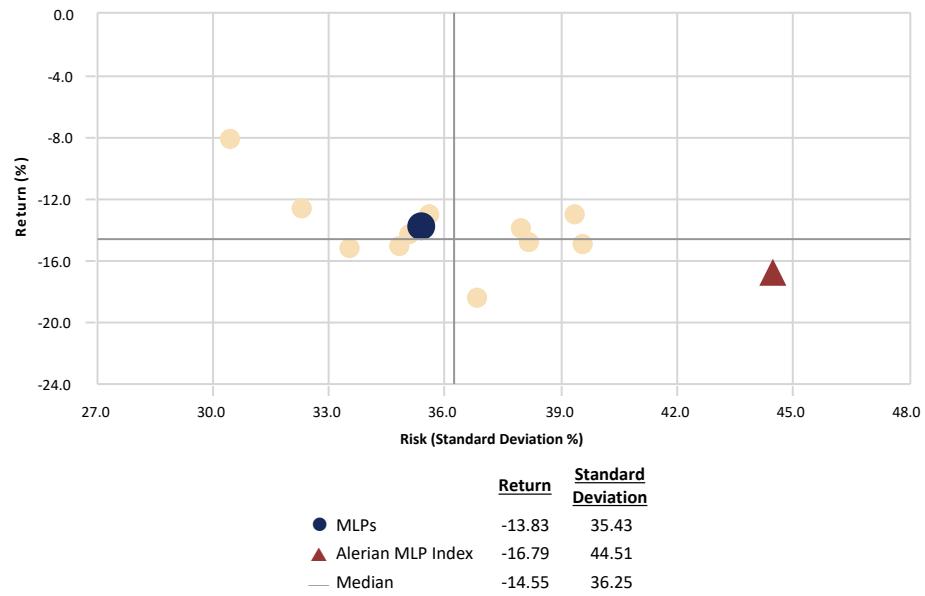
MLPs

June 30, 2020

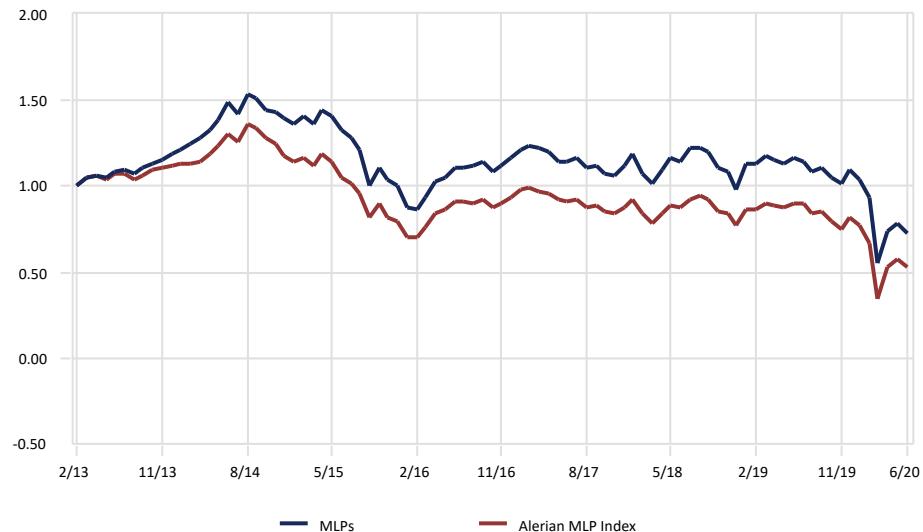
## 3 Year Rolling Return Rank



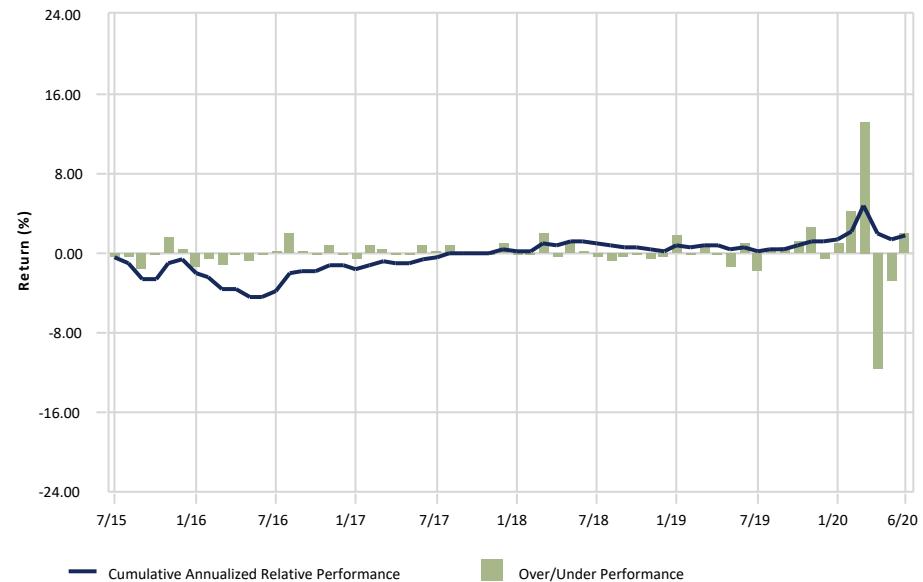
## Risk vs. Return (07/01/17 - 06/30/20)



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



## Relative Performance vs. Alerian MLP Index

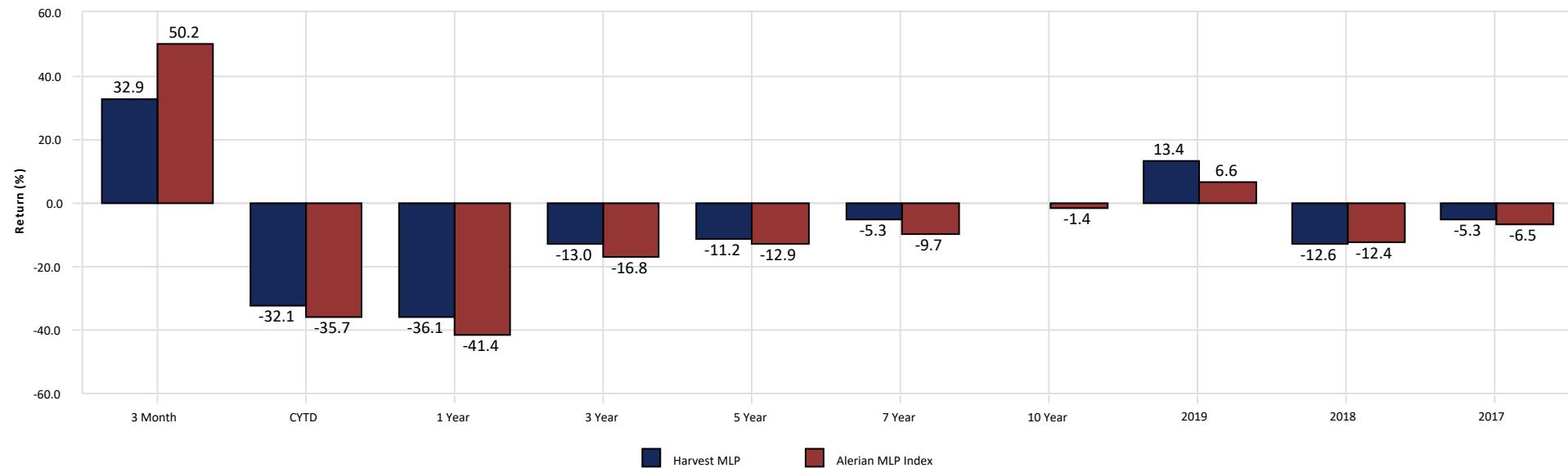


# Employees' Retirement System of the City of Norfolk

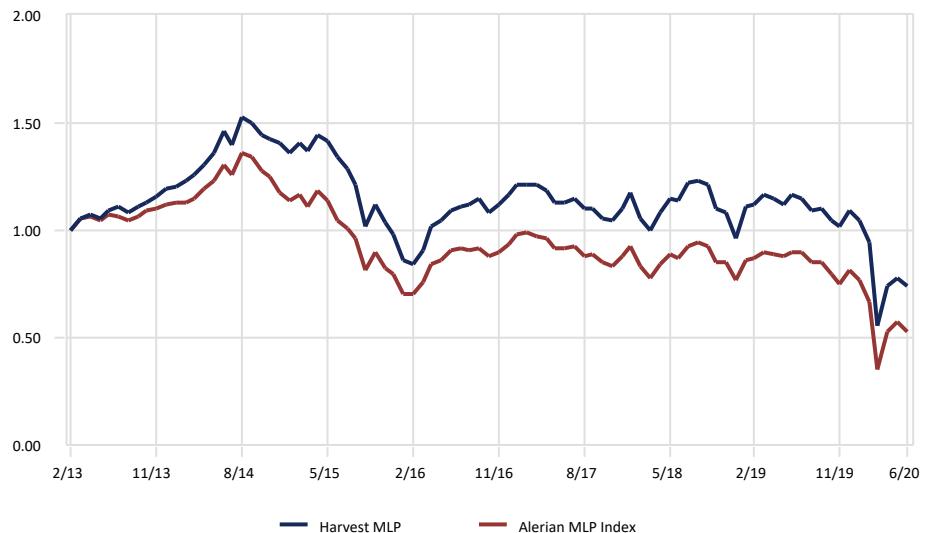
Harvest MLP

June 30, 2020

## Comparative Performance

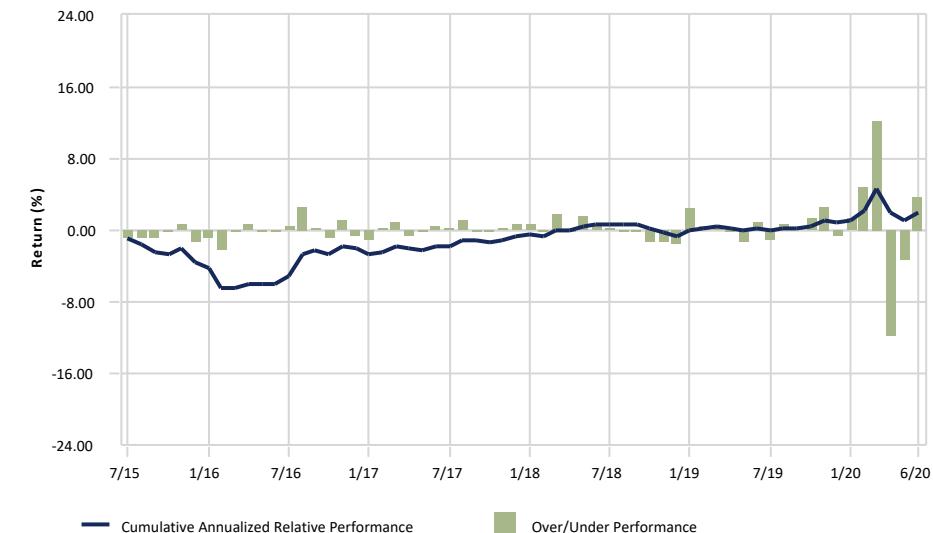


## Growth of \$1 - Since Inception (03/01/13)



gross of fees

## Relative Performance vs. Alerian MLP Index

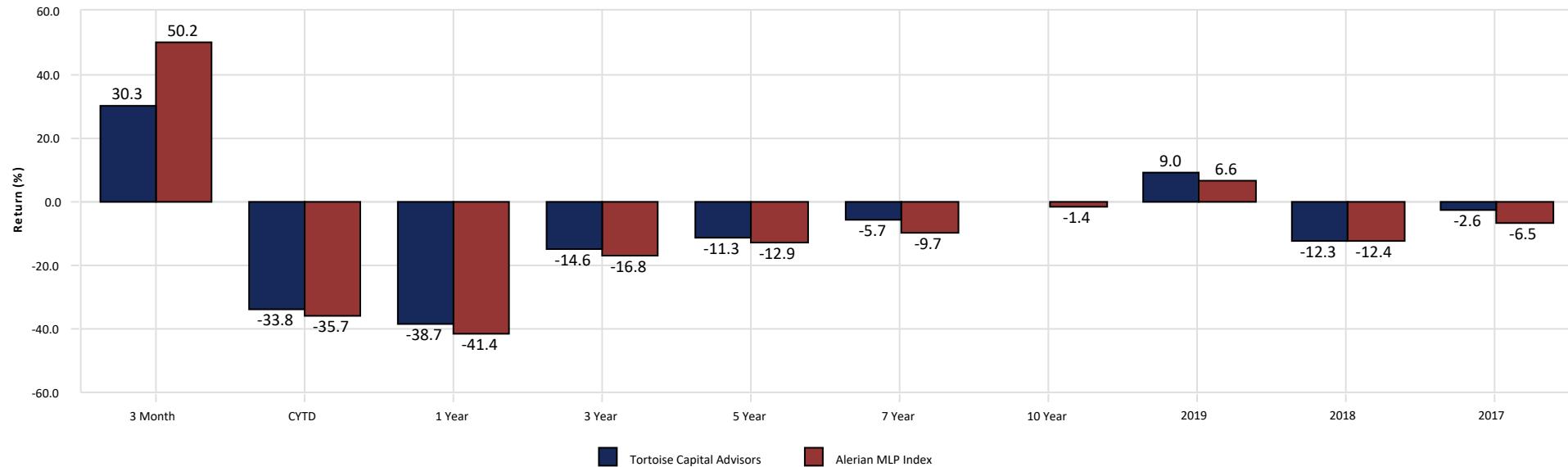


# Employees' Retirement System of the City of Norfolk

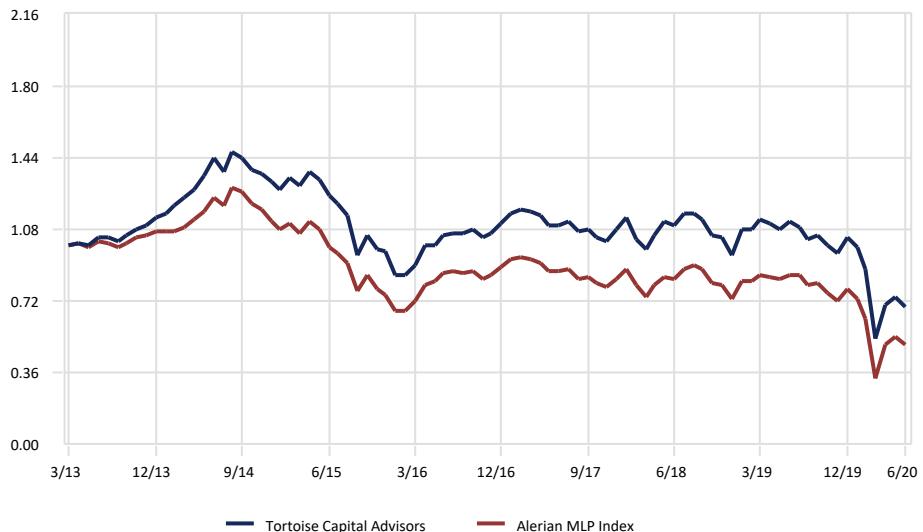
Tortoise Capital Advisors

June 30, 2020

## Comparative Performance

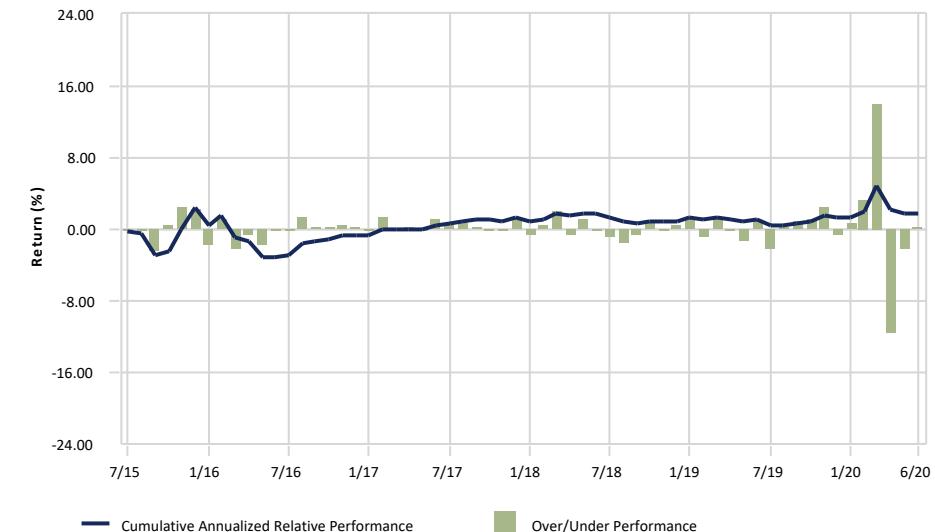


## Growth of \$1 - Since Inception (04/01/13)



gross of fees

## Relative Performance vs. Alerian MLP Index

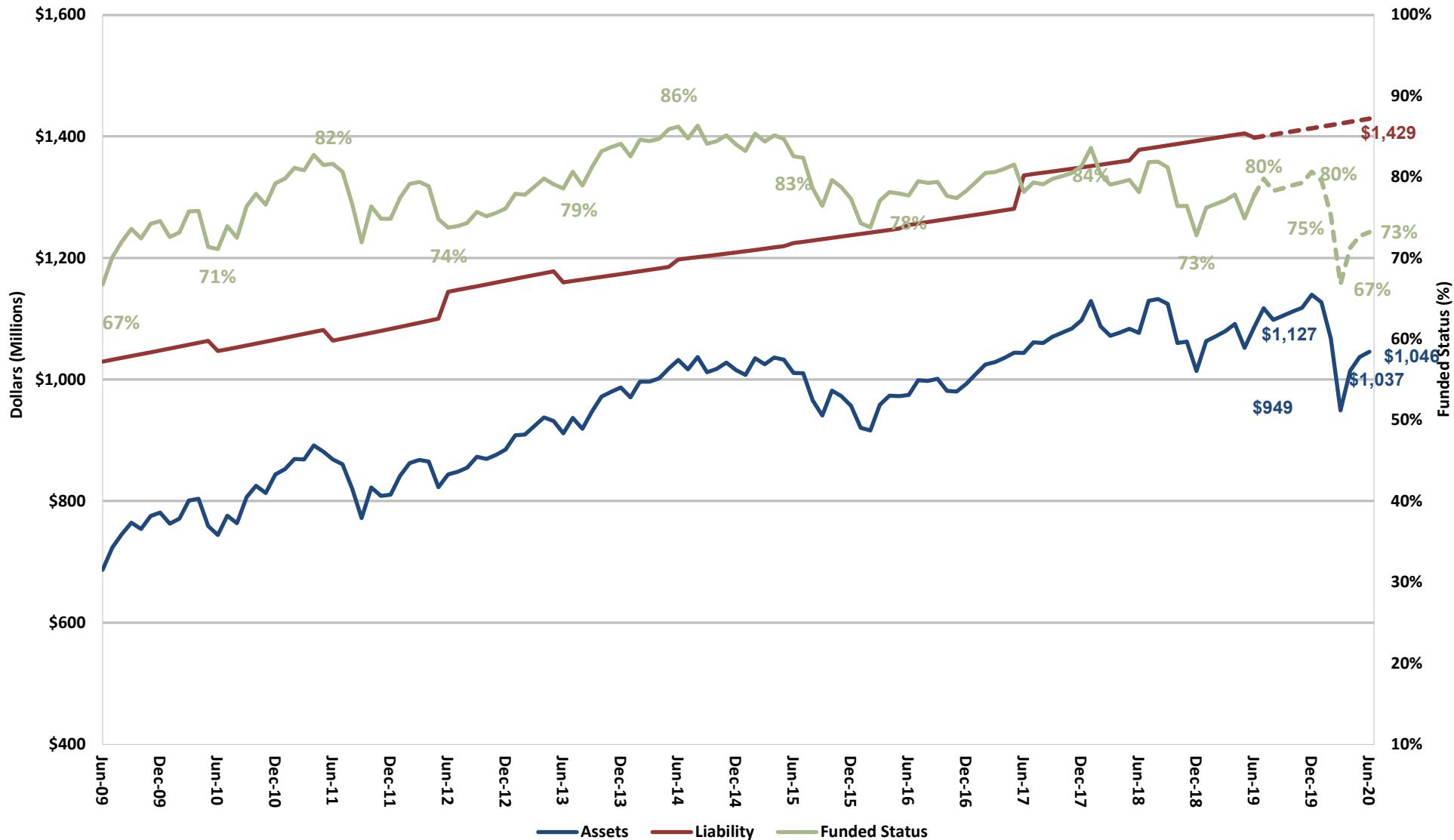


## **Appendix**

# 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.

## Employees' Retirement System of the City of Norfolk

Asset Allocation & Performance (gross of fees)

June 30, 2020

	Asset \$	Asset %	3 Month	CYTD	1 Year	2 Year	3 Year	5 Year	Since Inception	Inception Date
<b>Total Fund</b>	<b>1,045,856,048</b>	<b>100.00</b>	<b>12.67 (40)</b>	<b>-4.34 (80)</b>	<b>0.75 (84)</b>	<b>3.11 (82)</b>	<b>4.48 (83)</b>	<b>5.12 (77)</b>	<b>7.98 (69)</b>	<b>Oct-1990</b>
<i>Total Fund Policy</i>			13.31	-1.81	4.56	5.36	5.83	5.82	8.00	
Excess Return			-0.64	-2.53	-3.81	-2.25	-1.35	-0.70	-0.02	
<i>Total Fund Strategy Index</i>			15.39	-3.64	1.30	3.58	4.46	4.95	7.88	
Excess Return			-2.72	-0.70	-0.55	-0.47	0.02	0.17	0.10	
Global Equity	586,648,165	56.09	19.99 (52)	-6.78 (52)	1.64 (52)	3.32 (57)	6.01 (50)	6.71 (47)	8.90 (70)	Oct-1990
<i>Global Equity Policy</i>			19.83	-7.06	1.17	2.85	5.55	6.22	8.99	
Excess Return			0.16	0.28	0.47	0.47	0.46	0.49	-0.09	
Fixed Income	326,129,608	31.18	3.36 (75)	6.36 (33)	8.73 (39)	8.21 (41)	5.51 (44)	4.50 (53)	6.29 (-)	Oct-1990
<i>Blmbg. Barc. U.S. Aggregate</i>			2.90	6.14	8.74	8.30	5.32	4.30	6.04	
Excess Return			0.46	0.22	-0.01	-0.09	0.19	0.20	0.25	
Real Estate	81,444,905	7.79	-2.21 (65)	-1.21 (63)	0.65 (79)	1.68 (95)	3.68 (92)	5.74 (95)	9.00 (78)	Apr-2011
<i>NCREIF Fund Index-ODCE (Net)</i>			-1.75	-1.01	1.33	3.37	4.72	6.35	9.03	
Excess Return			-0.46	-0.20	-0.68	-1.69	-1.04	-0.61	-0.03	
MLPs	51,617,231	4.94	31.60 (58)	-32.92 (33)	-37.44 (49)	-20.11 (45)	-13.83 (38)	-11.24 (47)	-4.15 (52)	Mar-2013
<i>Alerian MLP Index</i>			50.18	-35.71	-41.43	-22.29	-16.79	-12.85	-8.38	
Excess Return			-18.58	2.79	3.99	2.18	2.96	1.61	4.23	
Cash	16,139	0.00								



## Employees' Retirement System of the City of Norfolk

Asset Allocation & Performance (gross of fees)

June 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	586,648,165	19.99 (52)	-6.78 (52)	1.64 (52)	3.32 (57)	6.01 (50)	-	8.74 (49)	May-2016
<i>MSCI AC World IMI (Net)</i>		<b>19.83</b>	<b>-7.06</b>	<b>1.17</b>	<b>2.85</b>	<b>5.55</b>	-	<b>8.26</b>	
Excess Return		<b>0.16</b>	<b>0.28</b>	<b>0.47</b>	<b>0.47</b>	<b>0.46</b>	-	<b>0.48</b>	
<b>Fixed Income</b>									
PIMCO Total Return	167,396,914	3.71 (70)	6.55 (39)	8.67 (71)	8.15 (78)	5.69 (43)	4.71 (48)	6.68 (7)	Jan-1991
<i>Blmbg. Barc. U.S. Aggregate</i>		<b>2.90</b>	<b>6.14</b>	<b>8.74</b>	<b>8.30</b>	<b>5.32</b>	<b>4.30</b>	<b>5.92</b>	
Excess Return		<b>0.81</b>	<b>0.41</b>	<b>-0.07</b>	<b>-0.15</b>	<b>0.37</b>	<b>0.41</b>	<b>0.76</b>	
SSgA Bond Market Index	158,732,694	2.99 (84)	6.14 (60)	8.77 (66)	8.33 (74)	5.35 (81)	4.32 (89)	4.33 (91)	Jan-2009
<i>Blmbg. Barc. U.S. Aggregate</i>		<b>2.90</b>	<b>6.14</b>	<b>8.74</b>	<b>8.30</b>	<b>5.32</b>	<b>4.30</b>	<b>4.31</b>	
Excess Return		<b>0.09</b>	<b>0.00</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.02</b>	<b>0.02</b>	
<b>Real Assets</b>									
JP Morgan Asset Mgmt Strategic Property Fund	42,876,784	-2.02 (73)	-0.48 (51)	2.26 (67)	3.79 (83)	5.14 (78)	6.87 (77)	10.08 (57)	Apr-2011
<i>NCREIF Fund Index-ODCE (Net)</i>		<b>-1.75</b>	<b>-1.01</b>	<b>1.33</b>	<b>3.37</b>	<b>4.72</b>	<b>6.35</b>	<b>9.03</b>	
Excess Return		<b>-0.27</b>	<b>0.53</b>	<b>0.93</b>	<b>0.42</b>	<b>0.42</b>	<b>0.52</b>	<b>1.05</b>	
UBS Trumbull Property Fund	38,568,122	-2.42 (82)	-1.99 (78)	-1.06 (95)	-0.51 (100)	2.15 (100)	4.48 (100)	7.00 (-)	Dec-2011
<i>NCREIF Fund Index-ODCE (Net)</i>		<b>-1.75</b>	<b>-1.01</b>	<b>1.33</b>	<b>3.37</b>	<b>4.72</b>	<b>6.35</b>	<b>8.63</b>	
Excess Return		<b>-0.67</b>	<b>-0.98</b>	<b>-2.39</b>	<b>-3.88</b>	<b>-2.57</b>	<b>-1.87</b>	<b>-1.63</b>	
<b>MLPs</b>									
Harvest MLP	26,472,375	32.85 (54)	-32.09 (25)	-36.14 (34)	-19.29 (40)	-13.01 (31)	-11.16 (37)	-3.97 (46)	Mar-2013
<i>Alerian MLP Index</i>		<b>50.18</b>	<b>-35.71</b>	<b>-41.43</b>	<b>-22.29</b>	<b>-16.79</b>	<b>-12.85</b>	<b>-8.38</b>	
Excess Return		<b>-17.33</b>	<b>3.62</b>	<b>5.29</b>	<b>3.00</b>	<b>3.78</b>	<b>1.69</b>	<b>4.41</b>	
Tortoise Capital Advisors	25,144,856	30.30 (61)	-33.77 (49)	-38.69 (64)	-20.91 (66)	-14.64 (52)	-11.34 (48)	-5.06 (55)	Apr-2013
<i>Alerian MLP Index</i>		<b>50.18</b>	<b>-35.71</b>	<b>-41.43</b>	<b>-22.29</b>	<b>-16.79</b>	<b>-12.85</b>	<b>-9.13</b>	
Excess Return		<b>-19.88</b>	<b>1.94</b>	<b>2.74</b>	<b>1.38</b>	<b>2.15</b>	<b>1.51</b>	<b>4.07</b>	

# Employees' Retirement System of the City of Norfolk

Asset Allocation & Performance - (net of fees)

June 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>1,045,856,048</b>	<b>100.00</b>	<b>1.53</b>	<b>12.64</b>	<b>-4.40</b>	<b>0.59</b>	<b>0.59</b>	<b>4.31</b>	<b>4.95</b>	<b>7.79</b>	<b>Oct -1990</b>
Total Fund Policy (62.5% ACWI/37.5% Agg)			2.23	13.31	-1.81	4.56	4.56	5.83	5.82	8.00	
Excess Return			-0.70	-0.67	-2.59	-3.97	-3.97	-1.52	-0.87	-0.21	
<b>Total Fund Strategy Index</b>		<b>1.23</b>	<b>15.39</b>	<b>-3.64</b>	<b>1.30</b>	<b>1.30</b>	<b>4.46</b>	<b>4.95</b>	<b>7.88</b>		
Excess Return		0.30	-2.75	-0.76	-0.71	-0.71	-0.15	0.00	-0.09		
<b>Composite Returns</b>											
Global Equity	586,648,165	56.09	3.24	19.99	-6.79	1.61	1.61	5.98	6.68	8.73	Oct -1990
<i>Global Equity Policy</i>			3.20	19.83	-7.06	1.17	1.17	5.55	6.22	8.99	
Excess Return			0.04	0.16	0.27	0.44	0.44	0.43	0.46	-0.26	
Fixed Income	326,129,608	31.18	0.77	3.34	6.34	8.59	8.59	5.38	4.38	6.10	Oct -1990
<i>Blmbg. Barc. U.S. Aggregate</i>			0.63	2.90	6.14	8.74	8.74	5.32	4.30	6.04	
Excess Return			0.14	0.44	0.20	-0.15	-0.15	0.06	0.08	0.06	
Real Estate	81,444,905	7.79	-2.11	-2.44	-1.66	-0.28	-0.28	2.77	4.76	7.99	Apr -2011
<i>NCREF Fund Index-ODCE (VW) (Net)</i>			-1.75	-1.75	-1.01	1.33	1.33	4.72	6.35	9.03	
Excess Return			-0.36	-0.69	-0.65	-1.61	-1.61	-1.95	-1.59	-1.04	
MLPs	51,617,231	4.94	-6.01	31.50	-33.03	-37.78	-37.78	-14.42	-11.84	-4.78	Mar -2013
<i>Alerian MLP Index</i>			-7.87	50.18	-35.71	-41.43	-41.43	-16.79	-12.85	-8.38	
Excess Return			1.86	-18.68	2.68	3.65	3.65	2.37	1.01	3.60	
Cash	16,139	0.00									



# Employees' Retirement System of the City of Norfolk

Asset Allocation & Performance - (net of fees)

June 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	586,648,165	56.09	3.24	19.99	-6.79	1.61	1.61	5.98	-	8.71	May -2016
<i>MSCI AC World IMI (Net)</i>			3.20	19.83	-7.06	1.17	1.17	5.55	-	8.26	
Excess Return			0.04	0.16	0.27	0.44	0.44	0.43	-	0.45	
<b>Fixed Income</b>											
PIMCO Total Return	167,396,914	16.01	0.87	3.68	6.52	8.42	8.42	5.45	4.51	6.43	Jan -1991
<i>Blmbg. Barc. U.S. Aggregate</i>			0.63	2.90	6.14	8.74	8.74	5.32	4.30	5.92	
Excess Return			0.24	0.78	0.38	-0.32	-0.32	0.13	0.21	0.51	
SSgA Bond Market Index	158,732,694	15.18	0.65	2.98	6.13	8.75	8.75	5.33	4.31	4.31	Jan -2009
<i>Blmbg. Barc. U.S. Aggregate</i>			0.63	2.90	6.14	8.74	8.74	5.32	4.30	4.31	
Excess Return			0.02	0.08	-0.01	0.01	0.01	0.01	0.01	0.00	
<b>Real Estate</b>											
JP Morgan Asset Mgmt Strategic Property Fund	42,876,784	4.10	-1.63	-2.26	-0.97	1.25	1.25	4.20	5.88	9.09	Apr -2011
<i>NCREIF Fund Index-ODCE (VW) (Net)</i>			-1.75	-1.75	-1.01	1.33	1.33	4.72	6.35	9.03	
Excess Return			0.12	-0.51	0.04	-0.08	-0.08	-0.52	-0.47	0.06	
UBS Trumbull Property Fund	38,568,122	3.69	-2.64	-2.64	-2.41	-1.91	-1.91	1.28	3.52	6.02	Jan -2012
<i>NCREIF Fund Index-ODCE (VW) (Net)</i>			-1.75	-1.75	-1.01	1.33	1.33	4.72	6.35	8.55	
Excess Return			-0.89	-0.89	-1.40	-3.24	-3.24	-3.44	-2.83	-2.53	
<b>MLPs</b>											
Harvest MLP	26,472,375	2.53	-4.38	32.85	-32.09	-36.38	-36.38	-13.55	-11.75	-4.58	Mar -2013
<i>Alerian MLP Index</i>			-7.87	50.18	-35.71	-41.43	-41.43	-16.79	-12.85	-8.38	
Excess Return			3.49	-17.33	3.62	5.05	5.05	3.24	1.10	3.80	
Tortoise Capital Advisors	25,144,856	2.40	-7.67	30.11	-34.00	-39.13	-39.13	-15.26	-11.97	-5.71	Apr -2013
<i>Alerian MLP Index</i>			-7.87	50.18	-35.71	-41.43	-41.43	-16.79	-12.85	-9.13	
Excess Return			0.20	-20.07	1.71	2.30	2.30	1.53	0.88	3.42	

## Employees' Retirement System of the City of Norfolk

### Fee Schedule

June 30, 2020

	Fee Schedule	Market Value As of 06/30/2020 (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
<b>Total Fund</b>		<b>1,045,856,048</b>	<b>2,079,104</b>	<b>0.20</b>
<b>Global Equity</b>		<b>586,648,165</b>	<b>234,659</b>	<b>0.04</b>
SSgA MSCI ACWI IMI Index Fund	0.04 % of Assets	586,648,165	234,659	0.04
<b>Fixed Income</b>		<b>326,129,608</b>	<b>718,074</b>	<b>0.22</b>
PIMCO Total Return	0.41 % of Assets	167,396,914	686,327	0.41
SSgA Bond Market Index	0.02 % of Assets	158,732,694	31,747	0.02
<b>Real Assets</b>		<b>133,062,137</b>	<b>1,126,370</b>	<b>0.85</b>
<b>Real Estate</b>		<b>81,444,905</b>	<b>739,241</b>	<b>0.91</b>
JP Morgan Strategic Property Fund	1.00 % of Assets	42,876,784	428,768	1.00
UBS Trumbull Property Fund	0.81 % of Assets	38,568,122	310,473	0.81
<b>MLPs</b>		<b>51,617,231</b>	<b>387,129</b>	<b>0.75</b>
Harvest MLP	0.75 % of Assets	26,472,375	198,543	0.75
Tortoise Capital Advisors	0.75 % of Assets	25,144,856	188,586	0.75
Cash		16,139	-	-

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 June 30, 2020

	Market Value As of 04/01/2020	Net Transfers	Contributions	Distributions	Mgmt Fees	Income	Apprec./ Deprec.	Market Value As of 06/30/2020
Total Fund Composite	949,003,038	-	94,911	-22,200,000	-295,840	270,708	119,043,580	1,045,856,048
<b>Global Equity</b>	<b>488,955,908</b>	-	-	-	-	-	<b>97,752,605</b>	<b>586,648,165</b>
SSgA MSCI ACWI IMI Index	488,955,908	-	-	-	-	-	97,752,605	586,648,165
<b>Fixed Income</b>	<b>336,660,936</b>	<b>-21,534,000</b>	<b>58,734</b>	-	<b>-67,156</b>	<b>-1,175,780</b>	<b>12,186,874</b>	<b>326,129,608</b>
PIMCO Total Return	168,020,061	-6,834,000	58,734	-	-58,734	-1,175,780	7,386,634	167,396,914
SSgA Bond Market Index	168,640,875	-14,700,000	-	-	-8,421	-	4,800,240	158,732,694
<b>Real Estate</b>	<b>83,816,713</b>	<b>-335,017</b>	-	-	<b>-192,508</b>	<b>244,286</b>	<b>-2,088,567</b>	<b>81,444,905</b>
JP Morgan Strategic Property	43,869,511	-	-	-	-108,245	244,286	-1,128,769	42,876,784
UBS Trumbull Property	39,947,201	-335,017	-	-	-84,264	-	-959,799	38,568,122
<b>MLPs</b>	<b>39,223,572</b>	-	<b>36,176</b>	-	<b>-36,176</b>	<b>1,201,548</b>	<b>11,192,112</b>	<b>51,617,231</b>
Harvest MLP	19,926,029	-	-	-	-	603,830	5,942,515	26,472,375
Tortoise Capital Advisors	19,297,543	-	36,176	-	-36,176	597,717	5,249,596	25,144,856
Cash	345,909	21,869,017	-	-22,200,000	-	655	557	16,139

## Employees' Retirement System of the City of Norfolk

### Financial Reconciliation

Year To Date Ending June 30, 2020

	Market Value As of 01/01/2020	Net Transfers	Contributions	Distributions	Mgmt Fees	Income	Apprec./ Deprec.	Market Value As of 06/30/2020
Total Fund Composite	1,139,814,463	-	166,097	-43,300,000	-634,116	12,184,829	-62,314,878	1,045,856,048
<b>Global Equity</b>	<b>652,198,055</b>	<b>-21,100,000</b>	-	-	<b>-67,432</b>	-	<b>-44,322,111</b>	<b>586,648,165</b>
SSgA MSCI ACWI IMI Index	652,198,055	-21,100,000	-	-	-67,432	-	-44,322,111	586,648,165
<b>Fixed Income</b>	<b>327,169,943</b>	<b>-21,534,000</b>	<b>58,734</b>	-	<b>-75,343</b>	<b>9,038,404</b>	<b>11,471,870</b>	<b>326,129,608</b>
PIMCO Total Return	163,535,203	-6,834,000	58,734	-	-58,734	9,038,404	1,657,307	167,396,914
SSgA Bond Market Index	163,634,740	-14,700,000	-	-	-16,609	-	9,814,563	158,732,694
<b>Real Estate</b>	<b>83,154,542</b>	<b>-335,017</b>	-	-	<b>-383,978</b>	<b>549,178</b>	<b>-1,539,818</b>	<b>81,444,905</b>
JP Morgan Strategic Property	43,297,922	-	-	-	-214,325	549,178	-755,991	42,876,784
UBS Trumbull Property	39,856,620	-335,017	-	-	-169,653	-	-783,828	38,568,122
<b>MLPs</b>	<b>76,948,958</b>	-	<b>107,363</b>	-	<b>-107,363</b>	<b>2,593,492</b>	<b>-27,925,219</b>	<b>51,617,231</b>
Harvest MLP	38,981,214	-	-	-	-	1,308,389	-13,817,228	26,472,375
Tortoise Capital Advisors	37,967,744	-	107,363	-	-107,363	1,285,104	-14,107,991	25,144,856
Cash	342,965	42,969,017	-	-43,300,000	-	3,755	401	16,139

## Employees' Retirement System of the City of Norfolk

Historical Hybrid Composition

June 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

June 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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