



New York City  
Employees' Retirement System  
Performance Overview as of June 30, 2016

# Total Fund Overview

## **New York City Employees' Retirement System**

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Through June 30, 2016



### **City of New York Employees' Retirement System Second Quarter 2016 Summary**

**General Economic and Market Conditions:** Voters in the United Kingdom narrowly approved a referendum to leave the European Union on June 23, and this unexpected result completely overshadowed everything else that happened in the global economy during the second quarter. Global bond yields fell to record lows, the British pound hit a 31-year low versus the U.S. dollar, and global equity markets plunged before quickly bouncing back to regain much of what they lost over a period of just a week.

In the background, the U.S. economy seemed to be calmly carrying on, as all indicators pointed toward the strongest growth in consumption in a decade. The first read of second quarter gross domestic product (GDP) growth was therefore clearly disappointing at just 1.2%, dashing consensus expectations (or maybe just hopes) for a rate of 2% or higher. The revision to the first quarter result was disappointing as well, pulled down from 1.1% to just 0.8%. The U.S. economy has now expanded by just 1.2% over the past year, the weakest 12-month gain since the reduction in Federal fiscal stimulus during 2013. Second quarter growth was fueled by the standout strength in consumer spending, which increased at a robust rate of 4.2%. Gains in employment, disposable income, and home asset values (boosting household wealth) along with low energy prices, modest inflation, and low interest rates are providing the tailwind for consumers. Weighing down overall GDP growth is continued retrenchment in non-residential fixed investment, a blip downward in residential investment, and the fourth consecutive quarter of inventory reduction, which subtracted more than 1% from overall GDP growth. This weak GDP growth is likely to give the Federal Reserve sufficient reason to delay a much anticipated September rate hike.

The job market gave quite a scare during the second quarter and was likely a primary factor in derailing what looked to be a certain Fed rate hike in June. April job gains slowed to 144,000 after averaging close to 200,000 during the first quarter, and then plummeted to just 11,000 in May, before recovering to an impressive 287,000 gain in June. The April and May jobs reports spurred fears that the economy was stalling, but the June gain may dispel some of those fears. As the U.S. economy approaches full employment, payroll gains can't grow at 200,000 per month indefinitely, let alone the 250,000 rate achieved in much of 2015. The unemployment rate remains below 5%, although it actually bounced up in June from 4.7% to 4.9% as more people rejoined the workforce. The biggest challenge for the labor market is the mismatch between the strong demand for skilled labor and the ample supply of relatively lower skilled workers.

The conundrum holding back stronger economic growth is the decline in company capital investment in a period of very low interest rates. Non-residential fixed investment fell in both the first and second quarters of 2016, dragged down by the collapse in drilling

Through June 30, 2016



activity for oil and natural gas. The strong dollar has also hit exports and domestic sales of manufacturing industries exposed to international competition, and weak global growth has suppressed prices for agricultural goods. On a more positive note, the impact of these forces suppressing capital spending has peaked and is fading relative to last year. The Institute for Supply Management's index of manufacturing activity rose back above 50—the line between expansion and contraction—and reached a 16-month high in June, suggesting that manufacturing may have bottomed in the first quarter of the year. Another anomaly impacting GDP growth is the inventory buildup caused by last winter's warm weather. A huge buildup in natural gas stocks was to be expected, but oddly enough, the warm weather spurred excess inventories in wholesalers and retailers, and the correction has slowed demand from manufacturers.

The Brexit vote will likely be a small bump in the road for U.S. trade. U.S. exports of goods and services to the U.K. and the EU constitute just 1% and 3% of GDP, respectively. The damage to U.S. GDP will likely be limited to a few tenths of one percent. The larger impact may come from Brexit's potential to dampen consumer and business confidence and to complicate central governments' attempts to address global economic stagnation.

The European Central Bank (ECB) continued its efforts to stimulate euro-zone economies, where unemployment remains at 10%. The ECB began buying corporate bonds in June, reaching nearly 5 billion euros by the end of the month. The average yield on investment-grade European corporate debt dropped to a record low of less than 1%. Negative-yielding government debt in the euro zone surged to nearly \$12 trillion. By comparison, U.S. yields look high, suggesting further downward pressure on seemingly rock-bottom U.S. interest rates is possible. The decline in U.S. rates since the start of the year caught most market participants by surprise. The consensus was for the U.S. to embark on a path to gradually higher rates, starting this year. As expectations for rising rates fade, the fear is that the optimism for growth which would have justified higher rates will fade, too.

**Total Fund Performance:** For the quarter ended June 30, 2016, the Fund returned +2.09%, two basis points below the Policy Target return of +2.11%. Over the trailing year, NYCERS has earned a return of +1.76% versus the Policy Target return of +2.28%. Over three years, the total Fund has returned +7.18% annualized. Over the trailing five years, the Fund has gained 6.96% annualized. The trailing 10-year return is +6.12% annualized.

**Total Fund Assets:** The Fund's assets totaled \$54.6 billion as of the end of the second quarter of 2016.

**U.S. Equity:** The total domestic equity portion of the NYCERS Fund returned +2.62% for the quarter, below the +2.63% return of the Russell 3000 Index. For the trailing year, NYCERS underperformed the index, returning +1.77% versus +2.14% for the index.

Through June 30, 2016



The Fund is below the benchmark over three, five, seven, and ten years. The passive portfolio bested the active one over the quarter as well as the one, three, five and seven year return periods. The active portfolio performed better over the trailing ten year return period.

In Large Cap, the Fund underperformed the Russell 1000 Index, returning +2.47% versus the Russell 1000's return of +2.54% during the second quarter. Over the past year, the Fund is below the benchmark, returning +2.88% versus +2.93% for the index.

In Mid Cap, the Fund's performance deviated from that of the index over the quarter, despite its strictly passive exposure. The Fund returned +3.66%, underperforming the +3.99% return of the S&P Mid Cap Index. Over the past year, the Fund's +1.00% return is thirty three basis points below that of the index (+1.33%).

In Small Cap, the Fund returned +3.75%, below the Russell 2000 return of +3.79% for the quarter. The Fund's one year return of -3.52% outperformed the -6.73% return of the Index.

**Developed International:** For the quarter, the Fund's Non-U.S. Developed Equity composite returned -0.37% (excluding NYCERS' non-U.S. Environmental and Activist managers), outperforming the MSCI EAFE Index by 109 basis points. The Fund returned -7.84% for the trailing one year period, above the return of the benchmark (-10.16%). The Fund is above the benchmark over the trailing three, five, seven, and ten year periods.

**Emerging Markets Equity:** The Fund's emerging markets equity composite returned +0.57% in the quarter, underperforming the +1.22% return of the FTSE NYCERS custom benchmark. The passive portfolio outperformed the active one for the quarter. The one year return for the emerging markets composite is -9.72%, underperforming the -7.71% return for the benchmark. The Fund is ahead of the benchmark over the trailing five, seven, and ten year periods and below the benchmark over the trailing three year period.

**Fixed Income:** The composite of the Fund's structured investment grade bond managers returned +2.80% during the quarter, while the NYCERS Core Plus Five Index returned +2.71%. For the past year, the structured composite has gained 6.64%, while the benchmark's return is +7.16%. Over longer time periods, the composite is ahead of the benchmark, having beaten it over the trailing three, five, seven, and ten year periods.

**TIPS:** The Fund's TIPS composite delivered a +1.78% return in the quarter, slightly above the +1.71% return for the Barclays Capital US TIPS Index. Over the past year, the Fund's TIPS managers have returned +4.40%, above the benchmark's return of +4.35%. Over

Through June 30, 2016



longer time periods, the composite is ahead of the benchmark, having beaten it over the trailing three, five, seven, and ten year periods.

**Enhanced Yield:** In enhanced yield, the Fund's managers returned +4.71% for the quarter, while the Citigroup BB&B Index posted a higher return of +4.97%. The Fund underperformed the benchmark over the past year, returning +0.63% as compared to the benchmark's return of +0.83%. The Fund has beaten the benchmark over the trailing three, five, seven, and ten year periods.

**Bank Loans:** The NYCERS bank loan composite returned +2.54% in the second quarter, below the Credit Suisse Leveraged Loan Index's return of +2.86%. The Fund outperformed the benchmark for the year returning +1.86% versus +0.93% for the benchmark. The Fund has outperformed relative to the benchmark over the trailing three year period.

**Convertibles:** The convertible portfolio returned +2.74% in the quarter, below the +4.49% return of the NYCERS Custom Convertible Bond Index. Over the past year, the convertibles portfolio has returned -0.42%, outperforming the benchmark by 237 basis points. Over the trailing three, five, and seven-year periods, the Fund has outperformed the custom benchmark.

**Opportunistic Fixed Income:** The opportunistic fixed income composite returned 4.44% over the second quarter. For the past year, the Fund is below the 10% annual return target with a return of -2.52%. Over five years, the Fund's +4.96% return is below the 10% annual return target. Over seven years, the Fund's +14.20% return is above the 10% annual return target.

**Alternatives:** For the quarter, the Private Equity portfolio had approximately \$4.1 billion in invested capital, representing roughly 7.6% of the Total Fund. The Real Assets portfolio had approximately \$3.0 billion invested, accounting for roughly 5.5% of the Total Fund. Hedge Fund investments represented \$1.3 billion, or 2.4%. Performance is reported separately by NYCERS' Private Equity, Real Estate and Hedge Fund consultants.

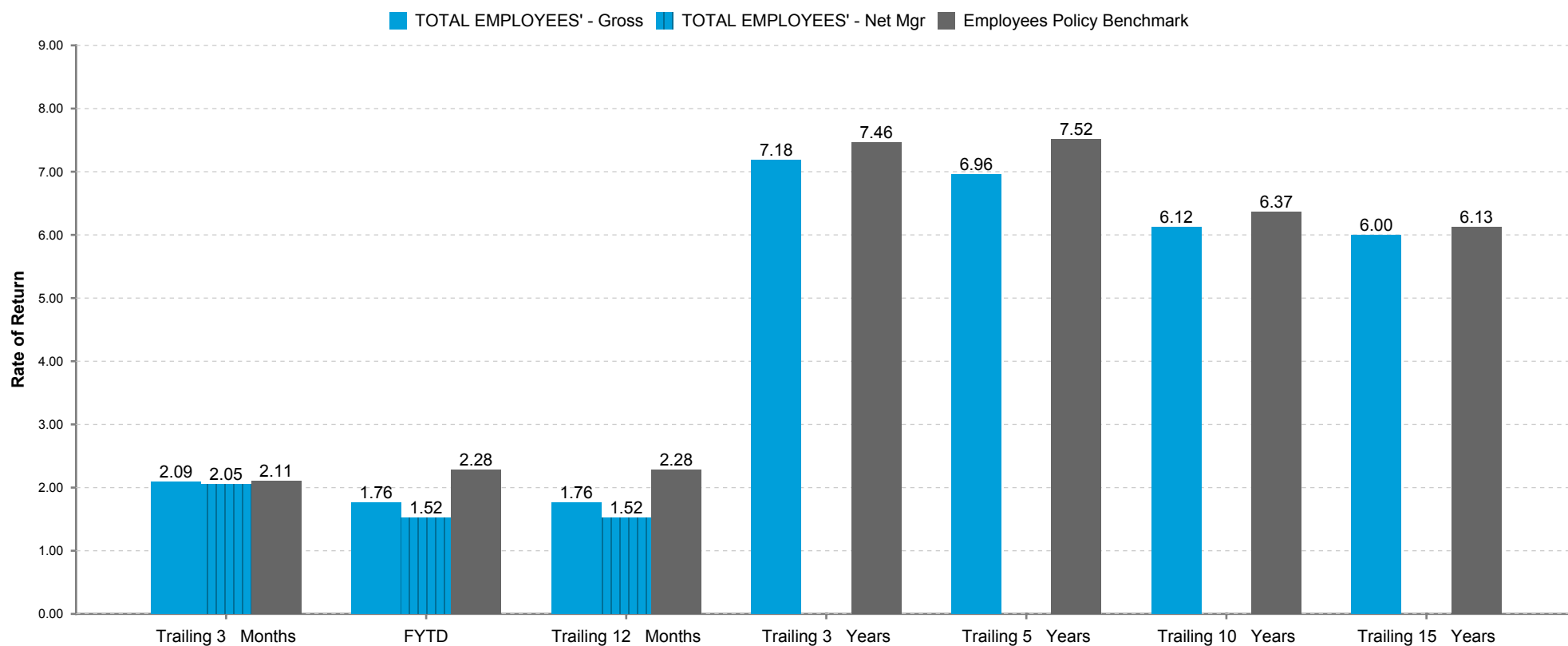
## Total Portfolio Returns: June 30, 2016



**Market Value (Billions)**

TOTAL EMPLOYEES'

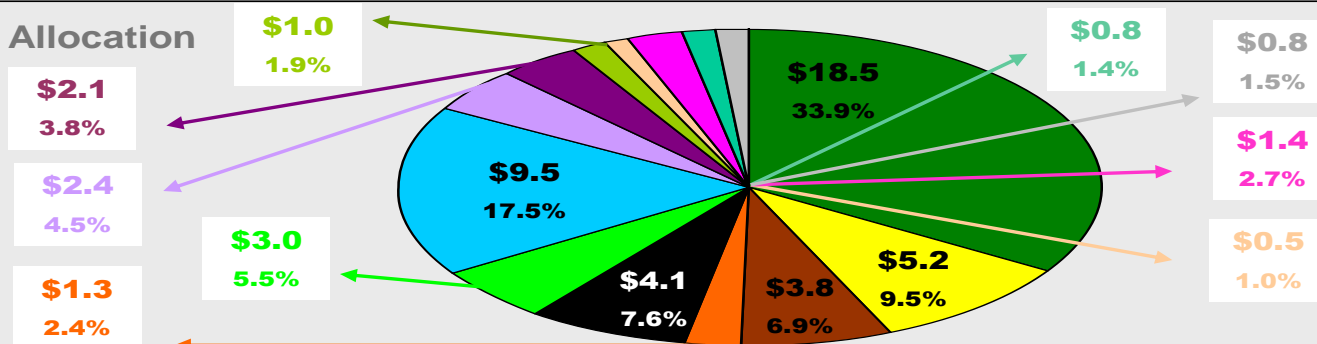
\$54.6



	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 10 Years	Benchmark 10 Years
Standard Deviation						
TOTAL EMPLOYEES'	6.5	6.3	7.0	7.5	10.0	10.9

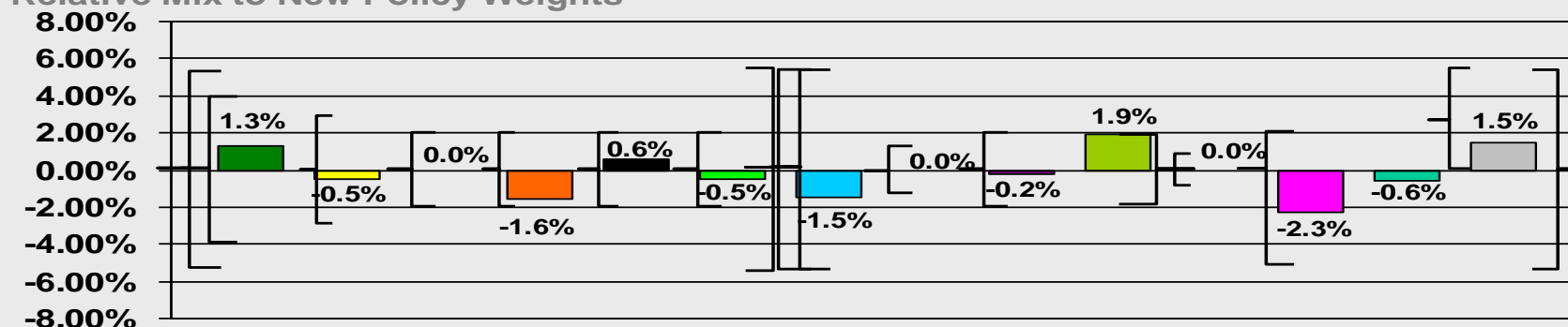
**\$54.6B Under Management**

**Asset Allocation**



■ Domestic Equity 
 ■ Developed Markets 
 ■ Emerging Markets 
 ■ Hedge Funds 
 ■ Private Equity 
 ■ Real Assets 
 ■ Core + 5 
 ■ TIPS 
 ■ Enhanced Yield 
 ■ Bank Loans 
 ■ Convertible Bonds 
 ■ Opportunistic FI 
 ■ ETI 
 ■ Cash

**Relative Mix to New Policy Weights**

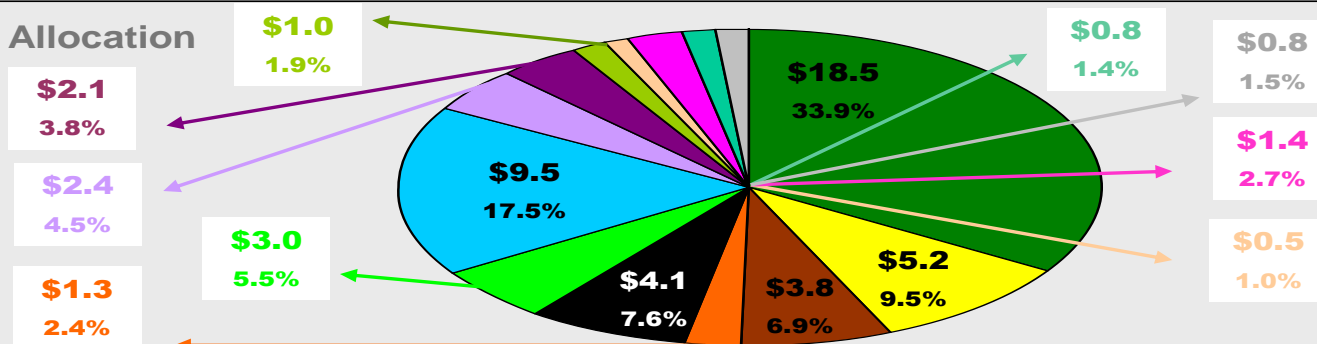


Note: Brackets represent rebalancing ranges versus policy.



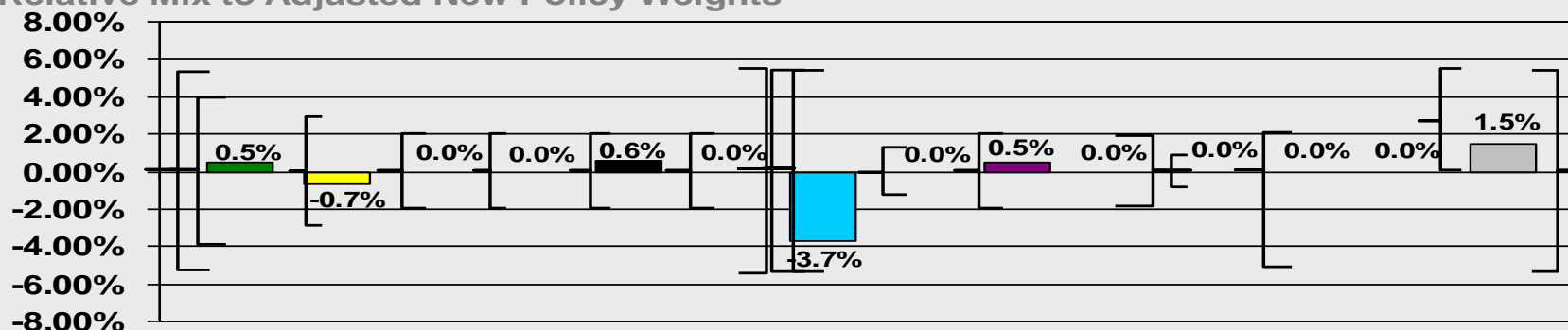
**\$54.6B Under Management**

**Asset Allocation**



■ Domestic Equity 
 ■ Developed Markets 
 ■ Emerging Markets 
 ■ Hedge Funds 
 ■ Private Equity 
 ■ Real Assets 
 ■ Core + 5 
 ■ TIPS 
 ■ Enhanced Yield 
 ■ Bank Loans 
 ■ Convertible Bonds 
 ■ Opportunistic FI 
 ■ ETI 
 ■ Cash

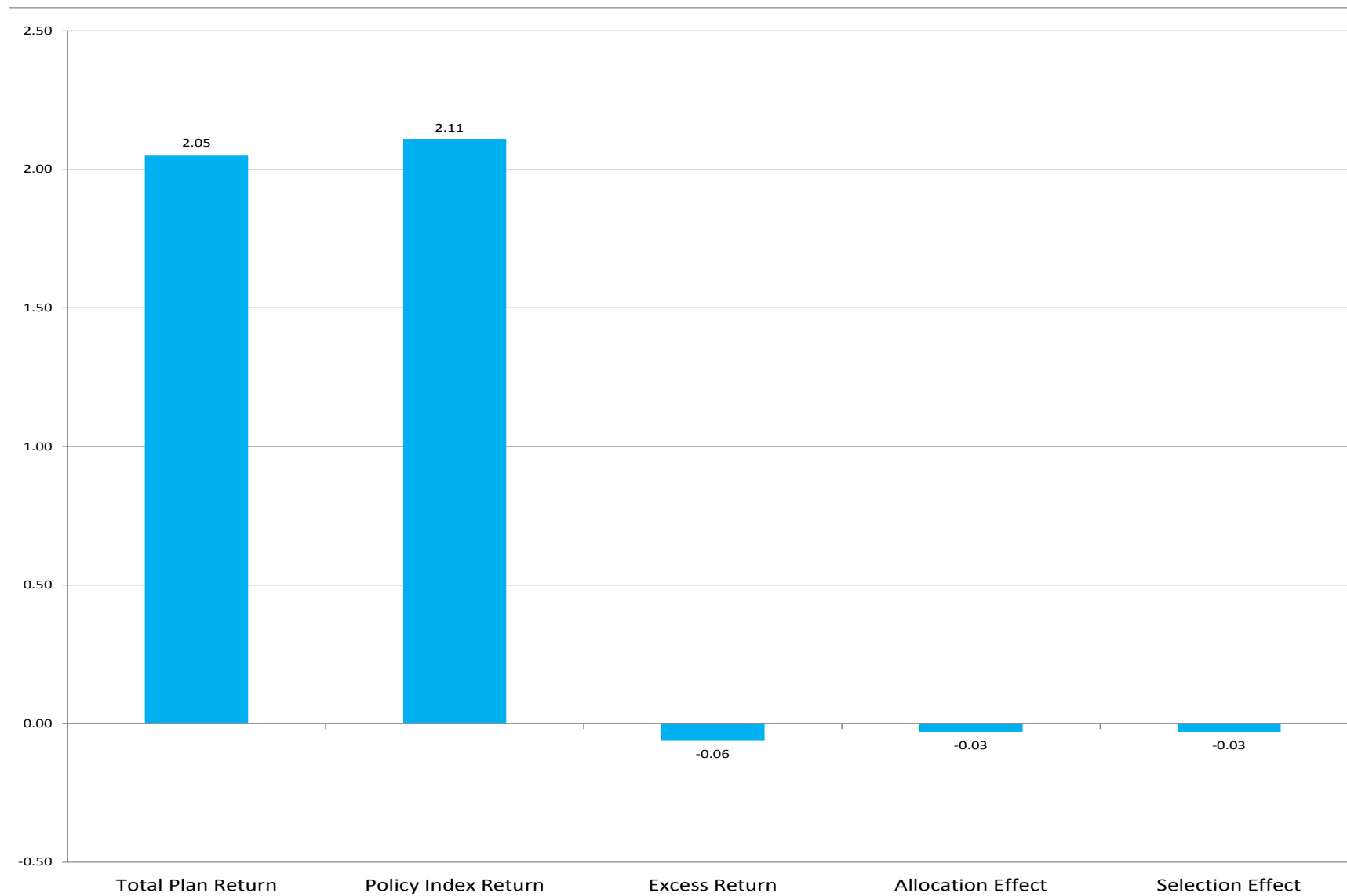
**Relative Mix to Adjusted New Policy Weights**

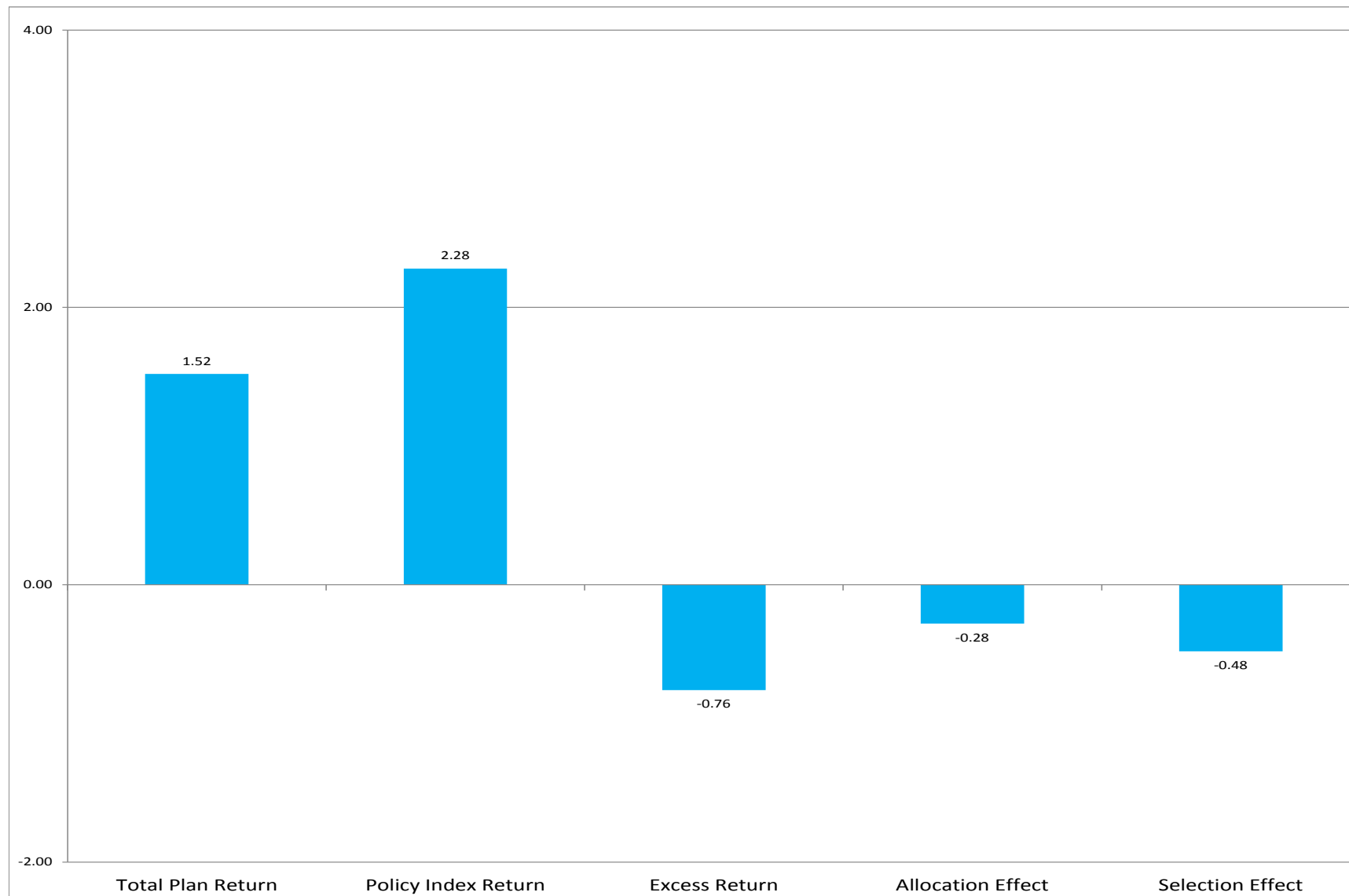


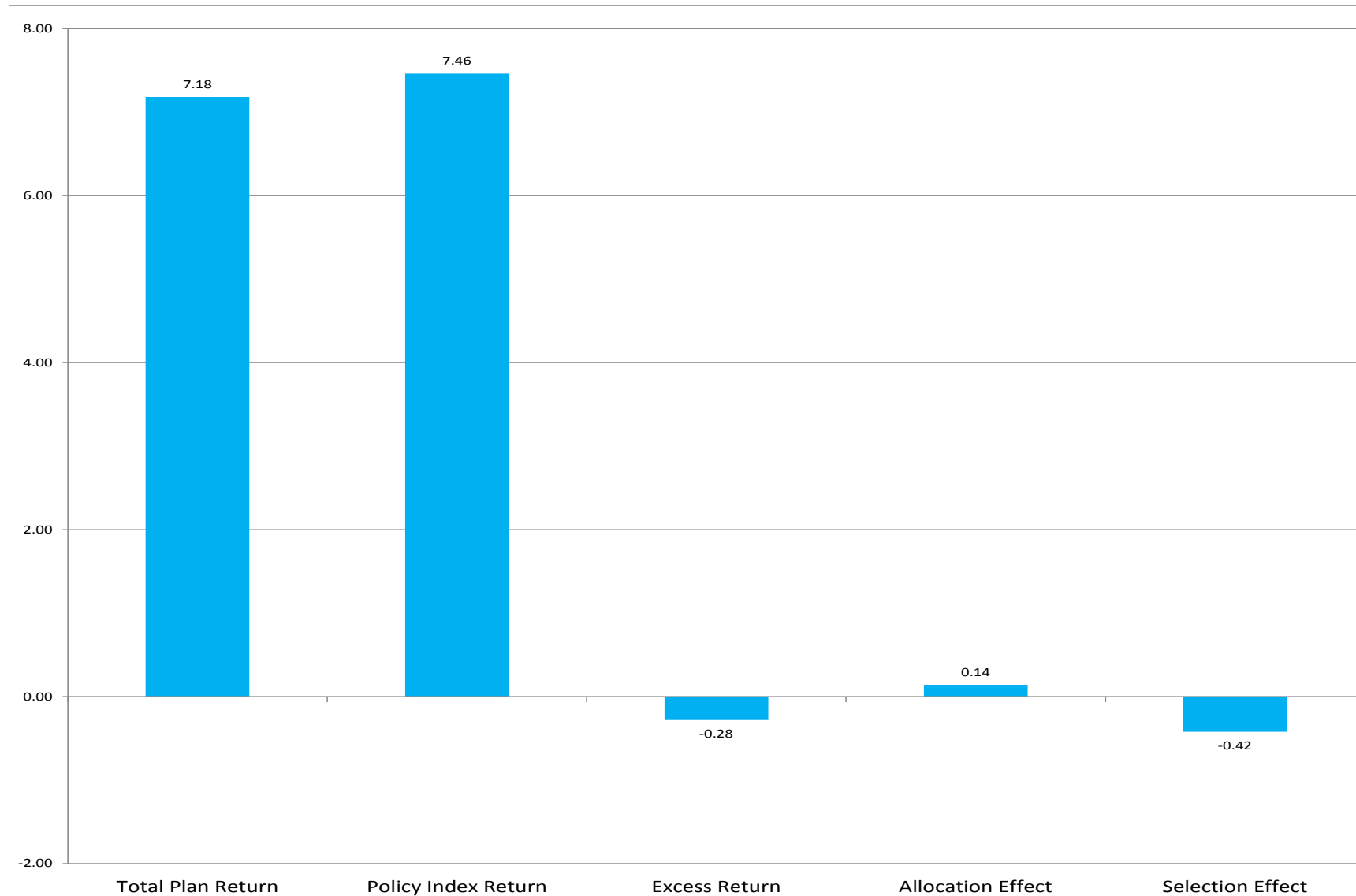
Note: Brackets represent rebalancing ranges versus policy.

Note: On June 30, 2016 NYCERS' combined Fixed Income and Cash portfolios have a duration of 5.3 years. The duration of the Barclays US Aggregate Index was 5.5 years on that date.

## Performance Attribution: Total Plan - Quarter Ending: June 30, 2016







**Allocation Effect - Asset Class Breakdown**

	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL EMPLOYEES'	-0.03	-0.28	0.14	Employees Policy Benchmark
TOTAL DOMESTIC EQUITY	0.00	-0.06	0.11	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.01	0.02	-0.03	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.02	-0.01	-0.04	FTSE NYCERS Custom EM Index
TOTAL PRIVATE EQUITY	-0.01	-0.01	0.04	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	0.00	0.01	0.01	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.00	0.00	CPI + 4%
TOTAL HEDGE FUNDS	0.00	0.00	0.00	1 Year Treasury Bill Yield + 4%
TOTAL STRUCTURED	-0.02	-0.23	0.11	NYC - CORE PLUS FIVE
TOTAL ENHANCED YIELD	0.01	-0.01	-0.02	CITIGROUP BB & B
TOTAL BANK LOANS	0.00	0.00	0.00	CSFB LEVERAGED LOAN INDEX
TOTAL TIPS MANAGERS	0.00	-0.04	0.07	BARCLAYS U.S TIPS INDEX
TOTAL CONVERTIBLE BONDS	0.00	0.00	0.00	BofAML ALL CONVERTIBLE - ex Mandatory
TOTAL OPPORTUNISTIC FIXED	0.00	0.00	0.00	10% Annual Return
TOTAL CASH	-0.01	0.04	-0.08	

**Selection Effect - Asset Class Breakdown**

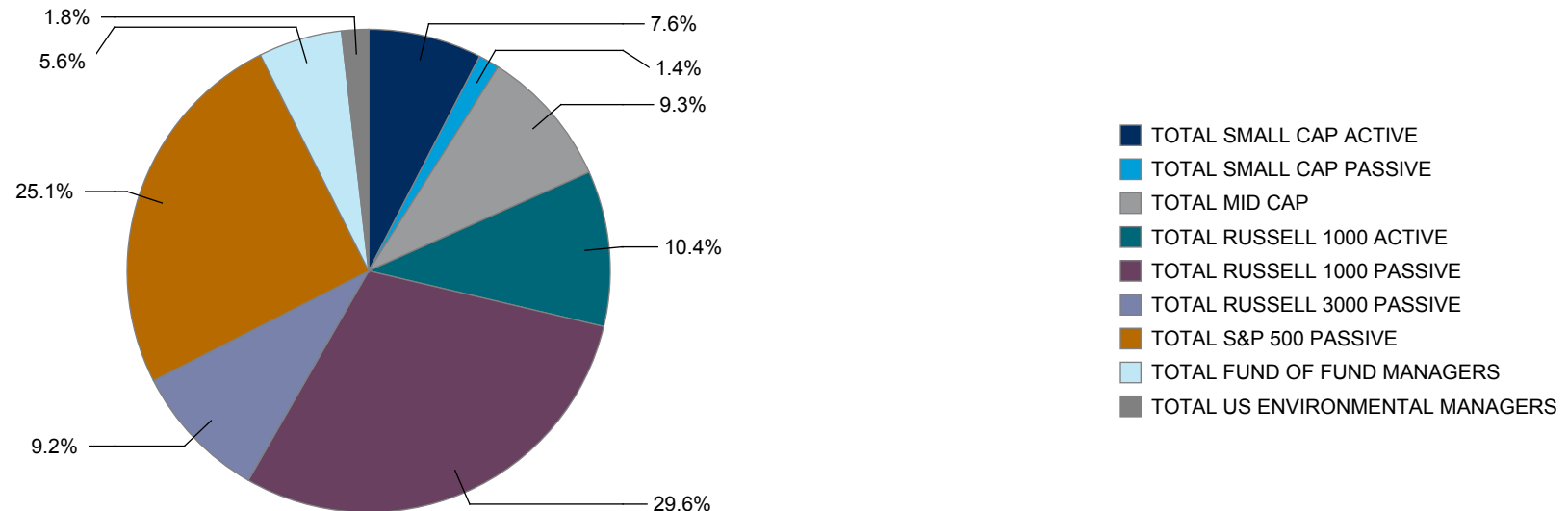
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL EMPLOYEES'	-0.03	-0.48	-0.42	Employees Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.01	-0.14	-0.15	RUSSELL 3000
TOTAL DEVELOPED MARKETS	0.10	0.24	0.10	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.05	-0.17	-0.03	FTSE NYCERS Custom EM Index
TOTAL PRIVATE EQUITY	-0.09	0.19	-0.23	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	0.03	0.03	0.04	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.01	0.01	CPI + 4%
TOTAL HEDGE FUNDS	-0.05	-0.25	-0.06	1 Year Treasury Bill Yield + 4%
TOTAL STRUCTURED	0.01	-0.10	0.02	NYC - CORE PLUS FIVE
TOTAL ENHANCED YIELD	-0.01	-0.02	0.02	CITIGROUP BB & B
TOTAL BANK LOANS	-0.01	0.01	0.02	CSFB LEVERAGED LOAN INDEX
TOTAL TIPS MANAGERS	0.00	0.00	0.00	BARCLAYS U.S TIPS INDEX
TOTAL CONVERTIBLE BONDS	-0.01	0.05	-0.01	BofAML ALL CONVERTIBLE - ex Mandatory
TOTAL OPPORTUNISTIC FIXED	0.05	-0.33	-0.14	10% Annual Return
TOTAL CASH	0.00	0.00	0.01	

\*Returns are Gross of Investment Advisory Fees

## Total Domestic Equity Asset Allocations: Quarter Ending June 30, 2016



	Market Value (Billions)	% of Plan
TOTAL DOMESTIC EQUITY	\$18.5	33.9

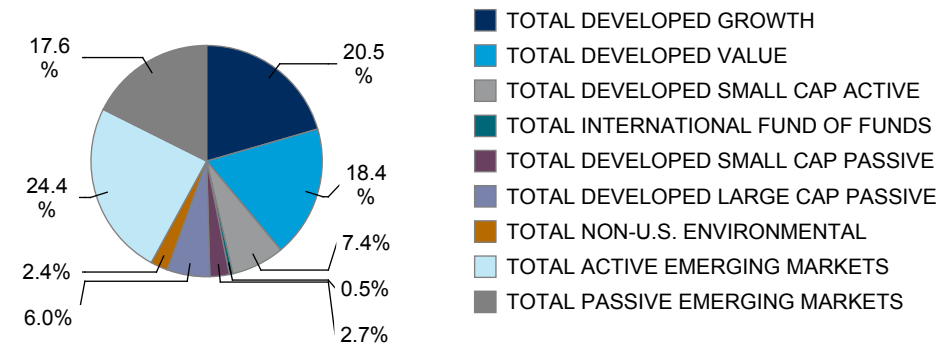
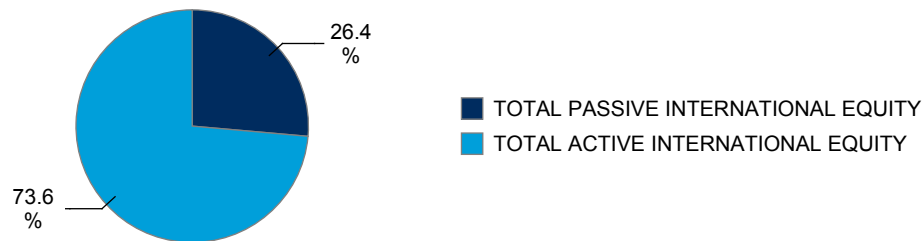


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL SMALL CAP ACTIVE	6.52	7.63	1.11	3.79	3.81	0.02
TOTAL SMALL CAP PASSIVE	2.20	1.43	-0.77	3.79	3.43	-0.37
TOTAL MID CAP	12.51	9.29	-3.22	3.99	3.66	-0.33
TOTAL RUSSELL 1000 ACTIVE	8.57	10.39	1.82	2.54	2.41	-0.13
TOTAL RUSSELL 1000 PASSIVE	25.27	29.56	4.29	2.54	2.50	-0.04
TOTAL RUSSELL 3000 PASSIVE	17.59	9.19	-8.40	2.63	2.57	-0.06
TOTAL S&P 500 PASSIVE	22.00	25.10	3.10	2.46	2.45	-0.01
TOTAL EMERGING MANAGERS	3.50	5.57	2.07	2.63	1.05	-1.58
TOTAL US ENVIRONMENTAL	1.84	1.84	0.00	3.79	2.08	-1.71

## International Equity Asset Allocation: June 30, 2016



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL INTERNATIONAL EQUITY	\$8.9	16.4

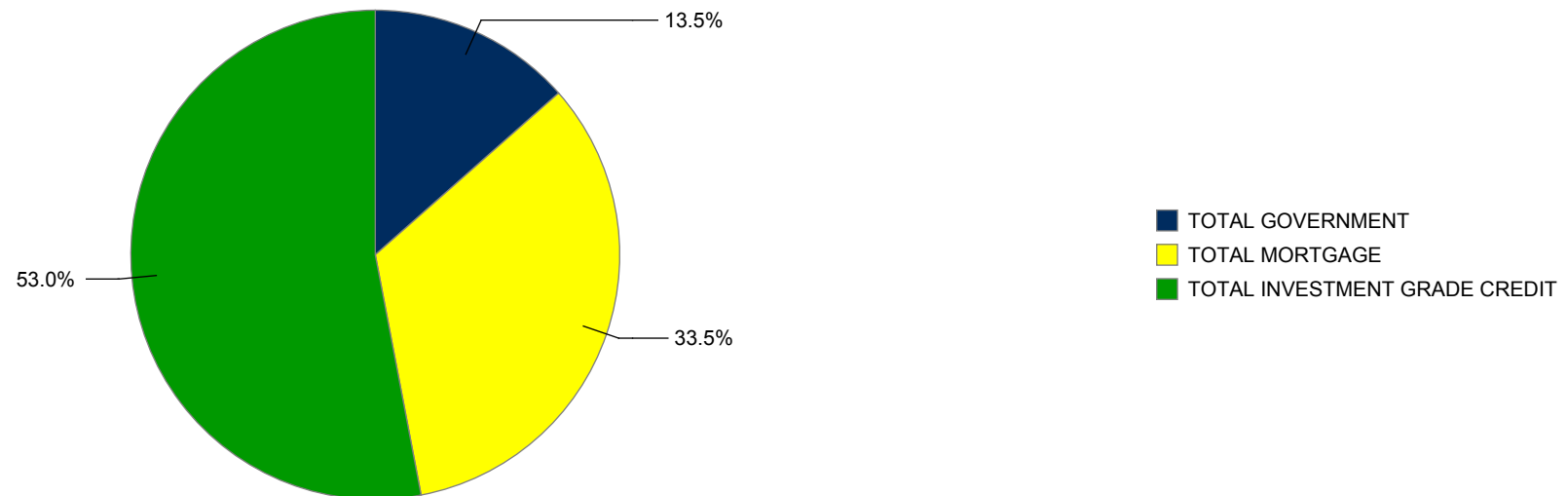


	<u>Asset Class Weight</u>	<u>Quarterly Returns - Fund and Benchmarks</u>		
		<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL DEVELOPED GROWTH	20.49	1.71	(0.15)	1.86
TOTAL DEVELOPED VALUE	18.41	(1.11)	(2.79)	1.68
TOTAL DEVELOPED SMALL CAP ACTIVE	7.37	(2.49)	(2.79)	0.30
TOTAL INTERNATIONAL FUND OF FUNDS	0.53	(2.58)	(1.46)	(1.12)
TOTAL DEVELOPED SMALL CAP PASSIVE	2.73	(2.41)	(2.60)	0.19
TOTAL DEVELOPED LARGE CAP PASSIVE	6.02	(1.23)	(1.46)	0.23
TOTAL NON-U.S. ENVIRONMENTAL	2.43	1.65	1.01	0.64
TOTAL ACTIVE EMERGING MARKET	24.40	0.46	1.22	(0.76)
TOTAL PASSIVE EMERGING MARKETS	17.61	0.74	0.82	(0.08)
TOTAL INTERNATIONAL EQUITY	100.00	0.07	(0.64)	0.71

## Structured Fixed Income Asset Allocation: June 30, 2016



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL STRUCTURED	\$9.0	16.5



Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL TREASURY/AGENCY	22.18	13.54	-8.64	3.96	3.93	-0.02
TOTAL MORTGAGE	34.25	33.50	-0.75	1.07	1.18	0.11
TOTAL INV GRADE CREDIT	43.57	52.96	9.39	3.42	3.57	0.15

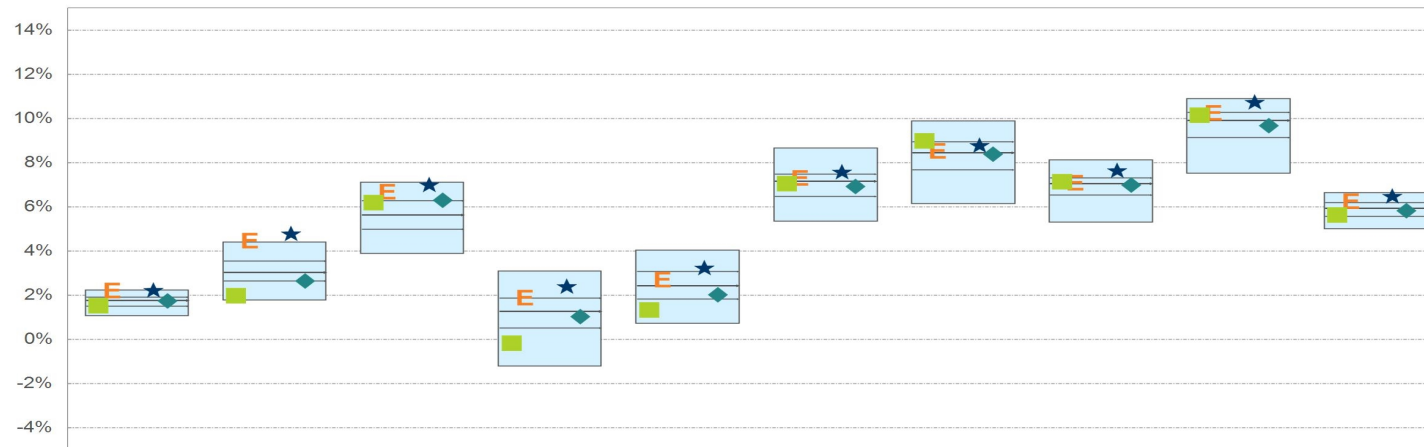


Through June 30, 2016



## City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion  
Cumulative Periods Ending : June 30, 2016



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	2.23	4.40	7.11	3.09	4.04	8.66	9.90	8.14	10.90	6.64
25th	1.92	3.55	6.29	1.86	3.08	7.48	8.94	7.31	10.29	6.19
50th	1.77	3.03	5.64	1.27	2.42	7.16	8.45	7.06	9.91	5.93
75th	1.51	2.65	4.99	0.51	1.82	6.48	7.67	6.54	9.15	5.57
95th	1.07	1.79	3.89	-1.21	0.73	5.36	6.15	5.32	7.52	5.00
No. Of Obs	44	44	44	44	44	44	44	44	40	40
E Total System - Employee	2.09 (14)	4.34 (8)	6.57 (16)	1.76 (27)	2.57 (36)	7.18 (47)	8.42 (52)	6.96 (56)	10.14 (35)	6.12 (35)
★ Employees Policy Bench	2.11 (12)	4.66 (1)	6.88 (8)	2.28 (14)	3.11 (22)	7.46 (25)	8.67 (38)	7.52 (18)	10.63 (8)	6.37 (10)
■ Public Mkt Equiv 25	1.40 (89)	1.84 (94)	6.07 (31)	-0.30 (89)	1.21 (89)	6.93 (59)	8.87 (27)	7.02 (50)	10.02 (42)	5.51 (77)
◆ Public Mkt Equiv 35	1.60 (70)	2.52 (77)	6.17 (27)	0.89 (59)	1.89 (68)	6.80 (65)	8.26 (59)	6.86 (63)	9.56 (67)	5.69 (70)

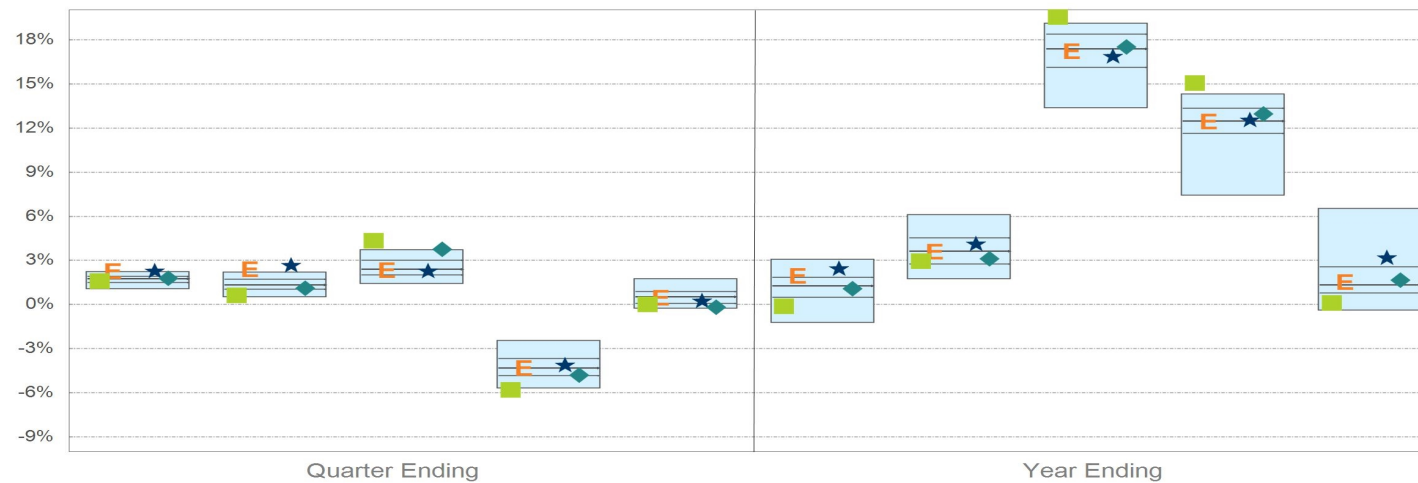
Wilshire Trust Universe Comparison Service® (TUCS®)

Through June 30, 2016



## City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion  
Consecutive Time Periods: June 30, 2016



Percentile Rankings	Jun 16	Mar 16	Dec 15	Sep 15	Jun 15	Jun 16	Jun 15	Jun 14	Jun 13	Jun 12
5th	2.23	2.20	3.72	-2.43	1.74	3.09	6.10	19.14	14.32	6.52
25th	1.92	1.71	3.02	-3.66	0.89	1.86	4.53	18.40	13.35	2.55
50th	1.77	1.35	2.40	-4.31	0.52	1.27	3.64	17.40	12.46	1.35
75th	1.51	1.03	2.02	-4.82	0.07	0.51	2.77	16.11	11.63	0.78
95th	1.07	0.52	1.44	-5.66	-0.25	-1.21	1.74	13.39	7.44	-0.38
No. Of Obs	44	44	44	44	44	44	44	44	44	44
E Total System - Employee	2.09 (14)	2.20 (5)	2.13 (65)	-4.51 (61)	0.28 (70)	1.76 (27)	3.40 (59)	17.03 (59)	12.24 (59)	1.32 (52)
★ Employees Policy Bench	2.11 (12)	2.50 (1)	2.12 (65)	-4.30 (47)	0.06 (77)	2.28 (14)	3.95 (43)	16.72 (70)	12.38 (54)	3.03 (16)
■ Public Mkt Equiv 25	1.40 (89)	0.44 (96)	4.15 (1)	-6.00 (99)	-0.17 (87)	-0.30 (89)	2.74 (77)	19.36 (1)	14.88 (1)	-0.08 (94)
◆ Public Mkt Equiv 35	1.60 (70)	0.91 (84)	3.56 (5)	-4.98 (82)	-0.38 (96)	0.89 (59)	2.91 (72)	17.33 (50)	12.76 (36)	1.46 (45)

Wilshire Trust Universe Comparison Service® (TUCS®)

## Actual and Estimated Fees



NEW YORK CITY EMPLOYEE RETIREMENT SYSTEM				
ACTUAL FEES FOR FISCAL YEAR ENDING JUNE 30, 2015 AND				
ESTIMATED FEES FOR FY 2016 UPDATED THROUGH SEPTEMBER 2015				
	Actual 2015		Estimates 2016	
INVESTMENT STYLE (EQUITIES)	MV 06-30-15 (\$MM)	Mgmt Fees in Basis Points	MV 09-30-15 (\$MM)	Mgmt in Basis Points
<b>US Equities</b>	<b>18,198</b>	<b>9.10</b>	<b>16,814</b>	<b>8.44</b>
Small Cap Active	1,690	34.38	1,317	32.78
Small Cap Growth	-	0.00	-	-
Small Cap Value	293	50.54	270	53.15
Small Cap core	381	61.65	147	71.89
Small Cap Fundamental Index	1,017	19.52	900	20.31
Small/Mid Cap Active	-	-	-	-
Small/Mid Cap Growth	-	-	-	-
Small/Mid Cap Value	-	-	-	-
Mid Cap Active	-	-	-	-
Mid Cap Growth	-	-	-	-
Mid Cap Value	-	-	-	-
Mid Cap core	-	-	-	-
Russell 1000 Active	1,869	13.27	1,734	13.68
Russell 1000 Fundamental Index	1,869	13.27	1,734	13.68
Active Emerging Managers (U.S. Equities)	1,078	55.87	987	54.78
Total US Active Equities	4,638	30.87	4,037	29.96
Total US Passive Equities	13,217	0.57	12,464	0.54
Environmental US E. Strategies	343	43.70	312	45.44
<b>International Equities</b>	<b>9,172</b>	<b>30.07</b>	<b>8,494</b>	<b>29.80</b>
Active EAFE Equities	4,491	30.84	4,050	32.28
Growth	1,950	27.08	1,717	28.74
Value	1,867	27.48	1,699	29.25
Core	1	0.00	-	-
Small Cap	673	47.49	633	50.01
Non-US Environmental Strategies	205	43.99	189	54.63
Active Emerging Markets	2,336	50.94	2,042	49.81
Total Int'l Active Equities	7,032	37.90	6,280	38.65
Total Int'l Passive Equities	2,140	4.34	2,214	4.68
<b>REITS Passive Index</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Information provided by the New York City Comptroller

NEW YORK CITY EMPLOYEE RETIREMENT SYSTEM ACTUAL FEES FOR FISCAL YEAR ENDING JUNE 30, 2015 AND ESTIMATED FEES FOR FY 2016 UPDATED THROUGH SEPTEMBER 2015				
	Actual 2015		Estimates 2016	
INVESTMENT STYLE (FIXED INCOME)	MV 06-30-15 (\$MM)	Mgmt Fees in Basis Points	MV 09-30-15 (\$MM)	Mgmt in Basis Points
<b>Fixed Income</b>	<b>17,145</b>	<b>12.68</b>	<b>16,581</b>	<b>13.08</b>
Structured Program	9,044	7.23	9,120	7.22
Government Sector	1,094	4.77	1,129	4.40
Mortgage Sector	3,483	6.47	3,525	6.01
Investment Grade Credit Sector	4,467	8.43	4,467	8.88
Global Fixed Income	376	12.47	378	18.29
Progress Fixed Emerging Managers	111	34.44	112	34.50
TIPS	1,761	1.99	1,740	1.83
Active TIPS	429	6.63	424	5.97
Passive TIPS	1,332	0.50	1,316	0.50
Enhanced Yield	2,070	34.45	1,970	34.78
Bank Loans	1,006	32.65	998	33.01
Convertible Bonds	538	43.00	513	44.12
ETI - Access - RBC	124	21.11	120	22.65
ETI - AFL-CIO HIT	236	42.38	239	42.64
<b>Total Public Markets (Externally managed)</b>	<b>42,634</b>	<b>15.45</b>	<b>40,499</b>	<b>15.11</b>
Other ETI Programs	278	-	307	-
In-House Short Term	1,603	0.00	1,084	0.00
<b>Total Public Markets</b>	<b>44,515</b>	<b>14.80</b>	<b>41,890</b>	<b>14.61</b>
<b>INVESTMENT STYLE (PRIVATE)</b>				
<b>Hedge Funds</b>	<b>1,730</b>	<b>149.60</b>	<b>1,363</b>	<b>139.31</b>
<b>Private Equities</b>	<b>3,758</b>	<b>122.33</b>	<b>4,102</b>	<b>127.04</b> <sup>1</sup>
<b>Real Assets</b>	<b>2,555</b>	<b>115.63</b>	<b>2,575</b>	<b>102.99</b> <sup>1</sup>
Private Real Estate	2,442	116.14	2,456	98.65
Infrastructure	113	70.77	119	88.74
<b>Opportunistic Fixed Income</b>	<b>1,332</b>	<b>66.18</b>	<b>1,360</b>	<b>67.56</b>
<b>Total Private Markets</b>	<b>9,375</b>	<b>117.55</b>	<b>9,400</b>	<b>113.62</b> <sup>3</sup>
<b>Total Overall</b>	<b>53,889</b>	<b>32.68</b>	<b>51,289</b>	<b>32.75</b> <sup>4</sup>
<b>Footnotes</b>				
1 - Private Equity & Real Assets Investments exclude GP CARRY & Incentive Fees .				
2- Infrastructure Fees are based on committed Amounts for each investment which are higher than the actual Market Values.				
3- Private Equity and Private Real Estate fees are based on Invested values and committed amounts depending on the age of the investment.				
4- The Incentive Fees paid for the NYCERS Fund in 2015 are 15.45 BPS.				

Information provided by the New York City Comptroller

**NYC EMPLOYEES' RETIREMENT SYSTEM SECURITIES LENDING INCOME**  
**June 30, 2016**

	<u>U.S. FIXED INCOME</u>	<u>U.S. EQUITY</u>	<u>INTERNATIONAL EQUITY</u>	
1990*	\$256,000	--	--	
1991	754,000	\$48,000	--	
1992	1,467,000	654,000	\$367,000	
1993	3,445,000	1,308,000	732,000	
1994	4,261,000	2,744,000	1,082,000	
1995	3,727,000	3,191,000	745,000	
1996	3,608,000	3,592,000	1,258,000	
1997	3,924,000	5,921,000	1,533,000	
1998	6,374,000	7,337,000	1,952,000	
1999	6,643,000	6,718,000	2,175,000	
2000	6,552,000	7,669,000	3,049,000	
2001	10,335,000	10,394,000	4,435,000	
2002	5,906,000	7,780,000	3,510,000	
2003	2,442,000	4,766,000	3,603,000	
2004	3,502,000	5,844,000	3,825,000	
2005	5,229,000	8,264,000	4,471,000	
2006	4,626,000	10,012,000	4,163,000	
2007	9,445,000	15,100,000	4,510,000	
2008	25,936,000	26,696,000	6,878,000	
2009	8,149,000	16,388,000	4,305,000	
2010	3,714,000	10,256,000	3,125,000	
2011	4,834,000	12,861,000	5,163,000	
2012	6,691,000	16,287,000	4,116,000	
2013	5,051,000	17,973,000	3,014,000	
2014	5,194,000	14,847,000	5,272,000	
2015	5,010,000	16,300,000	6,124,000	
2016 (6 Months)	2,956,000	7,793,000	4,711,000	
Since Inception	<u>\$150,031,000</u>	<u>\$240,743,000</u>	<u>\$84,118,000</u>	*Inception 7/90

**New York City  
Employees' Retirement System**

# **Appendix A**

## **Consolidated Performance Report**

# Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>SYSTEM RETURN SUMMARY</b>														
5 NYCERS-TOTAL PORTFOLIO - GROSS	54,553	100.00	2.09	1.76	4.34	(0.17)	7.34	15.73	13.41	1.13	6.96	6.12	8.61	07/01/1987
ESTIMATED INVESTMENT FEES			(0.05)	(0.24)	(0.11)	(0.27)	(0.27)							
EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL)			(0.03)	(0.12)	(0.06)	(0.12)	(0.13)							
EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH)			(0.02)	(0.12)	(0.05)	(0.15)	(0.14)							
EST INCENTIVE FEES														
EST OTHER FEES														
EST FEE OFFSETS														
NYCERS-TOTAL PORTFOLIO - NET MGR			2.05	1.52	4.23	(0.44)	7.07							
NYCERS POLICY BENCHMARK			2.11	2.28	4.66	0.17	8.15	15.33	13.39	2.14	7.52	6.37		
EXCESS RETURN			(0.07)	(0.77)	(0.44)	(0.61)	(1.08)	0.40	0.02	(1.01)	(0.56)	(0.25)		
<b>EQUITY RETURN DETAIL</b>														
18 NYCERS-TOTAL EQUITY (INCL PE & RA) - GROSS	35,906	65.82	1.67	0.29	3.67	(0.17)	7.85	22.95	16.08	(1.39)	8.03	5.86	6.80	04/01/2004
ESTIMATED INVESTMENT FEES			(0.05)	(0.29)	(0.13)	(0.35)	(0.33)							
EST MANAGEMENT FEES			(0.05)	(0.29)	(0.13)	(0.35)	(0.33)							
EST INCENTIVE FEES														
EST OTHER FEES														
EST FEE OFFSETS														
NYCERS-TOTAL EQUITY (INCL PE & RA) - NET MGR			1.61	0.00	3.54	(0.52)	7.52							
26 NYCERS-TOTAL DOMESTIC EQUITY - GROSS	18,504	33.92	2.62	1.77	4.33	(0.67)	11.35	34.39	16.62	0.17	11.18	7.31	11.08	08/01/1979
ESTIMATED INVESTMENT FEES			(0.02)	(0.09)	(0.04)	(0.09)	(0.11)							
NYCERS-TOTAL DOMESTIC EQUITY - NET MGR			2.60	1.68	4.29	(0.76)	11.24							
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56	33.55	16.42	1.03	11.60	7.40	11.42	
EXCESS RETURN			(0.03)	(0.46)	0.66	(1.24)	(1.31)	0.84	0.21	(0.85)	(0.41)	(0.09)	(0.34)	
36 NYCERS-TOTAL SMALL CAP - GROSS	1,676	3.07	3.75	(3.52)	5.82	(5.96)	4.40	41.99	17.81	(4.50)	8.99	6.93	7.60	04/01/2004
ESTIMATED INVESTMENT FEES			(0.07)	(0.27)	(0.15)	(0.27)	(0.31)							
NYCERS-TOTAL SMALL CAP - NET MGR			3.67	(3.79)	5.68	(6.24)	4.09							
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89	38.82	16.35	(4.18)	8.35	6.20	7.03	
EXCESS RETURN			(0.12)	2.94	3.46	(1.82)	(0.80)	3.17	1.46	(0.33)	0.64	0.74	0.57	
46 NYCERS-TOTAL MID CAP - GROSS	1,720	3.15	3.66	1.00	7.59	(2.19)	9.98	33.13	17.81		10.45		10.89	02/01/2011
ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.00)	(0.01)	(0.01)							
NYCERS-TOTAL MID CAP - NET MGR			3.66	0.99	7.59	(2.20)	9.97							
S&P 400 MIDCAP INDEX (DAILY)			3.99	1.33	7.93	(2.18)	9.77	33.50	17.88		10.55		10.98	
EXCESS RETURN			(0.33)	(0.34)	(0.34)	(0.02)	0.20	(0.37)	(0.07)		(0.10)		(0.09)	
56 NYCERS-TOTAL RUSSELL 1000 - GROSS	7,391	13.55	2.47	2.88	4.17	(0.27)	13.02	35.73	16.76	0.66	12.08		9.62	07/01/2008
ESTIMATED INVESTMENT FEES			(0.01)	(0.04)	(0.02)	(0.04)	(0.07)							
NYCERS-TOTAL RUSSELL 1000 - NET MGR			2.47	2.84	4.15	(0.31)	12.95							
RUSSELL 1000 (DAILY)			2.54	2.93	3.74	0.92	13.24	33.11	16.42	1.50	11.88		8.73	
EXCESS RETURN			(0.07)	(0.10)	0.41	(1.23)	(0.29)	2.62	0.33	(0.84)	0.20		0.89	

# Consolidated Performance Report

Through June 30, 2016



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>															
68	NYCERS-TOTAL RUSSELL 3000 PASSIVE - GROSS	1,701	3.12	2.57	2.14	3.59	0.49	12.89	33.63	16.34	1.05	11.66	7.45	9.76	02/01/1990
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)							
	NYCERS-TOTAL RUSSELL 3000 PASSIVE - NET MGR			2.57	2.13	3.58	0.48	12.88							
	RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56	33.55	16.42	1.03	11.60	7.40	9.72	
	EXCESS RETURN			(0.06)	(0.01)	(0.04)	(0.00)	0.32	0.08	(0.08)	0.02	0.07	0.06	0.04	
78	NYCERS-TOTAL S&P 500 PASSIVE - GROSS	4,644	8.51	2.45	3.64	3.73	1.11	13.62	32.49	15.99	1.74	11.96	7.32	4.21	07/01/2000
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)							
	NYCERS-TOTAL S&P 500 PASSIVE - NET MGR			2.45	3.64	3.73	1.11	13.62							
	S&P 500 INDEX (DAILY)			2.46	3.99	3.84	1.38	13.69	32.39	16.00	2.11	12.10	7.42	4.33	
	EXCESS RETURN			(0.01)	(0.35)	(0.10)	(0.27)	(0.07)	0.10	(0.02)	(0.37)	(0.14)	(0.10)	(0.12)	
88	NYCERS-TOTAL FUND OF FUNDS - GROSS	1,031	1.89	1.05	(4.28)	0.07	(2.85)	8.19	37.19	16.17	(0.20)	9.16	6.73	8.41	07/01/1993
	ESTIMATED INVESTMENT FEES			(0.15)	(0.56)	(0.29)	(0.57)	(0.64)							
	NYCERS-TOTAL FUND OF FUNDS - NET MGR			0.90	(4.85)	(0.22)	(3.41)	7.55							
	RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56	33.55	16.42	1.03	11.60	7.40	9.06	
	EXCESS RETURN			(1.73)	(6.98)	(3.84)	(3.89)	(5.01)	3.63	(0.25)	(1.23)	(2.43)	(0.67)	(0.65)	



# Consolidated Performance Report

Through June 30, 2016



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL															
100	NYCERS-TOTAL INTERNATIONAL EQUITY - GROSS	8,929	16.37	0.07	(8.13)	2.52	(7.90)	(2.50)	12.45	18.06	(14.05)	0.27	2.20	5.86	09/01/1990
	ESTIMATED INVESTMENT FEES			(0.07)	(0.27)	(0.15)	(0.28)	(0.30)							
	NYCERS-TOTAL INTERNATIONAL EQUITY - NET MGR			0.00	(8.40)	2.37	(8.17)	(2.80)							
	MSCI AC WORLD EX US (NET)			(0.64)	(10.24)	(1.02)	(5.66)	(3.87)	15.29	16.83	(13.71)	0.10	1.87		
	EXCESS RETURN			0.64	1.85	3.39	(2.51)	1.06	(2.84)	1.23	(0.34)	0.17	0.33		
110	NYCERS-TOTAL DEVELOPED GROWTH ACTIVE - GROSS	1,830	3.35	1.71	(6.04)	0.74	(1.94)	(5.15)	20.21	20.02	(12.92)	2.47	3.30	6.25	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.07)	(0.27)	(0.14)	(0.28)	(0.27)							
	NYCERS-TOTAL DEVELOPED GROWTH ACTIVE - NET MGR			1.64	(6.31)	0.60	(2.22)	(5.42)							
	MSCI EAFE GROWTH			(0.15)	(4.80)	(2.22)	4.09	(4.43)	22.55	16.86	(12.11)	3.24	2.88	5.09	
	EXCESS RETURN			1.79	(1.51)	2.82	(6.31)	(0.99)	(2.34)	3.16	(0.80)	(0.77)	0.43	1.16	
120	NYCERS-TOTAL DEVELOPED VALUE ACTIVE - GROSS	1,644	3.01	(1.11)	(11.82)	(3.32)	(6.04)	(3.85)	22.15	14.03	(11.01)	0.69	1.12	4.48	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.07)	(0.25)	(0.14)	(0.27)	(0.26)							
	NYCERS-TOTAL DEVELOPED VALUE ACTIVE - NET MGR			(1.18)	(12.07)	(3.46)	(6.30)	(4.11)							
	MSCI EAFE VALUE NET (DAILY)			(2.79)	(15.43)	(6.65)	(5.68)	(5.39)	22.95	17.69	(12.17)	0.05	0.21	3.54	
	EXCESS RETURN			1.61	3.36	3.19	(0.62)	1.28	(0.80)	(3.66)	1.16	0.64	0.91	0.94	
130	NYCERS-TOTAL DEVELOPED SMALL CAP ACTIVE- GROSS	658	1.21	(2.49)	(1.85)	(2.26)	10.72	(3.78)						6.07	05/01/2013
	ESTIMATED INVESTMENT FEES			(0.12)	(0.49)	(0.24)	(0.55)	(0.48)							
	NYCERS-TOTAL DEVELOPED SMALL CAP ACTIVE - NET MGR			(2.61)	(2.34)	(2.50)	10.18	(4.26)							
	S&P EPAC SMALL CAP USD NET			(2.79)	(4.76)	(3.26)	8.58	(3.43)						4.94	
	EXCESS RETURN			0.18	2.43	0.77	1.59	(0.83)						1.13	
140	NYCERS-TOTAL INTERNATIONAL FUND OF FUNDS ACTIVE - GROS	47	0.09	(2.58)	(9.54)	(5.44)	1.16	(4.89)	21.26	18.84	(13.33)	1.98		(0.54)	12/01/2007
	ESTIMATED INVESTMENT FEES			(0.18)	(0.63)	(0.35)	(0.64)	(0.65)							
	NYCERS-TOTAL INTERNATIONAL FUND OF FUNDS ACTIVE - NET MGR			(2.75)	(10.17)	(5.79)	0.52	(5.54)							
	MSCI EAFE			(1.46)	(10.16)	(4.42)	(0.81)	(4.90)	22.78	17.32	(12.14)	1.68		(1.26)	
	EXCESS RETURN			(1.29)	(0.01)	(1.37)	1.33	(0.64)	(1.52)	1.52	(1.19)	0.30		0.73	
150	NYCERS-TOTAL DEVELOPED SMALLCAP PASSIVE - GROSS	244	0.45	(2.41)	(3.29)	(2.84)	9.99							1.55	02/01/2014
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)							(0.02)	
	NYCERS-TOTAL DEVELOPED SMALLCAP PASSIVE - NET MGR			(2.42)	(3.31)	(2.85)	9.97							1.54	
	MSCI EAFE SMALL CAP NET (DAILY)			(2.60)	(3.67)	(3.18)	9.59							1.00	
	EXCESS RETURN			0.18	0.36	0.32	0.39							0.54	
160	NYCERS-TOTAL DEVELOPED LARGE CAP PASSIVE - GROSS	537	0.99	(1.23)	(9.80)	(4.12)	(0.41)	(4.98)	23.02	17.60		1.95		2.31	02/01/2011
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)							
	NYCERS-TOTAL DEVELOPED LARGE CAP PASSIVE - NET MGR			(1.24)	(9.82)	(4.13)	(0.42)	(5.00)							
	MSCI EAFE			(1.46)	(10.16)	(4.42)	(0.81)	(4.90)	22.78	17.32		1.68		2.03	
	EXCESS RETURN			0.23	0.35	0.30	0.39	(0.10)	0.24	0.28		0.27		0.29	

# Consolidated Performance Report

Through June 30, 2016



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>															
172	NYCERS-TOTAL ACTIVE EMERGING MARKETS - GROSS	2,178	3.99	0.46	(10.22)	7.95	(17.85)	1.02	(0.20)	20.86	(18.86)	(2.48)	5.29	6.74	11/01/2005
	ESTIMATED INVESTMENT FEES			(0.12)	(0.43)	(0.25)	(0.41)	(0.50)							
	NYCERS-TOTAL ACTIVE EMERGING MARKETS - NET MGR			0.34	(10.65)	7.70	(18.25)	0.52							
	FTSE CUSTOM NYCERS ALL EMERGING INDEX			1.22	(7.71)	10.14	(16.80)	(0.07)	(4.22)	17.84	(18.20)	(3.31)	4.47	6.14	
	EXCESS RETURN			(0.88)	(2.94)	(2.44)	(1.45)	0.60	4.03	3.02	(0.67)	0.83	0.82	0.59	
182	NYCERS-TOTAL PASSIVE EMERGING MARKETS - GROSS	1,572	2.88	0.74	(9.03)	9.89	(17.87)	(1.29)	(4.24)	16.11		(4.07)		(4.15)	04/01/2011
	ESTIMATED INVESTMENT FEES			(0.01)	(0.05)	(0.03)	(0.05)	(0.06)							
	NYCERS-TOTAL PASSIVE EMERGING MARKETS - NET MGR			0.73	(9.08)	9.86	(17.92)	(1.35)							
	MSCI CUSTOM NYCERS EMERGING MARKETS (NET)			0.82	(8.71)	9.76	(17.71)								
	EXCESS RETURN			(0.09)	(0.37)	0.11	(0.21)								

# Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>														
200	*NYCERS-TOTAL HEDGE FUND - NET MGR	1,306	2.39	1.39	(3.58)	0.03	(1.88)	5.56	4.96	8.16	2.59		2.59	07/01/2011
	HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			0.75	(4.50)	(2.15)	0.73	4.40	10.04	5.82	2.64		2.64	
	EXCESS RETURN			0.64	0.92	2.18	(2.61)	1.16	(5.08)	2.34	(0.05)		(0.05)	
210	*NYCERS-TOTAL DIRECT HEDGE FUNDS - NET MGR	1,059	1.94	1.31	(3.50)	(0.06)	(1.56)	6.02	4.24	9.44			3.94	01/01/2012
	HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			0.75	(4.50)	(2.15)	0.73	4.40	10.04	5.82			4.11	
	EXCESS RETURN			0.56	1.00	2.08	(2.29)	1.62	(5.80)	3.62			(0.16)	
220	*NYCERS-TOTAL PERMAL HEDGE FUNDS - NET MGR	247	0.45	1.85	(3.88)	0.54	(3.52)	3.12	7.74	5.10	1.82		1.82	07/01/2011
	HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			0.75	(4.50)	(2.15)	0.73	4.40	10.04	5.82	2.64		2.64	
	EXCESS RETURN			1.10	0.63	2.69	(4.25)	(1.27)	(2.30)	(0.73)	(0.82)		(0.82)	

\*Information Provided by Alpha Frontier

# Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>														
226 NYCERS-TOTAL PRIVATE EQUITY (TIME WEIGHTED)	4,143	7.59	0.89	6.36	3.23	10.61	13.99	8.08	12.74	13.78	9.89	8.84	11.62	04/01/2004
NYC R3000 +3% LAGGED			1.72	2.65	8.88	2.49	21.24	24.53	35.20	5.55	14.57	11.33	12.11	
EXCESS RETURN			(0.82)	3.71	(5.65)	8.11	(7.26)	(16.45)	(22.47)	8.23	(4.69)	(2.49)	(0.49)	
236 NYCERS-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED)	2,866	5.25	2.79	12.95	5.76	16.06	15.44	12.61	14.43	22.28	14.50	6.91	9.22	04/01/2004
NCREIF NFI-ODCE NET + 100 BP			2.16	11.90	4.41	15.08	12.56	14.02	10.88	16.09	12.77			
EXCESS RETURN			0.63	1.05	1.35	0.98	2.88	(1.41)	3.55	6.19	1.74			
246 NYCERS-TOTAL INFRASTRUCTURE (TIME WEIGHTED)	162	0.30	2.57	9.87	4.51	15.14	20.16						15.36	12/01/2013
CPI + 4%			1.84	5.10	2.79	4.72	4.70						4.99	
EXCESS RETURN			0.73	4.77	1.72	10.42	15.45						10.37	

# Consolidated Performance Report

Through June 30, 2016



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
FIXED INCOME RETURN DETAIL															
258	NYCERS-TOTAL FIXED INCOME (DOM & GLOBAL) - GROSS ESTIMATED INVESTMENT FEES	18,636	34.16	2.90 (0.04)	4.44 (0.14)	5.56 (0.07)	(0.37) (0.13)	6.18 (0.15)	1.19	8.31	6.77	4.69	6.25	8.53	02/01/1980
	EST MANAGEMENT FEES			(0.04)	(0.14)	(0.07)	(0.13)	(0.15)							
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	NYCERS-TOTAL FIXED INCOME (DOM & GLOBAL) - NET MGR			2.86	4.29	5.49	(0.50)	6.03							
266	NYCERS-TOTAL STRUCTURED FIXED INCOME - GROSS ESTIMATED INVESTMENT FEES	9,018	16.53	2.80 (0.02)	6.64 (0.08)	6.20 (0.04)	0.28 (0.07)	7.69 (0.09)	(1.73)	6.92	8.85	4.90	6.24	8.09	01/01/1985
	NYCERS-TOTAL STRUCTURED FIXED INCOME - NET MGR			2.79	6.56	6.16	0.21	7.60							
	NYC - CORE PLUS FIVE			2.71	7.16	6.33	0.41	7.66	(2.79)	5.41	9.40	4.57	5.87		
	EXCESS RETURN			0.08	(0.60)	(0.17)	(0.20)	(0.06)	1.06	1.51	(0.55)	0.33	0.37		
276	NYCERS-TOTAL CORE FIXED INCOME - GROSS ESTIMATED INVESTMENT FEES	397	0.73	2.19 (0.05)	5.85 (0.19)	5.37 (0.10)	1.04 (0.18)	5.84 (0.17)	(1.54)	6.23	8.11	4.23		5.69	05/01/2009
	NYCERS-TOTAL CORE FIXED INCOME - NET MGR			2.14	5.66	5.27	0.86	5.67							
	BARCLAYS AGGREGATE (DAILY)			2.21	6.00	5.31	0.55	5.97	(2.02)	4.21	7.84	3.76		4.66	
	EXCESS RETURN			(0.07)	(0.34)	(0.04)	0.31	(0.30)	0.49	2.02	0.27	0.46		1.03	
286	NYCERS-TOTAL FIXED INCOME FUND OF FUNDS - GROSS ESTIMATED INVESTMENT FEES	117	0.21	2.11 (0.08)	5.79 (0.36)	4.79 (0.17)	0.90 (0.35)	6.18 (0.36)	(1.76)	5.51	8.39	4.19	5.68	6.14	01/01/1992
	NYCERS-TOTAL FIXED INCOME FUND OF FUNDS - NET MGR			2.03	5.44	4.61	0.56	5.82							
	BARCLAYS AGGREGATE (DAILY)			2.21	6.00	5.31	0.55	5.97	(2.02)	4.21	7.84	3.76	5.13	5.86	
	EXCESS RETURN			(0.18)	(0.57)	(0.70)	0.01	(0.15)	0.26	1.29	0.55	0.43	0.54	0.27	
296	NYCERS-TOTAL TIPS - GROSS ESTIMATED INVESTMENT FEES	2,448	4.49	1.78 (0.00)	4.40 (0.02)	6.33 (0.01)	(1.18) (0.03)	3.50 (0.07)	(8.42)	7.25	13.50	2.85	4.90	4.33	06/01/2005
	NYCERS-TOTAL TIPS - NET MGR			1.78	4.38	6.33	(1.21)	3.42							
	BARCLAYS GLOBAL INFLATION LINKED: US TIPS (DAILY)			1.71	4.35	6.24	(1.44)	3.64	(8.61)	6.98	13.56	2.63	4.75	4.16	
	EXCESS RETURN			0.07	0.02	0.08	0.23	(0.21)	0.19	0.27	(0.06)	0.22	0.15	0.17	
306	NYCERS-TOTAL ENHANCED YIELD - GROSS ESTIMATED INVESTMENT FEES	2,074	3.80	4.71 (0.09)	0.63 (0.35)	7.79 (0.19)	(3.82) (0.33)	2.94 (0.36)	8.31	14.56	5.73	5.76	7.41	7.78	10/01/1994
	NYCERS-TOTAL ENHANCED YIELD - NET MGR			4.62	0.28	7.60	(4.15)	2.58							
	CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78	6.17	14.45	6.58	5.63	6.18	6.89	
	EXCESS RETURN			(0.35)	(0.55)	(0.55)	0.06	(0.20)	2.14	0.11	(0.85)	0.14	1.23	0.89	
316	NYCERS- TOTAL BANK LOANS - GROSS ESTIMATED INVESTMENT FEES	1,022	1.87	2.53 (0.08)	1.86 (0.34)	3.95 (0.17)	1.18 (0.33)	2.58 (0.34)	6.41					4.05	12/01/2012
	NYCERS-TOTAL BANK LOANS - NET MGR			2.45	1.53	3.78	0.85	2.24							
	CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06	6.15					3.55	
	EXCESS RETURN			(0.41)	0.60	(0.44)	1.23	0.18	0.26					0.50	

# Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>FIXED INCOME RETURN DETAIL</b>														
328 NYCERS- TOTAL CONVERTIBLE BONDS - GROSS	533	0.98	2.74	(0.42)	2.77	(0.85)	8.42	16.33	11.66	(3.02)	5.91		5.79	06/01/2008
ESTIMATED INVESTMENT FEES			(0.11)	(0.43)	(0.22)	(0.43)	(0.47)							
NYCERS-TOTAL CONVERTIBLE BONDS - NET MGR			2.63	(0.85)	2.55	(1.28)	7.95							
BOFAML ALL CONVERTIBLE EX M AI (DAILY)			4.03	(5.10)	1.36	(2.89)	9.33	25.00	14.41	(3.42)	7.19		6.72	
EXCESS RETURN			(1.39)	4.25	1.19	1.61	(1.38)	(8.68)	(2.76)	0.39	(1.28)		(0.93)	
338 NYCERS-TOTAL OPPORTUNISTIC FIXED INCOME	1,448	2.65	4.44	(2.52)	1.30	(2.18)	8.15	17.55	20.49	(4.40)	4.96		7.36	10/01/2007
10% ANNUAL RETURN			2.41	10.00	4.88	10.00	10.00	10.00	10.00	10.00	10.00		10.00	
EXCESS RETURN			2.03	(12.52)	(3.58)	(12.18)	(1.85)	7.55	10.49	(14.40)	(5.04)		(2.64)	
348 NYCERS-TOTAL TARGETED INVESTMENTS (NO CASH)	768	1.41	2.46	11.70	6.54	4.33	8.26	2.35	6.18	6.66	6.30	6.80	8.39	12/01/1984
EMPLOYEES CUSTOM BENCHMARK (NO CASH)			1.60	5.25	4.08	1.42	6.03	(1.64)	3.41	7.66	3.53	5.20		
EXCESS RETURN			0.86	6.46	2.46	2.91	2.22	3.98	2.77	(1.00)	2.76	1.60		
<b>CASH SUMMARY</b>														
360 EMPLOYEES' SHORT TERM - GROSS	810	1.48	0.17	0.51	0.50	0.31	0.36	0.19	0.56	0.92	0.45	1.61		04/01/1982
ESTIMATED INVESTMENT FEES			0.00	(0.00)	0.00	(0.00)	0.00	0.00	0.00	0.00	0.00	0.00		
EMPLOYEES' SHORT TERM - NET MGR			0.17	0.51	0.50	0.31	0.36	0.19	0.56	0.92	0.45	1.61		
364 C/D - FAIL FLOAT EARNINGS	3	0.01												
366 SECURITY LENDING	8	0.02												

New York City  
Employees' Retirement System

# Appendix B

## Public Markets Manager Performance Detail

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
EQUITY SUMMARY							
US EQUITY							
State Street Global Advisors R3000	1,701	3.12	2.57	2.03	3.57	0.39	12.87
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56
Excess			(0.06)	(0.11)	(0.06)	(0.09)	0.31
Amalgamated Bank	4,644	8.51	2.45	3.64	3.73	1.11	13.62
S&P 500 INDEX (DAILY)			2.46	3.99	3.84	1.38	13.69
Excess			(0.01)	(0.35)	(0.10)	(0.27)	(0.07)
Blackrock Inst R 2000 Growth	207	0.38	3.20	(10.86)	(1.66)	(1.54)	5.70
RUSSELL 2000 GROWTH DAILY			3.24	(10.75)	(1.59)	(1.38)	5.60
Excess			(0.04)	(0.10)	(0.06)	(0.16)	0.10
Blackrock Inst R 2000 Value	57	0.10	4.24	(2.81)	6.01	(7.49)	4.90
RUSSELL 2000 VALUE DAILY			4.31	(2.58)	6.08	(7.47)	4.22
Excess			(0.06)	(0.23)	(0.07)	(0.02)	0.68
RAFI - SC Fundamental	973	1.78	2.73	(4.33)	5.18	(7.09)	4.56
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(1.06)	2.40	2.96	(2.68)	(0.34)
Ceredex SCV	282	0.52	6.10	5.28	14.68	(4.74)	2.58
RUSSELL 2000 VALUE DAILY			4.31	(2.58)	6.08	(7.47)	4.22
Excess			1.80	7.86	8.60	2.73	(1.64)
Wellington Small Core	157	0.29	5.63	(3.82)	3.08	(2.79)	9.89
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			1.84	2.91	0.86	1.63	4.99



# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
State Street GA S&P 400	1,720	3.15	3.66	0.99	7.59	(2.31)	9.97
S&P 400 MIDCAP INDEX (DAILY)			3.99	1.33	7.93	(2.18)	9.77
Excess			(0.33)	(0.34)	(0.34)	(0.13)	0.20
Blackrock Inst R 1000 Growth	2,790	5.11	0.59	2.93	1.32	5.58	12.90
RUSSELL 1000 GROWTH - DAILY			0.61	3.02	1.36	5.67	13.05
Excess			(0.03)	(0.10)	(0.04)	(0.09)	(0.15)
Blackrock Inst R 1000 Value	2,678	4.91	4.57	2.71	6.23	(3.94)	13.51
RUSSELL 1000 VALUE (DAILY)			4.58	2.86	6.30	(3.83)	13.45
Excess			(0.02)	(0.15)	(0.06)	(0.11)	0.06
VTL S&P 500 Fundamental	485	0.89	1.79	1.67	3.94	(1.25)	13.81
S&P 500 INDEX (DAILY)			2.46	3.99	3.84	1.38	13.69
Excess			(0.67)	(2.32)	0.10	(2.63)	0.12
RAFI - LC Fundamental	1,438	2.64	2.57	3.30	6.10	(3.17)	12.15
RUSSELL 1000 (DAILY)			2.54	2.93	3.74	0.92	13.24
Excess			0.04	0.37	2.36	(4.09)	(1.09)
FUND OF FUNDS							
NYCERS-TOTAL FUND OF FUNDS	1,031	1.89	0.90	(4.85)	(0.22)	(3.41)	7.55
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56
Excess			(1.73)	(6.98)	(3.84)	(3.89)	(5.01)
NYCERS-TOTAL ATTUCKS	318	0.58	1.87	(4.13)	0.81	(3.63)	9.46
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56
Excess			(0.76)	(6.27)	(2.82)	(4.10)	(3.10)
NYCERS-TOTAL CAPITAL PROSPECTS	75	0.14	0.85	(2.72)	1.01	(2.40)	9.13
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56
Excess			(1.78)	(4.85)	(2.61)	(2.88)	(3.42)

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
NYCERS-TOTAL PROGRESS EQUITY	401	0.73	(0.13)	(6.72)	(1.13)	(4.66)	6.99
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56
Excess			(2.76)	(8.86)	(4.75)	(5.14)	(5.57)
NYCERS-TOTAL F I S	237	0.43	1.54	(3.08)	(0.30)	(1.25)	5.52
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56
Excess			(1.09)	(5.22)	(3.93)	(1.73)	(7.03)
U.S. ENVIRONMENTAL							
Walden Asset Management (ENVRN)	341	0.63	1.96	2.74	8.56	(3.33)	(0.34)
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(1.83)	9.47	6.35	1.08	(5.24)
NON - US EQUITY							
Causeway	779	1.43	(1.91)	(13.27)	(6.62)	(2.41)	(4.94)
MSCI EAFE VALUE NET (DAILY)			(2.79)	(15.43)	(6.65)	(5.68)	(5.39)
Excess			0.88	2.16	0.03	3.28	0.45
Sprucegrove	865	1.59	(0.51)	(10.97)	(0.42)	(9.77)	(3.69)
MSCI EAFE VALUE NET (DAILY)			(2.79)	(15.43)	(6.65)	(5.68)	(5.39)
Excess			2.27	4.46	6.22	(4.08)	1.70
Baillie Gifford MTA	827	1.52	0.44	(13.00)	(3.00)	(4.67)	(6.81)
MSCI EAFE GROWTH			(0.15)	(4.80)	(2.22)	4.09	(4.43)
Excess			0.59	(8.20)	(0.78)	(8.76)	(2.38)
Walter Scott	1,002	1.84	2.65	0.02	3.77	0.04	(3.43)
MSCI EAFE GROWTH			(0.15)	(4.80)	(2.22)	4.09	(4.43)
Excess			2.80	4.82	5.99	(4.05)	1.00
Acadian	334	0.61	(1.18)	(1.39)	(1.04)	8.71	(3.02)
S&P EPAC Small Cap USD NET			(2.79)	(4.76)	(3.26)	8.58	(3.43)
Excess			1.61	3.37	2.22	0.13	0.41

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Pyramis	324	0.59	(4.04)	(3.29)	(3.95)	11.68	(5.51)
S&P EPAC Small Cap USD NET			(2.79)	(4.76)	(3.26)	8.58	(3.43)
Excess			(1.25)	1.48	(0.69)	3.09	(2.08)
SSGA MTA 121	537	0.99	(1.24)	(9.82)	(4.13)	(0.42)	(5.00)
MSCI EAFE			(1.46)	(10.16)	(4.42)	(0.81)	(4.90)
Excess			0.23	0.35	0.30	0.39	(0.10)
SSGA MSCI EAFE Small Cap Index	244	0.45	(2.42)	(3.31)	(2.85)	9.97	
MSCI EAFE SMALL CAP NET (DAILY)			(2.60)	(3.67)	(3.18)	9.59	
Excess			0.18	0.36	0.32	0.39	
Generation GE MTA	217	0.40	1.51	5.45	4.01	7.04	11.39
MSCI World Index			1.01	(2.78)	0.66	(0.87)	4.94
Excess			0.50	8.23	3.36	7.91	6.45
INTERNATIONAL FUND OF FUNDS							
NYCERS-TOTAL INTERNATIONAL FUND OF FUNDS	47	0.09	(2.75)	(10.17)	(5.79)	0.52	(5.54)
MSCI EAFE			(1.46)	(10.16)	(4.42)	(0.81)	(4.90)
Excess			(1.29)	(0.01)	(1.37)	1.33	(0.64)
EMERGING MARKETS							
BALLIE MTA	558	1.02	1.32	(11.56)	2.60	(13.67)	4.53
FTSE Custom NYCERS All Emerging Index			1.22	(7.71)	10.14	(16.80)	(0.07)
Excess			0.11	(3.85)	(7.54)	3.14	4.60
Acadian / MTA	515	0.94	(0.98)	(12.32)	5.86	(18.25)	3.09
FTSE Custom NYCERS All Emerging Index			1.22	(7.71)	10.14	(16.80)	(0.07)
Excess			(2.20)	(4.61)	(4.28)	(1.45)	3.16
PARAMETRIC EM	530	0.97	0.67	(8.75)	10.78	(19.39)	(1.55)
FTSE Custom NYCERS All Emerging Index			1.22	(7.71)	10.14	(16.80)	(0.07)
Excess			(0.55)	(1.04)	0.64	(2.59)	(1.48)

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
DFA MTA	575	1.05	0.28	(10.27)	11.98	(22.06)	(4.16)
FTSE Custom NYCERS All Emerging Index			1.22	(7.71)	10.14	(16.80)	(0.07)
Excess			(0.94)	(2.56)	1.84	(5.26)	(4.09)
Blackrock EM	1,572	2.88	0.73	(9.08)	9.86	(17.92)	(1.52)
MSCI CUSTOM NYCERS EMERGING MARKETS (NET)			0.82	(8.71)	9.76	(17.71)	
Excess			(0.09)	(0.37)	0.11	(0.21)	

## FIXED INCOME SUMMARY

### STRUCTURED FIXED INCOME

Neuberger Berman - Mortgage	903	1.66	1.09	4.09	3.00	1.42	6.99
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			0.02	(0.20)	(0.06)	(0.14)	0.86
Blackrock - Mortgage	1,034	1.90	1.25	4.28	3.24	1.67	6.75
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			0.18	(0.01)	0.19	0.11	0.62
Wellington - Mortgage	452	0.83	1.15	4.31	3.24	1.35	6.77
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			0.08	0.02	0.18	(0.21)	0.65
Goldman Sachs - Mortgage	453	0.83	1.10	4.01	2.89	1.60	6.24
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			0.03	(0.28)	(0.17)	0.04	0.12
Amundi Smith Breeden - Mortgage	179	0.33	1.18	4.22	3.07	1.73	6.36
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			0.11	(0.07)	0.02	0.16	0.23

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Prudential - Corp - Credit	1,264	2.32	3.38	7.82	7.54	(0.32)	7.54
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			(0.04)	0.56	0.13	0.33	0.50
T. Rowe Price - Credit	920	1.69	3.73	7.50	7.49	0.13	7.91
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			0.31	0.24	0.09	0.78	0.87
Blackrock - Credit	912	1.67	3.33	6.67	7.21	(0.83)	7.48
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			(0.09)	(0.59)	(0.20)	(0.18)	0.44
Taplin Canida Habacht - Credit	785	1.44	4.24	4.98	8.46	(4.37)	7.83
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			0.82	(2.29)	1.05	(3.73)	0.79
Barrow Hanley - Credit	693	1.27	3.23	7.59	7.33	(0.09)	7.47
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			(0.19)	0.33	(0.08)	0.56	0.42
Prudential-Privest - Credit	201	0.37	3.13	5.94	5.05	1.63	7.20
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			(0.29)	(1.32)	(2.35)	2.28	0.16
Blackrock - Gov't	610	1.12	3.89	11.60	9.61	0.69	11.98
NYC - Treasury Agency Plus Five			3.96	11.98	9.72	0.72	12.38
Excess			(0.06)	(0.38)	(0.12)	(0.03)	(0.40)
State Street - Gov't	611	1.12	3.95	11.70	9.77	0.46	12.10
NYC - Treasury Agency Plus Five			3.96	11.98	9.72	0.72	12.38
Excess			(0.01)	(0.28)	0.04	(0.26)	(0.28)

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
<b>ENHANCED YIELD</b>							
Loomis, Sayles - High Yield	410	0.75	8.22	(1.12)	11.03	(7.67)	4.89
NYC-Loomis (BoA MLMSTII 7-03/BB&B PRIOR)			5.88	1.71	9.32	(4.64)	2.50
Excess			2.34	(2.82)	1.71	(3.02)	2.38
Oaktree - High Yield	331	0.61	4.20	0.23	7.87	(4.77)	1.52
BofAML HYM CONSTRAINED (DAILY)			5.88	1.74	9.32	(4.61)	2.51
Excess			(1.68)	(1.51)	(1.45)	(0.16)	(0.98)
NEUBERGER BERMAN - HIGH YIELD	352	0.65	4.25	1.47	7.94	(4.00)	2.14
BofAML HIGH YIELD MASTER II (DAILY)			5.88	1.71	9.32	(4.64)	2.50
Excess			(1.64)	(0.24)	(1.38)	0.64	(0.36)
Stone Harbor - High Yield	203	0.37	3.63	(0.22)	6.40	(4.54)	0.97
BofAML HIGH YIELD MASTER II (DAILY)			5.88	1.71	9.32	(4.64)	2.50
Excess			(2.26)	(1.93)	(2.92)	0.11	(1.54)
T. Rowe Price - Enhanced Yield	357	0.65	3.38	1.54	6.22	(1.28)	2.96
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78
Excess			(1.58)	0.71	(1.94)	2.93	0.18
Shenkman - High Yield	175	0.32	3.05	0.00	5.73	(2.24)	2.93
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78
Excess			(1.91)	(0.83)	(2.43)	1.97	0.14
Penn Capital Mgt	128	0.24	3.26	0.45	4.73	(1.26)	0.84
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78
Excess			(1.71)	(0.38)	(3.42)	2.95	(1.95)
Fort Washington	118	0.22	4.14	(0.87)	6.74	(4.43)	2.18
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78
Excess			(0.82)	(1.70)	(1.42)	(0.22)	(0.60)

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
<b>BANK LOANS</b>							
Babson BL	278	0.51	2.82	0.17	3.29	0.12	1.99
CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06
Excess			(0.04)	(0.76)	(0.93)	0.50	(0.07)
Credit Suisse BL	286	0.52	2.49	3.01	4.07	2.57	2.67
CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06
Excess			(0.37)	2.08	(0.16)	2.96	0.61
Guggenheim BL	182	0.33	1.98	2.32	3.46	2.07	2.88
CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06
Excess			(0.88)	1.38	(0.77)	2.45	0.83
Invesco BL	276	0.51	2.35	0.89	4.19	(0.91)	1.65
CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06
Excess			(0.51)	(0.05)	(0.03)	(0.53)	(0.41)
<b>TIPS</b>							
State Street TIPS MTA	1,848	3.39	1.78	4.38	6.34	(1.35)	3.57
Barclays Global Inflation Linked: US TIPS (Daily)			1.71	4.35	6.24	(1.44)	3.64
Excess			0.07	0.03	0.10	0.09	(0.07)
Blackrock TIPS MTA	600	1.10	1.77	4.37	6.29	(1.24)	3.74
Barclays Global Inflation Linked: US TIPS (Daily)			1.71	4.35	6.24	(1.44)	3.64
Excess			0.06	0.02	0.04	0.20	0.10
<b>CONVERTIBLE BONDS</b>							
Advent Conv Bonds	329	0.60	2.93	(1.14)	2.91	(1.92)	4.68
BofA ML U.S. Convertible Yield Alternative			5.40	(5.68)	3.84	(8.77)	2.75
Excess			(2.46)	4.54	(0.93)	6.85	1.93

## Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Victory - Conv Bonds	204	0.37	2.15	(0.38)	1.98	(0.24)	13.76
BofA Merrill Lynch US Investment Grade Convertible Bond Index			2.78	3.34	4.14	1.68	15.69
Excess			(0.63)	(3.72)	(2.16)	(1.92)	(1.93)
FIXED INCOME FUND OF FUNDS							
New Century Adv LLC (Core)	27	0.05	1.62	4.16	3.86	(0.04)	6.09
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			(0.59)	(1.84)	(1.45)	(0.59)	0.12
Hillswick	10	0.02					
Barclays Aggregate (Daily)							
Excess							
Integrity	12	0.02					
Barclays Aggregate (Daily)							
Excess							
Pugh Capital Mgmt Inc (Core)	30	0.06	2.21	6.51	5.38	0.69	6.05
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			(0.01)	0.51	0.06	0.14	0.08
Ramirez Asset	38	0.07	2.42	6.24	4.98	0.94	
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	
Excess			0.20	0.24	(0.33)	0.39	
CORE FIXED INCOME							
LM Capital	292	0.54	2.08	5.72	5.21	0.83	5.67
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			(0.13)	(0.29)	(0.11)	0.28	(0.30)
GIA	105	0.19	2.30	5.49	5.46		
Barclays Aggregate (Daily)			2.21	6.00	5.31		
Excess			0.08	(0.51)	0.15		



# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
ECONOMICALLY TARGETED INVESTMENTS							
AFL-CIO HOUSING INV TRUST	307	0.56	1.72	5.29	4.52	1.13	6.10
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			(0.49)	(0.71)	(0.80)	0.58	0.14
ACCESS RBC	110	0.20	1.23	4.42	3.39	1.83	6.66
Access RBC Benchmark			1.18	4.34	3.33	1.40	5.08
Excess			0.05	0.07	0.06	0.43	1.58
CPC CONST FACILITY	11	0.02	(2.49)	7.75	(3.32)	12.90	
CPC CONST BENCHMARK			0.76	2.99	1.52	2.90	
Excess			(3.25)	4.76	(4.84)	10.00	
BOA-PPAR (FNMA)	26	0.05	4.24	23.54	11.62	42.03	13.31
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.90	18.23	7.99	39.53	6.19
BOA-PPAR (GNMA)	17	0.03	3.20	23.39	10.08	8.04	15.61
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.12	18.74	7.07	6.03	8.96
CCD-PPAR (FNMA)	10	0.02	2.83	22.59	10.03	6.69	25.71
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			1.49	17.28	6.41	4.20	18.58
CCD-PPAR (GNMA)	7	0.01	3.25	18.13	8.98	5.08	15.37
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.17	13.47	5.97	3.06	8.72
CFSB-PPAR (GNMA)	3	0.01	3.37	19.87	9.40	5.90	15.34
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.29	15.22	6.38	3.88	8.69

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
CPC-PPAR (FNMA)	77	0.14	4.17	25.93	11.78	8.96	13.91
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.83	20.62	8.15	6.46	6.78
CPC - PPAR (GNMA)	110	0.20	3.19	16.36	8.14	5.08	8.41
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.12	11.71	5.13	3.07	1.76
JPMC-PPAR (FNMA)	38	0.07	3.75	25.63	11.10	6.18	12.06
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.41	20.32	7.48	3.68	4.93
JPMC - PPAR (GNMA)	39	0.07	3.26	16.56	7.49	6.04	13.75
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.18	11.91	4.48	4.03	7.10
LIIF-PPAR (FNMA)	6	0.01	5.93	32.24	19.54	6.29	38.12
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			4.60	26.93	15.92	3.79	30.99
LIIF-PPAR (GNMA)	3	0.01	2.74	11.14	6.85	3.92	9.74
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			1.66	6.49	3.84	1.91	3.09
NCBCI PPAR (FNMA)	0	0.00	3.40	17.91	9.04	4.97	14.93
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.06	12.60	5.41	2.47	7.81
NCBCI-PPAR (GNMA)	2	0.00	3.51	18.79	9.33	5.53	16.66
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.43	14.13	6.31	3.52	10.01

## Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
NHS-PPAR (GNMA)	1	0.00	3.38	15.72	8.24	4.90	13.73
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.30	11.06	5.23	2.89	7.08
CASH							
EMPLOYEES' SHORT TERM	810	1.48	0.17	0.51	0.50	0.31	0.36
91 DAY T-BILL			0.07	0.19	0.15	0.05	0.02
Excess			0.10	0.32	0.36	0.27	0.34
C/D - FAIL FLOAT EARNINGS	3	0.01					
SECURITY LENDING	8	0.02					

New York City  
Employees' Retirement System

# Appendix C

## Alternative Assets Manager Performance Detail

# Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
<b>TOTAL PRIVATE EQUITY</b>		8,589,588,255	7,146,766,720	5,477,512,125	4,149,988,966	1.35	8.9%
<b>TOTAL ACTIVE</b>		8,088,339,553	6,575,438,593	4,788,314,510	4,149,988,966	1.36	9.3%
Cypress Merchant Banking Partners II, L.P.	1999	45,172,972	53,861,600	43,440,706	7,055,392	0.94	-1.2%
FdG Capital Partners LLC	1999	25,000,000	28,756,835	42,947,883	6,365,393	1.71	14.8%
Lincolnshire Equity Fund II, L.P.	1999	18,397,347	19,261,466	36,463,088	1,039,344	1.95	24.6%
Solera Partners, L.P.	2000	19,999,779	26,460,862	41,635,156	3,850,347	1.72	8.5%
SCP Private Equity Partners II, L.P.	2000	27,442,463	30,827,225	9,605,207	4,717,457	0.46	-10.1%
New Mountain Partners, L.P.	2001	18,141,933	17,116,468	24,431,489	433,677	1.45	12.3%
Apollo Investment Fund V, L.P.	2001	40,000,000	62,509,880	122,932,865	1,413,706	1.99	38.6%
RRE Ventures III, L.P.	2001	19,999,999	26,237,704	33,113,046	2,987,749	1.38	5.9%
Yucaipa American Alliance Fund I, LP	2002	90,000,000	114,094,892	94,282,024	33,968,925	1.12	3.1%
Thomas, McNerney & Partners, L.P.	2002	20,000,000	20,000,000	7,003,139	4,524,469	0.58	-11.0%
BDCM Opportunity Fund, L.P.	2002	25,000,000	52,554,619	89,778,751	425,194	1.72	22.8%
Landmark Equity Partners XI, L.P.	2002	55,000,000	52,284,778	76,665,450	4,118,395	1.55	23.5%
FS Equity Partners V, L.P.	2003	25,000,000	21,389,918	41,728,994	2,469,429	2.07	15.7%
Blackstone Capital Partners IV, L.P.	2003	34,418,762	38,818,072	97,745,449	1,353,200	2.55	39.7%
Ares Corporate Opportunities Fund, L.P.	2003	45,000,000	54,008,942	78,961,930	4,486,054	1.55	13.6%
Markstone Capital Partners, LP	2004	40,000,000	46,899,103	19,822,611	1,955,927	0.46	-37.6%
FdG Capital Partners II LP	2004	35,000,000	37,624,231	42,499,038	1,751,334	1.18	3.3%
Paladin Homeland Security Fund (NY City), L.P.	2004	15,000,000	16,348,036	5,249,426	2,295,956	0.46	-10.8%
Lincolnshire Equity Fund III, L.P.	2004	55,000,000	53,465,423	69,373,748	26,215,168	1.79	30.2%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 1	2004	32,000,000	32,725,517	25,436,114	14,985,095	1.24	3.9%
Aurora Equity Partners III L.P.	2004	50,000,000	54,119,877	86,237,201	5,804,858	1.70	14.4%
Trilantic Capital Partners III L.P.	2004	45,088,848	40,126,836	59,174,224	1,113,136	1.50	12.4%
Celtic Pharmaceutical Holdings L.P.	2004	25,000,000	25,402,094	402,094	3,976,018	0.17	-19.2%
Palladium Equity Partners III, L.P.	2005	35,000,000	35,803,006	51,208,837	19,220,286	1.97	17.8%
New Mountain Partners II, L.P.	2005	46,451,615	41,780,816	80,867,650	807,283	1.95	13.7%
VSS Communications Partners IV, L.P.	2005	25,000,000	28,230,358	15,475,650	6,687,589	0.79	-4.1%
Prism Venture Partners V-A, L.P.	2005	30,000,000	30,762,722	15,284,210	6,255,137	0.70	-7.1%
NB New York City Growth Fund	2005	34,819,694	34,819,694	33,604,255	-	0.97	-0.7%
Quadrangle Capital Partners II LP	2005	59,042,060	60,918,852	66,068,895	15,226,702	1.33	5.9%
Snow Phipps Group, L.P.	2005	20,000,000	23,074,361	17,825,994	12,088,870	1.30	7.0%
GI Partners Fund II L.P.	2005	35,000,000	35,423,401	41,836,699	11,399,286	1.50	6.9%
Blackstone Mezzanine Partners II, L.P.	2005	25,000,000	23,477,332	31,496,847	616,639	1.37	8.1%
Psilos Group Partners III, L.P.	2005	35,000,000	37,205,819	17,948,760	27,543,672	1.22	4.1%

Information provided by the New York City Employees' Retirement System Consultants

# Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
USPF II Institutional Fund, L.P.	2005	65,000,000	85,734,194	58,776,550	59,499,189	1.38	6.3%
JP Morgan Fleming (Tranche A)	2005	43,000,000	41,553,629	29,674,027	26,173,831	1.34	6.5%
Aisling Capital II, LP	2006	6,680,102	7,850,198	5,270,041	2,251,264	0.96	-0.9%
InterMedia Partners VII, L.P.	2006	25,000,000	28,970,204	17,874,149	24,788,111	1.47	5.9%
Terra Firma Capital Partners III, L.P.	2006	52,773,929	53,205,555	3,796,110	24,503,939	0.53	-10.0%
BDCM Opportunity Fund II, L.P.	2006	25,000,000	36,330,630	35,058,707	34,726,218	1.92	16.4%
Blackstone Capital Partners V, L.P.	2006	121,624,827	129,089,180	155,901,661	52,591,251	1.62	8.2%
Avista Capital Partners, L.P.	2006	45,000,000	58,780,332	50,792,906	22,560,753	1.25	5.0%
GSC Recovery III, L.P.	2006	25,000,000	28,125,676	29,592,470	2,921,827	1.16	3.8%
Apollo Investment Fund VI, L.P.	2006	90,000,000	115,838,240	145,232,785	29,932,085	1.51	9.3%
Landmark Equity Partners XIII, L.P.	2006	50,000,000	47,830,446	43,795,690	18,229,550	1.30	5.8%
Ares Corporate Opportunities Fund II, L.P.	2006	50,000,000	54,777,786	82,742,122	9,200,498	1.68	13.4%
Fairview Ventures Fund III, L.P.	2006	25,000,000	25,557,562	18,331,136	26,970,531	1.77	14.5%
Ampersand 2006	2006	25,000,000	25,000,000	31,919,037	18,968,701	2.04	14.1%
CCMP Capital Investors II, L.P.	2006	30,000,000	32,924,524	37,406,130	18,053,178	1.68	13.9%
CLP 2014 (fka Perseus Partners VII)	2006	30,000,000	35,015,446	10,072,119	2,507,967	0.36	-25.0%
Thomas, McNerney & Partners II, L.P.	2006	25,000,000	24,269,167	40,366,658	14,334,005	2.25	17.4%
Catterton Partners VI, L.P.	2006	45,000,000	49,681,556	61,097,483	33,290,797	1.90	13.4%
First Reserve Fund XI, L.P.	2006	45,000,000	47,820,682	26,739,005	3,789,337	0.64	-11.4%
Arsenal Capital Partners II, LP	2006	22,500,000	26,890,523	25,313,913	18,752,613	1.64	10.7%
RRE Ventures IV, L.P.	2006	35,000,000	43,543,836	21,044,903	46,622,082	1.55	8.6%
MidOcean Partners III, L.P.	2006	60,000,000	67,409,183	51,379,709	48,507,274	1.48	8.7%
GF Capital Private Equity Fund, L.P.	2006	20,000,000	20,626,154	17,106,190	18,998,270	1.75	14.6%
The Fourth Cinven Fund	2006	71,400,609	72,804,849	93,043,069	7,466,539	1.38	6.7%
Pegasus Partners IV, L.P.	2007	30,000,000	34,952,403	15,877,079	19,047,358	1.00	0.0%
FTVentures III, LP	2007	24,201,990	24,651,990	31,595,290	19,879,766	2.09	16.5%
Co-Investment Partners Europe, L.P.	2007	39,910,946	42,011,550	27,778,730	26,448,908	1.29	5.4%
Montreux Equity Partners IV, L.P.	2007	20,000,000	20,000,000	6,843,774	17,050,074	1.19	3.9%
Quaker BioVentures II, L.P.	2007	20,000,000	17,658,740	10,808,880	11,596,399	1.27	6.2%
SCP Vitalife Partners II Fund	2007	20,000,000	20,099,698	1,579	12,440,323	0.62	-9.4%
Craton Equity Investors I, L.P.	2007	20,000,000	20,089,805	1,453,710	3,701,494	0.26	-21.7%
Nautic Partners VI, L.P.	2007	30,000,000	33,397,160	52,989,663	22,060,002	2.25	19.1%
Constellation Venture Capital III, L.P.	2007	25,000,000	27,160,015	5,676,045	15,559,245	0.78	-5.1%
United States Power Fund III, L.P.	2007	65,000,000	71,706,783	31,865,868	63,051,974	1.32	5.9%
Halyard Capital Fund II, L.P.	2007	25,000,000	21,132,622	21,103,846	8,990,180	1.42	7.1%
Carlyle Partners V, L.P.	2007	70,000,000	71,029,710	78,997,672	38,203,499	1.65	13.4%

Information provided by the New York City Employees' Retirement System Consultants

# Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
PCG Clean Energy & Technology Fund (East), LLC	2007	90,000,000	79,380,090	9,980,582	39,846,448	0.63	-8.8%
GSO Capital Opportunities Fund LP	2007	45,000,000	67,205,518	91,456,126	5,853,945	1.45	17.9%
StarVest Partners II, L.P.	2007	25,000,000	24,464,099	1,166,983	20,893,440	0.90	-2.4%
New Mountain Partners III, L.P.	2007	100,000,000	98,388,823	63,029,418	95,781,828	1.61	11.7%
Vista Equity Partners Fund III, L.P.	2007	30,000,000	31,871,536	67,811,388	13,603,656	2.55	28.4%
Trilantic Capital Partners IV L.P.	2007	69,028,637	70,874,063	85,495,854	24,004,569	1.54	13.9%
RLJ Equity Partners Fund I, L.P.	2007	20,000,000	21,094,120	8,301,877	23,108,544	1.49	11.8%
Pine Brook Capital Partners, L.P.	2007	30,000,000	31,422,057	18,464,292	16,504,478	1.11	3.8%
Paladin III (NY City), L.P.	2008	30,000,000	35,198,854	17,413,900	29,102,052	1.32	8.0%
Relativity Fund, L.P.	2008	10,877,829	10,773,614	2,302,071	3,603,652	0.55	-10.8%
Apollo Investment Fund VII, L.P.	2008	100,000,000	118,027,691	175,185,510	29,887,692	1.74	24.4%
NGN BioMed Opportunity II, L.P.	2008	20,000,000	19,151,821	3,946,209	9,820,127	0.72	-7.7%
Carpenter Community BancFund-A, L.P.	2008	20,000,000	19,519,654	11,658,453	18,438,587	1.54	8.1%
Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	2008	45,000,000	49,067,999	33,780,685	21,549,627	1.13	4.2%
Yucaipa American Alliance Fund II, LP	2008	120,000,000	163,744,290	97,293,704	129,081,557	1.38	9.1%
Levine Leichtman Capital Partners IV, L.P.	2008	35,000,000	35,143,420	44,189,211	17,038,053	1.74	20.6%
Lee Equity Partners Fund, L.P.	2008	37,261,581	50,020,033	56,971,528	3,769,301	1.21	6.2%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 2	2008	45,000,000	41,792,559	22,138,939	40,668,726	1.50	14.2%
Yucaipa Corporate Initiatives Fund II, LP	2008	42,092,788	40,937,928	11,698,560	24,948,304	0.90	-2.5%
Leeds Equity Partners V, L.P.	2008	60,000,000	53,780,291	33,414,337	55,527,870	1.65	16.5%
GI Partners Fund III L.P.	2008	45,000,000	48,116,778	48,817,416	20,761,187	1.45	12.5%
Ares Corporate Opportunities Fund III, L.P.	2008	75,000,000	88,326,583	78,847,538	78,522,275	1.78	21.1%
GCM Grosvenor NYCERS Emerging Manager Co-Investment Fund, L.P.	2008	12,875,950	14,634,914	19,882,463	6,565,866	1.81	14.4%
GCM Grosvenor NYCERS Emerging Manager Fund, L.P.	2008	116,737,374	122,505,801	69,093,405	87,871,780	1.28	10.2%
First Reserve Fund XII, L.P.	2008	45,000,000	47,909,482	21,141,435	14,960,504	0.75	-7.9%
Landmark Equity Partners XIV, L.P.	2008	109,120,000	101,182,428	82,458,889	52,257,633	1.33	12.8%
Crestview Partners II, L.P.	2008	50,000,000	54,326,959	41,070,936	37,516,043	1.45	12.3%
Avista Capital Partners II, L.P.	2008	75,000,000	90,101,099	96,057,291	65,994,789	1.80	17.6%
Blue Wolf Capital Fund II, L.P.	2008	25,000,000	27,167,904	9,980,200	22,423,484	1.19	5.9%
Bridgepoint Europe IV	2008	26,801,158	24,454,185	19,161,924	16,445,042	1.46	10.7%
Aisling Capital III, LP	2008	14,000,000	14,609,804	13,240,461	9,676,680	1.57	20.4%
Onex Partners III LP	2008	75,000,000	81,027,018	48,096,141	73,449,454	1.50	13.1%
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	40,000,000	38,570,874	32,185,534	25,639,173	1.50	13.1%
FS Equity Partners VI, L.P.	2009	32,500,000	31,253,057	24,359,661	31,627,585	1.79	18.2%
Lincolnshire Equity Fund IV, L.P.	2009	27,500,000	26,847,584	9,638,864	23,389,633	1.23	7.8%
Lexington Capital Partners VII, L.P.	2009	50,000,000	42,378,987	36,341,891	26,674,995	1.49	15.8%

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# Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Snow Phipps II, L.P.	2010	30,000,000	27,180,613	13,553,711	27,302,622	1.50	17.5%
JP Morgan Fleming (Tranche B)	2010	35,000,000	32,420,981	11,247,971	34,679,292	1.42	12.3%
Trident V, L.P.	2010	110,000,000	116,015,061	28,681,045	115,274,634	1.24	7.9%
Blackstone Capital Partners VI, L.P.	2011	120,000,000	106,312,351	18,384,808	109,240,534	1.20	10.0%
Ampersand 2011	2011	25,000,000	24,125,000	8,694,145	32,570,741	1.71	16.8%
BDCM Opportunity Fund III, L.P.	2011	45,000,000	57,406,306	20,728,277	46,168,233	1.17	8.4%
AXA Secondary Fund V B L.P.	2011	120,000,000	94,919,239	59,286,396	83,162,622	1.50	17.7%
Wellspring Capital Partners V, L.P.	2011	40,000,000	35,875,470	4,728,951	43,138,194	1.33	15.2%
EQT VI, L.P.	2011	106,317,701	90,471,874	2,593,006	101,450,967	1.15	5.8%
Pegasus Partners V, L.P.	2011	20,789,916	16,172,845	3,700,886	18,911,841	1.40	12.5%
BC European Capital IX	2011	132,567,431	111,580,379	38,669,729	95,849,763	1.21	8.7%
American Securities Partners VI, L.P.	2011	80,000,000	74,334,516	23,611,608	82,590,808	1.43	19.6%
Vista Equity Partners Fund IV, L.P.	2011	100,000,000	100,747,585	49,430,629	125,813,267	1.74	23.3%
Warburg Pincus Private Equity XI, L.P.	2012	110,000,000	100,808,488	18,508,710	104,972,402	1.22	12.8%
Trilantic Capital Partners V L.P.	2012	70,000,000	32,128,584	424,163	28,983,570	0.92	-5.3%
Palladium Equity Partners IV, L.P.	2012	55,000,000	24,931,095	2,075,887	24,790,323	1.08	4.2%
Ares Corporate Opportunities Fund IV, L.P.	2012	125,000,000	97,505,204	8,707,794	100,326,440	1.12	7.5%
Green Equity Investors VI, L.P.	2012	120,000,000	83,445,899	3,977,363	94,911,194	1.19	10.4%
Platinum Equity Capital Partners III, L.P.	2012	100,000,000	62,778,853	36,144,131	61,300,740	1.55	47.6%
<u>NYCERS - 2012 Emerging Manager Program</u>	<u>2012</u>	<u>150,000,000</u>	<u>76,712,407</u>	<u>3,719,088</u>	<u>80,622,852</u>	<u>1.10</u>	<u>8.3%</u>
Carlyle Partners VI, L.P.	2013	75,000,000	35,407,439	1,248,343	33,980,483	0.99	-0.4%
Landmark Equity Partners XV, L.P.	2013	75,000,000	25,794,578	8,257,177	21,588,817	1.16	12.0%
Apollo Investment Fund VIII, L.P.	2013	140,000,000	44,901,587	1,359,510	45,521,035	1.04	4.5%
Landmark - NYC Fund I, L.P.	2013	25,000,000	10,482,609	1,815,450	11,098,414	1.23	16.2%
CVC Capital Partners VI, L.P.	2013	123,354,139	45,435,563	829,561	40,396,178	0.91	NM
Crestview Partners III, L.P.	2013	66,000,000	15,112,145	249,535	14,397,653	0.97	NM
Crestview Partners III (Co-Investment B), L.P.	2013	22,000,000	7,374,875	309,025	7,322,477	1.03	NM
Olympus Growth Fund VI, L.P.	2014	75,000,000	21,105,694	5,784,184	20,175,661	1.23	24.8%
ASF VI B L.P.	2014	83,000,000	34,205,871	1,467,299	40,065,891	1.21	NM
ASF VI B NYC Co-Invest L.P.	2014	27,000,000	16,437,244	2,554,200	18,392,394	1.27	NM
Vista Equity Partners Fund V, L.P.	2014	125,000,000	111,178,720	9,745	122,973,537	1.11	NM
Carlyle Partners VI, L.P. (Side Car)	2014	4,567,000	4,473,871	-	4,095,749	0.92	NM
Lexington Capital Partners VIII, L.P.	2014	110,000,000	24,342,374	3,601,441	26,822,621	1.25	NM
Centerbridge Capital Partners III, L.P.	2014	23,700,000	6,436,101	-	6,990,462	1.09	NM
Siris Partners III, L.P.	2015	31,000,000	5,064,269	-	4,592,204	0.91	NM
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	78,500,000	20,609,630	-	18,898,792	0.92	NM

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# Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Warburg Pincus Private Equity XII, L.P.	2015	205,500,000	7,534,672	-	6,427,775	0.85	NM
ASF VII B L.P.	2015	94,500,000	4,443,942	20,927	4,994,903	1.13	NM
ASF VII B NYC Co-Invest L.P.	2015	46,000,000	4,600	-	4,600	1.00	NM
EQT VII, L.P.	2015	162,148,736	2,439,938	-	746,933	0.31	NM
American Securities Partners VII, L.P.	2015	80,000,000	-	-	(389,601)	-	N/A
Bridgepoint Europe V L.P.	2015	61,593,920	7,003,049	-	7,190,830	1.03	NM
Bridgepoint Europe V Co-Invest	2015	17,937,518	-	-	-	-	N/A
<u>NYCERS - 2015 Emerging Manager Program</u>	<u>2015</u>	<u>180,000,000</u>	<u>4,594,390</u>	<u>-</u>	<u>4,010,822</u>	<u>0.87</u>	<u>NM</u>
Ares Corporate Opportunities Fund V, L.P.	2016	95,000,000	-	-	-	-	N/A
<b>TOTAL LIQUIDATED</b>		<b>501,248,703</b>	<b>571,328,127</b>	<b>689,197,616</b>	<b>-</b>	<b>1.21</b>	<b>5.8%</b>
AEA Investors 2006 Fund L.P.	2006	22,893,771	26,016,229	30,842,902	-	1.19	7.8%
Allegra Capital Partners IV, L.P.	2000	24,000,000	24,000,000	12,606,027	-	0.53	-7.4%
Carlyle Partners III, L.P.	2000	45,423,105	55,645,609	108,817,410	-	1.96	20.5%
Clayton, Dubilier & Rice Fund VII, L.P.	2005	41,067,427	46,598,100	52,419,668	-	1.12	2.5%
Clayton, Dubilier & Rice Fund VIII, L.P.	2009	29,243,725	35,195,073	40,239,167	-	1.14	6.2%
Emerald Infrastructure Development Fund	2008	996,804	996,804	5,607	-	0.01	-99.4%
Ethos US Dollar Fund V-B	2005	30,290,568	46,370,610	49,740,469	-	1.07	3.0%
HM 2006 Sector Performance Fund	2007	23,185,013	26,474,417	18,633,959	-	0.70	-12.0%
NewSpring Growth Capital II, L.P.	2006	14,400,000	14,561,753	21,528,849	-	1.48	11.7%
Ripplewood Partners II, L.P.	2001	20,000,000	22,522,260	35,969,844	-	1.60	11.1%
Silver Lake Partners II, L.P.	2004	46,469,062	53,190,565	75,839,352	-	1.43	9.1%
Silver Lake Partners III, L.P.	2007	37,822,673	45,707,472	63,369,258	-	1.39	17.0%
Tailwind Capital Partners, L.P.	2007	26,057,294	29,653,998	30,122,727	-	1.02	0.7%
Thomas H. Lee Equity Fund VI, L.P.	2006	34,418,261	39,074,789	35,813,300	-	0.92	-2.0%
VS&A Communications Partners III, L.P.	1998	50,000,000	50,248,403	69,062,415	-	1.37	6.3%
Vitruvian Investment Partnership I	2007	54,981,001	55,072,045	44,186,661	-	0.80	-7.72%

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# Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
<b>TOTAL REAL ASSETS</b>		4,358,457,882	3,539,232,439	1,769,153,886	3,006,612,525	1.35	7.5%
<b>TOTAL PRIVATE REAL ESTATE</b>		3,980,457,882	3,394,169,877	1,762,780,550	2,853,635,602	1.36	7.5%
<b>TOTAL LIQUIDATED PRIVATE REAL ESTATE</b>		171,360,625	132,620,501	332,970,852	-	2.51	9.8%
<b>TOTAL INFRASTRUCTURE</b>		378,000,000	145,062,562	6,373,336	152,976,923	1.10	11.0%
<b>TOTAL PRIVATE REAL ESTATE</b>							
Blackstone Fund IV	2004	30,000,000	38,440,704	45,407,325	8,616,435	1.41	10.8%
The City Investment Fund I	2004	225,000,000	221,883,300	221,759,650	2,963,456	1.01	0.3%
Canyon Johnson Urban Fund II	2005	40,000,000	35,954,818	13,194,594	1,995,459	0.42	-11.4%
PRISA SA	2006	86,000,000	92,333,581	21,446,901	111,007,172	1.43	4.2%
Prologis Targeted U.S. Logistics Fund	2006	25,000,000	32,078,839	7,398,805	30,326,418	1.18	2.2%
RREEF America REIT II	2006	86,000,000	113,537,802	48,076,283	110,611,575	1.40	4.7%
UBS Trumbull Property Fund	2006	156,000,000	212,992,719	45,506,416	261,999,058	1.44	6.5%
AREA Real Estate Investment Fund V, LP	2006	25,000,000	25,000,001	9,982,857	13,794,067	0.95	-0.8%
Colony Realty Partners II	2007	20,000,000	21,420,211	666,108	5,517,900	0.29	-14.2%
Heitman HART	2007	115,000,000	157,905,809	42,905,809	208,002,083	1.59	8.2%
JP Morgan Special Situation Property Fund	2007	90,000,000	102,408,631	25,140,818	110,792,585	1.33	3.7%
JP Morgan Strategic Property Fund	2007	136,000,000	148,817,968	-	250,052,723	1.68	7.1%
PRISA II	2007	141,518,761	149,597,017	27,946,223	186,280,787	1.43	5.1%
RREEF America REIT III - 1410	2007	90,000,000	90,000,000	47,615,829	4,078,368	0.57	-7.5%
Blackstone Real Estate Partners VI	2007	110,000,000	121,700,664	162,956,928	66,647,311	1.89	13.2%
Carlyle Realty Partners V	2007	20,000,000	24,976,648	26,910,794	7,493,782	1.38	8.6%
Metropolitan Workforce Housing Fund	2007	14,000,000	14,013,027	6,332,270	10,486,187	1.20	4.0%
UrbanAmerica II	2007	25,000,000	23,222,735	2,489,211	177,694	0.11	-25.0%
AREA European Real Estate Fund III, LP	2008	30,000,000	30,487,500	30,487,500	5,877,998	1.19	4.6%
Capri Urban Investors	2008	60,000,000	59,980,707	15,777,250	38,608,577	0.91	-1.7%
PRISA III	2008	50,000,000	57,271,336	-	119,663,827	2.09	13.1%
Silverpeak Legacy Partners III	2008	50,000,000	22,168,479	2,003,826	7,245,248	0.42	-11.9%
Stockbridge Real Estate Fund III	2008	27,000,000	26,998,145	-	35,577,917	1.32	5.3%
Westbrook Real Estate Fund VII	2008	40,000,000	43,450,526	38,472,731	13,330,167	1.19	3.4%
American Value Partners Fund I	2008	55,000,000	39,242,523	29,988,934	16,485,943	1.18	4.0%
Thor Urban Property Fund II	2009	40,000,000	51,756,666	35,350,219	36,563,957	1.39	10.7%
Walton Street Real Estate Fund VI	2009	50,000,000	44,323,933	37,082,950	30,085,507	1.52	10.3%
LaSalle Property Fund	2010	50,000,000	50,000,000	9,584,907	67,076,217	1.53	12.7%
Blackstone Real Estate Partners Europe III (USD Vehicle)	2010	50,000,000	51,074,895	35,449,413	37,471,572	1.43	13.1%
Canyon Johnson Urban Fund III	2010	30,000,000	29,586,980	38,580,744	2,273,178	1.38	12.7%

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# Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
Westbrook Real Estate Fund VIII	2010	50,000,000	59,249,107	67,801,514	9,796,959	1.31	12.6%
Carlyle Realty Partners VI	2011	70,000,000	64,192,829	64,950,437	41,934,927	1.67	29.4%
H/2 Special Opportunities Fund II	2011	40,000,000	39,999,999	23,365,078	31,170,006	1.36	14.8%
Blackstone Real Estate Partners VII	2012	170,000,000	198,710,063	117,666,671	177,074,413	1.48	22.4%
Brookfield Strategic Real Estate Partners	2012	100,000,000	103,710,668	28,531,209	111,589,390	1.35	18.0%
Taconic New York City Investment Fund LP	2012	70,000,000	28,954,546	14,318,182	34,430,014	1.68	18.2%
NYC Asset Investor #2 LLC	2013	75,000,000	62,046,071	9,379,447	63,953,644	1.18	13.5%
KTR Industrial Fund III	2013	40,000,000	17,479,475	27,587,374	75,374	1.58	40.6%
NYC Asset Investor #1 LLC	2013	50,000,000	53,324,590	5,628,517	62,219,162	1.27	20.9%
NYC Asset Investor #3 LLC	2013	50,000,000	12,689,547	195,673	12,846,352	1.03	1.9%
MetLife Core Property Fund	2014	50,000,000	50,000,000	2,921,415	56,364,374	N/A	N/A
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2014	169,000,000	136,678,924	14,971,002	135,017,029	N/A	N/A
Carlyle Realty Partners VII	2014	80,000,000	28,277,797	104,286	30,564,732	N/A	N/A
Divco West Fund IV	2014	23,000,000	22,334,462	6,479,863	24,623,009	N/A	N/A
Lone Star Real Estate Fund III	2014	100,000,000	86,852,814	16,759,091	86,796,474	N/A	N/A
Almanac Realty Securities VII	2015	65,000,000	14,611,603	285,817	15,260,845	N/A	N/A
Blackstone Real Estate Partners VIII	2015	151,000,000	49,240,901	74,691	52,127,177	N/A	N/A
H/2 Special Opportunities Fund III	2015	65,000,000	31,947,845	-	32,315,727	N/A	N/A
Avanath Affordable Housing Fund II	2015	8,000,000	7,408,771	-	9,754,182	N/A	N/A
Almanac Realty Securities VII (Sidecar IV)	2016	20,000,000	2,813,906	-	2,994,139	N/A	N/A
Jamestown Premier Property Fund	2016	39,000,000	10,735,029	274,136	10,552,453	N/A	N/A
NYCRS Artemis Co-Investment	2016	53,000,000	5,608,839	-	7,712,131	N/A	N/A
USAA Eagle Real Estate Fund	2016	60,000,000	37,617,449	-	38,785,929	N/A	N/A
European Property Investors Special Opportunities Fund IV (EPISO IV)	2016	49,178,496	4,437,977	-	4,573,992	N/A	N/A
PW Real Estate Fund III	2016	48,400,000	-	-	-	N/A	N/A
Westbrook Partners X	2016	36,000,000	-	-	-	N/A	N/A
Westbrook Partners X - Co-Investment	2016	23,000,000	-	-	-	N/A	N/A
Exeter Core Industrial Club Fund II	2016	28,000,000	-	-	-	N/A	N/A
Divco West Fund V	2016	60,000,000	-	-	-	N/A	N/A
<b>TOTAL LIQUIDATED PRIVATE REAL ESTATE</b>							
Canyon Johnson Urban Fund	2003	15,000,000	13,590,364	15,874,432	-	1.17	10.2%
Tishman Speyer Separate Account (ERS)	2004	100,000,000	71,066,452	259,755,306	-	3.66	63.2%
Carbon Capital III	2009	40,000,000	43,757,162	53,134,591	-	1.21	8.5%
JP Morgan Urban Renaissance Property Fund	2009	16,360,625	4,206,523	4,206,523	-	1.00	0.0%

Information provided by the New York City Employees' Retirement System Consultants

## Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
<b>TOTAL INFRASTRUCTURE INVESTMENTS</b>							
Brookfield Infrastructure Fund II	2013	75,000,000	44,773,646	4,992,171	49,267,255	1.21	16.6%
IFM Global Infrastructure	2014	75,000,000	76,159,163	1,159,163	80,112,991	N/A	N/A
First Reserve Energy Infrastructure Fund II	2014	45,000,000	6,805,713	-	6,611,047	N/A	N/A
KKR Global Infrastructure Investors II L.P.	2014	77,000,000	17,324,040	222,002	16,985,630	N/A	N/A
Global Infrastructure Partners III-A/B, L.P.	2015	106,000,000	-	-	-	N/A	N/A

Information provided by the New York City Employees' Retirement System Consultants

## Alternative Assets Manager Performance Detail

Through June 30, 2016



	Vintage Year	Commitment - Closing (Base)	Contributions Cumulative (Local)	Distributions Cumulative	Final Market Value	3 Month Base%	Inception IRR%
<b>TOTAL OPPORTUNISTIC FIXED INCOME</b>		1,857,833,243	1,690,495,046	499,918,064	1,457,635,680	3.56%	6.17%
Avenue Special Situations Fund V, L.P.	2007	75,784,973	76,951,175	99,724,647	829,340	0.26%	NM
Avenue Europe Special Sit. Fund, L.P.	2008	30,548,270	27,839,090	53,418,068	295,475	-11.35%	NM
AG GECC PPIP Fund, L.P.	2010	27,000,000	27,052,129	41,724,862	50,500		20.19%
Avenue Special Situations Fund VI L.P.	2011	70,000,000	71,766,544	42,553,347	33,618,760	-2.98%	1.59%
Golden Tree	2011	140,000,000	131,253,192	-	176,732,465	3.06%	7.92%
Marathon Centre Street Partnership, L.P.	2011	218,750,000	229,250,000	17,500,000	257,830,828	6.00%	6.04%
AG Centre Street Partnership, L.P.	2012	180,000,000	142,200,000	24,226,130	143,384,431	4.49%	5.48%
Apollo Centre Street Partnership, L.P.	2012	268,750,000	235,888,211	66,641,260	171,418,681	3.29%	0.44%
FCO MA Centre Street L.P.	2012	140,000,000	166,100,303	63,515,770	127,368,991	1.66%	8.78%
OHA Centre Street Partnership, L.P.	2012	175,000,000	170,722,628	25,600,677	165,332,156	6.05%	4.50%
Contrarian Partnership, L.P.	2013	90,000,000	63,000,000	-	63,017,905	10.48%	0.01%
Lone Star Fund VIII(U.S.), L.P.	2013	100,000,000	87,065,530	61,997,396	51,392,957	-3.59%	23.72%
Oaktree Opportunities Fund IX, L.P.	2013	100,000,000	100,000,000	-	95,738,192	0.09%	-2.02%
Ares Centre Street LP	2014	140,000,000	124,702,438	-	135,883,640	2.65%	10.55%
Brightwood Capital Fund III, L.P.	2015	35,000,000	26,653,806	3,015,908	24,751,161	2.35%	3.98%
Torchlight Debt Opportunity Fund V, LP	2015	67,000,000	10,050,000	-	9,990,199	3.67%	-0.87%

Information provided by Alpha Frontier  
Above data is not final and subject to change

# Alternative Assets Manager Performance Detail

Through June 30, 2016



	Market Value	MTD Return%	3 Month Return%	FYTD Return%	YTD Return%	1 Year Return%	3 Year Return%	ITD Return%	ITD Cumulative Return%
<b>TOTAL HEDGE FUNDS</b>	1,306,246,857	0.94%	1.39%	-3.58%	0.03%	-3.58%	2.30%	2.59%	13.64%
<b>TOTAL DIRECT HEDGE FUNDS</b>	1,059,358,401	1.12%	1.31%	-3.50%	-0.06%	-3.50%	2.51%	3.94%	18.99%
<b>TOTAL FUND OF FUNDS HEDGE FUNDS</b>	246,888,456	0.17%	1.85%	-3.87%	0.54%	-3.87%	1.16%	1.82%	9.42%
<b>TOTAL DIRECT HEDGE FUNDS</b>									
SRS Partners US, LP	50,466,903	5.82%	7.10%	-2.70%	-9.77%	-2.70%		2.33%	3.52%
Turiya Fund LP	46,825,996	-1.34%	-1.22%	-7.32%	-9.81%	-7.32%		-7.32%	-7.32%
Total Long/Short Equity	97,292,900	2.25%	2.93%	-5.23%	-9.79%	-5.23%	2.77%	2.77%	8.55%
Fir Tree Value Fund, L.P.	89,202,419	1.01%	7.73%	-14.39%	-3.79%	-14.39%	-1.88%	-0.25%	-0.84%
Luxor Capital Partners, LP	73,345,834	-1.08%	-0.69%	-28.30%	-7.78%	-28.30%		-17.68%	-33.32%
Perry Partners L.P.	70,937,279	-2.63%	-0.22%	-13.85%	-2.82%	-13.85%	-4.00%	-4.78%	-14.02%
Standard General Fund L.P.	26,919,708	0.82%	8.16%	3.07%	6.76%	3.07%		3.61%	7.68%
Total Event Driven	260,405,240	-0.61%	3.07%	-16.51%	-3.55%	-16.51%	-3.98%	-2.43%	-8.07%
Brevan Howard L.P.	152,533,753	1.00%	0.01%	-3.50%	-0.66%	-3.50%	-0.84%	0.86%	3.84%
CCP Quantitative Fund LP	90,972,162	6.13%	-0.68%	4.65%	6.82%	4.65%	8.51%	0.69%	2.36%
Pharo Gaia Fund, LTD.	54,209,110	5.39%	6.59%	9.51%	8.11%			9.51%	9.51%
Pharo Macro Fund, Ltd.	106,904,621	3.37%	5.25%	9.49%	4.57%	9.49%	8.80%	8.80%	28.80%
Systematica BlueTrend Fund L.P.	-	0.00%	-8.07%	3.10%	-2.34%	3.10%	4.14%	1.23%	4.89%
Total Tactical Trading	404,619,647	3.33%	0.60%	4.40%	3.33%	4.40%	4.47%	1.90%	8.66%
Caspian Select Credit Fund, L.P.	108,287,933	-0.47%	2.71%	-8.79%	0.16%	-8.79%	-0.99%	1.97%	8.47%
D.E. Shaw Composite Fund, L.L.C.	188,752,682	-0.69%	0.32%	9.12%	3.18%	9.12%	12.63%	14.50%	83.95%
Total Relative Value	297,040,615	-0.61%	1.18%	1.83%	2.06%	1.83%	6.48%	8.73%	45.72%
<b>TOTAL FUND OF FUNDS HEDGE FUNDS</b>									
Fund of Funds Hedge Funds	246,888,456	0.17%	1.85%	-3.87%	0.54%	-3.87%	1.16%	1.82%	9.42%

Information provided by Alpha Frontier

New York City  
Employees' Retirement System

# Appendix D

## Footnotes

Through June 30, 2016



- The Barclays Capital Aggregate (then known as the Lehman Brothers Aggregate) was used prior to 1/1/89. Effective 1/1/89, in the Government Sector, maturities of less than 5 years were dropped from the Salomon and Lehman indices. From that date until 7/1/99 the benchmark was the NYC Core + 5, from Lehman.
- Effective 7/1/94, the NYC Core + 5 Index includes BBB rated securities.
- Effective 7/1/99, the basis of the NYC Index was changed from Lehman Brothers to Salomon. Also effective 7/1/99, only Salomon indices have been used to compare all fixed income managers.
- Effective 4/1/03, the name of the benchmark provider was changed from Salomon to Citigroup.
- Effective 7/1/03 the “NYC-Loomis” benchmark index for the Loomis Sayles Enhanced Yield portfolio reflects a change from the Citigroup BB&B Index to the more appropriate Merrill Lynch High Yield Master II Index.
- Effective 7/1/09, the Core+5 program was restructured.
  - The U.S. Gov’t sector benchmark Index was changed from the Citigroup Core+5 Treasury/Gov’t Sponsored Index to the Citigroup Core+5 Treasury/Agency Index.
  - The Corporate and Yankee sectors were combined to form the new Investment Grade Credit sector. The benchmark for the new combined sector is the customized Citigroup Credit Index. For historical performance purposes, the old Corporate sector Index is linked to the new Credit sector Index.
  - There were no changes to the Mortgage sector Index.
  - The total Core+5 results and benchmark returns combine the three sectors. Historical total Core+5 returns continue to include the old Corporate and Yankee sector returns.
- Effective 11/1/10 The NCREIF NPI policy index was replaced with the NCREIF NFI ODEC net Index retroactively.
- Effective 6/1/11 The Opportunistic Fixed NYC-CORE PLUS 5 + 200BPS policy index was replaced with the NYC-10% ANNUAL RETURN primary and JP MORGAN GLOBAL HIGH YIELD PLUS 3% secondary indices retroactively.
- Effective 8/1/11 The Hedge Funds Primary benchmark is the 1 YEAR TREASURY BILL YIELD + 4% and the secondary benchmark is the HFRI FUND OF FUNDS COMPOSITE INDEX + 1%.



## General Notes

- Estimated management fees for public market investments are calculated on an accrual basis without adjustment for management fee caps. Alternative investment fees are recorded on a cash basis. Since not all alternative managers currently provide detailed fee disclosure, the alternative investment fees noted here are not comprehensive.
- Public Market returns are Net of Manager Fees for periods after January 2014 and Gross of investment advisory fees for other periods unless otherwise indicated.
- Public market excess returns for periods prior to 2014 are based on Gross performance.

## Page Specific

### Pages 8 & 9 - Portfolio Asset Allocation

- Rebalancing Ranges: the minimum and maximum weights that actual Asset Allocation may reach before rebalancing between Asset Classes is necessary.

### Pages 10 -12 - Performance Attribution: Total Plan

- Plan Return at Policy Weights: the return of the Total Plan assuming actual Asset Class results were maintained at target (Adjusted Policy) weights. *Figure = (Return of Asset Class 1 \* Target Weight) plus (Return Of Asset Class 2 \* Target Weight) plus (.....)*
- **Allocation Effect** = Total Plan Return minus Plan Return At Adjusted Policy Weights. Allocation is the Contribution to Performance resulting from an overweight or underweight to an asset class. E.g. an underweight to an Asset Class that under-performs results in a positive Allocation Effect and vice versa.
- **Selection Effect** = Equal to the Custom Benchmark (Adjusted Policy Index) Return minus Plan Return at Adjusted Policy Weights. This illustrates how the Managers have added or removed value based on their Security Selection decisions, e.g., *If the manager's Actual Returns are higher than the Implied Return there will be a positive Selection Effect.*
- **Policy Index = Custom Benchmark**  
*The "policy index" is a custom benchmark representing the weighted average return of the weighted benchmark indexes for each major investment program. Weights may reflect an adjustment of actual policy for outstanding commitments for new or revised programs, such as for private market programs, which are invested gradually, or for any new or updated program requiring the completion of RFPs and contracts. The policy index/custom benchmark is calculated monthly based on adjusted policy weights at the beginning of each month.*

*The indexes and most recent policy weights are as follows:*

*U.S. Equity: Russell 3000 \* 33.31%*

*International Developed (EAFE) Markets: MSCI EAFE \* 10.18%*

*Emerging Markets: FTSE NYCERS Custom Benchmark \* 6.90%*

*Private Equity: Russell 3000 + 300 b.p. per annum \* 7.00%*

*Private Real Estate: NFI - ODCE Net+100BPS \* 5.35%*

*Infrastructure: CPI + 4% \* 0.30%*

*Hedge Funds: 1yr T- Bill yield + 4% \* 2.58%*

*Domestic Fixed Income: NYC Core +5 \* 21.04%*

*TIPS: Lehman U.S. TIPS \* 4.50%*

*Enhanced Yield: Citigroup BB&B \* 3.25%*

*Bank Loans: Credit Suisse Leveraged Loan \* 1.91%*

*Convertible Bonds: BofAML All Convertibles Ex Mandatory \* 1.00%*

*Opportunistic Fixed: 10% Annualized Return \* 2.68%*

### **Page 13 – Allocation and Selection Effects - Asset Class Breakdown**

- This chart aims to break down the Allocation and Selection Effects shown on the Performance Attribution pages. The aim of the Page is to show the asset classes where Managers are either out performing or under performing their benchmark and to show the basis point effect that this is having on Plan performance.