Investment Performance Review
Period Ending November 30, 2021

Employees' Retirement System of the City of Norfolk

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Equities	Month	3 M	YTD	1 Year	3 Yr Ann	5 Yr Ann
	Index Returns (%)					
S&P 500 Total Return	(0.69)	1.32	23.18	27.92	20.38	17.90
Russell Midcap Index	(3.48)	(1.95)	17.77	23.29	17.49	14.44
Russell 2000 Index	(4.17)	(3.04)	12.31	22.02	14.22	12.14
Russell 1000 Growth Index	0.61	3.20	24.95	30.70	29.21	25.10
Russell 1000 Value Index	(3.52)	(2.15)	17.73	22.25	11.45	10.36
Russell 3000 Index	(1.52)	0.42	20.90	26.34	20.20	17.51
MSCI EAFE NR	(4.65)	(5.14)	5.84	10.77	9.83	9.19
MSCI EM NR	(4.08)	(6.98)	(4.34)	2.70	9.27	9.52

Russell Indices Style Returns*

YTD

	V	B	G
L	17.7	21.5	24.9
M	20.7	17.8	12.3
S	23.2	12.3	2.4

2020

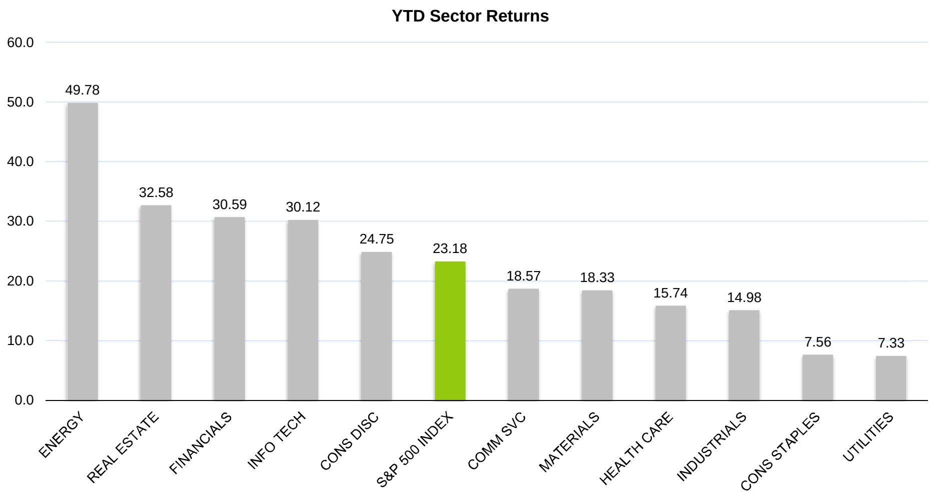
	V	B	G
L	2.8	20.9	38.4
M	4.9	17.0	35.5
S	4.6	19.9	34.5

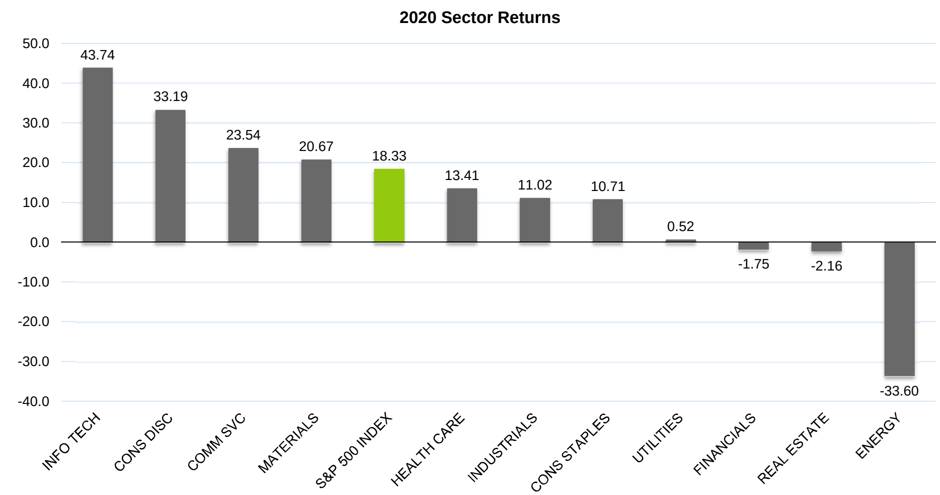
Fixed Income	Month	3 M	YTD	1 Year	Mod. Adj. Duration	Yield to Worst
	Index Returns (%)					
U.S. Aggregate	0.30	(0.60)	(1.29)	(1.16)	6.78	1.69
U.S. Corporate Investment Grade	0.06	(0.75)	(0.96)	(0.53)	8.73	2.29
U.S. Corporate High Yield	(0.97)	(1.15)	3.34	5.29	4.06	4.80
Global Aggregate	(0.29)	(2.30)	(4.57)	(3.29)	7.59	1.24

Currencies	11/30/21	12/31/20	12/31/19
	Levels		
Euro Spot	1.13	1.22	1.12
British Pound Spot	1.33	1.37	1.33
Japanese Yen Spot	113.17	103.25	108.61
Swiss Franc Spot	0.92	0.89	0.97

Key Rates	11/30/21	12/31/20	12/31/19	12/31/18	12/31/17
	Levels (%)				
US Generic Govt 3 Mth	0.05	0.06	1.54	2.35	1.38
US Generic Govt 2 Yr	0.57	0.12	1.57	2.49	1.88
US Generic Govt 10 Yr	1.44	0.91	1.92	2.68	2.41
US Generic Govt 30 Yr	1.79	1.64	2.39	3.01	2.74
ICE LIBOR USD 3M	0.17	0.24	1.91	2.81	1.69
Euribor 3 Month ACT/360	(0.57)	(0.55)	(0.38)	(0.31)	(0.33)
Bankrate 30Y Mortgage Rates Na	3.23	2.87	3.86	4.51	3.85
Prime	3.25	3.25	4.75	5.50	4.50

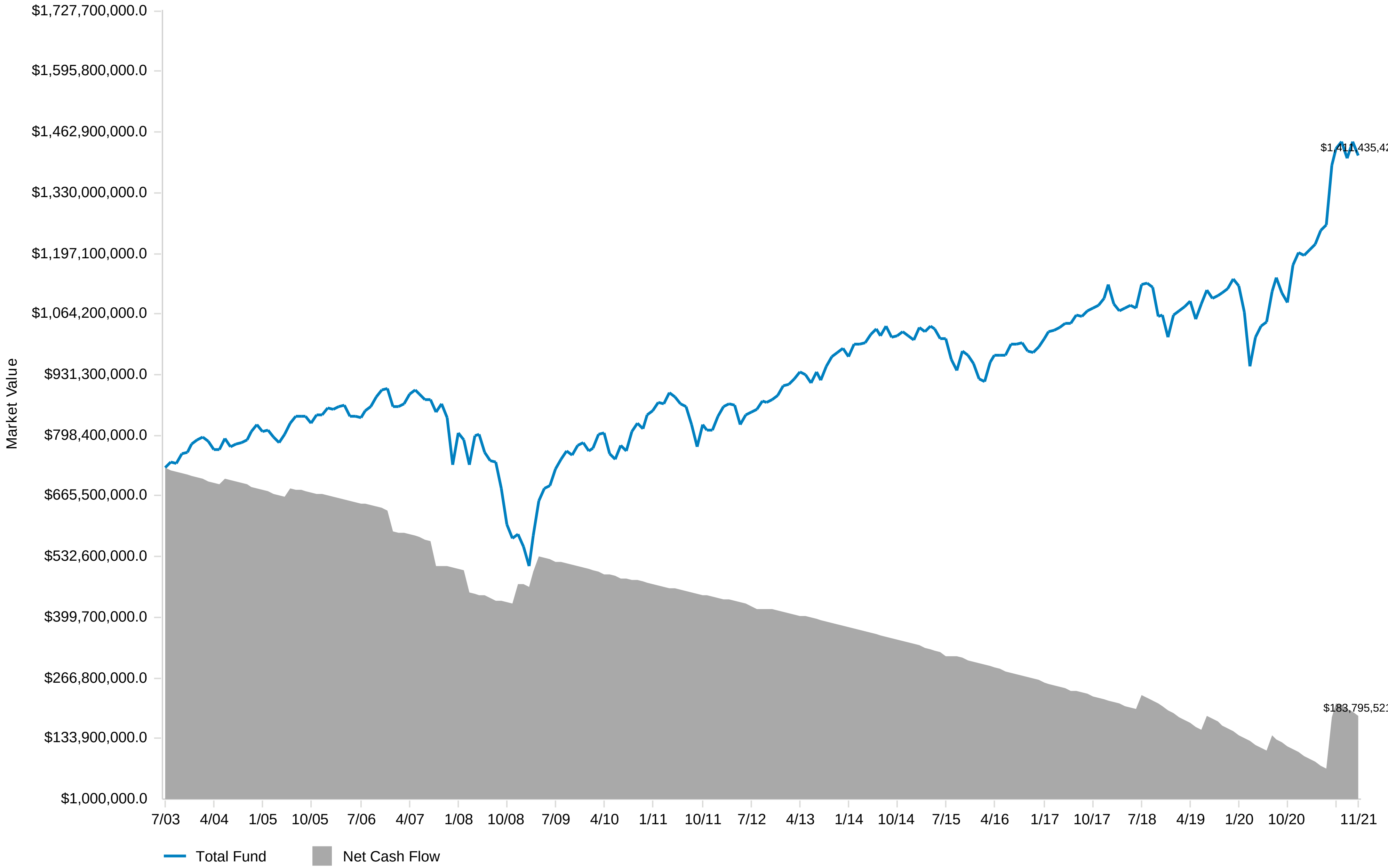
Commodities	11/30/21	12/31/20	12/31/19
	Levels		
Oil	66.18	47.49	52.85
Gasoline	3.39	2.25	2.59
Natural Gas	4.57	3.01	2.69
Gold	1,776.50	1,914.00	1,187.30
Silver	22.82	26.74	16.50
Copper	428.00	352.05	284.85
Corn	567.50	440.25	417.75
BBG Commodity TR Idx	204.59	166.63	172.00

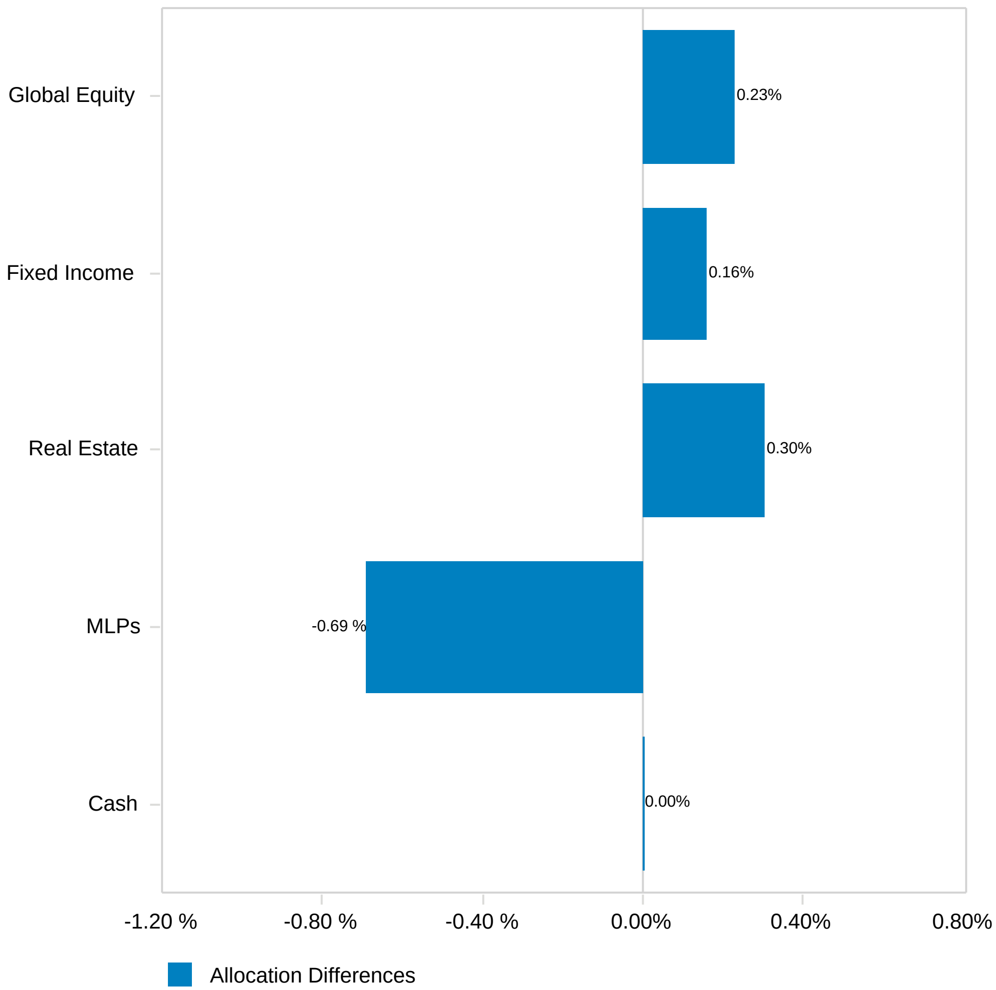


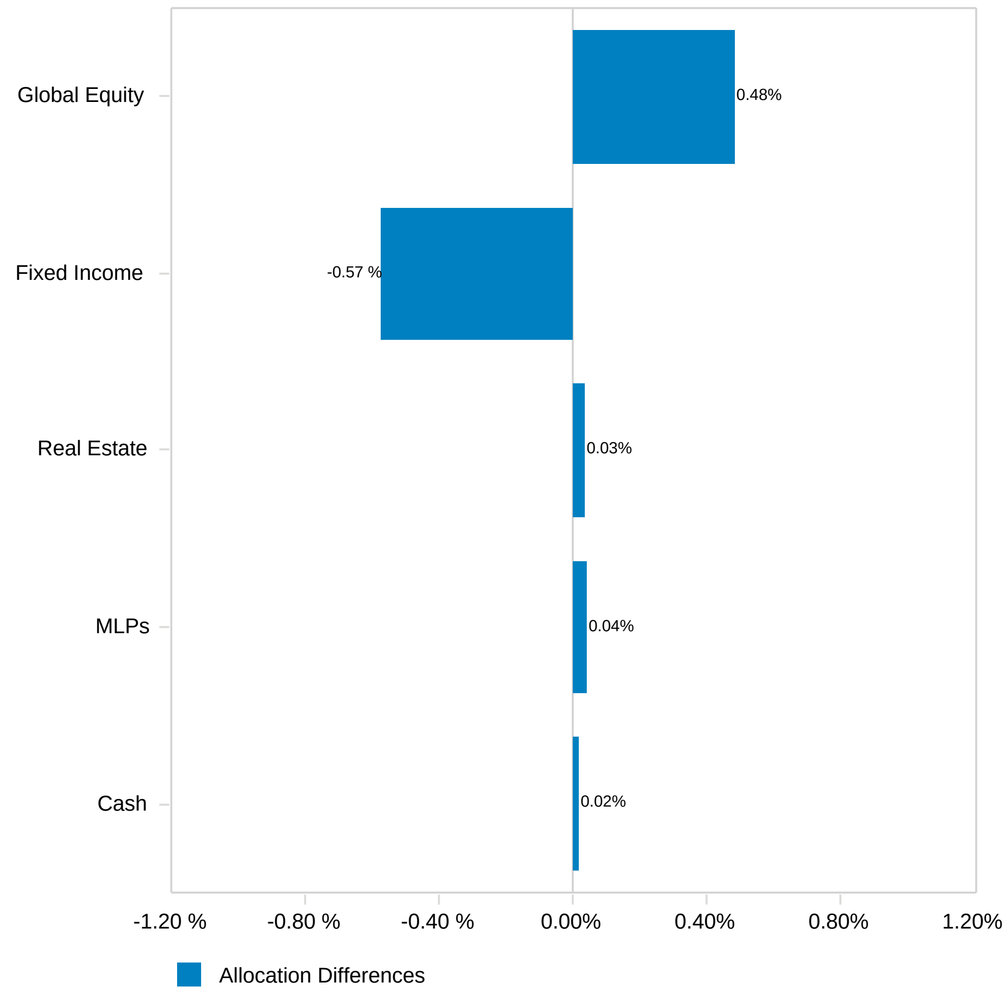


Source: Bloomberg & Investment Metrics. For informational purposes only and should not be regarded as investment advice. Information is based on sources and data believed to be reliable, but AndCo Consulting cannot guarantee the accuracy, adequacy or completeness of the information. The material provided herein is valid only as of the date of distribution and not as of any future date.
*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.

Schedule of Investable Assets







November 30, 2021				October 31, 2021			
	Market Value $	Allocation (%)	Target (%)		Market Value $	Allocation (%)	Target (%)
Global Equity	779,500,129	55.2	55.0	Global Equity	800,759,695	55.5	55.0
Fixed Income	425,661,897	30.2	30.0	Fixed Income	424,669,401	29.4	30.0
Real Estate	110,150,222	7.8	7.5	Real Estate	108,731,107	7.5	7.5
MLPs	96,116,355	6.8	7.5	MLPs	108,829,310	7.5	7.5
Cash	6,826	0.0	0.0	Cash	235,966	0.0	0.0
Total Fund	1,411,435,429	100.0	100.0	Total Fund	1,443,225,480	100.0	100.0

Asset Allocation & Performance

	Allocation		Performance(%)										
	Market Value $	%	1 Month	3 Month	FYTD	1 Year	2 YR	3 Year	5 Year	7 Year	10 Year	Since Inception	Inception Date
Total Fund	1,411,435,429	100.0	-1.70	-0.51	1.18	14.33	11.77	11.17	9.56	7.30	8.76	8.26	Oct-1990
Total Fund Policy (62.5% ACWI/37.5% Agg)			-1.57	-1.44	0.75	11.36	12.02	12.24	10.14	7.64	8.64	8.40	
Excess Return			-0.13	0.93	0.43	2.97	-0.25	-1.07	-0.58	-0.34	0.12	-0.14	
Total Fund Strategy Index			-1.95	-0.73	0.53	13.96	12.16	11.52	9.52	7.20	8.45	8.34	
Excess Return			0.25	0.22	0.65	0.37	-0.39	-0.35	0.04	0.10	0.31	-0.08	
Composite Returns													
Global Equity	779,500,129	55.2	-2.65	-1.92	1.02	20.07	17.63	16.29	14.23	10.47	12.27	9.58	Oct-1990
Global Equity Policy			-2.68	-2.02	0.91	19.36	16.99	15.71	13.72	10.00	11.89	9.80	
Excess Return			0.03	0.10	0.11	0.71	0.64	0.58	0.51	0.47	0.38	-0.22	
Fixed Income	425,661,897	30.2	0.23	-0.73	0.36	-0.92	3.43	5.57	3.92	3.28	3.44	5.83	Oct-1990
Blmbg. U.S. Aggregate Index			0.30	-0.60	0.32	-1.16	2.98	5.52	3.65	3.05	3.04	5.76	
Excess Return			-0.07	-0.13	0.04	0.24	0.45	0.05	0.27	0.23	0.40	0.07	
Real Estate	110,150,222	7.8	1.31	5.45	7.76	11.43	5.09	3.62	4.66	6.30	7.55	8.02	Apr-2011
NCREIF Fund Index-ODCE (VW) (Net)			0.00	6.41	6.41	13.64	6.88	6.13	6.56	7.93	8.92	9.11	
Excess Return			1.31	-0.96	1.35	-2.21	-1.79	-2.51	-1.90	-1.63	-1.37	-1.09	
MLPs	96,116,355	6.8	-5.30	5.01	-1.08	40.69	4.26	0.13	-0.84	-4.15	-	0.57	Mar-2013
Alerian MLP Index			-7.51	0.03	-8.45	38.75	2.35	-2.31	-2.55	-6.31	-	-2.65	
Excess Return			2.21	4.98	7.37	1.94	1.91	2.44	1.71	2.16	-	3.22	
Cash	6,826	0.0											

Asset Allocation & Performance

	Allocation		Performance(%)										
	Market Value $	%	1 Month	3 Month	FYTD	1 Year	2 YR	3 Year	5 Year	7 Year	10 Year	Since Inception	Inception Date
Global Equity													
SSgA MSCI ACWI IMI Index Fund	779,500,129	55.2	-2.65	-1.92	1.02	19.78	17.49	16.20	14.18	-	-	13.47	May-2016
MSCI AC World IMI (Net)			-2.68	-2.02	0.91	19.36	16.99	15.71	13.72	-	-	13.01	
Excess Return			0.03	0.10	0.11	0.42	0.50	0.49	0.46	-	-	0.46	
Fixed Income													
PIMCO Total Return	212,881,374	15.1	0.16	-0.86	0.39	-0.76	3.79	5.61	4.14	3.48	3.91	6.16	Jan-1991
Blmbg. U.S. Aggregate Index			0.30	-0.60	0.32	-1.16	2.98	5.52	3.65	3.05	3.04	5.64	
Excess Return			-0.14	-0.26	0.07	0.40	0.81	0.09	0.49	0.43	0.87	0.52	
SSgA Bond Market Index	212,780,523	15.1	0.30	-0.60	0.32	-1.11	3.01	5.55	3.67	3.07	3.05	3.84	Jan-2009
Blmbg. U.S. Aggregate Index			0.30	-0.60	0.32	-1.16	2.98	5.52	3.65	3.05	3.04	3.82	
Excess Return			0.00	0.00	0.00	0.05	0.03	0.03	0.02	0.02	0.01	0.02	
Real Estate													
JP Morgan Asset Management Strategic Property Fund	50,758,872	3.6	4.07	8.47	11.91	17.56	8.99	6.86	6.86	8.06	9.20	9.58	Apr-2011
NCREIF Fund Index-ODCE (VW) (Net)			0.00	6.41	6.41	13.64	6.88	6.13	6.56	7.93	8.92	9.11	
Excess Return			4.07	2.06	5.50	3.92	2.11	0.73	0.30	0.13	0.28	0.47	
UBS Trumbull Property Fund	33,886,108	2.4	0.00	6.22	5.98	7.61	2.18	1.01	2.80	4.70	-	5.87	Jan-2012
NCREIF Fund Index-ODCE (VW) (Net)			0.00	6.41	6.41	13.64	6.88	6.13	6.56	7.93	-	8.71	
Excess Return			0.00	-0.19	-0.43	-6.03	-4.70	-5.12	-3.76	-3.23	-	-2.84	
Vanguard Real Estate Index (VGSNX)	25,505,243	1.8	-2.17	-1.19	5.45	-	-	-	-	-	-	5.45	Jul-2021
Vanguard Spliced REIT Index			-2.17	-1.16	5.49	-	-	-	-	-	-	5.49	
Excess Return			0.00	-0.03	-0.04	-	-	-	-	-	-	-0.04	
MLPs													
Harvest MLP	48,857,188	3.5	-4.42	6.13	0.92	43.29	7.08	2.27	0.25	-3.35	-	1.21	Mar-2013
Alerian MLP Index			-7.51	0.03	-8.45	38.75	2.35	-2.31	-2.55	-6.31	-	-2.65	
Excess Return			3.09	6.10	9.37	4.54	4.73	4.58	2.80	2.96	-	3.86	
Tortoise Capital Advisors	47,259,166	3.3	-6.27	3.76	-3.35	38.76	1.64	-1.86	-1.85	-4.92	-	-0.61	Apr-2013
Alerian MLP Index			-7.51	0.03	-8.45	38.75	2.35	-2.31	-2.55	-6.31	-	-3.27	
Excess Return			1.24	3.73	5.10	0.01	-0.71	0.45	0.70	1.39	-	2.66	

Financial Reconciliation

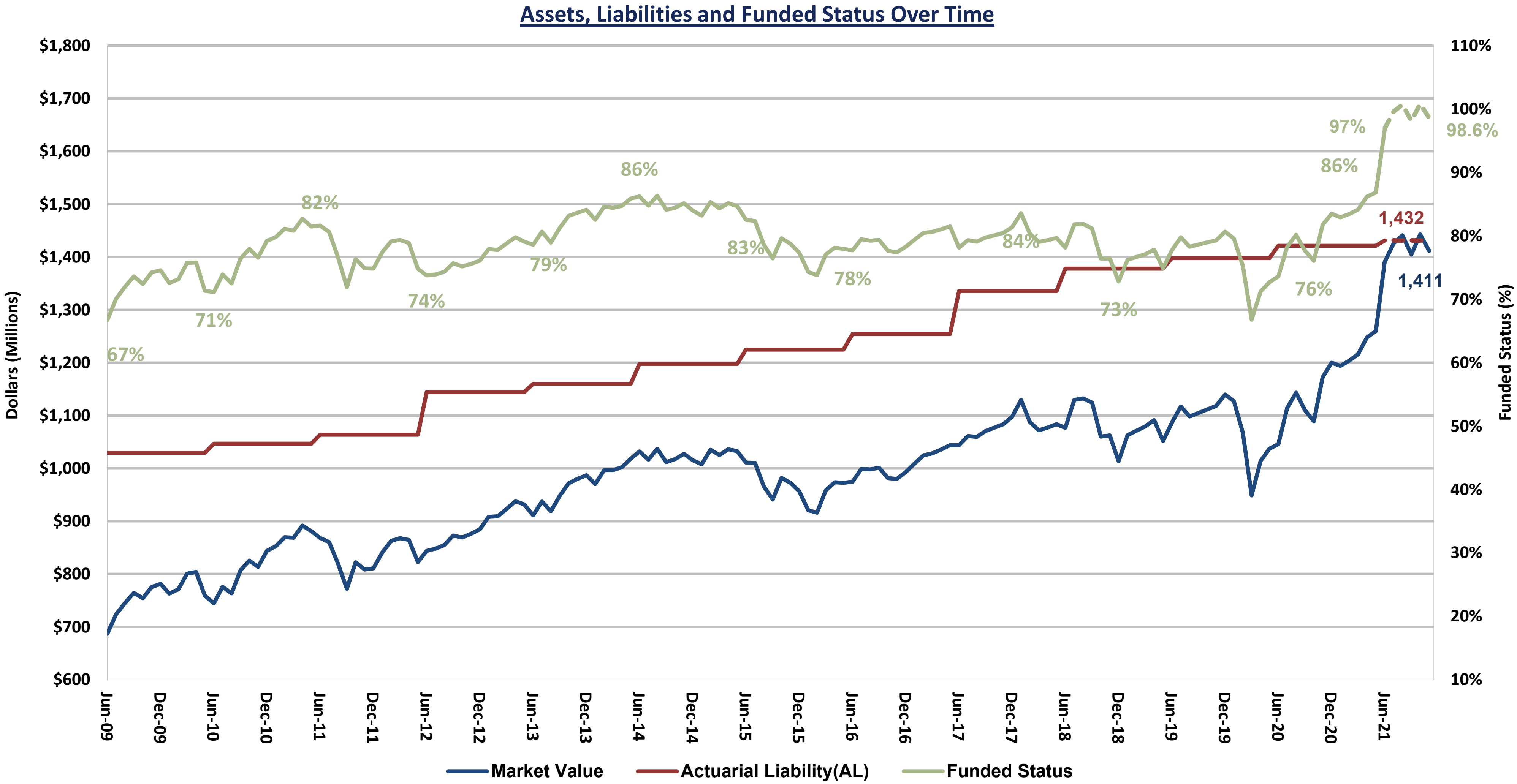
	Market Value 11/01/2021	Net Transfers	Contributions	Distributions	Management Fees	Income	Apprec./ Deprec.	Market Value 11/30/2021
Total Fund	1,443,225,480	-	-	-7,332,000	-94,627	1,491,581	-25,855,005	1,411,435,429
Global Equity	800,759,695	-	-	-	-81,775	-	-21,177,791	779,500,129
SSgA MSCI ACWI IMI Index Fund	800,759,695	-	-	-	-81,775	-	-21,177,791	779,500,129
Fixed Income	424,669,401	-	-	-	-10,680	308,781	694,394	425,661,897
PIMCO Total Return	212,532,403	-	-	-	-	308,781	40,190	212,881,374
SSgA Bond Market Index	212,136,999	-	-	-	-10,680	-	654,203	212,780,523
Real Estate	108,731,107	-	-	-	-2,173	147,767	1,273,521	110,150,222
JP Morgan Asset Management Strategic Property Fund	48,772,731	-	-	-	-	147,767	1,838,373	50,758,872
UBS Trumbull Property Fund	33,886,108	-	-	-	-	-	-	33,886,108
Vanguard Real Estate Index (VGSNX)	26,072,268	-	-	-	-2,173	-	-564,853	25,505,243
MLPs	108,829,310	-7,100,000	-	-	-	1,031,910	-6,644,866	96,116,355
Harvest MLP	58,411,427	-7,100,000	-	-	-	557,871	-3,012,109	48,857,188
Tortoise Capital Advisors	50,417,884	-	-	-	-	474,039	-3,632,757	47,259,166
Cash	235,966	7,100,000	-	-7,332,000	-	3,123	-263	6,826

Financial Reconciliation

	Market Value 07/01/2021	Net Transfers	Contributions	Distributions	Management Fees	Income	Apprec./ Deprec.	Market Value 11/30/2021
Total Fund	1,390,335,588	-	31,169,079	-26,849,000	-554,240	6,499,656	10,834,345	1,411,435,429
Global Equity	779,940,629	-8,400,000	-	-	-158,275	-	8,117,776	779,500,129
SSgA MSCI ACWI IMI Index Fund	779,940,629	-8,400,000	-	-	-158,275	-	8,117,776	779,500,129
Fixed Income	428,086,879	-4,059,000	76,011	-	-95,911	1,969,296	-315,377	425,661,897
PIMCO Total Return	215,989,678	-4,059,000	76,011	-	-76,011	1,969,296	-1,018,600	212,881,374
SSgA Bond Market Index	212,097,201	-	-	-	-19,901	-	703,222	212,780,523
Real Estate	81,594,793	20,644,418	-	-	-300,053	1,281,202	6,929,862	110,150,222
JP Morgan Asset Management Strategic Property Fund	45,356,339	-6	-	-	-215,328	564,915	5,052,952	50,758,872
UBS Trumbull Property Fund	36,238,454	-4,355,575	-	-	-76,266	558,831	1,520,664	33,886,108
Vanguard Real Estate Index (VGSNX)	-	25,000,000	-	-	-8,459	157,456	356,246	25,505,243
MLPs	100,706,225	-3,940,000	-	-	-	3,246,204	-3,896,074	96,116,355
Harvest MLP	51,807,422	-3,940,000	-	-	-	1,661,079	-671,313	48,857,188
Tortoise Capital Advisors	48,898,803	-	-	-	-	1,585,124	-3,224,761	47,259,166
Cash	7,062	-4,245,418	31,093,069	-26,849,000	-	2,955	-1,841	6,826

Employees' Retirement System for the City of Norfolk

Asset LiabilityScorecard Net of Fees*



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

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

As of November 30, 2021, the Plan's current market value of assets (MVA) was $1,411,435,429.

Aas of November 30, 2021, the Plan's market value funded ratio (current MVA/fiscal year end AL) was 98.6%

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

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

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

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

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

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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