



# *Monthly Performance Review* *October 2021*

*Prepared for the New York City  
Fire Department Pension Fund  
12.2021*



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**CITY OF NEW YORK  
NYC Fire Department Pension Fund  
Market Indicator Report  
October 31, 2021**



**MARKET INDICATORS**

	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
S&P 500	7.01	5.13	7.63	42.91	25.22	21.48	18.93	16.21
S&P 400 MID CAP	5.89	3.66	4.02	48.90	21.32	17.07	14.89	13.90
RUSSELL 1000	6.94	4.98	7.16	43.51	26.14	22.01	19.16	16.30
RUSSELL 2000	4.25	3.44	(0.29)	50.80	22.72	16.47	15.52	13.50
RUSSELL 3000	6.76	4.88	6.65	43.90	25.90	21.62	18.91	16.10
RUSSELL 3000 GROWTH	8.41	6.16	9.16	42.81	35.31	28.66	24.96	19.08
RUSSELL 3000 VALUE	4.99	3.50	4.02	44.97	15.49	13.85	12.41	12.79
MSCI EAFE NET	2.46	1.24	2.00	34.18	11.79	11.54	9.79	7.37
MSCI EMF NET	0.99	(0.49)	(7.19)	16.96	12.52	12.30	9.39	4.88
MSCI WORLD NET	5.66	3.80	5.66	40.42	21.06	18.20	15.45	12.19
MSCI EUROPE SMID CAP NET	3.43	(0.97)	2.33	43.09	18.32	15.11	12.89	10.53
MSCI AC WORLD ex US NET	2.39	0.99	(0.67)	29.66	12.37	12.00	9.77	6.66
FTSE ALL WORLD EX US	2.18	1.04	(0.49)	30.58	13.18	12.74	10.36	7.33
MSCI World ex USA IMI NR	2.83	1.56	2.37	35.84	13.04	12.26	10.16	7.49
1 YEAR TREASURY BILL YIELD + 4%	0.29	0.97	1.31	4.16	5.07	5.84	5.51	4.95
HFRI FUND OF FUNDS COMPOSITE + 1%	1.71	3.33	2.75	16.99	11.66	9.22	7.27	5.57
NYC - TREASURY AGENCY PLUS FIVE	0.62	(1.81)	0.52	(4.44)	2.74	7.70	3.35	3.54
FTSE USBIG Treasury 1-3 Y Index	(0.31)	(0.42)	(0.25)	(0.24)	1.46	2.47	1.58	1.11
FTSE USBIG Treasury/Agency 1-10 y	(0.50)	(1.27)	(0.56)	(1.47)	1.84	3.77	1.98	1.76
FTSE Treasury 10+	2.04	(1.28)	2.16	(5.83)	3.53	11.02	4.54	5.01

\*NCREIF NFI - ODCE NET index return calculated on a quarterly basis

**CITY OF NEW YORK  
NYC Fire Department Pension Fund  
Market Indicator Report  
October 31, 2021**



**MARKET INDICATORS**

	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
FTSE MORTGAGE INDEX	(0.24)	(0.74)	(0.20)	(0.69)	1.64	4.11	2.23	2.41
NYC - INVESTMENT GRADE CREDIT	0.16	(1.04)	0.22	2.13	4.49	7.73	4.61	4.49
FTSE BIG (DAILY)	(0.01)	(1.05)	0.01	(0.38)	2.91	5.74	3.16	3.03
NYC - CORE PLUS FIVE	0.12	(1.11)	0.15	(0.27)	3.27	6.58	3.59	3.56
BLOOMBERG U.S. AGGREGATE	(0.03)	(1.08)	0.02	(0.48)	2.80	5.63	3.10	3.00
FTSE BB & B	(0.13)	0.42	0.85	9.45	6.19	7.09	6.04	6.29
FTSE BB & B CAPPED	(0.17)	0.40	0.81	9.00	5.68	6.72	5.78	6.10
ICE BofA US High Yield Index	(0.18)	0.40	0.76	10.74	6.56	7.15	6.25	6.66
ICE BofA US High Yield Constrained	(0.19)	0.40	0.76	10.75	6.52	7.11	6.23	6.65
CSFB LEVERAGED LOAN	0.24	1.38	1.37	8.53	4.96	4.17	4.53	4.80
BLOOMBERG GLOBAL US TIPS	1.13	0.24	2.91	7.07	8.08	8.37	4.66	3.05
ICE BofA US Convertibles - Yield Alter	1.48	1.41	0.93	15.97	11.12	10.23	8.74	6.56
ICE BofA All IG US Convertibles	3.21	2.73	3.67	17.38	8.58	11.76	13.25	12.15
ICE BofA All US Conv Ex Mandatory	3.34	3.80	2.53	34.01	32.59	25.48	19.93	14.81
DJ US SELECT REAL ESTATE	8.18	4.00	9.53	56.10	8.10	12.15	8.61	9.86
NCREIF NFI - ODCE NET*	0.00	6.41	6.41	13.64	6.88	6.13	6.56	8.92
NCREIF NFI-ODCE NET + 100	0.08	6.67	6.76	14.77	7.94	7.19	7.62	10.00

\*NCREIF NFI - ODCE NET index return calculated on a quarterly basis

CITY OF NEW YORK  
NYC Fire Department Pension Fund  
Market Indicator Report  
October 31, 2021



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**MARKET INDICATORS**

	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
CPI + 4%	1.27	2.64	3.46	10.49	7.87	7.19	6.86	
91 DAY TREASURY BILL	(0.00)	0.01	0.01	0.06	0.48	1.12	1.15	0.63

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\*NCREIF NFI - ODCE NET index return calculated on a quarterly basis

**MARKET INDICATORS**

	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
S&P 500	(0.69)	1.32	6.88	27.92	22.58	20.38	17.90	16.16
S&P 400 MID CAP	(2.94)	(1.30)	0.97	26.47	17.79	14.73	12.46	13.60
RUSSELL 1000	(1.34)	0.66	5.72	26.67	22.99	20.65	17.93	16.18
RUSSELL 2000	(4.17)	(3.04)	(4.45)	22.03	17.73	14.22	12.14	13.06
RUSSELL 3000	(1.52)	0.42	5.03	26.34	22.63	20.20	17.51	15.95
RUSSELL 3000 GROWTH	0.27	2.73	9.45	29.39	32.52	28.31	24.37	19.11
RUSSELL 3000 VALUE	(3.52)	(2.13)	0.36	22.92	11.75	11.44	10.25	12.44
MSCI EAFE NET	(4.65)	(5.14)	(2.74)	10.77	8.55	9.83	9.19	7.39
MSCI EMF NET	(4.08)	(6.98)	(10.97)	2.70	10.28	9.27	9.52	5.16
MSCI WORLD NET	(2.19)	(0.94)	3.34	21.78	18.09	16.89	14.61	12.22
MSCI EUROPE SMID CAP NET	(5.22)	(7.90)	(3.01)	15.59	13.58	14.26	12.12	10.59
MSCI AC WORLD ex US NET	(4.50)	(5.35)	(5.14)	9.14	9.33	9.95	9.28	6.73
FTSE ALL WORLD EX US	(4.45)	(5.33)	(4.92)	9.93	10.12	10.69	9.88	7.41
MSCI World ex USA IMI NR	(4.82)	(5.02)	(2.57)	12.31	9.52	10.51	9.46	7.47
1 YEAR TREASURY BILL YIELD + 4%	0.28	0.92	1.60	4.08	5.03	5.74	5.50	4.94
HFRI FUND OF FUNDS COMPOSITE + 1%	(1.52)	0.32	1.09	10.67	10.20	8.76	6.85	5.49
NYC - TREASURY AGENCY PLUS FIVE	1.69	0.10	2.22	(3.53)	3.88	7.80	4.76	3.56
FTSE USBIG Treasury 1-3 Y Index	0.00	(0.41)	(0.25)	(0.27)	1.47	2.36	1.65	1.10
FTSE USBIG Treasury/Agency 1-10 y	0.27	(0.88)	(0.30)	(1.33)	2.10	3.63	2.37	1.75
FTSE Treasury 10+	2.81	1.73	5.03	(4.36)	5.25	11.37	6.77	5.03

**MARKET INDICATORS**

	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
FTSE MORTGAGE INDEX	(0.07)	(0.66)	(0.27)	(0.82)	1.55	3.76	2.57	2.38
NYC - INVESTMENT GRADE CREDIT	(0.03)	(0.89)	0.19	(0.47)	4.37	7.76	5.19	4.67
FTSE BIG (DAILY)	0.29	(0.61)	0.30	(1.14)	3.08	5.64	3.72	3.07
NYC - CORE PLUS FIVE	0.35	(0.58)	0.50	(1.22)	3.46	6.50	4.27	3.62
BLOOMBERG U.S. AGGREGATE	0.30	(0.60)	0.32	(1.15)	2.98	5.52	3.65	3.04
FTSE BB & B	(1.02)	(1.15)	(0.17)	4.60	5.34	6.94	5.88	6.38
FTSE BB & B CAPPED	(1.03)	(1.17)	(0.23)	4.34	4.83	6.58	5.63	6.18
ICE BofA US High Yield Index	(1.02)	(1.17)	(0.27)	5.39	5.87	7.10	6.12	6.79
ICE BofA US High Yield Constrained	(1.04)	(1.18)	(0.29)	5.38	5.82	7.07	6.09	6.78
CSFB LEVERAGED LOAN	(0.15)	0.73	1.22	6.10	4.59	4.40	4.43	4.82
BLOOMBERG GLOBAL US TIPS	0.89	1.31	3.83	6.83	8.48	8.52	5.25	3.06
ICE BofA US Convertibles - Yield Alter	(3.05)	(2.09)	(2.14)	6.24	8.67	9.25	7.95	6.42
ICE BofA All IG US Convertibles	(1.97)	(0.05)	1.63	10.03	7.91	10.02	12.15	12.09
ICE BofA All US Conv Ex Mandatory	(3.90)	(2.06)	(1.47)	13.31	27.90	23.37	18.30	14.57
DJ US SELECT REAL ESTATE	(0.60)	1.59	8.87	38.19	8.51	10.18	8.77	10.25
NCREIF NFI - ODCE NET*	0.00	6.41	6.41	13.64	6.88	6.13	6.56	8.92
NCREIF NFI-ODCE NET + 100	0.08	6.67	6.85	14.77	7.94	7.19	7.62	10.00

\*NCREIF NFI - ODCE NET index return calculated on a quarterly basis

CITY OF NEW YORK  
NYC Fire Department Pension Fund  
Market Indicator Report  
November 30, 2021



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**MARKET INDICATORS**

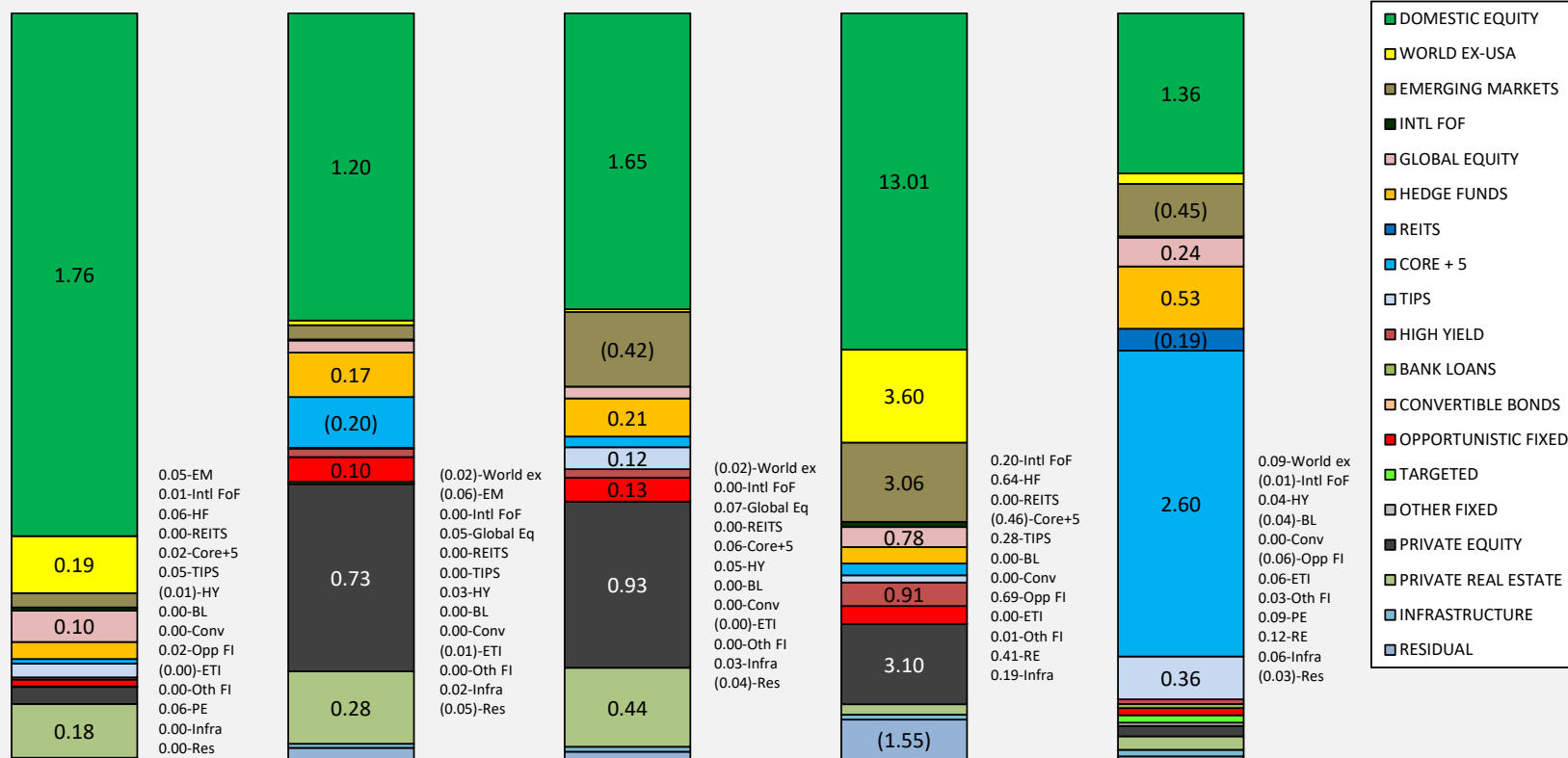
	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
CPI + 4%	1.11	3.16	4.61	11.16	8.16	7.48	6.99	6.15
91 DAY TREASURY BILL	0.01	0.01	0.02	0.05	0.43	1.05	1.15	0.63

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\*NCREIF NFI - ODCE NET index return calculated on a quarterly basis



### NYC Fire Dept. Pension Fund Contribution to Return - October 2021



**1 Month - Total Fund**  
Return: 2.50%

**3 Months - Total Fund**  
Return: 2.26%

**FYTD - Total Fund**  
Return: 3.22%

**FY Ending 6/30/21 Total**  
Return: 24.86%

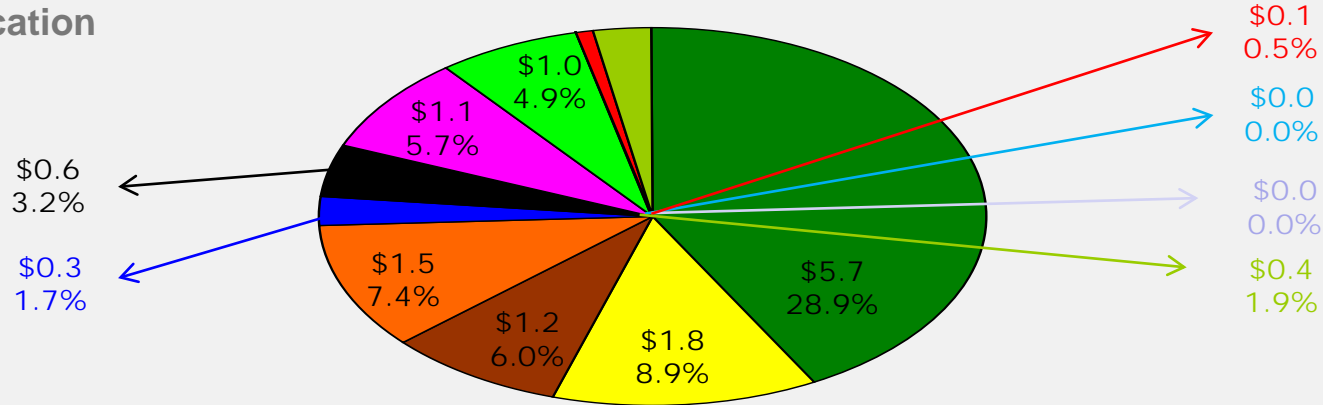
**FY Ending 6/30/20 Total**  
Return: 4.81%

Prepared by State Street

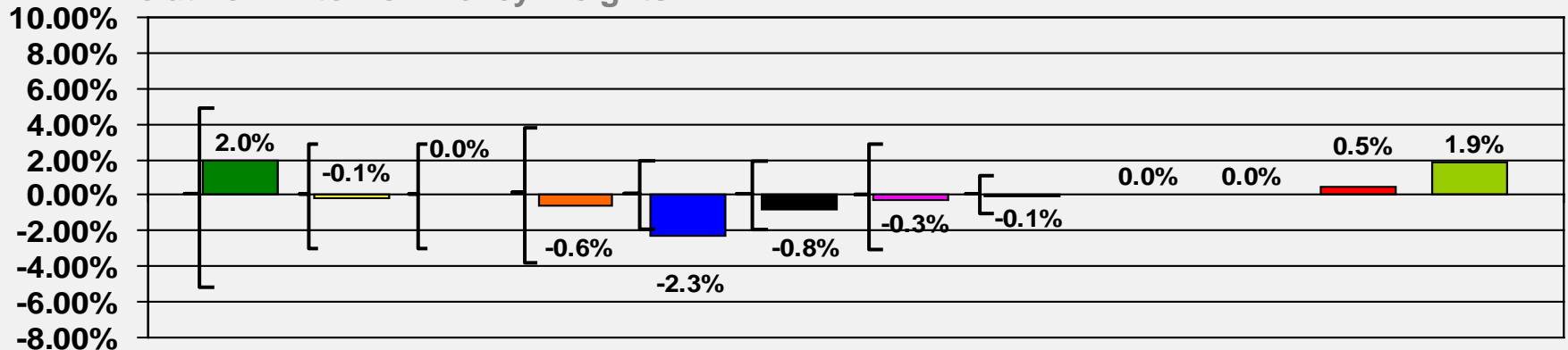
# Portfolio Asset Allocation – Growth : October 31, 2021

**\$19.7B** Under Management

## Asset Allocation



## Relative Mix to New Policy Weights

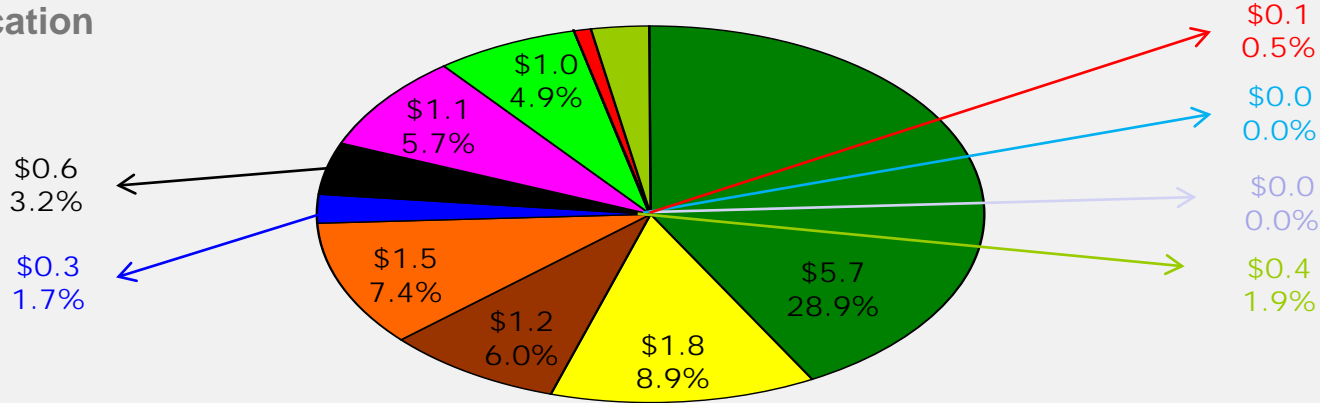


Note: Brackets represent rebalancing ranges versus Policy.

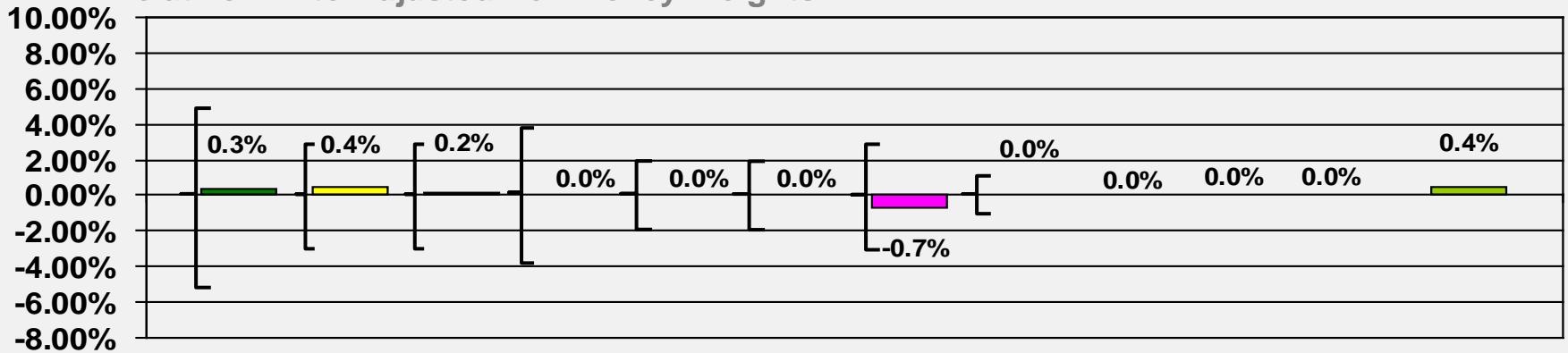
# Portfolio Asset Allocation – Growth : October 31, 2021

**\$19.7B** Under Management

## Asset Allocation



## Relative Mix to Adjusted New Policy Weights

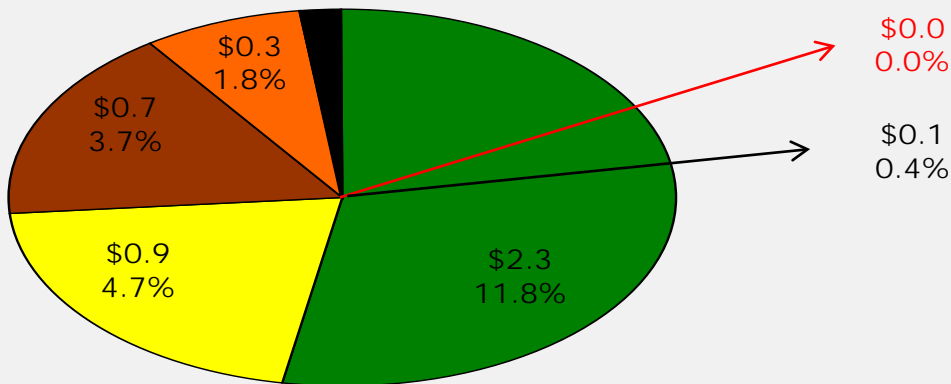


Note: Brackets represent rebalancing ranges versus Policy.

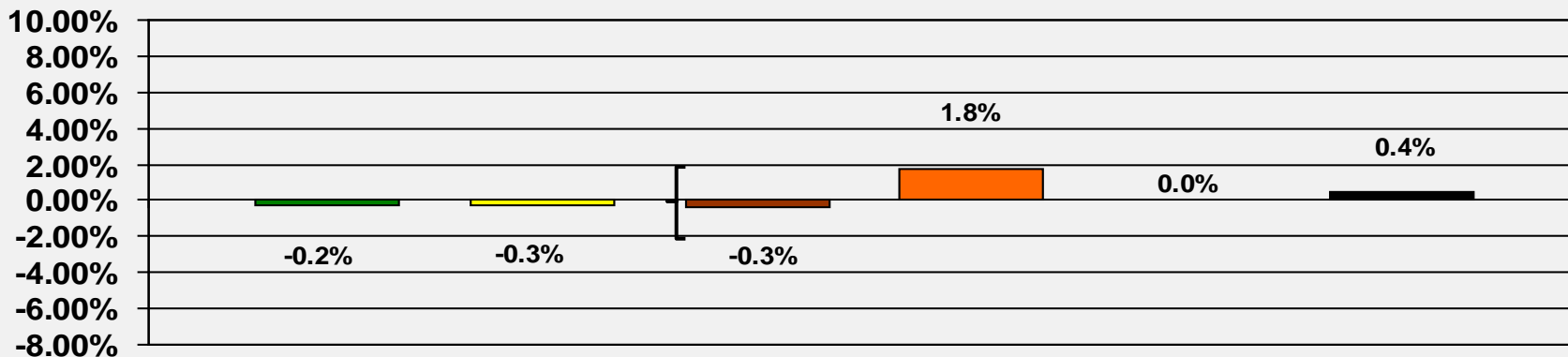
## Portfolio Asset Allocation – Deflation Protection : October 31, 2021

**\$19.7B** Under Management

### Asset Allocation



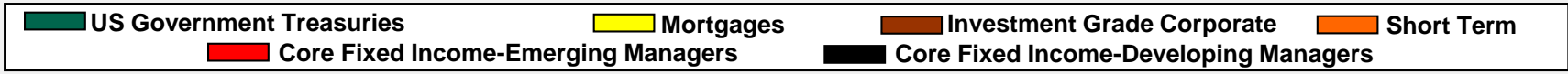
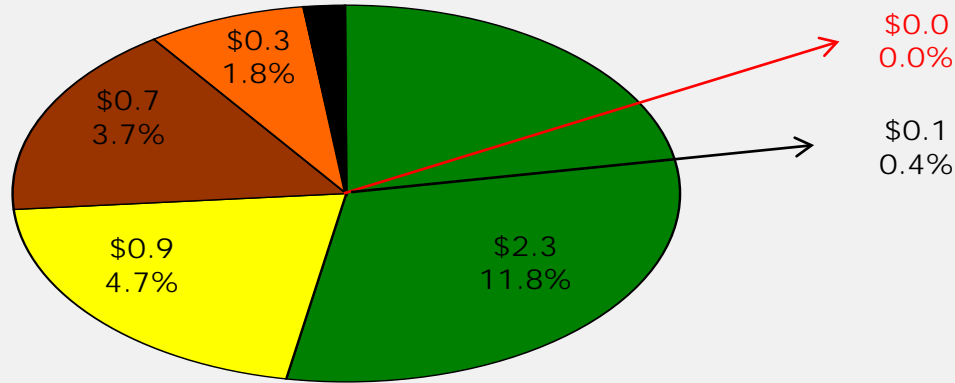
### Relative Mix to New Policy Weights



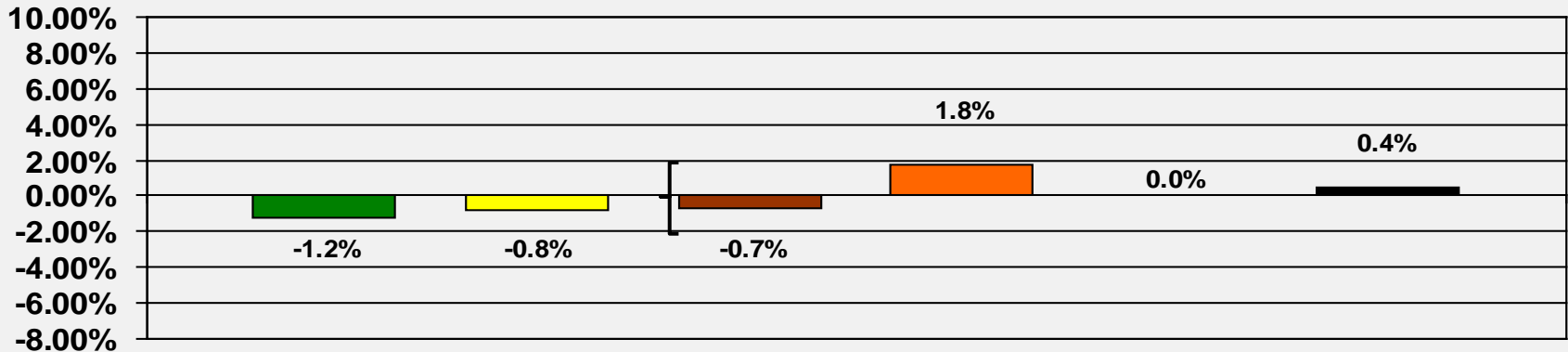
# Portfolio Asset Allocation – Deflation Protection : October 31, 2021

**\$19.7B** Under Management

## Asset Allocation



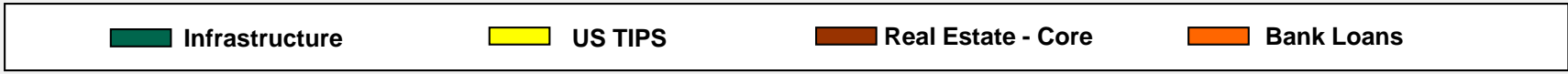
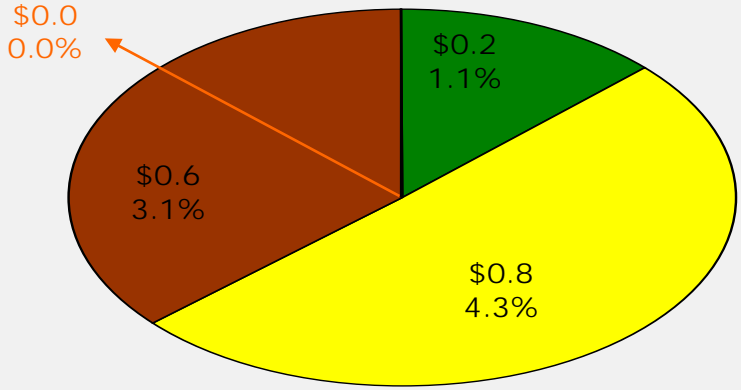
## Relative Mix to Adjusted Policy Weights



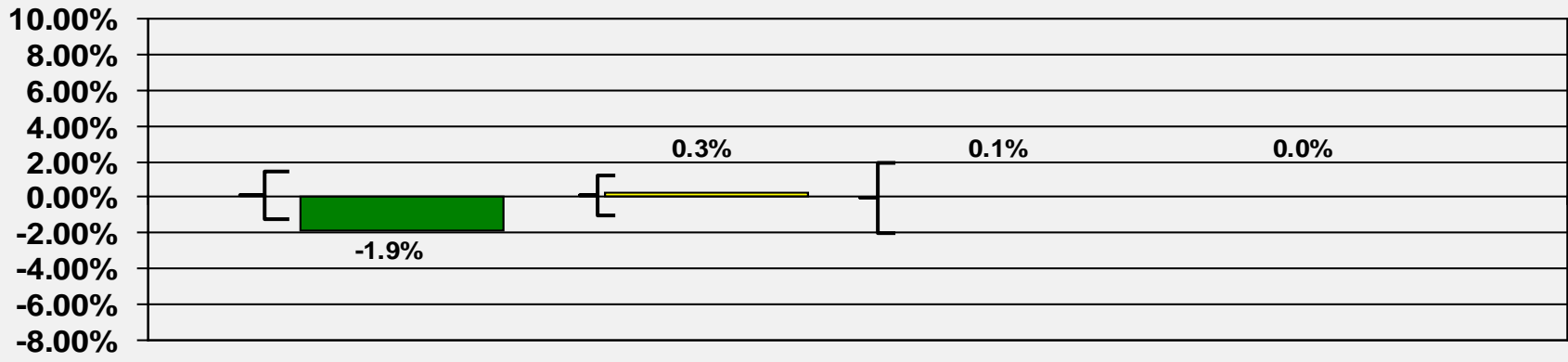
# Portfolio Asset Allocation – Inflation Protection : October 31, 2021

**\$19.7B** Under Management

## Asset Allocation



## Relative Mix to New Policy Weights

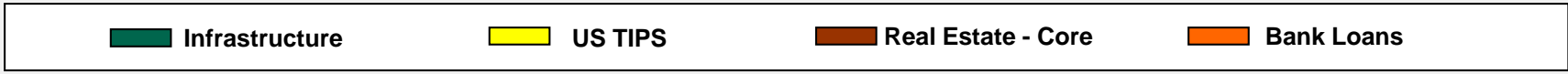
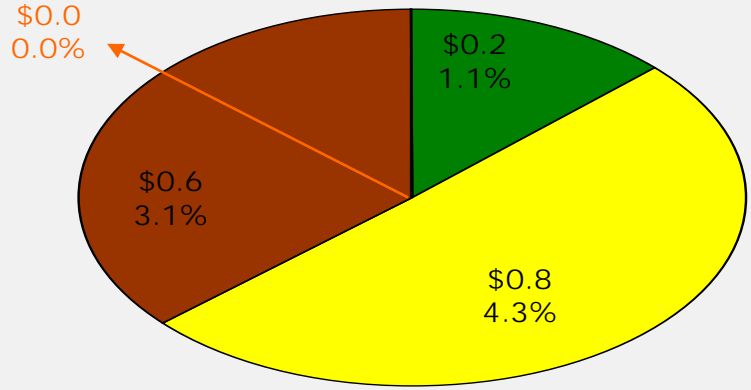


Note: Brackets represent rebalancing ranges versus Policy.

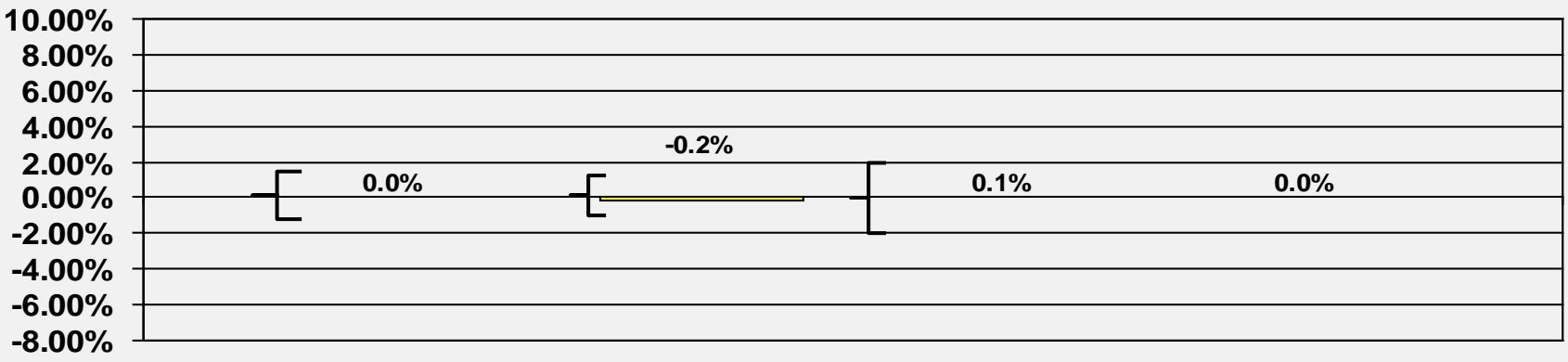
# Portfolio Asset Allocation – Inflation Protection : October 31, 2021

**\$19.7B** Under Management

## Asset Allocation



## Relative Mix to Adjusted Policy Weights



Note: Brackets represent rebalancing ranges versus Policy.

Note: On October 29, 2021 Fire's combined Fixed Income and Cash portfolios have a duration of 5.8 years. The duration of the Barclays US Aggregate Index was 6.7 years on that date.

**NYC FIRE DEPARTMENT PENSION FUND**  
**CLASSIFICATION OF INVESTMENTS**  
**(as of October 31st, 2021)**

<b>ASSET CLASS ALLOCATIONS</b>	<b>In \$MM</b>	<b>Actual</b>	<b>Policy Target</b>	<b>Adjustment</b>	<b>Adjusted Policy</b>	<b>Adjusted Target Range ***</b>
<b>TOTAL EQUITIES</b>	\$12,725.6	64.5%	65.0%	NA	62.6%	56.6% - 68.6%
<b>TOTAL FIXED INCOME</b>	\$7,007.5	35.5%	35.0%	NA	36.9%	31.9% - 41.9%
<b>TOTAL ASSETS</b>	\$19,733.2	100.0%	100.0%	NA	99.4%	
	<b>In \$MM</b>	<b>Actual</b>	<b>Policy Target</b>	<b>Adjustment</b>	<b>Adjusted Policy</b>	<b>Adjusted Target Range ***</b>
<b>US Equities</b>	\$5,712.6	28.9%	27.0%	1.9%	28.9%	23.9% - 33.9%
<b>Non-US Equities/EAFE</b>	\$1,753.2	8.9%	9.0%	0.4%	9.4%	6.4% - 12.4%
<b>Emerging Markets</b>	\$1,189.4	6.0%	6.0%	0.1%	6.1%	3.1% - 9.1%
<b>Non-US Emerging Mgrs. FoF</b>	\$100.6	0.5%	0.0%	NA	0.0%	-
<b>Global Equity</b>	\$374.1	1.9%	0.0%	NA	0.0%	-
<b>Real Estate Investment Trusts</b>	\$0.0	0.0%	0.0%	NA	0.0%	0.0% - 0.0%
<b>TOTAL PUBLIC EQUITY</b>	\$9,129.9	46.3%	42.0%	2.4%	44.4%	
<b>* HEDGE FUNDS</b>	\$966.6	4.9%	5.0%	NA	4.9%	1.9% - 7.9%
<b>* REAL ESTATE - CORE</b>	\$612.4	3.1%	3.0%	NA	3.1%	1.1% - 5.1%
<b>* REAL ESTATE - OPPORTUNISTIC</b>	\$329.8	1.7%	4.0%	NA	1.7%	-0.3% - 3.7%
<b>* PRIVATE EQUITY</b>	\$1,469.9	7.4%	8.0%	NA	7.4%	4.4% - 10.4%
<b>PRIVATE INFRASTRUCTURE</b>	\$216.9	1.1%	3.0%	NA	1.1%	0.1% - 2.1%
<b>TOTAL EQUITIES</b>	\$12,725.6	64.5%	65.0%	NA	62.6%	56.6% - 68.6%
	<b>In \$MM</b>	<b>Actual</b>	<b>Policy Target</b>	<b>Adjustment</b>	<b>Adjusted Policy</b>	<b>Adjusted Target Range ***</b>
<b>U.S. Treasuries - Short</b>	\$772.0	3.9%	4.0%			
<b>U.S. Treasuries - Intermediate</b>	\$898.1	4.6%	4.8%			
<b>U.S. Treasuries - Long Intermediate</b>	\$35.7	0.2%	0.0%			
<b>U.S. Treasuries - All Maturities</b>	\$1,705.9	8.6%	8.8%	NA	8.8%	4.8% - 12.8%
<b>U.S. Treasuries - Long</b>	\$618.7	3.1%	3.3%	0.4%	3.6%	-0.4% - 7.6%
<b>Core Mortgage-Backed Securities</b>	\$802.2	4.1%	3.0%	0.7%	3.7%	2.7% - 4.7%
<b>Investment Grade Corporates</b>	\$722.6	3.7%	4.0%	0.7%	4.7%	3.7% - 5.7%
<b>High Yield</b>	\$1,130.1	5.7%	6.0%	0.4%	6.4%	3.4% - 9.4%
<b>Bank Loans</b>	\$1.7	0.0%	0.0%	NA	0.0%	-1.0% - 1.0%
<b>Total High Yield &amp; Bank Loans</b>	\$1,131.8	5.7%	6.0%	0.4%	6.4%	3.4% - 9.4%
<b>TIPS</b>	\$842.5	4.3%	4.0%	0.5%	4.5%	3.5% - 5.5%
<b>Convertible Bonds</b>	\$0.0	0.0%	0.0%	NA	0.0%	0.0% - 0.0%
<b>**ETI</b>	\$121.0	0.6%	2.0%	NA	2.0%	1.0% - 3.0%
<b>Cash</b>	\$347.3	1.8%	0.0%	NA	0.0%	0.0% - 5.0%
<b>TOTAL PUBLIC FIXED INCOME</b>	\$6,292.0	31.9%	31.0%	NA	33.7%	
<b>* OPPORTUNISTIC FIXED INCOME</b>	\$628.9	3.2%	4.0%	NA	3.2%	1.2% - 5.2%
<b>OTHER FIXED INCOME</b>	\$86.7	0.4%	0.0%	NA	0.0%	0.0% - 0.0%
<b>TOTAL FIXED INCOME</b>	\$7,007.5	35.5%	35.0%	NA	36.9%	31.9% - 41.9%

\* Ranges for illiquid asset classes represent minimums and maximums which will be monitored and will influence pacing analysis but will not necessarily result in purchases or sales.

\*\* ETIs have a policy of 2% of the total Fund. The ETI adjusted policy % is shown for illustrative purposes only and is not included in the sub-totals. The ETI policy % is included within the policy % of the other asset classes.

\*\*\* Adjusted Target Ranges are calculated as follows: Total Equities: +/-6%; Total Fixed Income: +/-5%; US Equities: +/-5%; Non-US Equities/EAFE: +/-3%; Emerging Markets: +/-3%; Hedge Funds: +/-3%; Real Estate Core: +/-2%; Real Estate Opportunistic: +/-2%; Private Equity: +/-3%; US Treasuries All Maturities: +/-4%; US Treasuries Longer than 20 Years: +/-4%; Mortgage Backed Securities: +/-1%; Investment Grade Corporates: +/-1%; TIPS: +/-1%; High Yield: +/-3%; Bank Loans: +/-1%; OFI: +/-2%.

"The 2020 Policy Targets are reflected in this report. However the recently approved parking places and ranges have not yet been integrated in this report."



# NYC FIRE DEPARTMENT PENSION FUND

## CLASSIFICATION OF INVESTMENTS

### (as of October 31st, 2021)

#### Adjustments to Long-Term Asset Allocation

##### 1) Private Equity

100% of uninvested commitments will be invested in Domestic Equity.

##### 2) Real Estate Core

40% of uninvested commitments will be invested in US Equity, 12% of uninvested commitments will be invested in US Treasuries, 24% of uninvested commitments will be invested in Investment Grade Corporates, and 24% of uninvested commitments will be invested in Mortgage Backed Securities.

##### 3) Real Estate Opportunistic

60% of uninvested commitments will be invested in US Equity, 8% of uninvested commitments will be invested in US Treasuries, 16% of uninvested commitments will be invested in Investment Grade Corporates, and 16% of uninvested commitments will be invested in Mortgage Backed Securities.

##### 4) Infrastructure

27% of uninvested commitments will be invested in US Equity, 18% of uninvested commitments will be invested in Developed Ex-US Equity, 5% of uninvested commitments will be invested in Emerging Markets Equity, 5% of uninvested commitments will be invested in US Treasuries, 10% of uninvested commitments will be invested in Investment Grade Corporates, 10% of uninvested commitments will be invested in Mortgage Backed Securities, and 25% of uninvested commitments will be invested in TIPS.

##### 5) Opportunistic Fixed Income

10% of uninvested commitments will be invested in US Treasuries, 20% of uninvested commitments will be invested in Investment Grade Corporates, 20% of uninvested commitments will be invested in Mortgages Backed Securities, and 50% of uninvested commitments will be invested in High Yield.

##### 6) Hedge Funds

27% of uninvested commitments will be invested in US Equity, 18% of uninvested commitments will be invested in Developed Ex-US Equity, 5% of uninvested commitments will be invested in Emerging Markets Equity, 10% of uninvested commitments will be invested in US Treasuries, 20% of uninvested commitments will be invested in Investment Grade Corporates, and 20% of uninvested commitments will be invested in Mortgage Backed Securities.

#### Impact of Adjustments

##### 1) U.S. Treasuries - Long

Adjustment: 12% of uninvested Real Estate Core	3.3%
Adjustment: 8% of uninvested Real Estate Opportunistic	0.0%
Adjustment: 5% of uninvested Private Infrastructure	0.2%
Adjustment: 10% of uninvested Hedge Funds	0.1%
Adjustment: 10% of uninvested Opportunistic Fixed Income	0.0%
<b>Total U.S. Treasuries - Long</b>	<b>3.6%</b>

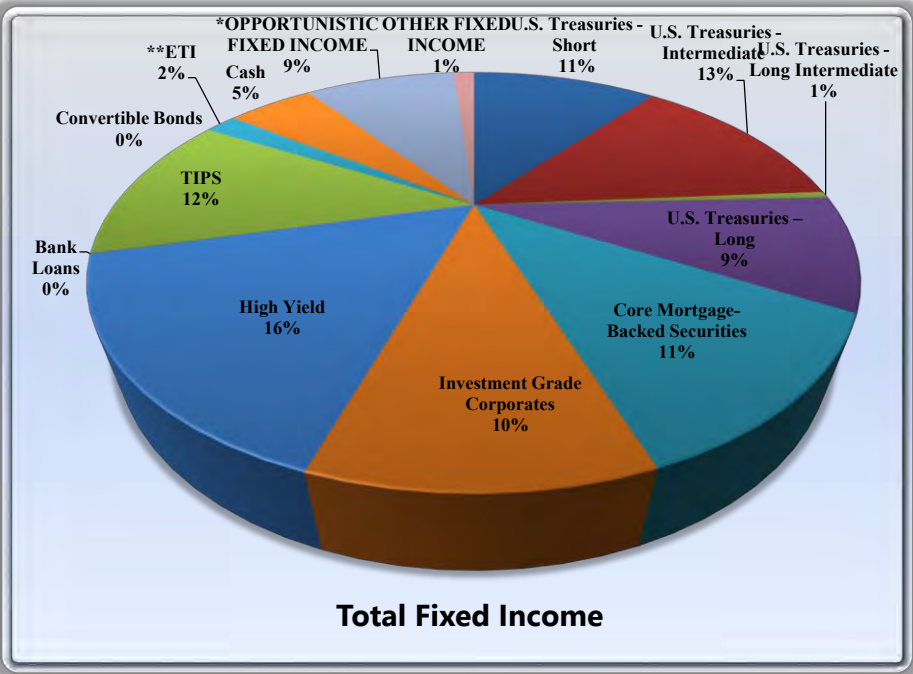
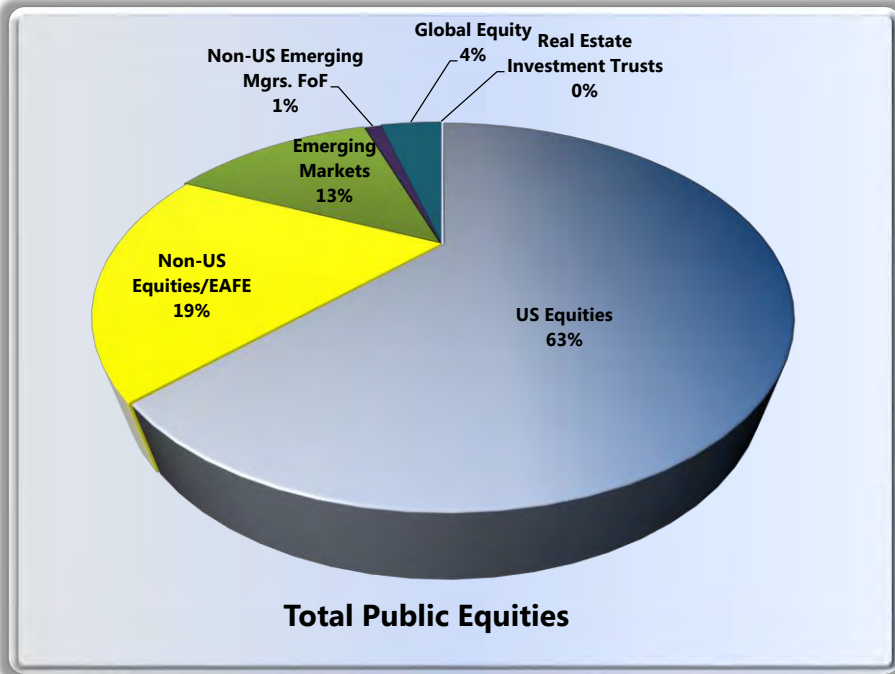
##### 2) Investment Grade Corporates

Adjustment: 24% of uninvested Real Estate Core	4.0%
Adjustment: 16% of uninvested Real Estate Opportunistic	0.0%
Adjustment: 10% of uninvested Private Infrastructure	0.4%
Adjustment: 20% of uninvested Hedge Funds	0.2%
Adjustment: 20% of uninvested Opportunistic Fixed Income	0.0%
<b>Total - Investment Grade Corporates</b>	<b>4.7%</b>

**NYC FIRE DEPARTMENT PENSION FUND**  
**CLASSIFICATION OF INVESTMENTS**  
**(as of October 31st, 2021)**

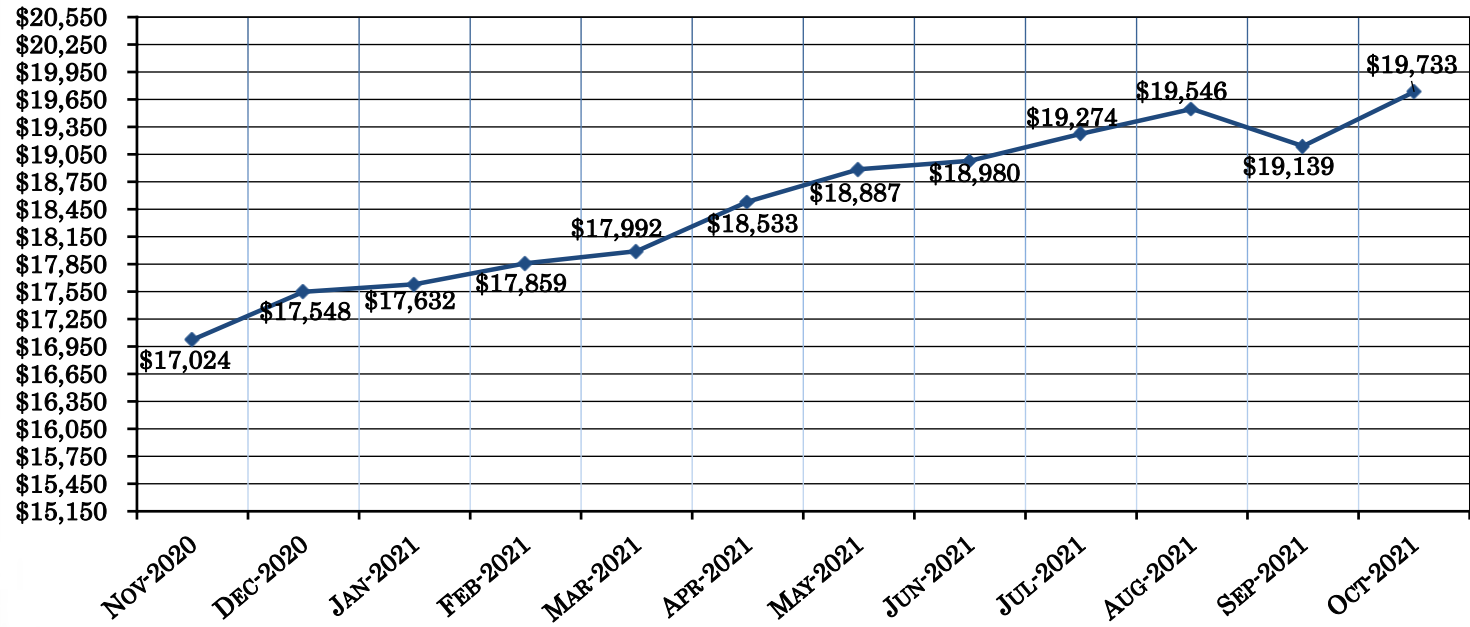
<b>3) Core Mortgage-Backed Securities</b>	<b>3.0%</b>
Adjustment: 24% of uninvested Real Estate Core	0.0%
Adjustment: 16% of uninvested Real Estate Opportunistic	0.4%
Adjustment: 10% of uninvested Private Infrastructure	0.2%
Adjustment: 20% of uninvested Hedge Funds	0.0%
Adjustment: 20% of uninvested Opportunistic Fixed Income	0.2%
<b>Total Core Mortgage-Backed Securities</b>	<b>3.7%</b>
<b>4) High Yield Securities</b>	<b>6.0%</b>
Adjustment: 50% of uninvested Opportunistic Fixed Income	0.4%
** Existing Convertibles holdings to be placeholder for HY Securities	
<b>Total High Yield Securities</b>	<b>6.4%</b>
<b>5) Domestic Equity</b>	<b>27.0%</b>
Adjustment: 100% of uninvested Private Equity	0.0%
Adjustment: 40% of uninvested of uninvested Real Estate Core	0.0%
Adjustment: 60% of uninvested Real Estate Opportunistic	1.4%
Adjustment: 27% of uninvested Private Infrastructure	0.5%
Adjustment: 27% of uninvested Hedge Funds	0.0%
<b>Total Domestic Equity</b>	<b>28.9%</b>
<b>6) Treasury Inflation Protected Securities</b>	<b>4.0%</b>
Adjustment: 25% of uninvested Private Infrastructure	0.5%
<b>Total Treasury Inflation Protected Securities</b>	<b>4.5%</b>
<b>7) Non-U.S. Equity - Emerging Markets</b>	<b>6.0%</b>
Adjustment: 5% of uninvested Private Infrastructure	0.1%
Adjustment: 5% of uninvested Hedge Funds	0.0%
<b>Total Non-U.S. Equity - Emerging Markets</b>	<b>6.1%</b>
<b>8) Non-U.S. Equity - Developed Mkts.</b>	<b>9.0%</b>
Adjustment: 18% of uninvested Private Infrastructure	0.3%
Adjustment: 18% of uninvested Hedge Funds	0.0%
<b>Total Non-U.S. Equity</b>	<b>9.4%</b>

**NYC FIRE DEPARTMENT PENSION FUND  
CLASSIFICATION OF INVESTMENTS  
(as of October 31st, 2021)**

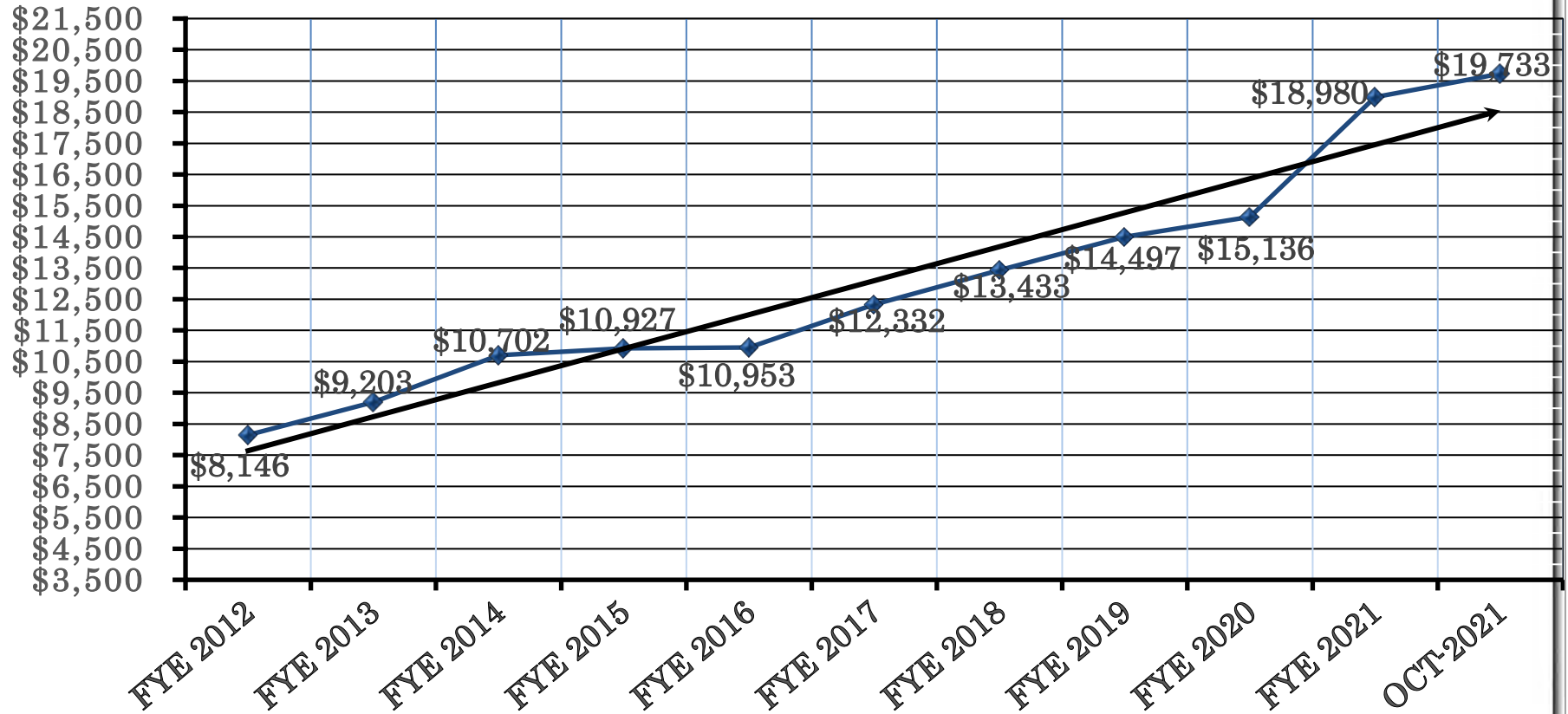


Note: Totals may not equal 100% due to rounding

### FIRE - MARKET VALUES NOVEMBER 2020 - OCTOBER 2021



## FIRE - MARKET VALUES 2012-2021



**THE 10 YEAR RETURN FOR FIRE AS OF OCTOBER 31, 2021 IS 10.14%.**

# New York City Fire Department Pension Fund

## Manager / Benchmark Comparison Report

Rates of Return - Net Mgr



### Periods Ending October 31, 2021

	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	FYTD	CYTD	FYE 06/30/21	FYE 06/30/20	CYE 12/31/19	CYE 12/31/18	Trailing 1 Year	Trailing 3 Year	Inception Date
<b>ASSET CLASS SUMMARY</b>													
FIRE-TOTAL DOMESTIC EQUITY	5,712.64	28.95	6.19	4.11	5.68	21.48	43.62	4.57	29.96	(5.53)	42.61	20.20	Aug-01-79
FIRE-TOTAL WORLD ex-USA	1,753.21	8.88	2.15	(0.20)	(0.18)	8.41	40.58	1.09	24.96	(14.41)	33.50	15.83	Apr-01-04
FIRE-TOTAL EMERGING MARKETS	1,189.41	6.03	0.78	(0.89)	(6.55)	1.48	46.05	(7.85)	17.60	(14.63)	21.81	11.98	Sep-01-96
FIRE-TOTAL INTL FOF	100.56	0.51	2.10	0.86	0.16	10.01	40.05	(2.43)	22.15	(14.65)	32.70	14.92	May-01-17
FIRE-TOTAL GLOBAL EQUITY	374.09	1.90	5.68	2.49	3.51	13.08	42.43	15.96	35.92		30.68	27.24	Jun-01-18
FIRE-TOTAL HEDGE FUNDS	966.62	4.90	1.14	3.48	4.30	7.80	11.54	9.00	5.02	2.24	14.74	9.69	Jul-01-11
FIRE-TOTAL REAL ESTATE SECURITIES	0.00	0.00						(14.79)	23.83	(6.48)			Jan-01-03
FIRE-TOTAL STRUCTURED	3,849.42	19.51	0.08	(0.96)	0.30	(2.64)	(2.64)	15.69	11.13	(0.89)	(1.89)	7.91	Jan-01-85
FIRE-TOTAL CONVERTIBLE BONDS													
FIRE-TOTAL TIPS MANAGERS	842.48	4.27	1.07	0.07	2.83	4.57	6.43	8.32	8.44	(1.27)	6.89	8.32	Jun-01-05
FIRE-TOTAL HIGH YIELD	1,130.06	5.73	(0.13)	0.57	0.79	4.90	15.63	0.68	14.81	(3.24)	10.90	7.79	Dec-01-94
FIRE-TOTAL BANK LOANS	1.70	0.01						(2.50)	7.34	0.81			Dec-01-12
FIRE-TOTAL OPPORTUNISTIC FIXED	628.87	3.19	0.70	3.01	4.26	15.50	21.86	(1.88)	5.66	6.38	19.37	8.38	Nov-01-07
FIRE-TOTAL CORE FI- EMERGING MGRS													
FIRE-TOTAL CORE FI- DEVELOPING MGRS	86.69	0.44	(0.18)	(1.22)	(0.13)	(1.19)	1.70	8.03	9.85	(1.21)	0.68	5.97	May-01-09
TOTAL FIRE ETI (w/o cash)	120.99	0.61	(0.22)	(1.22)	0.00	(0.94)	0.48	7.91	8.81	0.65	(0.34)	5.78	Dec-01-84
FIRE-TOTAL PRIVATE EQUITY	1,469.88	7.45	0.75	9.94	12.85	37.47	49.13	1.35	11.76	17.98	49.71	22.49	Apr-01-04
FIRE-TOTAL PRIVATE REAL ESTATE	942.27	4.78	3.85	6.33	10.06	18.31	9.28	2.54	6.88	10.43	19.66	8.70	Apr-01-04
FIRE-TOTAL INFRASTRUCTURE	216.95	1.10	0.44	1.51	2.56	11.10	18.40	5.69	12.18	8.59	15.60	11.49	Dec-01-13
FIRE-TOTAL CASH	347.29	1.76	0.09	0.19	0.21	0.45	0.41	2.32	2.76	2.05	0.52	1.59	Apr-01-04
SECURITY LENDING	0.04	0.00											Apr-01-04
FIRE-TOTAL FIRE	19,733.17	100.00	2.50	2.26	3.22	11.43	24.86	4.81	17.67	(2.47)	22.97	13.67	Jul-01-87
FIRE-TOTAL EQUITY	9,129.91	46.27	4.61	2.50	2.66	15.58	43.26	2.68	27.41	(8.79)	37.19	18.47	Apr-01-04
FIRE-TOTAL HEDGE FUNDS	966.62	4.90	1.14	3.48	4.30	7.80	11.54	9.00	5.02	2.24	14.74	9.69	Jul-01-11
FIRE-TOTAL FIXED INCOME (MINUS SS)	6,660.21	33.75	0.22	(0.22)	1.18	1.33	4.11	8.79	10.64	(0.63)	3.56	7.48	Apr-01-04
FIRE-TOTAL PRIVATE EQUITY	1,469.88	7.45	0.75	9.94	12.85	37.47	49.13	1.35	11.76	17.98	49.71	22.49	Apr-01-04
FIRE-TOTAL REAL ESTATE SECURITIES	0.00	0.00						(14.79)	23.83	(6.48)			Jan-01-03
FIRE-TOTAL PRIVATE REAL ESTATE	942.27	4.78	3.85	6.33	10.06	18.31	9.28	2.54	6.88	10.43	19.66	8.70	Apr-01-04
FIRE-TOTAL INFRASTRUCTURE	216.95	1.10	0.44	1.51	2.56	11.10	18.40	5.69	12.18	8.59	15.60	11.49	Dec-01-13
FIRE-TOTAL CASH	347.29	1.76	0.09	0.19	0.21	0.45	0.41	2.32	2.76	2.05	0.52	1.59	Apr-01-04
SECURITY LENDING	0.04	0.00											Apr-01-04
FIRE-TOTAL FIRE	19,733.17	100.00	2.50	2.26	3.22	11.43	24.86	4.81	17.67	(2.47)	22.97	13.67	Jul-01-87
Fire Policy Benchmark			2.63	2.35	3.40	11.44	24.81	4.73	19.05	(2.67)	22.24	13.88	Jul-01-94

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# New York City Fire Department Pension Fund

Manager / Benchmark Comparison Report

Rates of Return - Net Mgr

Periods Ending October 31, 2021



	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	Trailing 1 Year	FYTD	CYTD	FYE 6/30/21	FYE 6/30/20	CYE 12/31/19	CYE 12/31/18	Inception Date
<b>ASSET CLASS SUMMARY</b>												
FIRE-TOTAL FIRE	19,733	100.00	2.50	2.26	22.97	3.22	11.43	24.86	4.81	17.67	(2.47)	07/01/1987
Fire Policy Benchmark			2.63	2.35	22.24	3.40	11.44	24.81	4.73	19.05	(2.67)	07/01/1987
Excess			(0.14)	(0.09)	0.73	(0.18)	(0.02)	0.06	0.07	(1.38)	0.20	
FIRE-TOTAL EQUITY (INCL ALTS + REITS)	12,726	64.49	3.75	3.62	34.89	4.34	17.16	37.70	2.69	21.79	(3.82)	04/01/2004
FIRE-TOTAL FIXED INCOME	7,007	35.51	0.21	(0.22)	3.24	1.16	1.27	3.73	8.52	10.38	(0.50)	02/01/1980
<b>EQUITY SUMMARY</b>												
FIRE-TOTAL DOMESTIC EQUITY	5,713	28.95	6.19	4.11	42.61	5.68	21.48	43.62	4.57	29.96	(5.53)	08/01/1979
RUSSELL 3000 (DAILY)			6.76	4.88	43.90	6.65	22.77	44.16	6.53	31.02	(5.24)	08/01/1979
Excess			(0.57)	(0.77)	(1.29)	(0.98)	(1.29)	(0.55)	(1.96)	(1.06)	(0.29)	
BlackRock US SCG R2000	0	0.00	4.86	2.68	38.83	(1.03)	8.17	51.45	3.50	28.39	(9.14)	10/01/2013
RUSSELL 2000 GROWTH DAILY			4.68	2.50	38.45	(1.23)	7.64	51.36	3.48	28.48	(9.31)	10/01/2013
Excess			0.18	0.18	0.38	0.20	0.53	0.09	0.02	(0.09)	0.17	
BlackRock US SCV R2000	0	0.00	3.89	4.51	64.29	0.79	27.57	73.34	(17.26)	22.60	(12.79)	10/01/2013
RUSSELL 2000 VALUE DAILY			3.81	4.46	64.30	0.72	27.60	73.28	(17.48)	22.39	(12.86)	10/01/2013
Excess			0.08	0.05	0.00	0.08	(0.03)	0.06	0.22	0.20	0.08	
Brown Asset Mgmt US SCG	84	0.43	6.49	2.58	21.51	4.55	1.03	21.73	16.55	29.45	1.06	05/01/2009
RUSSELL 2000 GROWTH DAILY			4.68	2.50	38.45	(1.23)	7.64	51.36	3.48	28.48	(9.31)	05/01/2009
Excess			1.81	0.09	(16.94)	5.79	(6.60)	(29.63)	13.07	0.97	10.37	
Cooke and Bieler-US SCV	67	0.34	2.74	(0.93)	46.85	(1.25)	15.92	53.24				01/01/2020
RUSSELL 2000 VALUE DAILY			3.81	4.46	64.30	0.72	27.60	73.28				01/01/2020
Excess			(1.07)	(5.38)	(17.44)	(1.97)	(11.69)	(20.04)				
Pzena-US SCV	68	0.34	2.89	5.02	66.92	2.61	27.00	73.42				01/01/2020
RUSSELL 2000 VALUE DAILY			3.81	4.46	64.30	0.72	27.60	73.28				01/01/2020
Excess			(0.92)	0.57	2.62	1.89	(0.61)	0.14				
PanAgora-US SCC	70	0.36	4.56	5.23	51.07	2.33	19.76	55.90				02/01/2020
RUSSELL 2000 (DAILY)			4.25	3.44	50.80	(0.29)	17.19	62.03				02/01/2020
Excess			0.30	1.79	0.27	2.62	2.56	(6.12)				
Wasatch-US SCG	76	0.38	6.07	4.53	48.54	6.28	20.57	52.99				01/01/2020
RUSSELL 2000 GROWTH DAILY			4.68	2.50	38.45	(1.23)	7.64	51.36				01/01/2020
Excess			1.39	2.03	10.09	7.52	12.94	1.63				
Legal General US LMCE	564	2.86	5.49	2.57	38.39	3.65	19.27	41.36	(3.46)			07/01/2019
RUSSELL 1000 (DAILY)			6.94	4.98	43.51	7.16	23.18	43.07	7.48			07/01/2019
Excess			(1.45)	(2.41)	(5.13)	(3.51)	(3.91)	(1.71)	(10.94)			
PIMCO RAFI US LMCE	560	2.84	2.92	1.11	43.45	0.26	20.66	49.41	(7.56)	25.39	(6.74)	08/01/2016
RUSSELL 1000 (DAILY)			6.94	4.98	43.51	7.16	23.18	43.07	7.48	31.43	(4.78)	08/01/2016
Excess			(4.02)	(3.87)	(0.06)	(6.90)	(2.53)	6.34	(15.04)	(6.03)	(1.96)	
Wellington US MCC	251	1.27	4.58	0.64	36.21	0.88	9.28	43.37	(0.13)	32.69	(7.35)	11/01/2010
S&P 400 MIDCAP INDEX (DAILY)			5.89	3.66	48.90	4.02	22.32	53.24	(6.70)	26.20	(11.08)	11/01/2010
Excess			(1.31)	(3.02)	(12.69)	(3.14)	(13.04)	(9.87)	6.56	6.49	3.74	
BlackRock US LMC R1000 Core	2,955	14.97	6.93	5.00	43.71	7.17	23.39	43.35	7.68	31.40		04/01/2018
RUSSELL 1000 (DAILY)			6.94	4.98	43.51	7.16	23.18	43.07	7.48	31.43		04/01/2018
Excess			(0.01)	0.02	0.20	0.01	0.21	0.28	0.19	(0.02)		
SSGA-US LC Russell TOP 200 Core	983	4.98	7.29	5.27	42.92	7.96	23.68	40.81	11.24	31.77		05/01/2018
RUSSELL TOP 200 INDEX (DAILY)			7.30	5.28	42.91	7.96	23.64	40.81	11.20	31.75		05/01/2018
Excess			(0.01)	(0.01)	0.01	(0.02)	0.04	0.00	0.04	0.02		

# New York City Fire Department Pension Fund

Manager / Benchmark Comparison Report

Rates of Return - Net Mgr



Periods Ending October 31, 2021

	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	Trailing 1 Year	FYTD	CYTD	FYE 6/30/21	FYE 6/30/20	CYE 12/31/19	CYE 12/31/18	Inception Date
<b>FUND OF FUNDS</b>												
Essex US SCG - Legato	5	0.03	7.51	4.70	78.69	2.40	36.58	93.77	(7.10)	26.79	(5.24)	05/01/2017
RUSSELL 2000 GROWTH DAILY			4.68	2.50	38.45	(1.23)	7.64	51.36	3.48	28.48	(9.31)	05/01/2017
Excess			2.82	2.20	40.23	3.63	28.94	42.41	(10.58)	(1.69)	4.07	
Dean US SCV - Legato	7	0.04	3.48	3.29	56.00	3.28	27.69	62.69	(19.35)	21.88	(12.50)	05/01/2017
RUSSELL 2000 VALUE DAILY			3.81	4.46	64.30	0.72	27.60	73.28	(17.48)	22.39	(12.86)	05/01/2017
Excess			(0.33)	(1.17)	(8.30)	2.57	0.09	(10.59)	(1.87)	(0.51)	0.37	
Bridge City US SCG - Legato	4	0.02	4.29	(0.18)	42.76	(0.52)	16.57	55.34	(1.96)	24.50	0.88	05/01/2017
RUSSELL 2000 GROWTH DAILY			4.68	2.50	38.45	(1.23)	7.64	51.36	3.48	28.48	(9.31)	05/01/2017
Excess			(0.40)	(2.68)	4.31	0.71	8.93	3.98	(5.44)	(3.99)	10.19	
Altravue US SCV - Legato	6	0.03	5.88	4.81	61.53	6.27	30.17	69.01	(9.26)	20.04	(10.07)	05/01/2017
RUSSELL 2000 VALUE DAILY			3.81	4.46	64.30	0.72	27.60	73.28	(17.48)	22.39	(12.86)	05/01/2017
Excess			2.07	0.36	(2.76)	5.55	2.57	(4.27)	8.22	(2.36)	2.80	
Ballast-US SCV - Legato	3	0.02	4.71	4.80		2.82						05/01/2021
RUSSELL 2000 VALUE DAILY			3.81	4.46		0.72						05/01/2021
Excess			0.89	0.34		2.10						
Lisanti US SCG - Legato	6	0.03	8.16	9.15	45.16	5.55	16.25	55.99	7.76	27.51		03/01/2018
RUSSELL 2000 GROWTH DAILY			4.68	2.50	38.45	(1.23)	7.64	51.36	3.48	28.48		03/01/2018
Excess			3.48	6.65	6.71	6.79	8.61	4.63	4.28	(0.97)		
Nicholas Investment-US SCG - Legato	2	0.01	4.96	5.49		5.58						05/01/2021
RUSSELL 2000 GROWTH DAILY			4.68	2.50		(1.23)						05/01/2021
Excess			0.27	2.99		6.81						
Legato Transition US	0	0.00										02/01/2018
<b>FIRE-TOTAL WORLD ex-USA</b>												
WORLD ex-USA CUSTOM BM	1,753	8.88	2.15	(0.20)	33.50	(0.18)	8.41	40.58	1.09	24.96	(14.41)	04/01/2004
Excess			(0.68)	(1.76)	(2.34)	(2.54)	(4.11)	5.77	6.19	2.05	0.28	
Baillie Gifford WorldxUS LMCC	381	1.93	2.82	(1.55)	23.27	(3.82)	0.00	45.85	31.73	37.00	(15.37)	05/01/2013
NYC Developed Growth Benchmark			2.98	1.62	35.59	2.30	12.44	33.60	(5.42)	22.49	(14.09)	05/01/2013
Excess			(0.16)	(3.17)	(12.32)	(6.11)	(12.45)	12.24	37.15	14.50	(1.28)	
Walter Scott WorldxUS LMCC	371	1.88	2.65	0.75	28.24	3.32	10.32	29.21	6.21	28.51	(7.65)	05/01/2013
NYC Developed Growth Benchmark			2.98	1.62	35.59	2.30	12.44	33.60	(5.42)	22.49	(14.09)	05/01/2013
Excess			(0.33)	(0.87)	(7.35)	1.02	(2.12)	(4.39)	11.63	6.02	6.44	
Causeway WorldxUS LMCV	252	1.28	0.94	1.15	46.77	0.17	9.62	41.67	(10.19)	21.35	(18.34)	05/01/2013
NYC Developed Value Benchmark			2.98	1.62	35.59	2.30	12.44	33.60	(5.42)	22.49	(14.09)	05/01/2013
Excess			(2.03)	(0.47)	11.18	(2.13)	(2.82)	8.07	(4.77)	(1.14)	(4.25)	
Sprucegrove WorldxUS LMCC	289	1.46	1.65	(2.01)	36.06	(2.55)	7.67	44.94	(16.97)	17.62	(13.67)	07/01/2003
NYC Developed Value Benchmark			2.98	1.62	35.59	2.30	12.44	33.60	(5.42)	22.49	(14.09)	07/01/2003
Excess			(1.33)	(3.64)	0.46	(4.84)	(4.77)	11.34	(11.54)	(4.87)	0.42	
Acadian WorldxUS SCC	136	0.69	1.43	(1.57)	43.18	(0.65)	18.41	53.37	(2.52)	21.82	(19.22)	05/01/2013
S&P EPAC Small Cap USD NET			1.05	(0.15)	34.78	0.74	9.97	42.23	(4.00)	23.71	(18.58)	05/01/2013
Excess			0.38	(1.41)	8.40	(1.39)	8.44	11.14	1.47	(1.89)	(0.65)	
Alger EAFE SCC	26	0.13	1.23	2.29	36.67	3.85	15.50	40.24	(4.52)			02/01/2019
MSCI EAFE SMALL CAP NET (DAILY)			1.57	0.77	35.77	2.48	11.75	40.98	(3.52)			02/01/2019
Excess			(0.34)	1.53	0.90	1.37	3.75	(0.74)	(1.00)			
Fidelity WorldxUS SCC	0	0.00									(18.22)	05/01/2013
S&P EPAC Small Cap USD NET			1.05					42.23	(4.00)	23.71	(18.58)	05/01/2013
Excess											0.36	



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	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	Trailing 1 Year	FYTD	CYTD	FYE 6/30/21	FYE 6/30/20	CYE 12/31/19	CYE 12/31/18	Inception Date
SSGA WorldUS LMC NYC Custom IDX	192	0.97	2.99	1.69	35.75	2.39	12.69	34.01	(5.11)	22.75	(13.64)	02/01/2011
NYC Custom World ex US Index			2.98	1.62	35.59	2.30	12.44	33.60	(5.42)	22.49	(14.09)	02/01/2011
Excess			0.02	0.07	0.16	0.09	0.25	0.40	0.32	0.26	0.45	
SSGA WorldUS SC Custom IDX	103	0.52	2.00	1.28	37.29	2.80	13.12	42.47	(2.75)	25.67	(17.97)	02/01/2014
World ex USA SC PASSIVE CUSTOM BM			2.01	1.22	37.19	2.75	12.94	42.28	(3.20)	25.41	(18.07)	02/01/2014
Excess			(0.02)	0.06	0.09	0.05	0.18	0.19	0.45	0.26	0.10	
<b>FIRE-TOTAL INTL FOF</b>	101	0.51	2.10	0.86	32.70	0.16	10.01	40.05	(2.43)	22.15	(14.65)	05/01/2017
MSCI ACWI ex USA IMI Net			2.27	0.96	30.90	(0.35)	9.19	37.18	(4.74)	21.63	(14.76)	05/01/2017
Excess			(0.17)	(0.10)	1.80	0.51	0.82	2.87	2.31	0.52	0.10	
Martin-EAFE ACG - Xponance	12	0.06	4.40	1.02	34.71	3.94	15.39	29.00	0.61			02/01/2019
Custom Xponance Benchmark			2.98	1.62	35.91	2.30	12.44	33.67	(5.13)			02/01/2019
Excess			1.43	(0.60)	(1.20)	1.65	2.95	(4.67)	5.74			
Redwood-EAFE ACG - Xponance	10	0.05	4.30	0.92	36.27	2.01	13.89	41.40	5.88			02/01/2019
MSCI EAFE + Canada Net Index			2.98	1.62	35.59	2.30	12.44	33.60	(5.42)			02/01/2019
Excess			1.32	(0.71)	0.68	(0.29)	1.45	7.80	11.30			
Osmosis-EAFE ACV - Xponance	12	0.06	2.13	1.59	37.60	2.80	15.70	35.88	(4.71)	18.30	(15.06)	05/01/2017
Custom Xponance Benchmark			2.98	1.62	35.91	2.30	12.44	33.67	(5.13)	22.01	(13.79)	05/01/2017
Excess			(0.85)	(0.03)	1.69	0.50	3.25	2.21	0.42	(3.72)	(1.27)	
Metis-EAFE ACV - Xponance	0	0.00							(11.16)	18.10	(18.53)	05/01/2017
MSCI EAFE			2.46					32.35	(5.13)	22.01	(13.79)	05/01/2017
Excess									(6.03)	(3.91)	(4.74)	
North of South-EM ACV - Xponance	11	0.06	(1.05)	(5.02)		(8.32)						05/01/2021
MSCI EMERGING MARKETS			0.99	(0.49)		(7.19)						05/01/2021
Excess			(2.03)	(4.53)		(1.13)						
Dundas-EAFE ACG - Xponance	12	0.06	4.96	2.07	36.17	5.63	16.70	35.63	7.13	29.86	(9.88)	05/01/2017
MSCI EAFE + Canada Net Index			2.98	1.62	35.59	2.30	12.44	33.60	(5.42)	22.49	(14.09)	05/01/2017
Excess			1.98	0.45	0.58	3.33	4.26	2.03	12.55	7.37	4.21	
Denali-EAFE ACV - Xponance	0	0.00							(20.69)	11.57	(11.58)	05/01/2017
MSCI EAFE + Canada Net Index			2.98					33.60	(5.42)	22.49	(14.09)	05/01/2017
Excess									(15.27)	(10.92)	2.51	
Change Global-EM ACV - Xponance	0	0.00							(17.55)	13.50	(16.80)	05/01/2017
MSCI EMERGING MARKETS			0.99					40.90	(3.39)	18.42	(14.57)	05/01/2017
Excess									(14.16)	(4.92)	(2.23)	
Foresight-EAFE LMCV - Xponance	13	0.06	2.10	0.90	25.80	(0.37)	5.47					08/01/2020
MSCI EAFE + Canada Net Index			2.98	1.62	35.59	2.30	12.44					08/01/2020
Excess			(0.87)	(0.72)	(9.80)	(2.67)	(6.97)					
Aubrey-EM ACG - Xponance	15	0.08	(0.65)	4.42	22.45	(1.17)	4.60	51.43	15.22	29.21	(19.98)	05/01/2017
MSCI EMERGING MARKETS			0.99	(0.49)	16.96	(7.19)	(0.27)	40.90	(3.39)	18.42	(14.57)	05/01/2017
Excess			(1.63)	4.91	5.49	6.02	4.88	10.53	18.60	10.79	(5.41)	
ARGA-WorldUS LMCV - Xponance	15	0.08	1.92	0.23	55.65	(1.44)	14.43					08/01/2020
MSCI AC WORLD ex US (NET)			2.39	0.99	29.66	(0.67)	8.43					08/01/2020
Excess			(0.46)	(0.77)	25.99	(0.77)	6.00					
Ativo-EAFE ACG - Xponance	0	0.00							(7.75)	22.81	(12.41)	05/01/2017
MSCI EAFE + Canada Net Index			2.98					33.60	(5.42)	22.49	(14.09)	05/01/2017
Excess									(2.32)	0.32	1.68	
Xponance Transition-WorldUS	0	0.00										04/01/2017

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	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	Trailing 1 Year	FYTD	CYTD	FYE 6/30/21	FYE 6/30/20	CYE 12/31/19	CYE 12/31/18	Inception Date
<b>FIRE-TOTAL EMERGING MARKETS</b>	1,189	6.03	0.78	(0.89)	21.81	(6.55)	1.48	46.05	(7.85)	17.60	(14.63)	09/01/1996
MSCI EMERGING MARKETS			0.99	(0.49)	16.96	(7.19)	(0.27)	40.90	(3.39)	18.42	(14.57)	09/01/1996
Excess			(0.20)	(0.40)	4.85	0.64	1.75	5.14	(4.46)	(0.83)	(0.06)	
Baillie Gifford EM	221	1.12	2.24	(2.20)	14.81	(9.87)	(4.61)	50.42	(0.37)	28.50	(15.37)	11/01/2005
MSCI EMERGING MARKETS			0.99	(0.49)	16.96	(7.19)	(0.27)	40.90	(3.39)	18.42	(14.57)	11/01/2005
Excess			1.25	(1.72)	(2.15)	(2.68)	(4.34)	9.52	3.02	10.08	(0.80)	
Acadian EM	166	0.84	(1.37)	(4.23)	20.56	(8.02)	2.68	41.16	(7.21)	15.71	(17.27)	11/01/2005
MSCI EMERGING MARKETS			0.99	(0.49)	16.96	(7.19)	(0.27)	40.90	(3.39)	18.42	(14.57)	11/01/2005
Excess			(2.36)	(3.74)	3.60	(0.83)	2.95	0.26	(3.82)	(2.71)	(2.70)	
Parametric EM	0	0.00							(14.86)	14.20	(14.33)	06/01/2012
MSCI EMERGING MARKETS			0.99					40.90	(3.39)	18.42	(14.57)	06/01/2012
Excess									(11.47)	(4.22)	0.24	
Pzena-EM ACV	278	1.41	1.64	0.24	41.74	(2.94)	11.11	54.61				06/01/2020
MSCI EMERGING MARKETS			0.99	(0.49)	16.96	(7.19)	(0.27)	40.90				06/01/2020
Excess			0.65	0.73	24.78	4.24	11.38	13.71				
Sands-EM LCG	156	0.79	(1.56)	1.06	21.12	(4.46)	2.09					08/01/2020
MSCI EMERGING MARKETS			0.99	(0.49)	16.96	(7.19)	(0.27)					08/01/2020
Excess			(2.54)	1.55	4.16	2.72	2.37					
UBS-EM ACC	160	0.81	1.67	0.41	12.61	(7.46)	(4.49)	38.17				06/01/2020
MSCI EMERGING MARKETS			0.99	(0.49)	16.96	(7.19)	(0.27)	40.90				06/01/2020
Excess			0.68	0.90	(4.35)	(0.28)	(4.22)	(2.73)				
BlackRock MSCI EM Core	208	1.05	1.00	(0.62)	17.04	(7.16)	0.04	40.66	(3.72)	18.76	(14.43)	04/01/2011
MSCI EMERGING MARKETS			0.99	(0.49)	16.96	(7.19)	(0.27)	40.90	(3.39)	18.42	(14.57)	04/01/2011
Excess			0.02	(0.13)	0.08	0.02	0.31	(0.24)	(0.34)	0.34	0.14	
<b>FIRE-TOTAL GLOBAL EQUITY</b>	374	1.90	5.68	2.49	30.68	3.51	13.08	42.43	15.96	35.92		06/01/2018
MSCI AC WORLD (Daily Const)			5.10	3.28	37.28	4.00	16.79	39.26	2.11	26.60		06/01/2018
Excess			0.58	(0.79)	(6.59)	(0.49)	(3.71)	3.17	13.85	9.32		
Morgan Stanley-Global	194	0.98	4.89	2.79	22.58	0.17	6.19	42.97	27.28	38.01		06/01/2018
MSCI AC WORLD (Daily Const)			5.10	3.28	37.28	4.00	16.79	39.26	2.11	26.60		06/01/2018
Excess			(0.21)	(0.49)	(14.70)	(3.82)	(10.60)	3.70	25.16	11.41		
Fiera-Global	180	0.91	6.54	2.17	40.68	7.35	21.56	41.82	5.27	34.02		08/01/2018
MSCI World Index			5.66	3.80	40.42	5.66	19.44	39.04	2.84	27.67		08/01/2018
Excess			0.88	(1.63)	0.25	1.69	2.12	2.78	2.42	6.35		
<b>FIRE-TOTAL REAL ESTATE SECURITIES</b>	0	0.00							(14.79)	23.83	(6.48)	01/01/2003
DJ US SELECT REAL ESTATE SECURITIES INDEX			8.18					39.98	(17.71)	23.10	(4.22)	01/01/2003
Excess									2.91	0.73	(2.26)	
<b>FIRE-TOTAL MORGAN STANLEY REITS</b>	0	0.00							(22.24)	19.02	(7.88)	04/01/2004
Morgan Stanley Custom RESI Index			8.18					39.98	(17.71)	23.10	(4.22)	04/01/2004
Excess									(4.53)	(4.08)	(3.66)	
<b>FIRE-TOTAL HEDGE FUNDS</b>	967	4.90	1.14	3.48	14.74	4.30	7.80	11.54	9.00	5.02	2.24	07/01/2011
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	07/01/2011
Excess			(0.57)	0.15	(2.25)	1.54	(0.58)	(7.92)	7.55	(4.45)	5.29	
<b>FUND OF FUNDS HEDGE FUNDS</b>	0	0.00										07/01/2011
HFRI Fund of Funds Composite Index + 1%			1.71					19.46	1.45	9.47	(3.06)	07/01/2011
Excess												
Allimeter Partners	39	0.20	4.85	5.07	34.88	6.77	14.28	45.27	(12.72)	21.40	18.20	03/01/2016
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	03/01/2016
Excess			3.14	1.74	17.89	4.01	5.90	25.81	(14.17)	11.94	21.26	

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Caledonia Fund US	37	0.19	(0.01)									09/01/2021
HFRI Fund of Funds Composite Index + 1%			1.71									09/01/2021
Excess			(1.72)									
CASPIAN SELECT CF	40	0.20	0.44	1.68	14.58	1.50	7.78	20.82	(3.40)	5.12	0.85	05/01/2012
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	05/01/2012
Excess			(1.27)	(1.65)	(2.41)	(1.25)	(0.60)	1.36	(4.85)	(4.34)	3.91	
D.E. SHAW COMPOSITE FD	116	0.59	2.58	5.21	22.13	7.22	17.21	19.11	15.41	10.93	11.59	01/01/2012
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	01/01/2012
Excess			0.87	1.88	5.14	4.46	8.83	(0.36)	13.97	1.46	14.65	
DL PARTNERS OPP LP	46	0.23	(2.60)	4.86	12.95	(2.12)	2.91	18.49	(0.66)	2.45		11/01/2018
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47		11/01/2018
Excess			(4.31)	1.53	(4.04)	(4.87)	(5.47)	(0.98)	(2.11)	(7.01)		
Florin Court Capital	53	0.27	5.63	18.88	35.96	22.81	32.25	12.13	2.62	15.35		09/01/2018
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47		09/01/2018
Excess			3.92	15.55	18.98	20.06	23.88	(7.33)	1.17	5.89		
GRESHAM QUANT ACAR FD	40	0.21	(1.24)	8.41	47.74	11.52	40.19	38.05	2.41			07/01/2019
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45			07/01/2019
Excess			(2.95)	5.08	30.75	8.77	31.81	18.59	0.97			
GSA Capital Partners LP	65	0.33	4.25	6.27	19.84	5.16	13.45	7.71	(1.29)	(0.97)	(6.51)	05/01/2017
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	05/01/2017
Excess			2.54	2.94	2.86	2.41	5.07	(11.75)	(2.73)	(10.43)	(3.46)	
KEY SQUARE GROUP LP	55	0.28	(1.26)	2.23	1.06	2.63	(2.53)	(1.73)	(15.72)	0.49	(1.93)	06/01/2017
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	06/01/2017
Excess			(2.97)	(1.10)	(15.93)	(0.12)	(10.91)	(21.19)	(17.17)	(8.97)	1.12	
LANSDOWNE EURO ABS OPP	25	0.12	1.53	(9.93)	(18.62)	(9.94)	(10.57)	1.84	(12.45)			06/01/2019
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45			06/01/2019
Excess			(0.18)	(13.27)	(35.61)	(12.69)	(18.95)	(17.62)	(13.90)			
LUXOR CAPITAL	79	0.40	(4.69)	(7.04)	14.72	(4.59)	(4.18)	29.41	22.77	5.04	14.63	06/01/2014
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	06/01/2014
Excess			(6.40)	(10.37)	(2.27)	(7.34)	(12.56)	9.94	21.32	(4.42)	17.69	
PERRY CAPITAL LP	0	0.00								21.10	(11.07)	06/01/2013
HFRI Fund of Funds Composite Index + 1%			1.71					19.46	1.45	9.47	(3.06)	06/01/2013
Excess										11.64	(8.01)	
Pharo Gaila Fund	62	0.31	(2.43)	(2.13)	(2.37)	(2.26)	(10.92)	2.63	(0.83)	9.58	0.15	12/01/2015
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	12/01/2015
Excess			(4.14)	(5.47)	(19.36)	(5.01)	(19.30)	(16.83)	(2.28)	0.11	3.21	
PHARO MACRO FD	43	0.22	(2.73)	(2.83)	(3.64)	(3.65)	(10.59)	3.46	(2.04)	5.27	2.10	07/01/2013
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	07/01/2013
Excess			(4.44)	(6.16)	(20.63)	(6.40)	(18.97)	(16.00)	(3.48)	(4.19)	5.16	
QUEST PARTNERS LLC	67	0.34	7.84	5.70	15.76	6.50	19.27	3.30	14.11	6.32	3.18	06/01/2017
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	06/01/2017
Excess			6.13	2.37	(1.23)	3.74	10.89	(16.16)	12.67	(3.15)	6.23	
SRS Investment Management	67	0.34	9.72	18.54	43.45	21.06	30.74	25.55	(6.33)	13.74	4.90	01/01/2015
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	01/01/2015
Excess			8.01	15.21	26.46	18.31	22.36	6.08	(7.77)	4.28	7.95	
STANDARD GENERAL	20	0.10	(3.11)	0.36	53.09	0.83	15.84	63.37	(23.75)	(3.74)	6.51	06/01/2014
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	06/01/2014
Excess			(4.82)	(2.97)	36.10	(1.93)	7.46	43.91	(25.20)	(13.20)	9.56	

# New York City Fire Department Pension Fund

## Manager / Benchmark Comparison Report

### Rates of Return - Net Mgr



### Periods Ending October 31, 2021

	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	Trailing 1 Year	FYTD	CYTD	FYE 6/30/21	FYE 6/30/20	CYE 12/31/19	CYE 12/31/18	Inception Date
Turiya Capital Management	64	0.32	(1.58)	(3.25)	16.58	0.20	9.22	40.73	10.50	7.85	(21.01)	07/01/2015
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45	9.47	(3.06)	07/01/2015
Excess			(3.29)	(6.58)	(0.41)	(2.55)	0.84	21.27	9.05	(1.62)	(17.95)	
VOLORIDGE AGGRESSIVE	11	0.05	0.33	3.35	11.75	6.52	6.63	9.03	31.77			03/01/2019
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45			03/01/2019
Excess			(1.38)	0.02	(5.23)	3.77	(1.75)	(10.43)	30.32			
VOLORIDGE FUND	38	0.19	0.46	4.76	0.40	4.46	(2.28)	0.11	20.16			03/01/2019
HFRI Fund of Funds Composite Index + 1%			1.71	3.33	16.99	2.75	8.38	19.46	1.45			03/01/2019
Excess			(1.25)	1.43	(16.59)	1.71	(10.66)	(19.36)	18.72			
<b>FIXED INCOME SUMMARY</b>												
<b>FIRE-TOTAL STRUCTURED</b>	3,849	19.51	0.08	(0.96)	(1.89)	0.30	(2.64)	(2.64)	15.69	11.13	(0.89)	01/01/1985
NYC Custom Structured Index-Fire			0.14	(0.94)	(1.85)	0.19	(2.61)	(2.72)	18.61	13.17	(1.29)	01/01/1985
Excess			(0.06)	(0.02)	0.06	0.10	(0.03)	0.08	(2.92)	(2.04)	0.40	
BlackRock Mortgages	573	2.90	(0.27)	(0.59)	(0.44)	0.05	(0.67)	0.13	6.22	7.04	0.97	04/01/2001
NYC Custom Mortgage Benchmark			(0.19)	(0.71)	(0.58)	(0.09)	(0.86)	(0.48)	5.96	6.68	1.01	04/01/2001
Excess			(0.08)	0.12	0.14	0.14	0.19	0.61	0.26	0.36	(0.04)	
Wellington Mortgages	229	1.16	(0.25)	(0.72)	(0.11)	(0.15)	(0.62)					10/01/2020
Bloomberg US Mortgage Backed Securities			(0.19)	(0.71)	(0.58)	(0.09)	(0.86)					10/01/2020
Excess			(0.06)	(0.01)	0.47	(0.06)	0.24					
T Rowe Price-Corporate	290	1.47	0.16	(1.15)	2.65	0.26	(0.76)	3.82	9.33	14.52	(2.41)	01/01/1987
NYC Custom IGC Benchmark			0.25	(1.11)	2.21	0.25	(0.83)	3.34	9.26	13.40	(1.90)	01/01/1987
Excess			(0.09)	(0.04)	0.43	0.01	0.07	0.48	0.06	1.12	(0.51)	
BlackRock Corporate	0	0.00						3.42	9.72	14.05	(2.01)	08/01/2009
NYC Custom IGC Benchmark			0.25					3.34	9.26	13.40	(1.90)	08/01/2009
Excess								0.08	0.46	0.66	(0.11)	
Neuberger Berman-Corporate	263	1.34	0.21	(1.06)		0.28						03/01/2021
Bloomberg U.S. Corporate Inv Grade			0.25	(1.11)		0.25						03/01/2021
Excess			(0.04)	0.05		0.04						
Pinebridge-Corporate	169	0.86	0.18									09/01/2021
NYC Custom IGC Benchmark			0.25									09/01/2021
Excess			(0.07)									
Prudential Corporate	0	0.00						3.80	9.14	13.71	(1.81)	08/01/2009
NYC - Investment Grade Credit			0.16					3.28	9.26	13.40	(1.90)	08/01/2009
Excess								0.51	(0.13)	0.31	0.09	
SSGA LI Treasury	36	0.18	0.48	(1.88)	(4.19)	0.52	(4.36)	(6.24)	18.43	10.67	(0.20)	08/01/2009
NYC - Treasury Agency Plus Five			0.62	(1.81)	(4.44)	0.52	(4.55)	(6.52)	17.08	10.40	(0.05)	08/01/2009
Excess			(0.13)	(0.07)	0.26	0.01	0.19	0.28	1.35	0.27	(0.15)	
SSgA Int Gov Bond Index *	898	4.55	(0.55)	(1.31)	(1.54)	(0.56)	(1.69)	(1.15)	7.02	5.08	2.03	03/01/2017
FTSE USBIG Treasury/Agency 1-10 y			(0.50)	(1.27)	(1.47)	(0.56)	(1.62)	(1.09)	6.99	5.18	1.42	03/01/2017
Excess			(0.05)	(0.04)	(0.07)	0.00	(0.07)	(0.06)	0.03	(0.09)	0.61	
* Assets were in transition from 9/29/17 to 2/11/19												
SSGA 1-3 Treasury Index **	772	3.91	(0.32)	(0.43)	(0.24)	(0.25)	(0.35)	0.07	3.18	3.56	1.53	01/01/2017
FTSE USBIG Treasury 1-3 Y Index			(0.31)	(0.42)	(0.24)	(0.25)	(0.32)	0.07	4.06	3.56	1.56	01/01/2017
Excess			(0.01)	(0.01)	0.00	0.00	(0.02)	0.00	(0.88)	0.00	(0.03)	
** Assets were in transition from 9/29/17 to 11/30/17												
SSGA LT Treasury 10Y Plus	619	3.14	1.84	(1.29)	(6.00)	2.20	(5.79)	(10.60)	25.46	14.88	(1.83)	11/01/2016
FTSE Treasury 10+			2.04	(1.28)	(5.83)	2.16	(5.84)	(10.50)	25.45	14.89	(1.89)	11/01/2016
Excess			(0.20)	(0.01)	(0.17)	0.05	0.05	(0.10)	0.01	(0.01)	0.05	

# New York City Fire Department Pension Fund

## Manager / Benchmark Comparison Report

Rates of Return - Net Mgr



Periods Ending October 31, 2021

	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	Trailing 1 Year	FYTD	CYTD	FYE 6/30/21	FYE 6/30/20	CYE 12/31/19	CYE 12/31/18	Inception Date
<b>FIRE-TOTAL HIGH YIELD</b>	1,130	5.73	(0.13)	0.57	10.90	0.79	4.90	15.63	0.68	14.81	(3.24)	12/01/1994
High Yield Custom Benchmark			(0.18)	0.33	10.53	0.71	4.35	15.34	0.00	14.32	(2.34)	12/01/1994
Excess			0.06	0.24	0.37	0.08	0.55	0.29	0.69	0.49	(0.90)	
T Rowe Price High Yield	319	1.61	(0.07)	0.57	11.28	0.93	5.12	15.94	0.80	15.65	(2.34)	04/01/2004
Bloomberg U.S. HY - 2% Issuer Cap			(0.18)	0.33	10.53	0.71	4.35	15.34	0.00	14.32	(2.08)	04/01/2004
Excess			0.11	0.23	0.75	0.22	0.77	0.60	0.81	1.33	(0.26)	
Brigade High Yield	149	0.76	(0.03)	1.06	14.77	0.87	7.22	21.29	(1.36)	15.07		12/01/2018
Bloomberg U.S. HY - 2% Issuer Cap			(0.18)	0.33	10.53	0.71	4.35	15.34	0.00	14.32		12/01/2018
Excess			0.15	0.73	4.25	0.16	2.87	5.95	(1.36)	0.75		
Eaton Vance High Yield	169	0.85	(0.19)	0.36	9.48	0.56	4.02	14.24	(0.31)	14.66		12/01/2018
Bloomberg U.S. HY - 2% Issuer Cap			(0.18)	0.33	10.53	0.71	4.35	15.34	0.00	14.32		12/01/2018
Excess			(0.01)	0.03	(1.05)	(0.15)	(0.33)	(1.10)	(0.30)	0.35		
Mackay Shields High Yield	168	0.85	(0.32)	0.42	9.50	0.75	4.50	13.89	2.38	13.87		12/01/2018
Bloomberg U.S. HY - 2% Issuer Cap			(0.18)	0.33	10.53	0.71	4.35	15.34	0.00	14.32		12/01/2018
Excess			(0.14)	0.09	(1.03)	0.04	0.15	(1.45)	2.38	(0.45)		
Nomura High Yield	145	0.74	(0.13)	0.62	13.24	0.77	5.72	18.86	(1.32)	12.74		12/01/2018
Bloomberg U.S. HY - 2% Issuer Cap			(0.18)	0.33	10.53	0.71	4.35	15.34	0.00	14.32		12/01/2018
Excess			0.05	0.28	2.72	0.06	1.37	3.53	(1.31)	(1.58)		
Sherkman High Yield	181	0.92	(0.07)	0.47	9.50	0.77	3.89	13.34	1.19	14.10		12/01/2018
Bloomberg U.S. HY - 2% Issuer Cap			(0.18)	0.33	10.53	0.71	4.35	15.34	0.00	14.32		12/01/2018
Excess			0.11	0.13	(1.03)	0.06	(0.46)	(2.00)	1.19	(0.22)		
<b>FIRE-TOTAL BANK LOANS</b>	2	0.01							(2.50)	7.34	0.81	12/01/2012
CSFB LEVERAGED LOAN INDEX			0.24					11.67	(2.27)	8.17	1.14	12/01/2012
Excess									(0.23)	(0.83)	(0.33)	
Bain Bank Loans	1	0.01								(1.97)		07/01/2019
CSFB LEVERAGED LOAN INDEX			0.24					11.67	(2.27)			07/01/2019
Excess									0.30			
Barings Bank Loans	0	0.00							(3.08)	7.82	0.38	12/01/2012
CSFB LEVERAGED LOAN INDEX			0.24					11.67	(2.27)	8.17	1.14	12/01/2012
Excess									(0.81)	(0.36)	(0.76)	
<b>FIRE-TOTAL TIPS MANAGERS</b>	842	4.27	1.07	0.07	6.89	2.83	4.57	6.43	8.32	8.44	(1.27)	06/01/2005
Bloomberg Global Intl-Linked: U.S. TIPS			1.13	0.24	7.07	2.91	4.69	6.51	8.28	8.43	(1.26)	06/01/2005
Excess			(0.07)	(0.17)	(0.19)	(0.08)	(0.12)	(0.08)	0.04	0.01	(0.01)	
BlackRock TIPS	187	0.95	1.06	0.22	6.76	2.78	4.46	6.32	8.39	8.42	(1.18)	06/01/2005
Bloomberg Global Intl-Linked: U.S. TIPS			1.13	0.24	7.07	2.91	4.69	6.51	8.28	8.43	(1.26)	06/01/2005
Excess			(0.07)	(0.01)	(0.32)	(0.12)	(0.22)	(0.20)	0.11	(0.01)	0.08	
SSGA TIPS	655	3.32	1.07	0.02	6.93	2.84	4.60	6.47	8.26	8.44	(1.30)	08/01/2005
Bloomberg Global Intl-Linked: U.S. TIPS			1.13	0.24	7.07	2.91	4.69	6.51	8.28	8.43	(1.26)	08/01/2005
Excess			(0.06)	(0.21)	(0.15)	(0.06)	(0.09)	(0.05)	(0.02)	0.02	(0.04)	
<b>FIRE-TOTAL CORE FI-DEVELOPING MGRS</b>	87	0.44	(0.18)	(1.22)	0.68	(0.13)	(1.19)	1.70	8.03	9.85	(1.21)	05/01/2009
Bloomberg U.S. Aggregate			(0.03)	(1.08)	0.02	(1.08)	(1.58)	(0.33)	8.74	8.72	0.01	05/01/2009
Excess			(0.16)	(0.14)	1.16	(0.15)	0.39	2.04	(0.71)	1.14	(1.22)	
LM Capital-Core Plus	33	0.17	(0.37)	(1.58)	0.23	(0.49)	(1.58)	1.97	8.46	9.55	(1.30)	05/01/2009
Bloomberg U.S. Aggregate			(0.03)	(1.08)	0.02	(1.08)	(1.58)	(0.33)	8.74	8.72	0.01	05/01/2009
Excess			(0.34)	(0.50)	0.71	(0.52)	0.00	2.31	(0.28)	0.84	(1.32)	
Pugh-CorePlus	16	0.08	(0.06)	(1.03)	0.33	0.04	(1.26)	0.26				06/01/2020
Bloomberg U.S. Aggregate			(0.03)	(1.08)	0.02	(1.08)	(1.58)	(0.33)				06/01/2020
Excess			(0.03)	0.06	0.81	0.02	0.32	0.59				

# New York City Fire Department Pension Fund

## Manager / Benchmark Comparison Report

### Rates of Return - Net Mgr

#### Periods Ending October 31, 2021



	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	Trailing 1 Year	FYTD	CYTD	FYE 6/30/21	FYE 6/30/20	CYE 12/31/19	CYE 12/31/18	Inception Date
GIA-Core Plus	38	0.19	(0.07)	(0.98)	1.24	0.13	(0.81)	2.09	7.65	10.17	(1.11)	07/01/2015
Bloomberg U.S. Aggregate			(0.03)	(1.08)	(0.48)	0.02	(1.58)	(0.33)	8.74	8.72	0.01	07/01/2015
Excess			(0.04)	0.11	1.71	0.10	0.77	2.43	(1.09)	1.46	(1.12)	
<b>FIRE-TOTAL OPPORTUNISTIC FIXED</b>	<b>629</b>	<b>3.19</b>	<b>0.70</b>	<b>3.01</b>	<b>19.37</b>	<b>4.26</b>	<b>15.50</b>	<b>21.86</b>	<b>(1.88)</b>	<b>5.66</b>	<b>6.38</b>	<b>11/01/2007</b>
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	11/01/2007
Excess			0.57	1.56	6.61	2.53	8.41	4.51	(2.76)	(9.01)	4.02	
Ave Special Situation Fund VI	2	0.01	0.00	(0.46)	81.73	(0.46)	85.98	84.04	(2.71)	(0.31)	12.41	08/01/2011
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	08/01/2011
Excess			(0.13)	(1.91)	68.98	(2.19)	78.89	66.69	(3.59)	(14.97)	10.05	
Brightwood Capital Advisors III, LP	2	0.01	4.21	4.21	37.61	7.37	37.61	38.33	(8.74)	2.92	11.00	04/01/2015
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	04/01/2015
Excess			4.08	2.76	24.85	5.64	30.52	20.97	(9.63)	(11.74)	8.64	
Brightwood Capital Advisors FD IV, LP	18	0.09	0.00	3.51	28.41	3.51	24.64	23.15	(7.97)	3.77	6.94	11/01/2016
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	11/01/2016
Excess			(0.13)	2.06	15.65	1.78	17.55	5.80	(8.86)	(10.90)	4.58	
Fortress Ctr St Ptnrs	30	0.15	0.00	3.75	21.36	3.75	13.93	23.98	(5.36)	8.55	10.99	05/01/2012
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	05/01/2012
Excess			(0.13)	2.30	8.61	2.02	6.85	6.63	(6.24)	(6.11)	8.63	
ICG Centre Street Partnership	25	0.13	0.00	1.92	11.17	1.92	6.86	26.53	7.73	11.66	9.02	07/01/2017
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	07/01/2017
Excess			(0.13)	0.47	(1.59)	0.19	(0.22)	9.18	6.85	(3.00)	6.66	
Oaktree Opp Fd IX	22	0.11	4.97	4.97	38.71	13.60	38.71	41.29	(16.38)	7.21	4.57	04/01/2013
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	04/01/2013
Excess			4.84	3.52	25.95	11.87	31.62	23.94	(17.27)	(7.45)	2.21	
Torchlight Debt Oppy Fund III, LLC	0	0.00										07/01/2009
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13					17.35	0.88	14.66	2.36	07/01/2009
Excess												
Torchlight Debt Opp V	4	0.02	0.00	2.04	11.30	2.04	10.42	12.31	1.19	6.54	14.55	08/01/2015
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	08/01/2015
Excess			(0.13)	0.59	(1.46)	0.31	3.33	(5.04)	0.31	(8.12)	12.19	
TORCHLIGHT DEBT OPP VI	17	0.08	0.00	2.07	8.66	2.07	7.24	6.45	2.21			06/01/2019
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88			06/01/2019
Excess			(0.13)	0.62	(4.10)	0.34	0.16	(10.90)	1.33			
Torchlight Debt Opportunity Fund VII	6	0.03	0.00	0.60	5.66	0.60	8.49					11/01/2020
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09					11/01/2020
Excess			(0.13)	(0.85)	(7.10)	(1.13)	1.40					
400 Capital Centre Street	5	0.02	3.72	3.72		4.33						04/01/2021
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45		1.73						04/01/2021
Excess			3.59	2.27		2.60						
Angelo Gordon Ct St Ptnrs	46	0.23	0.85	1.33	17.04	1.78	13.57	20.35	(1.47)	0.10	7.97	08/01/2012
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	08/01/2012
Excess			0.72	(0.12)	4.28	0.06	6.49	2.99	(2.35)	(14.57)	5.61	
Apollo Centre Street Partnership	49	0.25	0.00	2.28	13.90	2.28	10.67	18.83	6.85	6.70	8.32	05/01/2012
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	05/01/2012
Excess			(0.13)	0.83	1.14	0.55	3.58	1.48	5.97	(7.96)	5.96	
Ares Centre Street	50	0.25	0.71	3.09	13.98	3.92	11.25	13.97	2.48	8.59	9.71	01/01/2015
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	01/01/2015
Excess			0.58	1.64	1.22	2.19	4.16	(3.38)	1.60	(6.07)	7.35	

# New York City Fire Department Pension Fund

## Manager / Benchmark Comparison Report

### Rates of Return - Net Mgr

#### Periods Ending October 31, 2021



	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	Trailing 1 Year	FYTD	CYTD	FYE 6/30/21	FYE 6/30/20	CYE 12/31/19	CYE 12/31/18	Inception Date
Contrarian Partnership, L.P.	19	0.10	0.95	2.85	32.81	6.05	21.97	35.50	(16.12)	(8.48)	(4.51)	07/01/2013
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	07/01/2013
Excess			0.82	1.40	20.05	4.32	14.88	18.15	(17.00)	(23.15)	(6.87)	
FCO MA Centre Street II ER	17	0.08	0.00	4.01	24.14	4.01	17.63	31.44				01/01/2020
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35				01/01/2020
Excess			(0.13)	2.55	11.38	2.28	10.54	14.09				
Golden Tree OD	60	0.30	0.42	1.68	13.29	2.15	6.72	17.24	(0.64)	11.60	(1.71)	01/01/2012
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	01/01/2012
Excess			0.29	0.23	0.53	0.42	(0.36)	(0.11)	(1.53)	(3.06)	(4.08)	
Maranon Partnership	23	0.12	2.33	4.12	18.31	6.23	15.99	13.53	0.83	7.72		09/01/2018
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66		09/01/2018
Excess			2.20	2.67	5.56	4.50	8.91	(3.82)	(0.06)	(6.94)		
Marathon Centre Street Partnership, L.P.	98	0.50	0.00	3.89	26.87	7.02	26.87	29.24	(7.20)	2.19	4.09	01/01/2012
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	01/01/2012
Excess			(0.13)	2.44	14.11	5.29	19.79	11.89	(8.08)	(12.48)	1.73	
Oak Hill Centre Street Partnership	89	0.45	1.53	2.62	18.31	3.97	13.68	23.28	(2.14)	6.70	7.72	10/01/2012
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	10/01/2012
Excess			1.40	1.17	5.55	2.24	6.60	5.93	(3.02)	(7.97)	5.36	
KKR NYC CREDIT A & B	43	0.22	0.00	5.53	21.55	5.53	15.71	19.35	(0.64)	2.44	26.52	12/01/2017
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09	17.35	0.88	14.66	2.36	12/01/2017
Excess			(0.13)	4.08	8.80	3.80	8.63	2.00	(1.52)	(12.22)	24.16	
KKR NYC Credit C	4	0.02	0.00	0.35	25.29	0.35	19.44					09/01/2020
Opportunistic Fixed Income JPMGHY / CSFB 50/50 Blend Plus 300			0.13	1.45	12.76	1.73	7.09					09/01/2020
Excess			(0.13)	(1.10)	12.53	(1.38)	12.36					
<b>TOTAL FIRE ETI (w/o cash)</b>	121	0.61	(0.22)	(1.22)	(0.34)	0.00	(0.94)	0.48	7.91	8.81	0.65	12/01/1984
Fire Custom Benchmark (No Cash)			(0.12)	(0.88)	(0.39)	(0.01)	(1.14)	(0.18)	7.65	7.78	0.68	12/01/1984
Excess			(0.10)	(0.33)	0.05	0.01	0.19	0.66	0.26	1.03	(0.04)	
AFL-CIO Housing Investment Trust	63	0.32	(0.16)	(1.18)	(0.45)	(0.31)	(1.04)	0.12	7.03	7.78	0.16	10/01/2002
Bloomberg U.S. Aggregate			(0.03)	(1.08)	(0.48)	0.02	(1.58)	(0.33)	8.74	8.72	0.01	10/01/2002
Excess			(0.13)	(0.10)	0.03	(0.33)	0.54	0.45	(1.70)	(0.94)	0.15	
RBC Access MBS	29	0.15	(0.31)	(0.77)	(0.34)	0.16	(0.66)	0.08	7.55	7.21	0.49	03/01/2007
Access RBC Benchmark			(0.32)	(0.95)	(1.07)	(0.33)	(1.31)	(0.76)	6.29	6.05	1.17	03/01/2007
Excess			0.02	0.18	0.73	0.48	0.65	0.84	1.26	1.16	(0.69)	
CPC Construction Facility	4	0.02	(0.11)	0.11	3.31	0.90	3.19	2.64	4.53	6.42	4.14	08/01/2014
CPC CONST BENCHMARK			0.20	0.60	2.43	0.80	2.01	2.45	3.44	4.09	3.99	08/01/2014
Excess			(0.31)	(0.49)	0.89	0.11	1.17	0.20	1.09	2.33	0.15	
CFSB PPAR GNMA	0	0.00	(0.58)	(1.12)	0.48	0.19	0.02	2.07	5.97	5.91	0.99	10/01/2006
GNMA Plus 65bps			(0.21)	(0.35)	(0.03)	(0.06)	(0.71)	(0.14)	6.00	6.73	1.63	10/01/2006
Excess			(0.37)	(0.76)	0.51	0.24	0.73	2.22	(0.03)	(0.82)	(0.65)	
Citibank PPAR GNMA	1	0.00	(0.57)	(2.31)	(0.68)	(0.90)	(1.13)	2.05	5.89	5.33	1.90	12/01/2006
GNMA Plus 65bps			(0.21)	(0.35)	(0.03)	(0.06)	(0.71)	(0.14)	6.00	6.73	1.63	12/01/2006
Excess			(0.36)	(1.96)	(0.65)	(0.84)	(0.42)	2.19	(0.10)	(1.41)	0.27	
Citibank PPAR FNMA	4	0.02	(0.31)	(2.11)	(2.69)	0.45	(1.75)	(0.97)	15.33	19.71	2.63	12/01/2013
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)	0.51	7.21	7.80	1.86	12/01/2013
Excess			(0.14)	(1.56)	(2.88)	0.32	(1.45)	(1.48)	8.12	11.91	0.77	
CFSB PPAR FNMA	0	0.00	(0.28)	(2.29)	(3.43)	0.49	(2.23)					10/01/2020
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)					10/01/2020
Excess			(0.12)	(1.73)	(3.62)	0.36	(1.93)					

# New York City Fire Department Pension Fund

Manager / Benchmark Comparison Report

Rates of Return - Net Mgr

Periods Ending October 31, 2021



	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	Trailing 1 Year	FYTD	CYTD	FYE 6/30/21	FYE 6/30/20	CYE 12/31/19	CYE 12/31/18	Inception Date
BOA PPAR FNMA	3	0.01	(0.32)	(2.15)	(2.96)	0.29	(2.03)	(1.21)	9.05	13.54	2.33	12/01/2013
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)	0.51	7.21	7.80	1.86	12/01/2013
Excess			(0.16)	(1.60)	(3.15)	0.16	(1.73)	(1.72)	1.85	5.74	0.47	
CPC PPAR FNMA	3	0.01	0.24	(1.37)	(0.09)	1.11	0.47	1.54	7.80	13.18	2.31	07/01/2013
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)	0.51	7.21	7.80	1.86	07/01/2013
Excess			0.40	(0.82)	(0.28)	0.97	0.76	1.03	0.60	5.38	0.45	
ECLF PPAR FNMA	2	0.01	(0.27)	(2.22)	(3.24)	0.58	(1.91)	(0.03)				06/01/2020
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)	0.51				06/01/2020
Excess			(0.10)	(1.66)	(3.43)	0.45	(1.61)	(0.55)				
JPMC PPAR FNMA	6	0.03	(0.35)	(2.18)	(2.98)	0.34	(2.02)	(0.50)	10.58	14.68	1.68	08/01/2013
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)	0.51	7.21	7.80	1.86	08/01/2013
Excess			(0.18)	(1.62)	(3.17)	0.21	(1.73)	(1.02)	3.37	6.88	(0.18)	
LIIF PPAR GNMA	0	0.00	(0.33)	(0.44)	1.22	0.39	0.81	2.04	5.68	5.54	2.53	08/01/2009
GNMA Plus 65bps			(0.21)	(0.35)	(0.03)	(0.06)	(0.71)	(0.14)	6.00	6.73	1.63	08/01/2009
Excess			(0.12)	(0.09)	1.25	0.45	1.52	2.18	(0.32)	(1.19)	0.89	
LIIF PPAR FNMA	3	0.01	(0.34)	(2.12)	(2.85)	0.37	(1.94)	(1.01)	11.85	16.35	2.27	11/01/2013
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)	0.51	7.21	7.80	1.86	11/01/2013
Excess			(0.18)	(1.57)	(3.04)	0.24	(1.65)	(1.52)	4.64	8.55	0.41	
LISC PPAR FNMA	2	0.01	(0.28)	(2.23)	15.97	0.54	(1.92)	17.94	14.27	14.95		11/01/2018
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)	0.51	7.21	7.80		11/01/2018
Excess			(0.11)	(1.68)	15.78	0.41	(1.62)	17.42	7.06	7.15		
NCBCI PPAR GNMA	0	0.00	(0.56)	(0.77)	1.65	0.28	0.92	3.07	5.39	3.69	1.23	08/01/2009
GNMA Plus 65bps			(0.21)	(0.35)	(0.03)	(0.06)	(0.71)	(0.14)	6.00	6.73	1.63	08/01/2009
Excess			(0.35)	(0.42)	1.69	0.34	1.64	3.21	(0.61)	(3.04)	(0.41)	
NCBCI PPAR FNMA	0	0.00	(0.58)	(0.89)	0.05	0.28	0.65	2.86	6.88	4.08	2.00	11/01/2013
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)	0.51	7.21	7.80	1.86	11/01/2013
Excess			(0.41)	(0.34)	(0.14)	0.14	0.95	2.35	(0.33)	(3.72)	0.15	
Wells Fargo PPAR FNMA	1	0.01	(0.21)	(2.25)	17.85	0.60	(2.02)	19.77	9.39	21.71		01/01/2017
FNMA Plus 85bps			(0.16)	(0.55)	0.19	0.13	(0.30)	0.51	7.21	7.80	1.86	01/01/2017
Excess			(0.05)	(1.70)	17.66	0.47	(1.72)	19.25	2.18	13.91		
<b>FIRE-TOTAL CASH</b>	<b>347</b>	<b>1.76</b>	<b>0.09</b>	<b>0.19</b>	<b>0.52</b>	<b>0.21</b>	<b>0.45</b>	<b>0.41</b>	<b>2.32</b>	<b>2.76</b>	<b>2.05</b>	<b>04/01/2004</b>
ICE BofA US 3-Month Treasury Bill			0.01	0.01	0.06	0.01	0.04	0.09	1.63	2.28	1.87	04/01/2004
Excess			0.09	0.18	0.46	0.20	0.42	0.31	0.69	0.48	0.18	
Short Term FIRE	347	1.76	(0.01)	0.01	0.09	0.01	0.06	0.12	1.38	2.27	1.97	12/01/1989
ICE BofA US 3-Month Treasury Bill			0.00	0.01	0.06	0.01	0.04	0.09	1.63	2.28	1.87	12/01/1989
Excess			0.00	0.00	0.03	0.00	0.03	0.03	(0.25)	(0.01)	0.09	
Cash Account	0	0.00										04/01/2004
Securities Lending	0	0.00										04/01/2004
<b>FIRE-TOTAL PRIVATE EQUITY</b>	<b>1,470</b>	<b>7.45</b>	<b>0.75</b>	<b>9.94</b>	<b>49.71</b>	<b>12.85</b>	<b>37.47</b>	<b>49.13</b>	<b>1.35</b>	<b>11.76</b>	<b>17.98</b>	<b>04/01/2004</b>
<b>FIRE-TOTAL PRIVATE REAL ESTATE</b>	<b>942</b>	<b>4.78</b>	<b>3.85</b>	<b>6.33</b>	<b>19.66</b>	<b>10.06</b>	<b>18.31</b>	<b>9.28</b>	<b>2.54</b>	<b>6.88</b>	<b>10.43</b>	<b>04/01/2004</b>
<b>FIRE-TOTAL INFRASTRUCTURE</b>	<b>217</b>	<b>1.10</b>	<b>0.44</b>	<b>1.51</b>	<b>15.60</b>	<b>2.56</b>	<b>11.10</b>	<b>18.40</b>	<b>5.69</b>	<b>12.18</b>	<b>8.59</b>	<b>12/01/2013</b>

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**New York City Fire Pension Fund**  
**Private Equity Portfolio**  
As of June 30, 2021 (in USD)

Vintage Year	Investment	First Drawdown	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Multiple	IRR <sup>1</sup>	PME Return <sup>2</sup>	PME Spread <sup>3</sup>
<b>Active Investments</b>										
1999	Cypress Merchant Banking Partners II, L.P.	3/29/1999	\$ 22,586,486	\$ 26,972,134	\$ 25,292,077	\$ 10,695	0.94x	(1.2%)	5.5%	(6.7%)
1999	Lincolnshire Equity Fund II, L.P.	10/20/1999	6,899,005	7,223,050	14,158,254	125,789	1.98x	24.6%	7.0%	17.6%
2000	SCP Private Equity Partners II, L.P.	6/15/2000	15,000,000	16,834,296	6,514,303	967,441	0.44x	(9.3%)	5.7%	(15.0%)
2001	Apollo Investment Fund V, L.P.	4/13/2001	15,000,000	23,379,009	46,122,367	128,584	1.98x	38.8%	8.3%	30.4%
2001	CVC European Equity Partners III, L.P.	9/4/2001	10,000,000	11,880,366	29,775,858	666,740	2.56x	41.0%	10.9%	30.1%
2003	FS Equity Partners V, L.P.	1/20/2003	10,000,000	8,567,981	16,744,589	1,001,975	2.07x	15.4%	5.3%	10.1%
2003	Blackstone Capital Partners IV, L.P.	2/26/2003	13,875,989	17,172,972	41,965,480	223,413	2.46x	36.3%	8.5%	27.8%
2003	Ares Corporate Opportunities Fund, L.P.	4/1/2003	5,000,000	5,998,308	8,941,880	40,513	1.50x	13.1%	7.4%	5.7%
2004	Markstone Capital Partners, LP	1/30/2004	5,000,000	5,862,384	2,477,825	34,027	0.43x	(33.7%)	10.4%	(44.0%)
2004	FdG Capital Partners II LP	8/30/2004	5,000,000	5,387,768	6,421,816	98,649	1.21x	3.6%	6.8%	(3.1%)
2004	Lincolnshire Equity Fund III, L.P.	10/1/2004	5,000,000	5,000,631	7,113,293	1,646,285	1.75x	27.5%	12.3%	15.2%
2004	Yucaipa American Alliance Fund I, LP	10/1/2004	5,000,000	7,491,869	8,800,690	35,669	1.18x	4.0%	10.7%	(6.7%)
2004	New York/Fairview Emerging Managers Fund, L.P.-Tranche 1	10/21/2004	2,000,000	2,053,879	2,119,833	101,133	1.08x	1.3%	8.6%	(7.3%)
2004	Medica III Investments (International) L.P.	8/21/2006	3,000,000	2,992,836	1,267,948	508,000	0.59x	(9.2%)	(6.2%)	(3.0%)
2005	Palladium Equity Partners III, L.P.	11/12/2004	10,000,000	10,572,813	20,070,680	72,919	1.91x	15.3%	11.5%	3.9%
2005	New Mountain Partners II, L.P.	1/12/2005	2,580,650	2,337,304	4,502,540	15,578	1.93x	13.6%	4.4%	9.2%
2005	Snow Phipps Group, L.P.	9/7/2005	5,000,000	6,124,792	5,228,654	2,728,460	1.30x	5.2%	11.9%	(6.7%)
2005	FirstMark Capital I, L.P. (fka FirstMark IV)	11/21/2005	1,500,000	1,639,064	9,476,836	9,412,152	11.52x	35.3%	12.8%	22.5%
2005	USPF II Institutional Fund, L.P.	11/23/2005	5,000,000	6,594,940	7,688,280	589,984	1.26x	3.8%	7.8%	(4.0%)
2005	JP Morgan Fleming (Tranche A)	12/21/2005	3,000,000	3,023,749	3,313,726	810,260	1.36x	5.3%	11.1%	(5.8%)
2005	Arlington Capital Partners II, L.P.	4/20/2006	4,000,000	4,069,527	7,137,350	30,668	1.76x	11.2%	6.8%	4.5%
2006	Aisling Capital II, LP	1/12/2006	1,000,000	1,178,021	1,141,279	33,437	1.00x	(0.0%)	7.7%	(7.8%)
2006	Terra Firma Capital Partners III, L.P.	3/8/2006	5,223,719	5,298,700	2,388,640	19,535	0.45x	(9.3%)	10.0%	(19.3%)
2006	Blackstone Capital Partners V, L.P.	4/13/2006	9,448,250	10,060,754	16,240,726	323,367	1.65x	8.1%	8.4%	(0.4%)
2006	Apollo Investment Fund VI, L.P.	5/10/2006	20,000,000	25,741,832	38,519,613	377,022	1.51x	8.7%	7.6%	1.1%
2006	Ares Corporate Opportunities Fund II, L.P.	5/23/2006	5,000,000	5,476,087	9,138,855	6,359	1.67x	13.1%	3.8%	9.3%
2006	Euro Choice III L.P.	11/21/2006	5,313,080	5,347,612	6,207,361	1,300	1.16x	2.9%	12.0%	(9.1%)
2006	Thomas, Mc Nerney & Partners II, L.P.	11/29/2006	3,000,000	3,035,394	6,656,046	200,530	2.26x	16.6%	11.7%	4.9%
2006	Catterton Partners VI, L.P.	12/14/2006	5,000,000	5,693,763	9,218,897	1,667,973	1.91x	11.5%	9.3%	2.2%
2006	First Reserve Fund XI, L.P.	12/14/2006	5,000,000	5,313,265	3,518,155	6,245	0.66x	(9.4%)	6.8%	(16.1%)
2006	Permira IV, L.P.	12/14/2006	5,487,489	6,016,234	8,822,843	1,114,584	1.65x	9.2%	9.7%	(0.6%)
2006	Arsenal Capital Partners II, LP	12/18/2006	4,000,000	4,986,154	9,557,955	39,152	1.92x	12.1%	11.8%	0.3%
2006	GF Capital Private Equity Fund, L.P.	12/18/2006	3,000,000	3,076,007	4,058,641	1,361,726	1.76x	11.1%	12.3%	(1.1%)
2006	RRE Ventures IV, L.P.	12/19/2006	2,500,000	3,180,708	2,544,869	5,071,368	2.39x	10.2%	12.2%	(2.0%)
2006	Coller International Partners V, L.P.	12/21/2006	5,000,000	4,372,182	5,859,924	169,503	1.38x	7.6%	10.7%	(3.1%)
2006	MidOcean Partners III, L.P.	12/21/2006	9,705,796	11,630,318	23,889,345	1,254,664	2.16x	13.3%	10.0%	3.3%
2006	The Fourth Cinven Fund	1/22/2007	2,723,676	2,870,280	4,124,333	1,943	1.44x	7.3%	7.5%	(0.2%)
2006	Falconhead Capital Partners II, L.P.	3/23/2007	4,000,000	4,523,260	4,520,115	909,066	1.20x	3.3%	8.7%	(5.4%)
2006	Atlantic Equity Partners IV, L.P.	10/30/2007	3,768,757	3,663,425	732,087	4,758,971	1.50x	3.9%	10.6%	(6.7%)
2007	Pegasus Partners IV, L.P.	1/29/2007	7,500,000	9,112,510	6,900,231	1,414,576	0.91x	(1.7%)	11.3%	(13.0%)
2007	Olympus Capital Asia III, L.P.	1/31/2007	5,000,000	5,851,116	3,005,408	902,576	0.67x	(8.6%)	11.2%	(19.8%)
2007	FTVentures III, LP	3/1/2007	2,500,000	2,743,841	5,452,899	828,539	2.29x	15.7%	10.6%	5.1%
2007	Highland Consumer Fund I LP	3/16/2007	2,000,000	2,003,212	1,224,131	352,024	0.79x	(3.1%)	10.9%	(14.0%)
2007	Montreux Equity Partners IV, L.P.	3/27/2007	5,000,000	5,000,000	2,761,158	4,083,919	1.37x	4.1%	11.1%	(6.9%)
2007	Gleacher Mezzanine Fund II, L.P.	3/30/2007	3,000,000	2,752,429	3,651,296	37,055	1.34x	10.6%	12.1%	(1.5%)
2007	SCP Vitalife Partners II Fund	4/13/2007	5,000,000	5,024,924	395	1,233,583	0.25x	(13.1%)	3.8%	(16.9%)
2007	Constellation Venture Capital III, L.P.	5/22/2007	5,000,000	5,765,313	2,904,086	2,104,272	0.87x	(1.9%)	15.4%	(17.4%)
2007	United States Power Fund III, L.P.	6/28/2007	5,000,000	5,915,665	6,111,963	1,597,498	1.30x	4.4%	9.9%	(5.4%)
2007	Carlyle Partners V, L.P.	7/6/2007	10,000,000	10,340,844	17,369,896	1,343,708	1.81x	13.7%	11.1%	2.6%
2007	PCG Clean Energy & Technology Fund (East), LLC	7/6/2007	10,000,000	9,047,736	2,660,473	809,174	0.38x	(12.0%)	12.9%	(24.9%)
2007	GSO Capital Opportunities Fund LP	7/16/2007	7,500,000	11,229,550	15,937,873	110,369	1.43x	17.3%	10.1%	7.2%
2007	New Mountain Partners III, L.P.	8/9/2007	10,000,000	10,230,442	17,557,281	7,823,892	2.48x	14.8%	13.3%	1.5%
2007	Vista Equity Partners Fund III, L.P.	10/3/2007	7,500,000	8,064,983	19,154,991	789,514	2.47x	26.9%	10.0%	16.9%
2007	Trilantic Capital Partners IV L.P.	10/22/2007	7,236,332	7,554,273	11,334,907	431,759	1.56x	13.1%	10.9%	2.2%
2007	Pine Brook Capital Partners, L.P.	1/11/2008	7,500,000	8,517,075	10,609,787	622,971	1.32x	7.3%	12.1%	(4.9%)
2007	Princeton Capital Corp. (fka Capital Point)	10/17/2008	3,000,000	3,497,432	2,267,271	1,037,184	0.94x	(1.1%)	15.8%	(16.9%)
2007	Post Capital Equity Partners II LP	2/10/2009	3,000,000	2,163,355	4,081,000	483,358	2.11x	15.2%	16.1%	(1.0%)
2008	Paladin III (NY City), L.P.	1/8/2008	7,500,000	10,444,540	18,210,368	10,230,652	2.72x	15.6%	13.0%	2.6%
2008	Apollo Investment Fund VII, L.P.	1/28/2008	25,000,000	30,668,979	50,545,274	2,604,266	1.73x	22.6%	13.8%	8.8%
2008	NGN BioMed Opportunity II, L.P.	2/11/2008	5,000,000	4,787,955	3,336,553	2,357,074	1.19x	2.4%	15.3%	(12.9%)
2008	Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	3/3/2008	7,500,000	8,636,195	9,165,538	168,196	1.08x	2.1%	13.9%	(11.9%)
2008	Yucaipa American Alliance Fund II, LP	3/28/2008	15,000,000	20,587,385	21,693,382	13,410,192	1.71x	8.8%	13.1%	(4.3%)
2008	Levine Leichtman Capital Partners IV, L.P.	4/8/2008	5,000,000	5,353,601	8,479,347	668,831	1.71x	18.2%	14.4%	3.8%
2008	New York/Fairview Emerging Managers Fund, L.P.-Tranche 2	5/28/2008	5,000,000	5,065,974	9,861,798	5,680,161	3.07x	20.1%	14.1%	6.0%
2008	Yucaipa Corporate Initiatives Fund II, LP	6/23/2008	4,676,976	4,592,705	2,742,407	1,222,467	0.86x	(2.0%)	12.4%	(14.5%)
2008	CVC European Equity Partners V, L.P.	7/21/2008	13,642,813	14,796,154	28,531,266	664,133	1.97x	16.4%	12.8%	3.6%
2008	GI Partners Fund III L.P.	7/29/2008	7,500,000	8,086,843	12,702,734	20,108	1.57x	13.0%	15.3%	(2.3%)
2008	Ares Corporate Opportunities Fund III, L.P.	7/30/2008	10,000,000	12,252,779	25,936,280	575,667	2.16x	20.4%	12.2%	8.3%
2008	GCM Grosvenor NYCFDPF Emerging Manager Fund, L.P.	8/22/2008	8,979,798	11,822,110	11,205,129	5,929,591	1.45x	9.3%	14.4%	(5.1%)
2008	First Reserve Fund XII, L.P.	8/25/2008	5,000,000	5,554,103	2,821,047	291,288	0.56x	(13.8%)	17.1%	(30.9%)
2008	Landmark Equity Partners XIV, L.P.	9/19/2008	13,630,000	13,303,724	15,688,889	2,114,086	1.34x	9.5%	14.9%	(5.3%)
2008	Crestview Partners II, L.P.	10/1/2008	7,500,000	8,946,958	12,540,318	4,977,908	1.96x	14.7%	15.1%	(0.4%)
2008	Milestone Partners III, L.P.	10/17/2008	3,000,000	3,237,896	2,791,270	224,286	0.93x	(1.3%)	14.5%	(15.9%)
2008	Euro Choice IV L.P.	10/22/2008	6,479,386	6,023,874	7,190,909	1,582,766	1.46x	7.1%	13.7%	(6.6%)
2008	Avista Capital Partners II, L.P.	11/5/2008	10,000,000	13,150,800	20,608,240	752,325	1.62x	14.3%	14.8%	(0.5%)
2008	Bridgepoint Europe IV	11/14/2008	6,657,029	6,871,685	9,131,924	1,302,802	1.52x	9.6%	15.0%	(5.4%)
2008	Blue Wolf Capital Fund II, L.P.	11/19/2008	3,000,000	3,317,104	5,475,256	67,798	1.67x	10.6%	15.8%	(5.2%)
2008	Aisling Capital III, LP	11/20/2008	3,500,000	3,948,778	9,309,233	32,763	2.37x	26.0%	14.3%	11.7%
2008	Onex Partners III LP	12/10/2008	5,000,000	5,484,081	7,762,430	1,153,584	1.63x	11.4%	15.3%	(3.9%)
2009	NorthBound Emerging Manager Custom Fund LP	1/29/2009	5,000,000	4,366,772	6,146,330	967,478	1.63x	12.1%	14.8%	(2.7%)
2009	Welsh, Carson, Anderson & Stowe XI, L.P.	2/10/2009	7,500,000	7,500,000	10,303,259	2,184,617	1.67x	11.7%	15.2%	(3.5%)
2009	Scale Venture Partners III, LP	5/1/2009	5,000,000	4,981,767	12,750,882	1,706,565	2.90x	23.0%	14.1%	8.9%
2009	FS Equity Partners VI, L.P.	7/27/2009	12,500,000	12,597,736	34,682,785	6,050,796	3.23x	24.1%	1	





**New York City Fire Pension Fund  
Private Equity Portfolio  
As of June 30, 2021 (in USD)**

Vintage Year	Investment	First Drawdown	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Multiple	IRR <sup>1</sup>	PME Return <sup>2</sup>	PME Spread <sup>3</sup>
2021	Apax Digital Fund II	N/A	12,000,000	-	-	-	N/A	N/A	N/A	N/A
2021	Insight Partners Fund XII, L.P.	N/A	30,000,000	-	-	-	N/A	N/A	N/A	N/A
2021	Insight Partners XII Buyout Annex Fund, L.P.	N/A	10,000,000	-	-	-	N/A	N/A	N/A	N/A
2021	Clearlake Capital Partners VII, L.P.	N/A	40,000,000	-	-	-	N/A	N/A	N/A	N/A
2021	Reverence Capital Partners Opportunities Fund V L.P.	N/A	10,000,000	-	-	-	N/A	N/A	N/A	N/A
2021	Reverence Capital Partners Opportunities Fund II (Parallel), L.P.	N/A	4,000,000	-	-	-	N/A	N/A	N/A	N/A
<b>Total Commitments Closed Subsequent to as of Date</b>			<b>\$ 165,500,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

<sup>1</sup> Performance for funds with less than eight (8) quarters of activity is not meaningful.

<sup>2</sup> Russell 3000 PME+ or Long-Nickels PME for investments with no distributed capital as of quarter-end.

<sup>3</sup> PME Spread is calculated as IRR minus PME Return.

<sup>4</sup> NYCFFP - 2012 Emerging Manager Program includes the total commitment amount of \$23.7 million. The Program's original commitment amount of \$25.0 million was subsequently revised to \$23.7 million, all of which has been committed as of June 30, 2021. The remaining \$1.3 million was reallocated to the NYCFFP - 2015 Emerging Manager Program.

<sup>5</sup> NYCFFP - 2015 Emerging Manager Program includes the total commitment amount of \$29.8 million. The Program's original commitment amount of \$31.3 million, which included the original \$30.0 million commitment and the \$1.3 million reallocation from the NYCFFP - 2012 Emerging Manager Program, was subsequently revised to \$29.8 million. As of June 30, 2021, all \$29.8 million has been committed, and the remaining \$1.6 million was reallocated to the NYCFFP - 2019 Emerging Manager Program.

<sup>6</sup> NYCFFP - 2019 Emerging Manager Program commitment amount totals \$37.6 million, which includes the Program's original \$36.0 million commitment and the \$1.6 million reallocation from the NYCFFP - 2015 Emerging Manager Program. As of June 30, 2021, \$12.5 million has been committed.

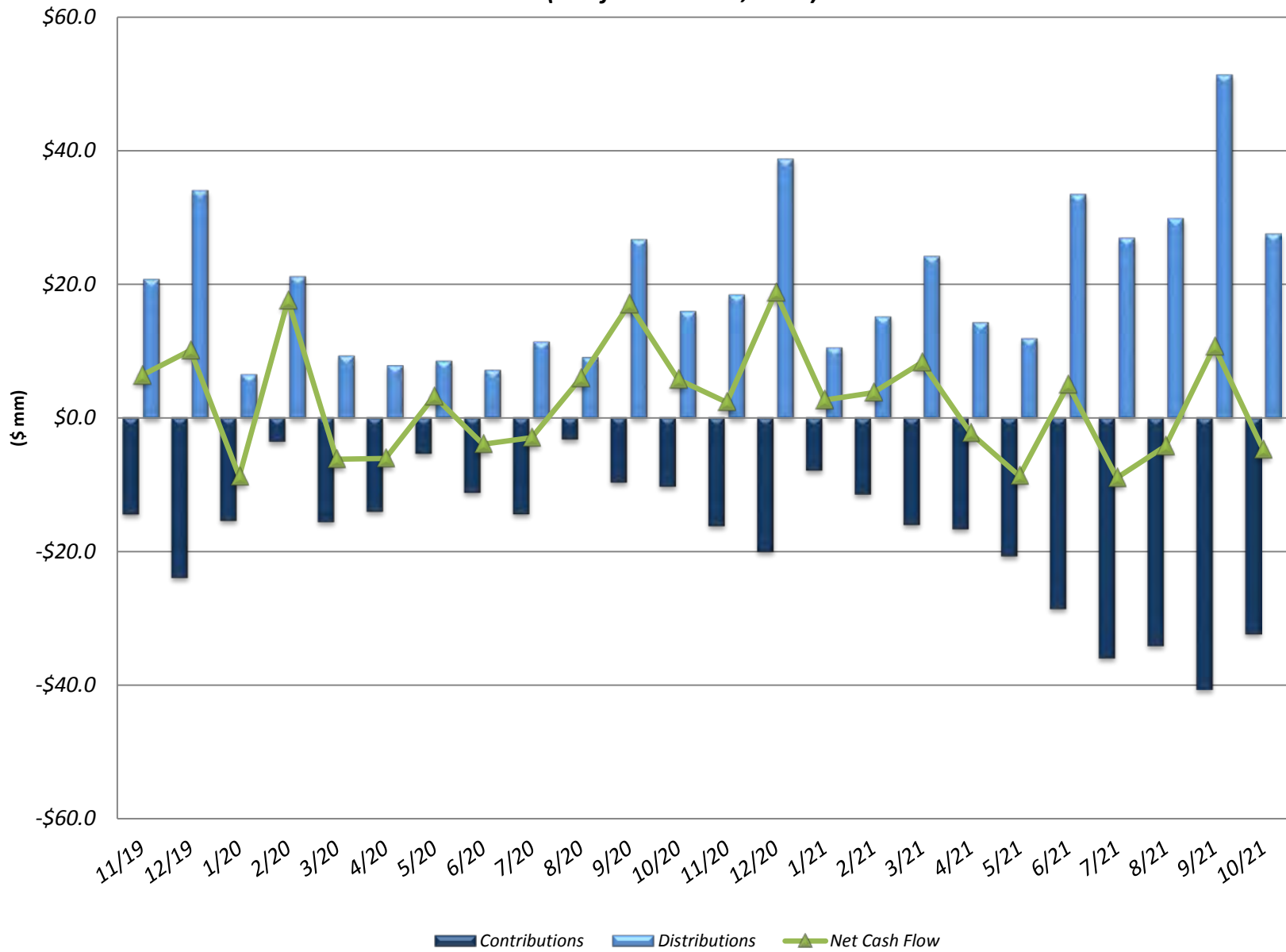
<sup>7</sup> Total Portfolio includes liquidated investments.

**Past performance is not necessarily indicative of future results and there can be no assurance that the fund will achieve comparable results or avoid substantial losses.**

The referenced indices are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

Note: IRRs presented are interim estimates and may not be indicative of the ultimate performance of fund investments due to a number of factors, such as the lack of industry valuation standards and the differences in the investment pace and strategy of various funds. Until a fund is liquidated, typically over 10 to 12 years, the IRR is only an interim estimated return. The IRR calculated in early years of a fund is not meaningful given the J-curve effect. The actual IRR performance of any fund is not known until all capital contributed and earnings have been distributed to the investor. The IRRs contained in this report are calculated by StepStone Group LP ("StepStone"), a consultant to the New York City Fire Pension Fund, based on information provided by the general partners (e.g. cash flows and valuations). The IRR calculations and other information contained in this report have not been reviewed or confirmed by the general partners. The result of the IRR calculation may differ from that generated by the general partner or other limited partners. Differences in IRR calculations can be affected by cash-flow timing, the accounting treatment of carried interest, fund management fees, advisory fees, organizational fees, other fund expenses, sale of distributed stock, and valuations. IRR and TVPI for certain vehicles may have been impacted by Stepstone's or the underlying GPs' use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.

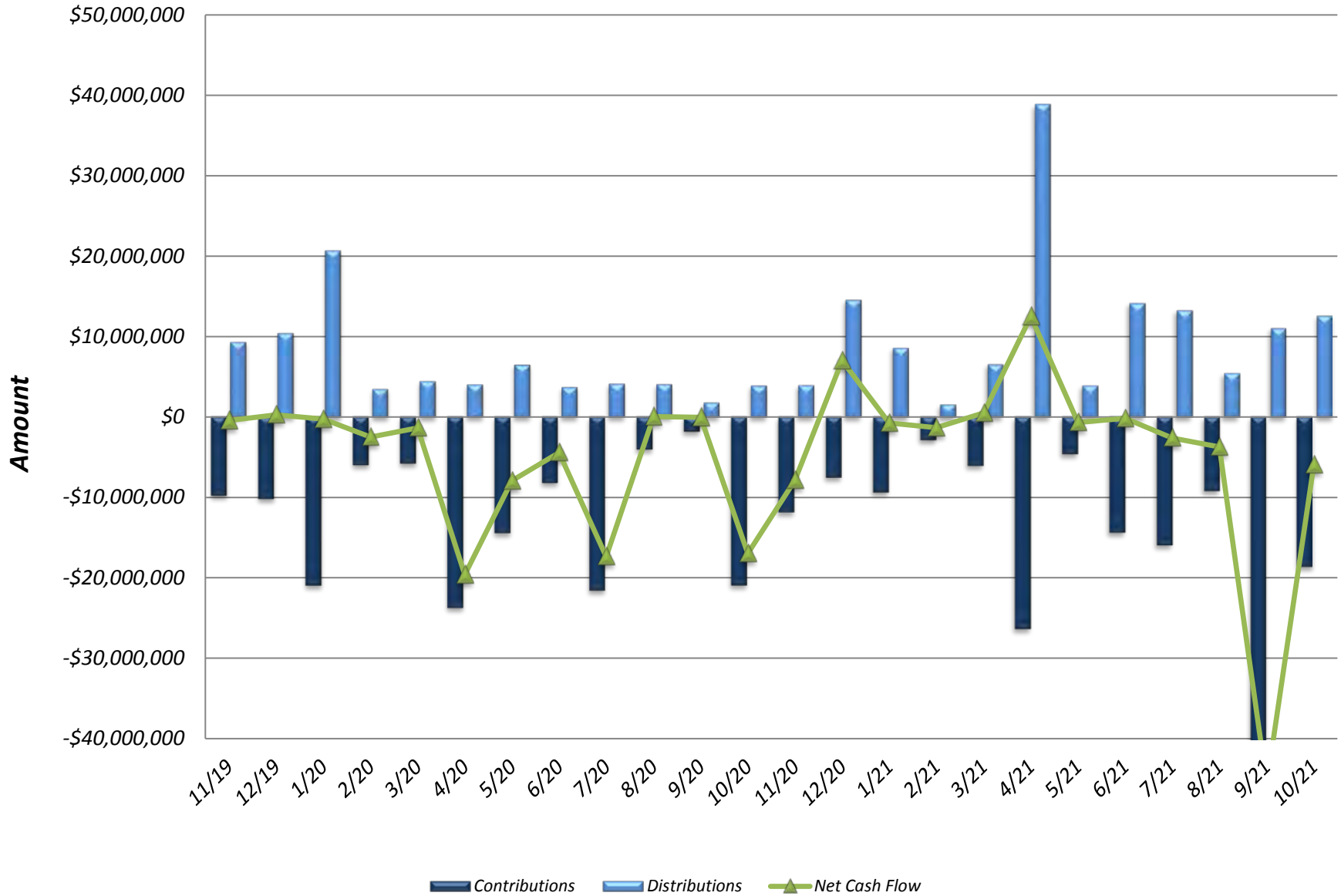
**NYC Fire Monthly PE Cash Flow Summary**  
*(as of October 31, 2021)*







### Fire Monthly Real Estate Cash Flow Summary (as of October 31, 2021)



**New York City Fire Pension Fund, Subchapter 2**  
**Infrastructure Portfolio**  
**As of June 30, 2021**

Vintage Year	Investment	Closing Date	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Unfunded	TVPI	IRR
<b>Active Investments:</b>									
2013	Brookfield Infrastructure Fund II, L.P.	7/8/2013	\$15,000,000	\$13,144,642	\$7,370,186	\$16,312,150	\$2,780,313	1.8x	12.8%
2014	IFM Global Infrastructure Fund	1/2/2014	\$10,000,000	\$13,351,525	\$5,266,542	\$17,457,255	-	1.7x	11.9%
2014	Global Energy & Power Infrastructure Fund II	4/16/2014	\$10,000,000	\$10,589,092	\$8,731,256	\$5,405,974	\$469,946	1.3x	18.3%
2014	KKR Global Infrastructure Investors II L.P.	6/12/2015	\$12,000,000	\$12,883,437	\$13,383,665	\$8,667,712	\$484,478	1.7x	18.2%
2016	Global Infrastructure Partners III-A/B, L.P.	1/29/2016	\$22,000,000	\$19,997,315	\$4,439,338	\$20,208,228	\$4,250,887	1.2x	7.4%
2016	Brookfield Infrastructure Fund III, L.P.	4/15/2016	\$19,000,000	\$11,897,115	\$3,377,562	\$12,122,146	\$8,193,553	1.3x	10.0%
2016	Actis Energy 4	12/16/2016	\$12,900,000	\$10,712,825	\$3,090,398	\$10,823,000	\$4,795,760	1.3x	12.3%
2017	EQT Infrastructure III (No.2) SCSp	2/18/2017	\$11,234,015	\$12,025,275	\$1,750,269	\$17,191,904	\$925,428	1.6x	19.6%
2016	ASF VII Infrastructure L.P.	4/24/2017	\$15,000,000	\$8,881,960	\$990,028	\$10,674,458	\$6,397,054	1.3x	17.1%
2017	Axiom Infrastructure North America (2017)	8/14/2017	\$15,220,450	\$15,662,116	\$3,046,387	\$16,835,635	-	1.3x	10.4%
2017	NYCRS EIG Energy Partners, L.P.	8/14/2017	\$15,300,000	\$6,232,694	\$2,401,785	\$4,715,463	\$11,432,191	1.1x	8.2%
2021	NYCRS EIG Energy Partners Co-Investment, L.P.	1/12/2018	\$3,820,000	-	-	-	\$3,820,000	-	0.0%
2018	KKR Global Infrastructure Investors III L.P.	3/29/2018	\$17,200,000	\$8,509,357	\$719,971	\$6,843,167	\$9,552,030	0.9x	-7.7%
2019	Global Energy & Power Infrastructure Fund III, L.P.	7/3/2018	\$17,200,000	\$7,078,555	\$1,074,638	\$6,732,256	\$10,625,499	1.1x	10.5%
2018	Cardinal NR Sidecar Holdings L.P.	10/5/2018	\$2,060,000	\$2,073,344	\$528,416	\$2,674,348	-	1.5x	18.7%
2018	EQT Infrastructure IV (No.2) USD SCSp	12/20/2018	\$20,000,000	\$12,701,831	\$473,250	\$14,644,114	\$7,605,962	1.2x	13.6%
2019	Ardian Infrastructure Fund V B	3/4/2019	\$16,387,113	\$1,927,137	\$96,213	\$2,344,156	\$14,460,254	1.3x	17.0%
2018	Global Infrastructure Partners IV-A/B, L.P.	3/11/2019	\$24,700,000	\$3,422,999	\$0	\$2,579,452	\$22,078,320	0.8x	-44.8%
2019	Brookfield Infrastructure Fund IV, L.P.	5/10/2019	\$21,000,000	\$12,176,929	\$1,635,179	\$12,324,158	\$9,500,542	1.1x	12.3%
2020	EQT Infrastructure IV Co-Investment (B) SCSp (Saber)	7/30/2019	\$1,800,000	\$1,818,000	\$109,250	\$2,083,104	-	1.2x	16.9%
2019	Brookfield Infrastructure Fund IV Co-Investment (Snow)	10/25/2019	\$2,000,000	\$2,008,446	\$133,054	\$2,283,138	-	1.2x	12.7%
2020	EQT Infrastructure IV Co-Investment (G) SCSp (Lightspeed)	6/11/2020	\$3,068,600	\$3,078,707	-	\$3,763,495	-	NM	NM
2020	BIS NYC Infrastructure Emerging Manager Opportunities Fund, L.P.	7/3/2020	\$14,980,000	\$815,743	-	\$784,740	\$14,164,257	NM	NM
2020	EQT Infrastructure IV Co-Investment (F) SCSp (Connect)	8/18/2020	\$2,300,000	\$2,308,214	-	\$2,772,708	-	NM	NM
2020	EQT Infrastructure V (No.2) USD SCSp	10/29/2020	\$40,000,000	-	-	(\$942,715)	\$40,000,000	NM	NM
2021	Stonepeak Infrastructure Fund IV, L.P.	2/16/2021	\$35,000,000	\$363,147	-	\$21,352	\$34,639,123	NM	NM
2021	Stonepeak Tiger (Co-Invest) Holdings (I-B) LP	4/16/2021	\$4,000,000	-	-	-	\$4,000,000	NM	NM
2021	KKR Global Infrastructure Investors IV (USD) SCSp	5/24/2021	\$35,000,000	-	-	(\$102)	\$35,000,000	NM	NM
<b>Total</b>			<b>\$418,170,178</b>	<b>\$193,660,405</b>	<b>\$58,617,389</b>	<b>\$199,321,295</b>	<b>\$245,175,598</b>	<b>1.3x</b>	<b>12.2%</b>

Note: IRRs presented are interim estimates and may not be indicative of the ultimate performance of fund investments due to a number of factors, such as the lack of industry valuation standards and the differences in the investment pace and strategy of various funds. Until a fund is liquidated, typically over 10 to 12 years, the IRR is only an interim estimated return. The IRR calculated in the early years of a fund is usually not meaningful given the J-Curve effect. The actual IRR performance of any fund is not known until all capital contributed and earnings have been distributed to the investor. The IRRs contained in this report are calculated by StepStone Group LP, a consultant to the New York City Retirement Systems, based on information provided by the general partners of each investment (e.g. cash flows and valuations). The IRR calculations and other information contained in this report have not been reviewed or confirmed by the general partners. The result of the IRR calculation may differ from that generated by the general partner or other limited partners. Differences in IRR calculations can be affected by cash-flow timing, the accounting treatment of carried interest, fund management fees, advisory fees, organizational fees, other fund expenses, sale of distributed stock, and valuations.

### FIRE Monthly Infrastructure Cash Flow Summary (as of October 31, 2021)

