

Investment Performance Review  
Period Ending November 30, 2020

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

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**Market Overview (Domestic Equity vs. Domestic Fixed)**

- For the month, large cap domestic equities outperformed domestic fixed income with the Russell 1000 Index returning 11.78% versus 0.98% for the Bloomberg Barclays Aggregate Index.
- For the year, the Russell 1000 Index is outperforming the Bloomberg Barclays Aggregate Index with a return of 16.06% vs. 7.36%, respectively.

**Broad Equity Market Overview**

- Small cap domestic equities were the best equity performers for the month with the Russell 2000 Index returning 18.43%.
- International equities underperformed small cap domestic equities for the month (by -4.98%) with the ACWI ex-US Index returning 13.45%.
- For the month, large cap domestic equities underperformed both small cap domestic equities (by -6.65%) and international equities (by -1.67%) with the Russell 1000 Index returning 11.78%.
- On a year-to-date basis, large cap domestic equities are the best performing equity asset class with the Russell 1000 returning 16.06%.
- Small cap domestic equities are trailing large cap domestic equities for the year (by -5.65%) with the Russell 2000 Index returning 10.41%.
- For the year, international equities are trailing both large cap domestic equities (by -11.08%) and small cap domestic equities (by -5.43%) with the ACWI ex-US Index returning 4.98%.

**Broad Fixed Market Overview**

- For the month, global fixed ex-US securities outperformed domestic fixed securities, with the Bloomberg Barclays Global Aggregate ex-US returning 2.38%.
- Domestic fixed trailed global fixed ex-US (by -1.40%) for the month with the Bloomberg Barclays Aggregate returning 0.98%.
- For the year, global fixed ex-US securities are outperforming domestic fixed securities with the Bloomberg Barclays Global Aggregate ex-US returning 7.76%.
- Year-to-date, domestic fixed securities are trailing global fixed ex-US securities (by -0.40%) with the Bloomberg Barclays Aggregate returning 7.36%.

**Equity Sector Performance For The Month**

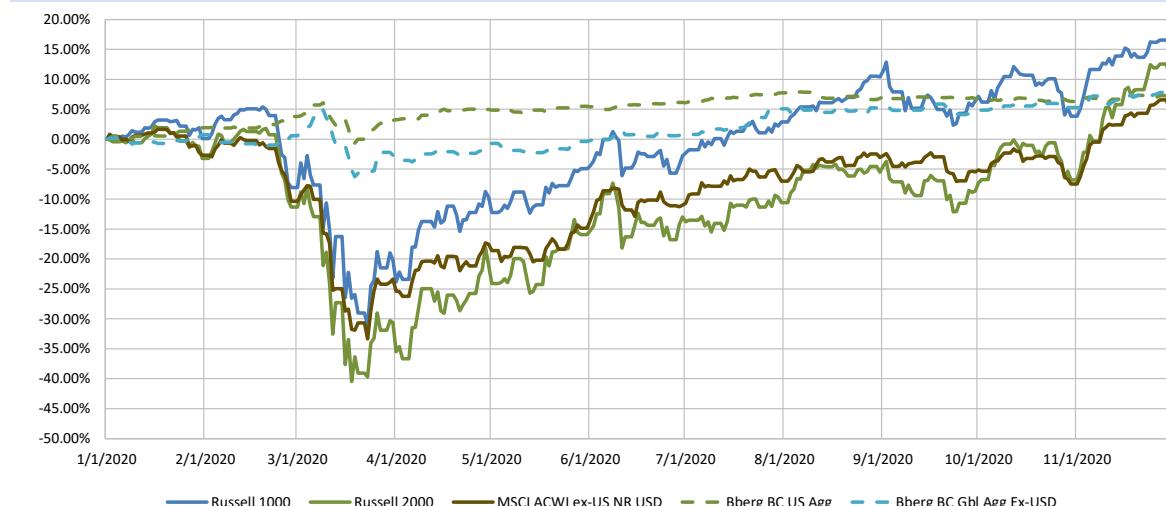
- The top three performing sectors for large cap domestic equities were:
  - Energy (return 27.76%), Industrials (return 16.58%) and Financials (return 16.44%)
- The bottom three performing sectors for large cap domestic equities were:
  - Utilities (return 1.44%), Consumer Staples (return 7.56%) and Health Care (return 8.10%)
- The top three performing sectors for small cap domestic equities were:
  - Energy (return 29.11%), Communication Services (return 27.38%) and Industrials (return 21.45%)
- The bottom three performing sectors for small cap domestic equities were:
  - Utilities (return 10.41%), Financials (return 14.15%) and Consumer Staples (return 14.26%)
- The top three performing sectors for international equities were:
  - Energy (return 25.75%), Financials (return 20.23%) and Industrials (return 15.18%)
- The bottom three performing sectors for international equities were:
  - Communication Services (return 5.69%), Consumer Staples (return 8.56%) and Consumer Discretionary (return 9.45%)

**Fixed Income Sector Performance For The Month**

- The sector performance for domestic fixed income in order of best performing to worst was:
  - Corporate (return 2.79%), Treasury (return 0.35%) and MBS (return 0.07%)

**Fixed Income Quality Performance For The Month**

- The quality performance for domestic fixed income in order of best performing to worst was:
  - Baa (return 3.19%), A (return 2.22%), Aa (return 1.92%) and AAA (return 0.26%)

**2020 Market Daily Index Total Return Performance**

**2020 Market Monthly Index Total Return Performance**

	1/31/20	2/28/20	3/31/20	4/30/20	5/31/20	6/30/20	7/31/20	8/31/20	9/30/20	10/31/20	11/30/20	12/31/20	YTD
Russell 1000	0.11%	-8.17%	-13.21%	13.21%	5.28%	2.21%	5.86%	7.34%	-3.65%	-2.41%	11.78%	16.06%	
Russell 2000	-3.21%	-8.42%	-21.73%	13.74%	6.51%	2.77%	5.63%	-3.34%	2.09%	18.43%		10.41%	
MSCI ACWI ex-US	-2.69%	-7.90%	-14.48%	7.58%	3.27%	4.52%	4.46%	4.28%	-2.46%	-2.15%	13.45%	4.98%	
Bloomberg BC Aggregate	1.92%	1.80%	-0.59%	1.78%	0.47%	0.63%	1.49%	-0.81%	-0.05%	-0.45%	0.98%	7.36%	
Bberg BC Global Agg ex-US	0.76%	-0.20%	-3.22%	2.04%	0.30%	1.01%	4.44%	0.29%	-0.58%	0.46%	2.38%	7.76%	

**Equity Sector Performance**

	Russell 1000	Russell 2000	ACWI ex-US
Energy	27.76%	29.11%	25.75%
Materials	12.25%	17.40%	13.44%
Industrials	16.58%	21.45%	15.18%
Consumer Discretionary	11.92%	19.84%	9.45%
Consumer Staples	7.56%	14.26%	8.56%
Health Care	8.10%	17.85%	10.05%
Real Estate	8.53%	19.07%	14.23%
Financials	16.44%	14.15%	20.23%
Information Technology	12.27%	20.75%	14.96%
Communication Services	10.27%	27.38%	5.69%
Utilities	1.44%	10.41%	11.86%

**Year-To-Date**

Russell 1000	Russell 2000	ACWI ex-US
-36.15%	-42.59%	-25.85%
15.94%	4.23%	12.18%
10.17%	14.59%	6.41%
41.19%	23.54%	17.69%
8.78%	17.22%	2.32%
12.27%	35.32%	12.54%
-6.69%	-11.36%	-10.95%
-8.08%	-11.52%	-8.03%
38.68%	23.09%	31.03%
21.58%	-1.76%	14.42%
-0.83%	-6.38%	5.48%

**Fixed Sector & Quality Performance**

	Month-To-Date
BC Agg.	
Treasury	0.35%
MBS	0.07%
Corporate	2.79%
Aaa	0.26%
Aa	1.92%
A	2.22%
Baa	3.19%

**Year-To-Date**

BC Agg.
8.25%
3.65%
9.41%
6.45%
8.11%
9.71%
8.57%

Equities	Index Returns (%)					
	Month	3 M	YTD	1 Year	3 Yr Ann	5 Yr Ann
S&P 500 Total Return	10.95	3.89	14.02	17.46	13.17	13.99
Russell Midcap Index	13.82	12.32	11.86	14.43	10.26	11.75
Russell 2000 Index	18.43	16.87	10.41	13.59	7.09	10.25
Russell 1000 Growth Index	10.24	1.48	32.40	36.40	21.47	19.56
Russell 1000 Value Index	13.45	9.21	(1.00)	1.72	5.25	8.44
Russell 3000 Index	12.17	5.75	15.68	19.02	13.20	13.95
MSCI EAFE NR	15.50	8.01	3.03	6.37	3.26	6.19
MSCI EM NR	9.25	9.71	10.20	18.43	4.92	10.72

Russell Indices Style Returns *						
	V B G			V B G		
L	-1.0	16.1	32.4	26.5	31.4	36.4
M	0.3	11.9	29.4	27.0	30.5	35.5
S	-3.1	10.4	23.1	22.4	25.5	28.4

YTD

2019

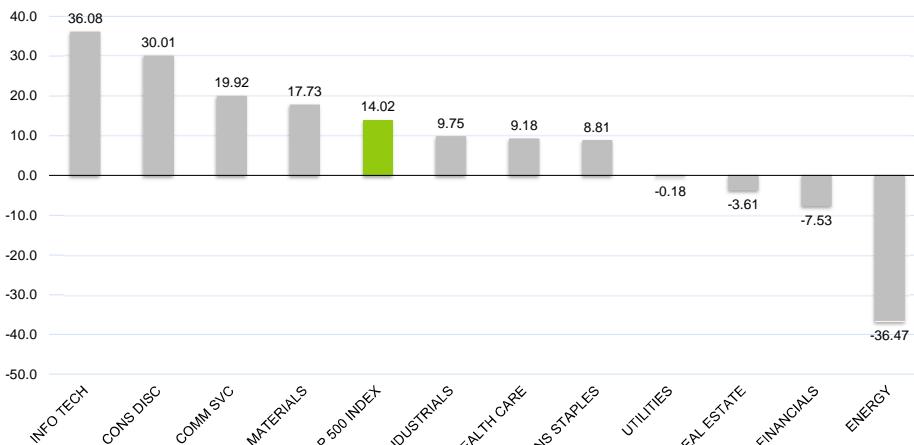
Fixed Income	Index Returns (%)					
	Month	3 M	YTD	1 Year	Mod. Adj. Duration	Yield to Worst
U.S. Aggregate	0.98	0.48	7.36	7.28	6.23	1.15
U.S. Corporate Investment Grade	2.79	2.31	9.41	9.76	8.86	1.80
U.S. Corporate High Yield	3.96	3.41	5.13	7.24	3.65	4.70
Global Aggregate	1.82	1.55	7.75	8.38	7.42	0.86

Currencies	Levels		
	11/30/20	12/31/19	12/31/18
Euro Spot	1.19	1.12	1.15
British Pound Spot	1.33	1.33	1.28
Japanese Yen Spot	104.31	108.61	109.69
Swiss Franc Spot	0.91	0.97	0.98

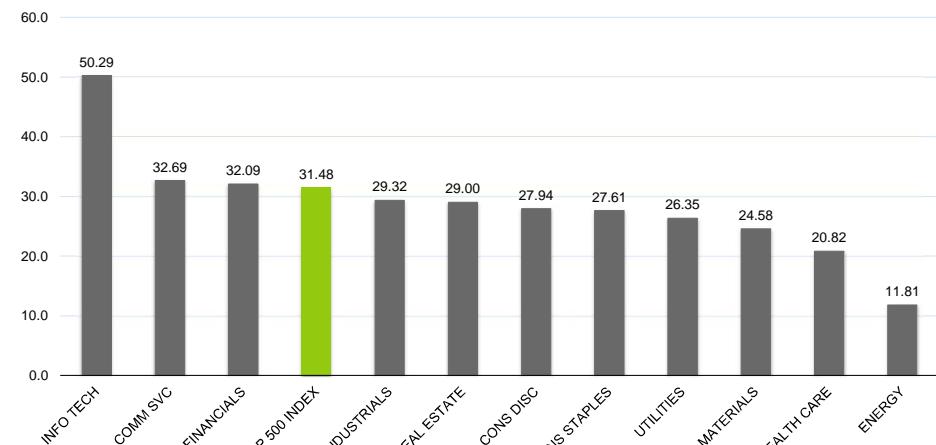
Key Rates	Levels (%)				
	11/30/20	12/31/19	12/31/18	12/31/17	12/31/16
US Generic Govt 3 Mth	0.07	1.54	2.35	1.38	0.50
US Generic Govt 2 Yr	0.15	1.57	2.49	1.88	1.19
US Generic Govt 10 Yr	0.84	1.92	2.68	2.41	2.44
US Generic Govt 30 Yr	1.57	2.39	3.01	2.74	3.07
ICE LIBOR USD 3M	0.23	1.91	2.81	1.69	1.00
Euribor 3 Month ACT/360	(0.53)	(0.38)	(0.31)	(0.33)	(0.32)
Bankrate 30Y Mortgage Rates Na	2.94	3.86	4.51	3.85	4.06
Prime	3.25	4.75	5.50	4.50	3.75

Commodities	Levels		
	11/30/20	12/31/19	12/31/18
Oil	45.34	56.03	49.90
Gasoline	2.14	2.59	2.26
Natural Gas	2.88	2.72	2.90
Gold	1,780.90	1,555.20	1,187.30
Silver	22.59	18.35	16.50
Copper	343.80	283.05	267.40
Corn	426.00	411.25	419.25
BBG Commodity TR Idx	158.74	172.00	159.72

## YTD Sector Returns



## 2019 Sector Returns



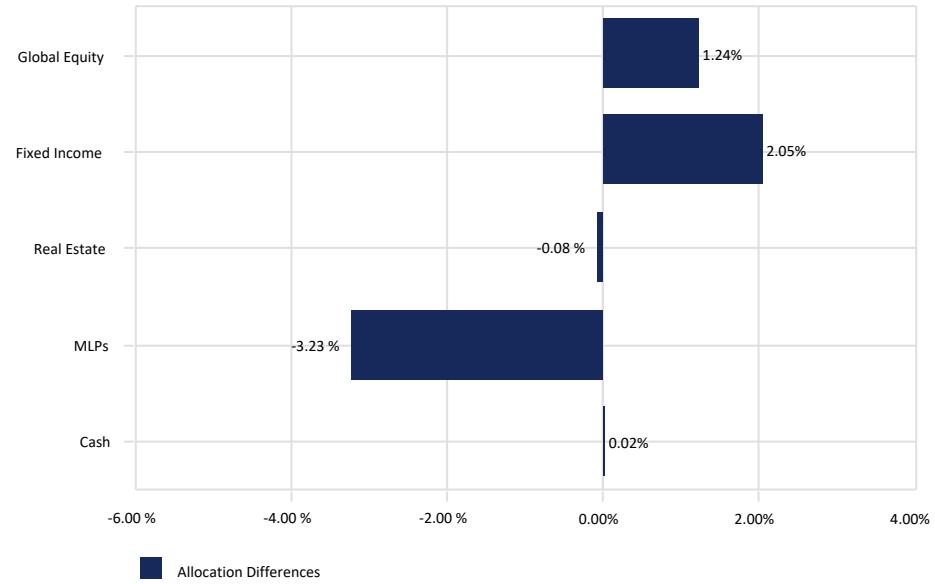
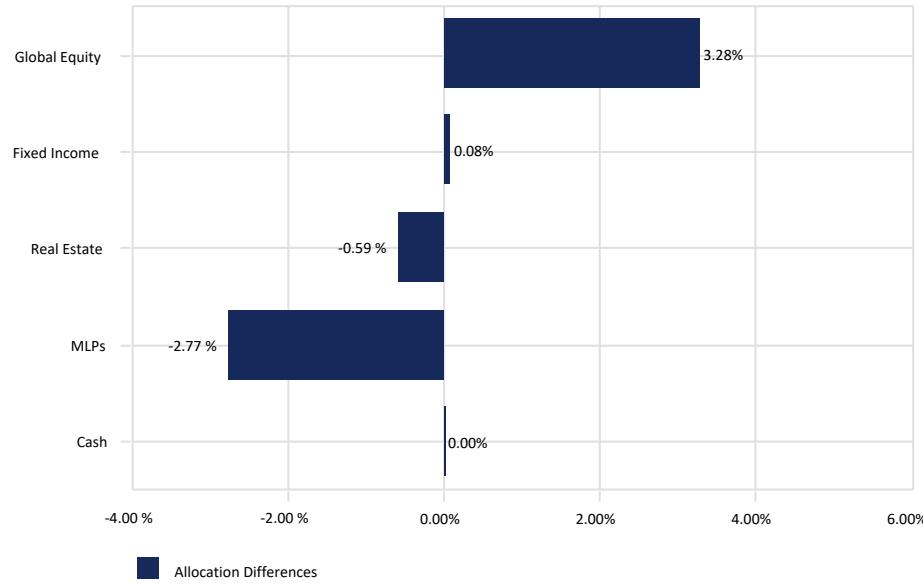
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\*Heat maps are displayed utilizing a 9-color scale, with green as the highest return for the time period noted and red as the lowest return for the time period noted. Color scales within each time period are mutually exclusive.

# Employees' Retirement System of the City of Norfolk

## Asset Allocation vs. Target Allocation

November 30, 2020



November 30, 2020

	Market Value (\$)	Allocation (%)	Target (%)
Global Equity	683,329,794	58.28	55.00
Fixed Income	352,673,975	30.08	30.00
Real Estate	81,017,264	6.91	7.50
MLPs	55,413,154	4.73	7.50
Cash	10,074	0.00	0.00
Total Fund	1,172,444,261	100.00	100.00

October 31, 2020

	Market Value (\$)	Allocation (%)	Target (%)
Global Equity	612,429,618	56.24	55.00
Fixed Income	349,009,744	32.05	30.00
Real Estate	80,756,195	7.42	7.50
MLPs	46,481,521	4.27	7.50
Cash	271,585	0.02	0.00
Total Fund	1,088,948,664	100.00	100.00

# Employees' Retirement System of the City of Norfolk

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

November 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>1,172,444,261</b>	<b>100.00</b>	<b>8.33</b>	<b>4.52</b>	<b>6.54</b>	<b>11.44</b>	<b>9.26</b>	<b>6.27</b>	<b>7.75</b>	<b>8.06</b>	<b>Oct -1990</b>
Total Fund Policy (62.5% ACWI/37.5% Agg)			8.28	4.55	10.27	12.30	12.69	7.82	8.55	8.30	
Excess Return			0.05	-0.03	-3.73	-0.86	-3.43	-1.55	-0.80	-0.24	
<b>Total Fund Strategy Index</b>		<b>9.04</b>	<b>5.02</b>	<b>7.53</b>	<b>11.59</b>	<b>10.40</b>	<b>6.64</b>	<b>7.70</b>	<b>8.16</b>		
Excess Return		-0.71	-0.50	-0.99	-0.15	-1.14	-0.37	0.05	-0.10		
<b>Composite Returns</b>											
Global Equity	683,329,794	58.28	12.74	6.99	11.29	19.39	15.24	9.00	11.10	9.25	Oct -1990
<i>Global Equity Policy</i>			12.66	6.80	10.75	19.15	14.67	8.54	10.62	9.50	
Excess Return			0.08	0.19	0.54	0.24	0.57	0.46	0.48	-0.25	
Fixed Income	352,673,975	30.08	1.05	0.43	7.97	1.53	7.97	5.57	4.63	6.06	Oct -1990
<i>Blmbg. Barc. U.S. Aggregate</i>			0.98	0.48	7.36	1.15	7.28	5.45	4.34	6.00	
Excess Return			0.07	-0.05	0.61	0.38	0.69	0.12	0.29	0.06	
Real Estate	81,017,264	6.91	0.32	0.24	-1.35	0.32	-0.89	2.32	3.93	7.67	Apr -2011
<i>NCREF Fund Index-ODCE (VW) (Net)</i>			0.00	0.27	-0.74	0.27	0.52	4.25	5.69	8.65	
Excess Return			0.32	-0.03	-0.61	0.05	-1.41	-1.93	-1.76	-0.98	
MLPs	55,413,154	4.73	19.22	8.86	-28.31	7.05	-22.73	-10.11	-5.95	-3.69	Mar -2013
<i>Alerian MLP Index</i>			23.78	11.60	-30.43	8.20	-24.50	-12.06	-7.09	-7.01	
Excess Return			-4.56	-2.74	2.12	-1.15	1.77	1.95	1.14	3.32	
Cash	10,074	0.00									

# Employees' Retirement System of the City of Norfolk

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

November 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	683,329,794	58.28	12.74	6.99	11.29	19.39	15.24	9.00	-	12.14	May -2016
<i>MSCI AC World IMI (Net)</i>			<b>12.66</b>	<b>6.80</b>	<b>10.75</b>	<b>19.15</b>	<b>14.67</b>	<b>8.54</b>	-	<b>11.67</b>	
Excess Return			<b>0.08</b>	<b>0.19</b>	<b>0.54</b>	<b>0.24</b>	<b>0.57</b>	<b>0.46</b>	-	<b>0.47</b>	
<b>Fixed Income</b>											
PIMCO Total Return	192,055,101	16.38	1.10	0.38	8.45	1.81	8.54	5.67	4.90	6.40	Jan -1991
<i>Blmbg. Barc. U.S. Aggregate</i>			<b>0.98</b>	<b>0.48</b>	<b>7.36</b>	<b>1.15</b>	<b>7.28</b>	<b>5.45</b>	<b>4.34</b>	<b>5.88</b>	
Excess Return			<b>0.12</b>	<b>-0.10</b>	<b>1.09</b>	<b>0.66</b>	<b>1.26</b>	<b>0.22</b>	<b>0.56</b>	<b>0.52</b>	
SSgA Bond Market Index	160,618,874	13.70	0.99	0.49	7.39	1.19	7.31	5.47	4.35	4.26	Jan -2009
<i>Blmbg. Barc. U.S. Aggregate</i>			<b>0.98</b>	<b>0.48</b>	<b>7.36</b>	<b>1.15</b>	<b>7.28</b>	<b>5.45</b>	<b>4.34</b>	<b>4.25</b>	
Excess Return			<b>0.01</b>	<b>0.01</b>	<b>0.03</b>	<b>0.04</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	43,176,997	3.68	0.61	0.81	-0.02	0.96	1.04	3.83	4.99	8.79	Apr -2011
<i>NCREIF Fund Index-ODCE (VW) (Net)</i>			<b>0.00</b>	<b>0.27</b>	<b>-0.74</b>	<b>0.27</b>	<b>0.52</b>	<b>4.25</b>	<b>5.69</b>	<b>8.65</b>	
Excess Return			<b>0.61</b>	<b>0.54</b>	<b>0.72</b>	<b>0.69</b>	<b>0.52</b>	<b>-0.42</b>	<b>-0.70</b>	<b>0.14</b>	
UBS Trumbull Property Fund	37,840,267	3.23	0.00	-0.40	-2.80	-0.40	-2.97	0.73	2.81	5.68	Jan -2012
<i>NCREIF Fund Index-ODCE (VW) (Net)</i>			<b>0.00</b>	<b>0.27</b>	<b>-0.74</b>	<b>0.27</b>	<b>0.52</b>	<b>4.25</b>	<b>5.69</b>	<b>8.17</b>	
Excess Return			<b>0.00</b>	<b>-0.67</b>	<b>-2.06</b>	<b>-0.67</b>	<b>-3.49</b>	<b>-3.52</b>	<b>-2.88</b>	<b>-2.49</b>	
<b>MLPs</b>											
Harvest MLP	29,000,582	2.47	18.05	7.99	-25.75	9.33	-19.98	-8.58	-5.24	-3.23	Mar -2013
<i>Alerian MLP Index</i>			<b>23.78</b>	<b>11.60</b>	<b>-30.43</b>	<b>8.20</b>	<b>-24.50</b>	<b>-12.06</b>	<b>-7.09</b>	<b>-7.01</b>	
Excess Return			<b>-5.73</b>	<b>-3.61</b>	<b>4.68</b>	<b>1.13</b>	<b>4.52</b>	<b>3.48</b>	<b>1.85</b>	<b>3.78</b>	
Tortoise Capital Advisors	26,412,572	2.25	20.52	9.84	-30.93	4.65	-25.55	-11.66	-6.71	-4.84	Apr -2013
<i>Alerian MLP Index</i>			<b>23.78</b>	<b>11.60</b>	<b>-30.43</b>	<b>8.20</b>	<b>-24.50</b>	<b>-12.06</b>	<b>-7.09</b>	<b>-7.71</b>	
Excess Return			<b>-3.26</b>	<b>-1.76</b>	<b>-0.50</b>	<b>-3.55</b>	<b>-1.05</b>	<b>0.40</b>	<b>0.38</b>	<b>2.87</b>	

# 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 76% in October 2020 and 81% in November 2020.

## Employees' Retirement System of the City of Norfolk

Historical Hybrid Composition

November 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

November 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.

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