



New York City  
Employees' Retirement System  
Performance Overview as of December 31, 2015

# Total Fund Overview

## New York City Employees' Retirement System

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### **City of New York Employees' Retirement System Fourth Quarter 2015 Summary**

**General Economic and Market Conditions:** The global economy seemed to improve as 2015 unfolded, but market sentiment turned sharply negative as the year drew to a close. Is this pessimism warranted? The data instead suggests that moderate growth continued through the third and fourth quarters, particularly in the U.S. After a slow start to the year, real GDP in the U.S. grew 3.9% in the second quarter and 2.0% in the third. GDP growth slowed to just 0.7% in the fourth quarter, pulled down by an inventory cycle, the plunge in energy-sector capital spending, and pain in the manufacturing sector and exports in general due to a strong dollar. Solid growth in consumer spending and housing provided enough of a sound foundation to fight these headwinds and keep the U.S. economy on a modest growth path. GDP grew 2.4% for the year, matching 2014. Growth in non-U.S. developed markets is relatively weak but continued to firm up; both Japan and Europe reported GDP growth of 1.6% in the third quarter.

Consumer spending in the U.S. has been supported by solid gains in the job market, real disposable income, and a recovery in housing asset values. December saw a gain of 292,000 jobs, the highest monthly gain in 2015. Payrolls climbed by 2.65 million over the year for an average of 221,000. Unemployment fell to 5.0% in October and held steady through December, as the labor force surged. With the Fed focused on unemployment and the labor force, the December jobs report certainly supported the Fed's decision to raise interest rates. As the year drew to a close, the outlook for consumers was positive, and will likely remain so. The University of Michigan's Index of Consumer Confidence slipped from a reading of 98 at the start of 2015 to 87 in the third quarter when global equity markets were roiled by China, but confidence surged back to a reading of 93 through the last three months of the year. For reference, a reading above 80 suggests a positive outlook by consumers. Real disposable (after-tax) income grew an estimated 3.6% in 2015, fueling a 2.2% rise in consumption spending. Auto sales surged to 17.4 million units in 2015, up from 16.4 million in 2014 and 14.4 million in 2012. Pent-up demand may finally be close to satisfied.

Consumers clearly benefitted from falling energy prices. Lower gasoline prices provide an effective boost to disposable income. Oil peaked at \$135 per barrel in July 2008, started 2015 at \$52, and closed the year at \$38 (the Brent crude spot price). The impact of energy on the measure of inflation is significant. U.S. Core CPI, which excludes energy and food, stood at 2.25% for December (measured year-over-year). Headline CPI, which includes energy, held near zero for most of the year. Once energy prices stabilize, we expect they will cease to have the same disinflationary impact and will begin to add volatility to headline CPI. Similar forces are affecting Europe, where headline inflation is also close to zero; much of peripheral Europe is mired in deflation.

The rise in the value of the dollar has complicated the measure of price inflation for consumers. Versus a trade-weighted basket of major currencies, the dollar was up approximately 10% over the course of 2015. Prices of imports fell for consumers, adding to disinflationary pressures. On the other hand, exports become more expensive, and U.S. manufacturing has clearly suffered from the dollar's upward move. The ISM Index for manufacturing fell to 48.2 in December, its lowest level since June 2009. A reading below 50 suggests contraction in activity. Adding to the pressure on manufacturing from a strong dollar, inventories were built earlier in 2015 and in 2014 in anticipation of stronger global growth, and these inventories are now being worked down, further reducing the need for manufacturing output. The ISM Index for non-manufacturing remained above 50, with a reading of 55.3 in December, but this is the lowest level in almost two years.

On balance, the economic data show modest growth continuing in the U.S., although the rate is substantially below that of previous recoveries. GDP growth has averaged close to 2.2% since 2010, compared to the 3% or higher achieved in the past.

**Total Fund Performance:** For the quarter ended December 31, 2015, the Fund returned +2.13%, one basis point above the Policy Target return of +2.12%. Over the trailing year, NYCERS has earned a return of -0.17% versus the Policy Target return of +0.17%. Over three years, the total Fund has returned +7.44% annualized. Over the trailing five years, the Fund has gained 7.30% annualized. The trailing 10-year return is +5.99% annualized.

**Total Fund Assets:** The Fund's assets totaled \$52.2 billion as of the end of the fourth quarter of 2015.

**U.S. Equity:** The total domestic equity portion of the NYCERS Fund returned +5.55% for the quarter, below the +6.27% return of the Russell 3000 Index. For the trailing year, NYCERS underperformed the index, returning -0.67% versus +0.48% for the index. 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 ten year return period.

In Large Cap, the Fund underperformed the Russell 1000 Index, returning +6.13% versus the Russell 1000's return of +6.50% during the fourth quarter. Over the past year, the Fund is below the benchmark, returning -0.27% versus +0.92% for the index.

In Mid Cap, the Fund's performance closely mirrored that of the index for the quarter, consistent with its strictly passive exposure. The Fund returned +2.54%, trailing the return of the S&P Mid Cap Index by six basis points. Over the past year, the Fund's -2.19% return is one basis point below that of the index (-2.18%).

Through December 31, 2015



In Small Cap, the Fund returned +2.62%, trailing the Russell 2000 return of +3.59% for the quarter. The Fund's one year return of -5.96% underperformed the -4.41% return of the Index.

**Developed International:** For the quarter, the Fund's Non-U.S. Developed Equity composite returned +4.86% (excluding NYCERS' non-U.S. Environmental and Activist managers), outperforming the MSCI EAFE Index by fifteen basis points. The Fund returned -1.12% for the trailing one year period, below the return of the benchmark (-0.81%). The Fund is behind the benchmark over the three, five, and ten-year periods and above the benchmark over seven years.

**Emerging Markets Equity:** The Fund's emerging markets equity composite returned -1.05% in the quarter, underperforming the -0.71% 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 -17.88%, underperforming the -16.80% return for the benchmark. The Fund is ahead of the benchmark over the trailing three, five, seven, and ten-year periods.

**Fixed Income:** The composite of the Fund's structured investment grade bond managers returned -0.45% during the quarter, while the NYCERS Core Plus Five Index returned -0.49%. For the past year, the structured composite has gained 0.28%, while the benchmark's return is +0.41%. 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 -0.67% return in the quarter, slightly below the -0.64% return for the Barclays Capital US TIPS Index. Over the past year, the Fund's TIPS managers have returned -1.18%, above the benchmark's return of -1.44%. Over longer time periods, the composite is ahead of the benchmark over the trailing three, five, and ten year periods and below the benchmark over the trailing seven year period.

**Enhanced Yield:** In enhanced yield, the Fund's managers returned -2.00% for the quarter, while the Citigroup BB&B Index posted a higher return of -1.70%. The Fund outperformed the benchmark over the past year, returning -3.82% as compared to the benchmark's return of -4.21%. The Fund has beaten the benchmark over the trailing three, five, seven, and ten year periods.

**Bank Loans:** The NYCERS bank loan composite returned -1.37% in the fourth quarter, ahead of the Credit Suisse Leveraged Loan Index's return of -1.96%. The Fund outperformed the benchmark for the year returning +1.18% versus -0.38% for the benchmark.

Through December 31, 2015



**Convertibles:** The convertible portfolio returned +1.54% in the quarter, ahead of the -1.07% return of the NYCERS Custom Convertible Bond Index. Over the past year, the convertibles portfolio has returned -0.85%, outperforming the benchmark by 457 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 -1.83% over the fourth quarter. For the past year, the Fund is below the 10% annual return target with a return of -2.18%. Over five years, the Fund's +7.45% return is below the 10% annual return target. Over seven years, the Fund's +11.56% 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 7.8% of the Total Fund. The Real Assets portfolio had approximately \$2.8 billion invested, accounting for roughly 5.4% of the Total Fund. Hedge Fund investments represented \$1.5 billion, or 2.8%. Performance is reported separately by NYCERS' Private Equity, Real Estate and Hedge Fund consultants.

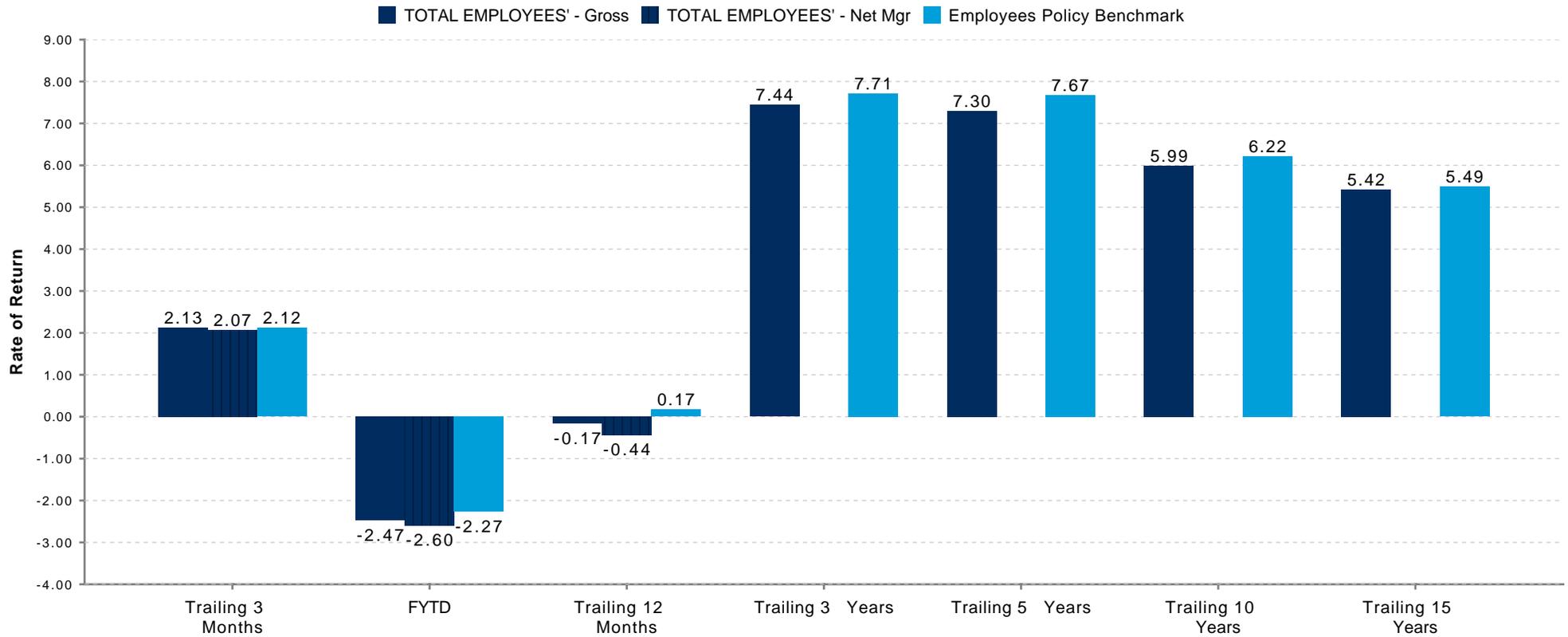
# Total Portfolio Returns: December 31, 2015



**Market Value (Billions)**

\$52.2

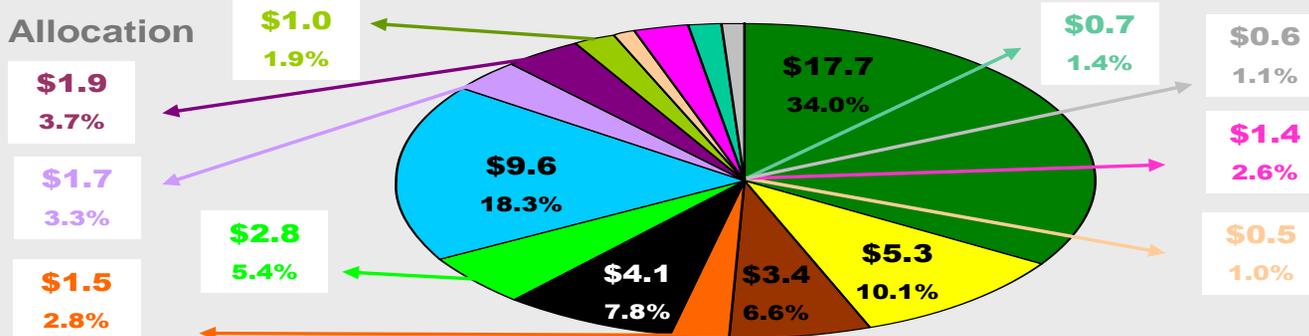
TOTAL EMPLOYEES'



	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 10 Years	Benchmark 10 Years
<b>Standard Deviation</b>						
TOTAL EMPLOYEES'	6.2	5.9	7.3	7.4	10.0	10.9

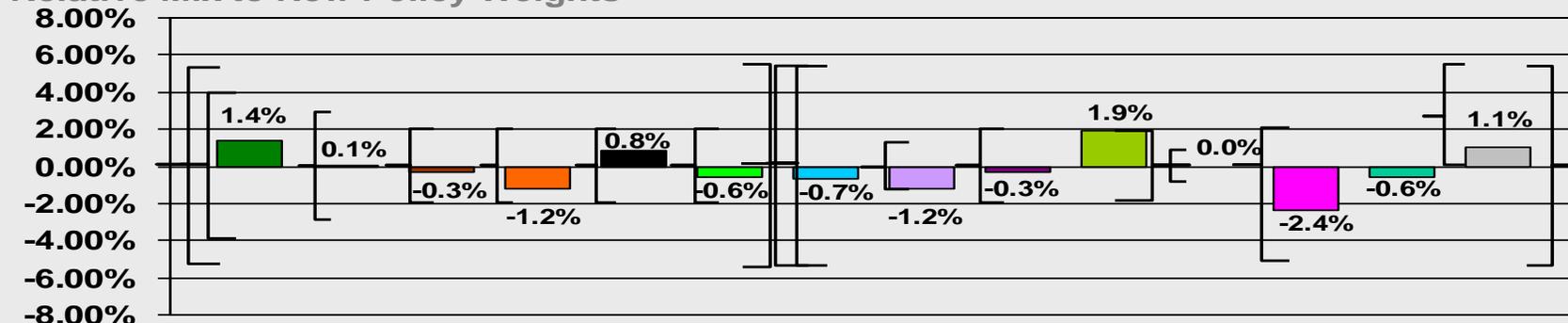
**\$52.2B Under Management**

**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

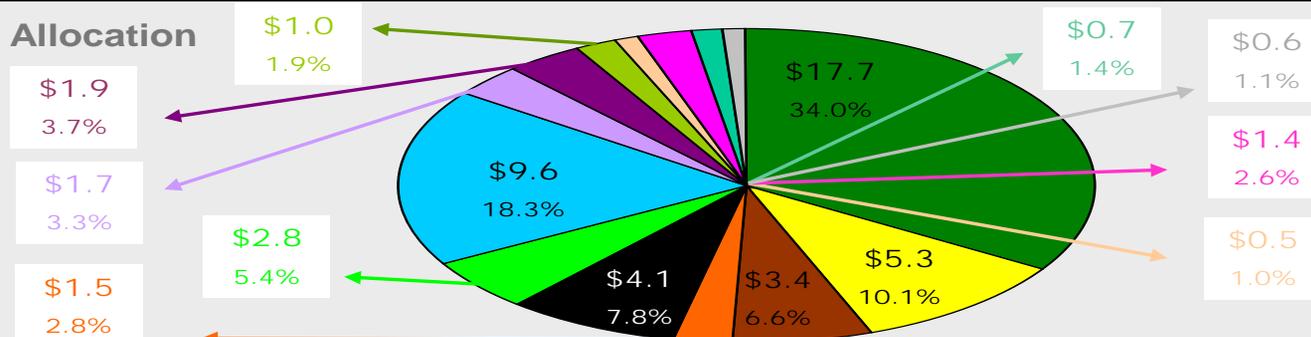
**Relative Mix to New Policy Weights**



Note: Brackets represent rebalancing ranges versus policy.

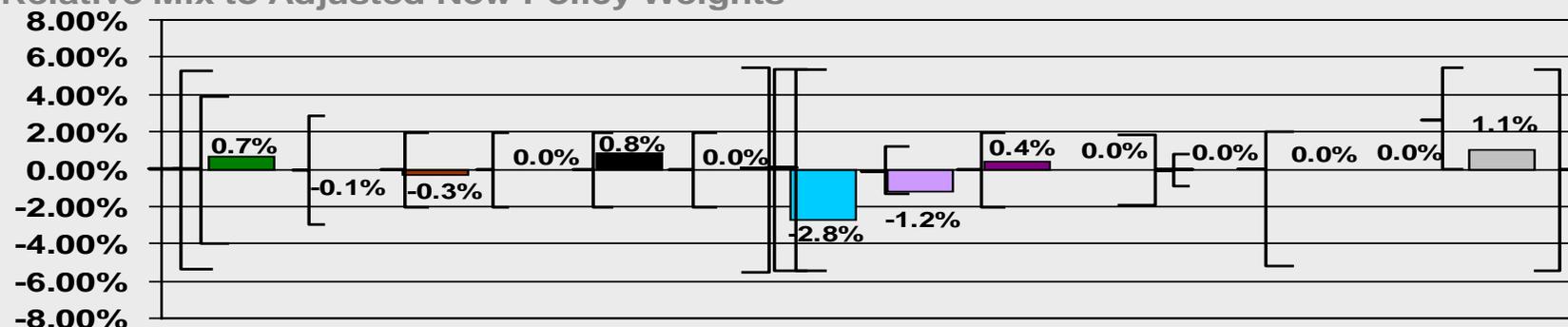
**\$52.2B Under Management**

**Asset Allocation**



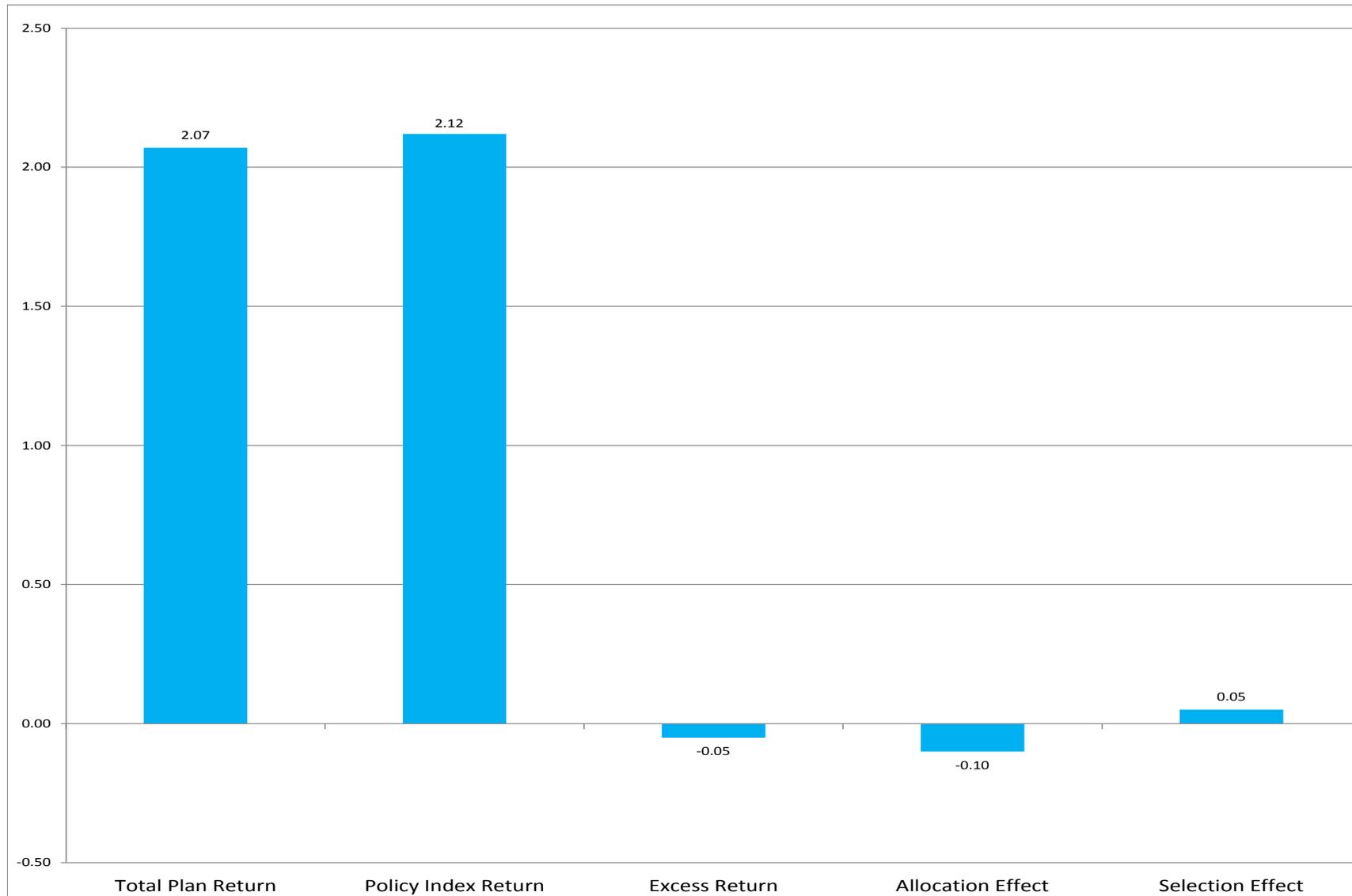
- Domestic Equity
- Developed Markets
- Emerging Markets
- Hedge Funds
- Private Equity
- Real Assets
- Core + 5
- TIPS
- Enhanced Yield
- Bank Loans
- Convertible Bonds
- Opportunistic FI
- ETI
- Cash

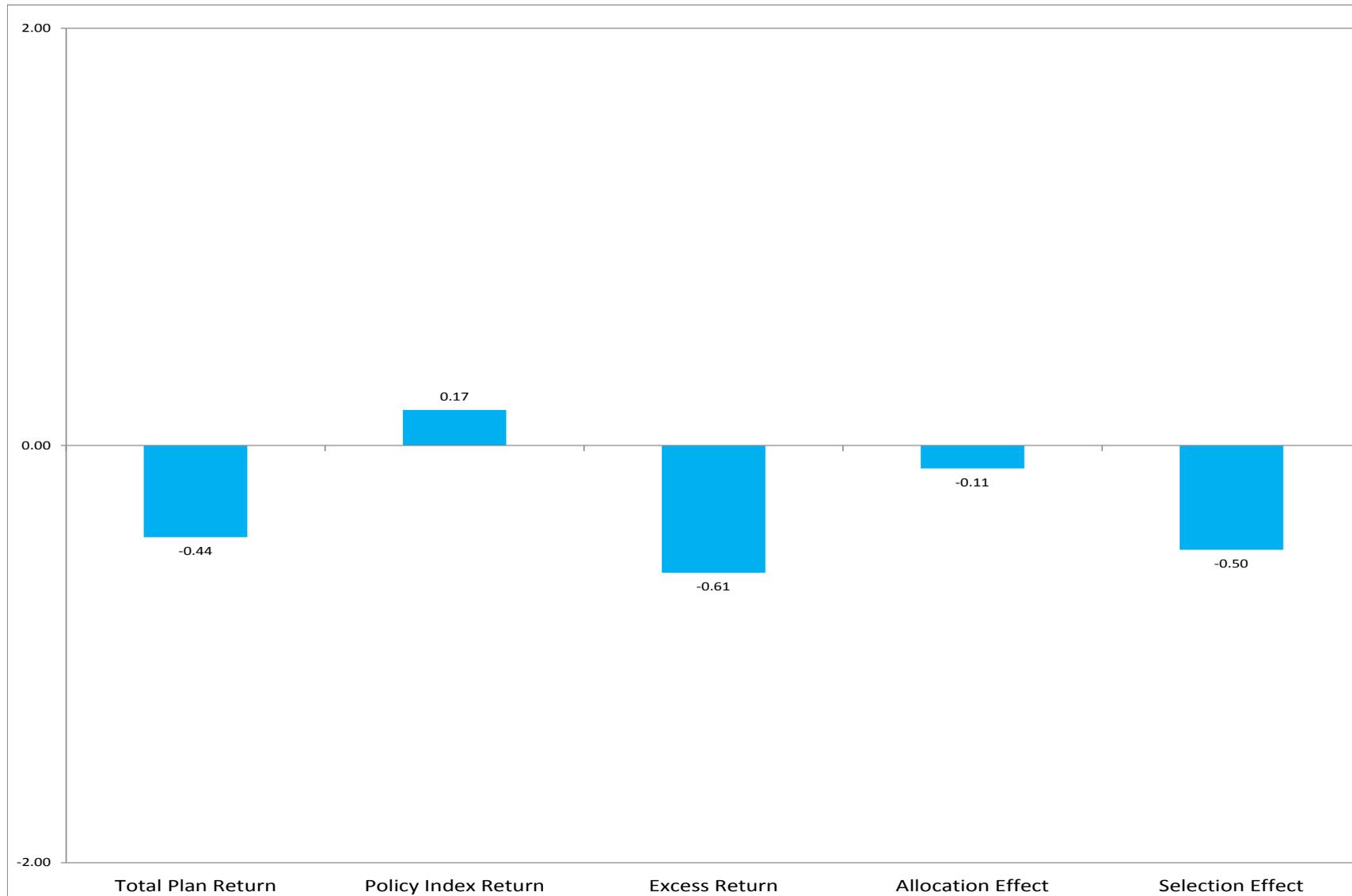
**Relative Mix to Adjusted New Policy Weights**

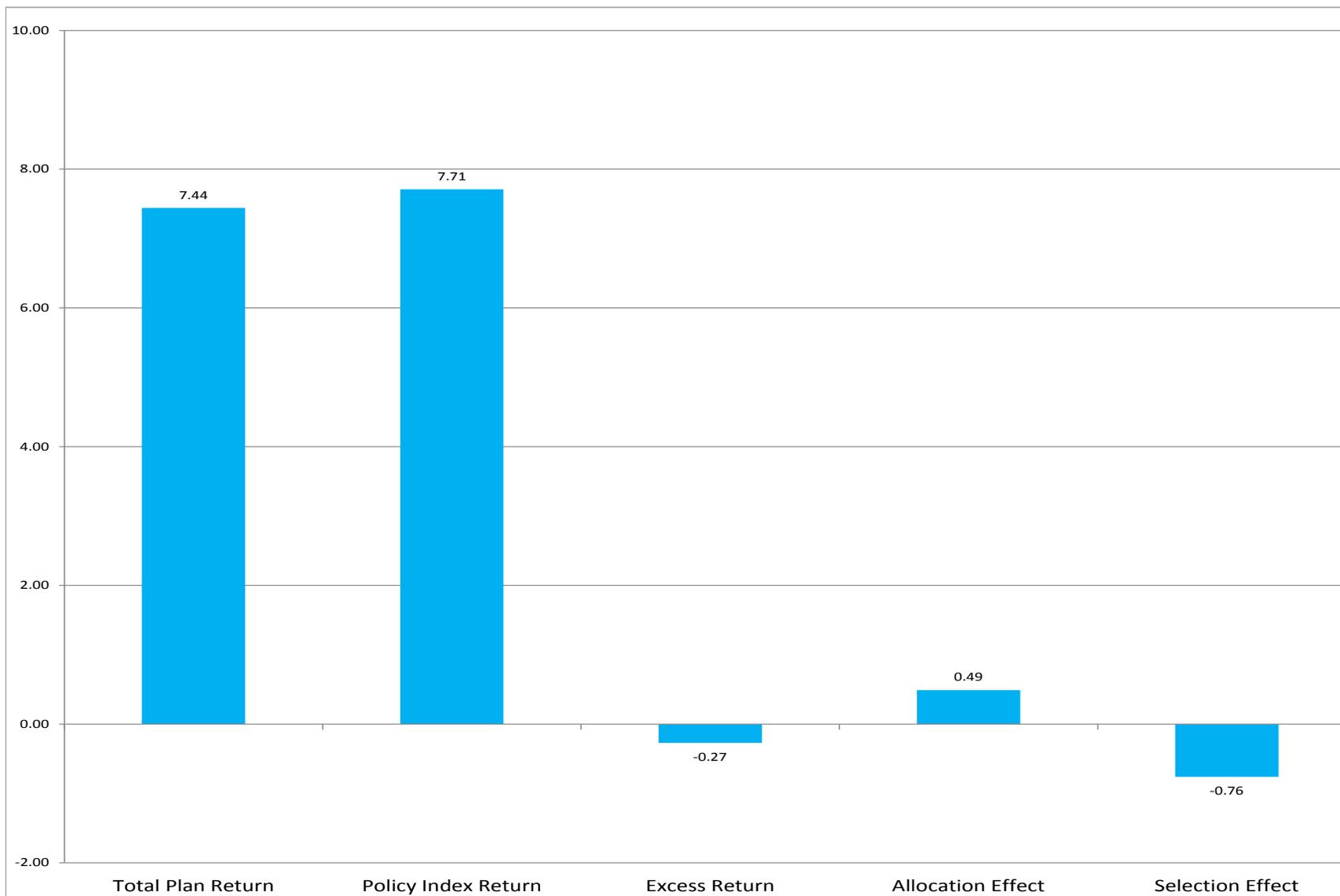


Note: Brackets represent rebalancing ranges versus policy.

Note: On December 31, 2015 NYCERS' combined Fixed Income and Cash portfolios have a duration of 5.5 years. The duration of the Barclays US Aggregate Index was 5.7 years on that date.









<b>Allocation Effect - Asset Class Breakdown</b>				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL EMPLOYEES'	-0.10	-0.11	0.49	Employees Policy Benchmark
TOTAL DOMESTIC EQUITY	0.01	-0.06	0.21	RUSSELL 3000
TOTAL DEVELOPED EQUITY	-0.02	-0.01	-0.04	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.01	0.01	-0.01	FTSE NYCERS Custom EM Index
TOTAL PRIVATE EQUITY	-0.09	-0.01	0.07	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	0.00	0.02	0.01	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.00	0.00	CPI + 4%
TOTAL HEDGE FUNDS	0.00	0.00	-0.01	1 Year Treasury Bill Yield + 4%
TOTAL STRUCTURED	0.06	-0.05	0.27	NYC - CORE PLUS FIVE
TOTAL ENHANCED YIELD	-0.02	-0.03	-0.05	CITIGROUP BB & B
TOTAL BANK LOANS	0.00	0.00	0.01	CSFB LEVERAGED LOAN INDEX
TOTAL TIPS MANAGERS	0.03	0.01	0.14	BARCLAYS U.S TIPS INDEX
TOTAL CONVERTIBLE BONDS	0.00	0.00	0.00	BofAML ALL CONVERTIBLE - ex Mandatory
TOTAL OPPORTUNISTIC FIXED	0.00	0.01	0.00	10% Annual Return
TOTAL CASH	-0.07	-0.01	-0.11	

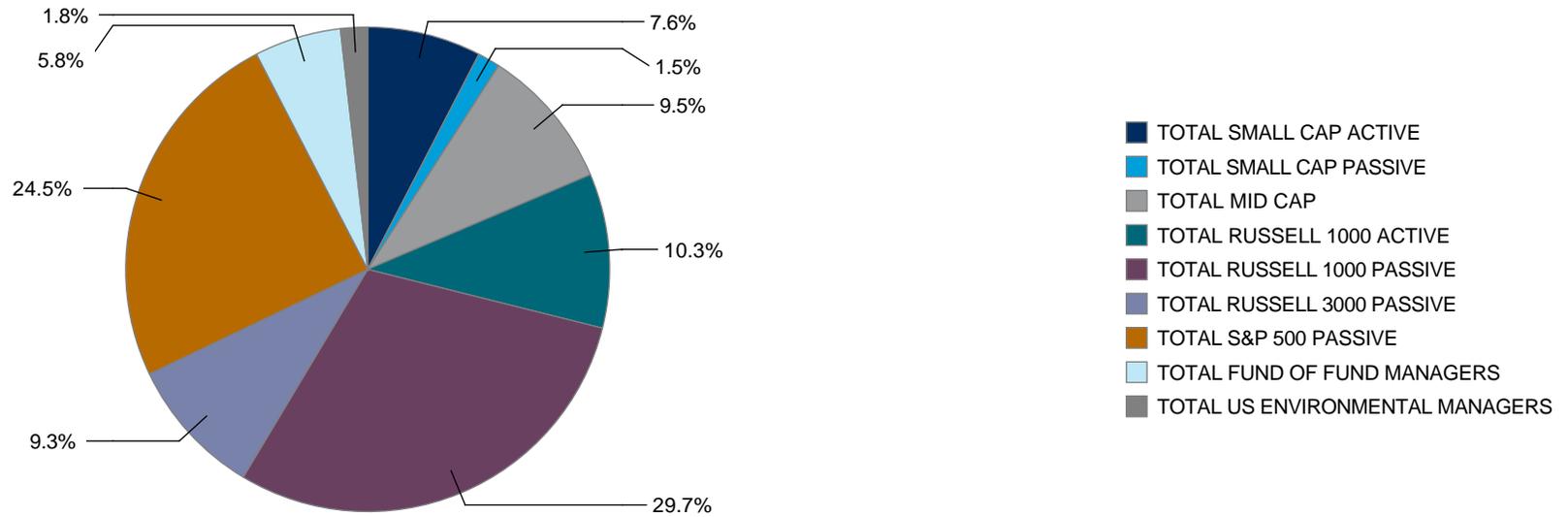
<b>Selection Effect - Asset Class Breakdown</b>				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL EMPLOYEES'	0.05	-0.50	-0.76	Employees Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.26	-0.41	-0.18	RUSSELL 3000
TOTAL DEVELOPED MARKETS	0.01	-0.04	-0.03	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.03	-0.11	0.03	FTSE NYCERS Custom EM Index
TOTAL PRIVATE EQUITY	0.55	0.53	-0.40	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	-0.03	-0.04	0.01	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.01	0.00	CPI + 4%
TOTAL HEDGE FUNDS	-0.07	-0.17	-0.04	1 Year Treasury Bill Yield + 4%
TOTAL STRUCTURED	0.00	-0.03	0.05	NYC - CORE PLUS FIVE
TOTAL ENHANCED YIELD	-0.02	0.00	0.04	CITIGROUP BB & B
TOTAL BANK LOANS	0.01	0.02	0.02	CSFB LEVERAGED LOAN INDEX
TOTAL TIPS MANAGERS	0.00	0.01	0.00	BARCLAYS U.S TIPS INDEX
TOTAL CONVERTIBLE BONDS	0.01	0.02	-0.02	BofAML ALL CONVERTIBLE - ex Mandatory
TOTAL OPPORTUNISTIC FIXED	-0.12	-0.30	-0.11	10% Annual Return
TOTAL CASH	0.00	0.01	0.01	

\*Returns are Gross of Investment Advisory Fees

# Total Domestic Equity Asset Allocations: Quarter Ending December 31, 2015



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL DOMESTIC EQUITY	\$17.7	34.0

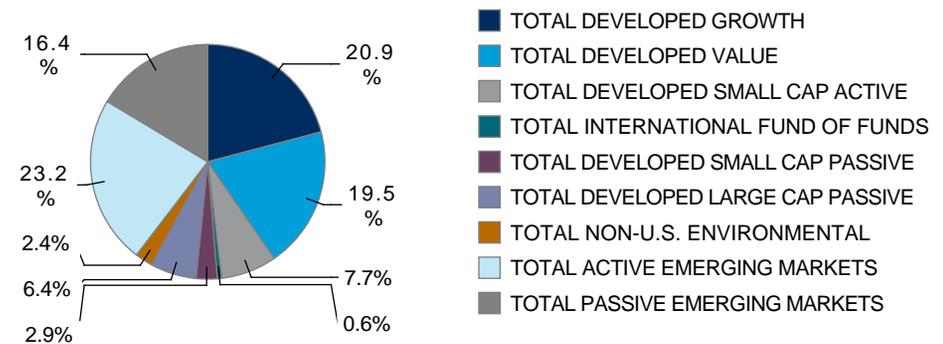
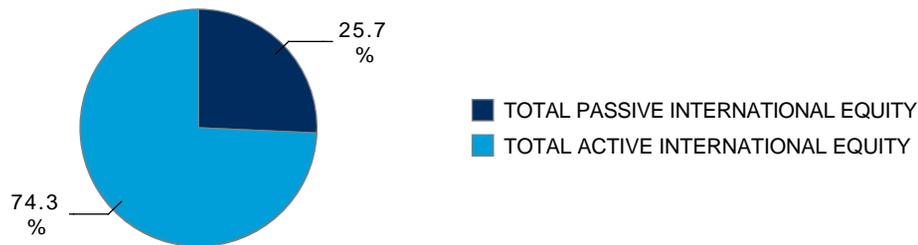


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL SMALL CAP ACTIVE	6.52	7.59	1.07	3.59	2.35	-1.24
TOTAL SMALL CAP PASSIVE	2.20	1.49	-0.71	3.59	3.99	0.40
TOTAL MID CAP	12.51	9.54	-2.97	2.60	2.54	-0.06
TOTAL RUSSELL 1000 ACTIVE	8.57	10.27	1.70	6.50	5.17	-1.33
TOTAL RUSSELL 1000 PASSIVE	25.27	29.72	4.45	6.50	6.47	-0.03
TOTAL RUSSELL 3000 PASSIVE	17.59	9.26	-8.33	6.27	6.32	0.05
TOTAL S&P 500 PASSIVE	22.00	24.49	2.49	7.04	7.05	0.00
TOTAL EMERGING MANAGERS	3.50	5.81	2.31	6.27	4.50	-1.77
TOTAL US ENVIRONMENTAL	1.84	1.83	-0.01	3.59	3.90	0.30

# International Equity Asset Allocation: December 31, 2015



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL INTERNATIONAL EQUITY	\$8.7	16.7

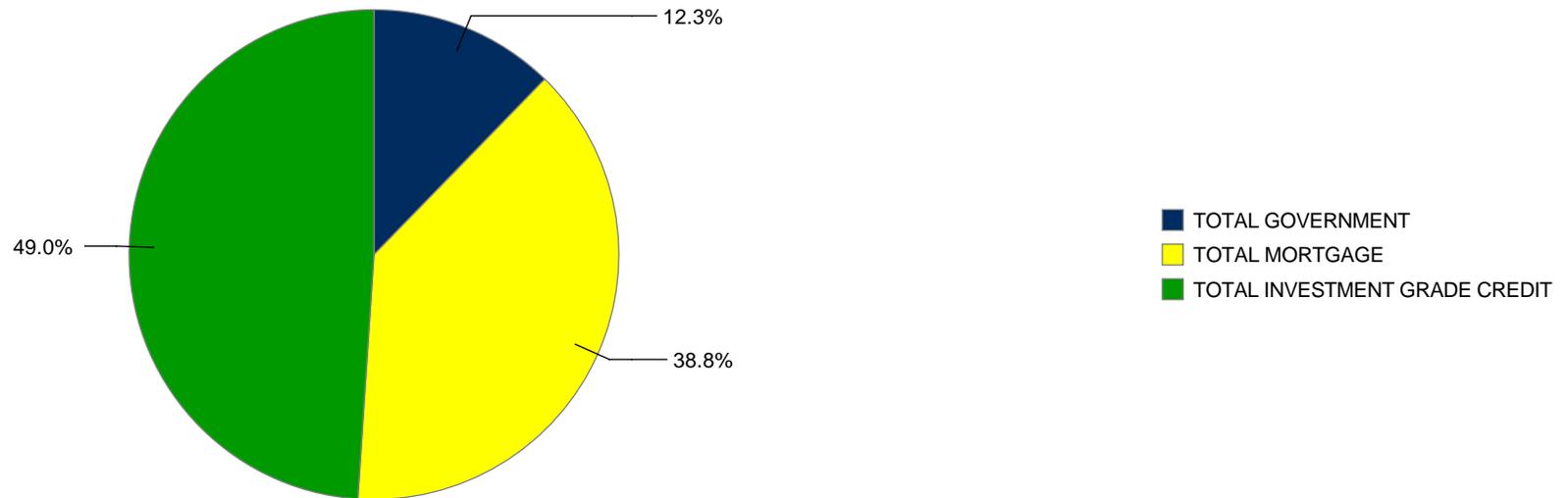


	Asset Class Weight	Quarterly Returns - Fund and Benchmarks		
		Fund	Benchmark	Excess
TOTAL DEVELOPED GROWTH	20.85	5.78	6.67	(0.88)
TOTAL DEVELOPED VALUE	19.52	2.99	2.68	0.31
TOTAL DEVELOPED SMALL CAP ACTIVE	7.75	6.69	5.86	0.82
TOTAL INTERNATIONAL FUND OF FUNDS	0.57	5.36	4.71	0.65
TOTAL DEVELOPED SMALL CAP PASSIVE	2.87	6.73	6.79	(0.06)
TOTAL DEVELOPED LARGE CAP PASSIVE	6.43	4.68	4.71	(0.03)
TOTAL NON-U.S. ENVIRONMENTAL	2.39	10.06	5.50	4.56
TOTAL ACTIVE EMERGING MARKET	23.16	(1.14)	(0.71)	(0.43)
TOTAL PASSIVE EMERGING MARKETS	16.43	(0.92)	(0.71)	(0.22)
TOTAL INTERNATIONAL EQUITY	100.00	2.56	3.24	(0.69)

# Structured Fixed Income Asset Allocation: December 31, 2015



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL STRUCTURED	\$9.1	17.4

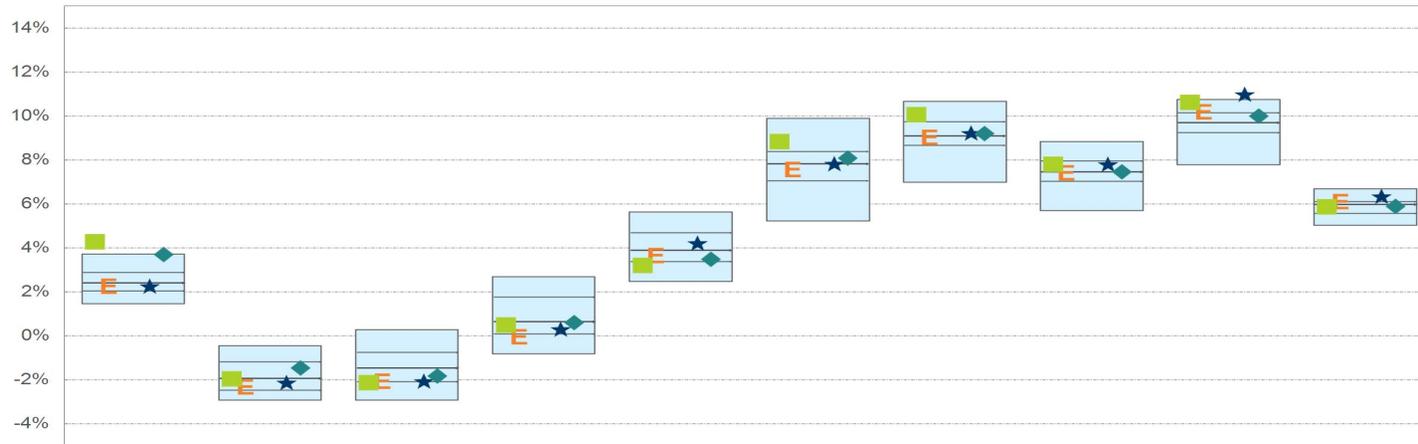


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL TREASURY/AGENCY	20.81	12.27	-8.54	-1.29	-1.32	-0.02
TOTAL MORTGAGE	36.15	38.77	2.62	-0.07	-0.15	-0.07
TOTAL INV GRADE CREDIT	43.04	48.96	5.92	-0.44	-0.47	-0.03



### City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion  
Cumulative Periods Ending : December 31, 2015



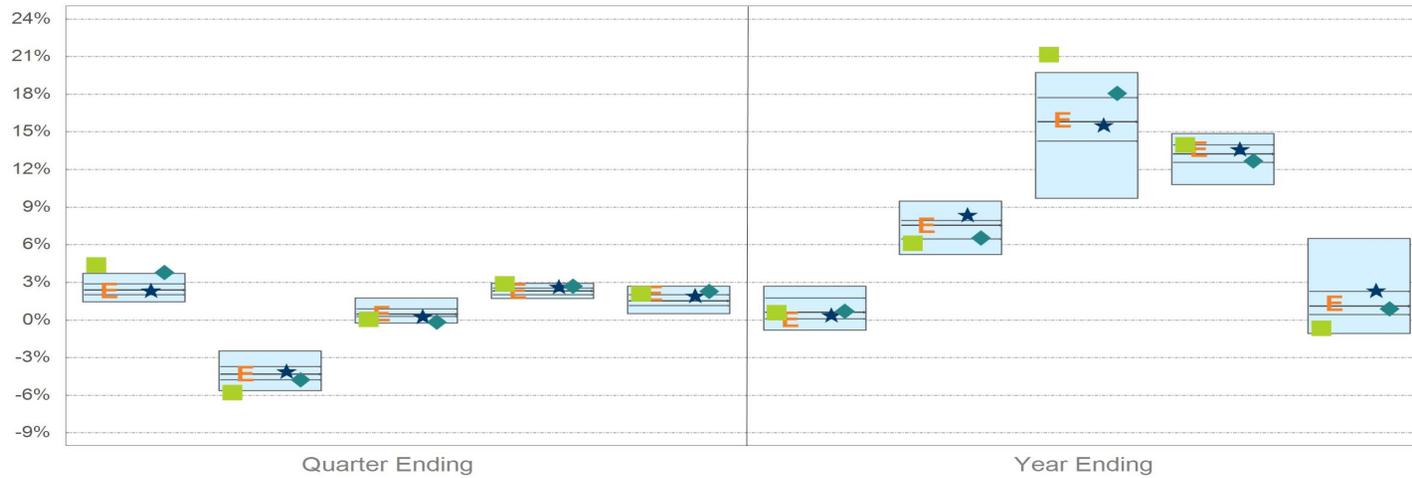
Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	3.72	-0.45	0.28	2.69	5.63	9.90	10.67	8.85	10.75	6.70
25th	2.88	-1.19	-0.76	1.75	4.68	8.39	9.75	7.97	10.15	6.10
50th	2.41	-1.95	-1.48	0.64	3.90	7.84	9.11	7.47	9.70	5.99
75th	2.03	-2.48	-2.10	0.09	3.37	7.05	8.67	7.04	9.26	5.58
95th	1.45	-2.93	-2.93	-0.82	2.48	5.23	6.99	5.71	7.79	5.04
No. Of Obs	43	43	43	43	43	43	43	43	39	39
<b>E</b> Total System - Employee	2.13 (67)	-2.47 (72)	-2.20 (82)	-0.17 (82)	3.52 (72)	7.44 (65)	8.90 (57)	7.30 (60)	10.07 (35)	5.99 (50)
<b>★</b> Employees Policy Bench	2.12 (67)	-2.27 (65)	-2.21 (82)	0.17 (72)	4.08 (45)	7.70 (52)	9.10 (50)	7.67 (40)	10.87 (1)	6.22 (20)
<b>■</b> Public Mkt Equiv 25	4.15 (1)	-2.10 (57)	-2.26 (82)	0.35 (67)	3.08 (82)	8.72 (14)	9.95 (14)	7.69 (38)	10.51 (13)	5.75 (61)
<b>◆</b> Public Mkt Equiv 35	3.56 (5)	-1.59 (36)	-1.97 (70)	0.46 (55)	3.35 (75)	7.97 (40)	9.08 (52)	7.34 (55)	9.88 (40)	5.77 (58)

Wilshire Trust Universe Comparison Service® (TUCS®)



### City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion  
Consecutive Time Periods: December 31, 2015



Percentile Rankings	Dec 15	Sep 15	Jun 15	Mar 15	Dec 14	Dec 15	Dec 14	Dec 13	Dec 12	Dec 11
5th	3.72	-2.47	1.74	2.91	2.71	2.69	9.47	19.74	14.85	6.50
25th	2.88	-3.71	0.88	2.53	2.02	1.75	7.95	17.72	13.95	2.30
50th	2.41	-4.31	0.46	2.31	1.53	0.64	7.55	15.82	13.25	1.13
75th	2.03	-4.76	0.27	2.03	1.14	0.09	6.47	14.28	12.58	0.43
95th	1.45	-5.63	-0.25	1.70	0.50	-0.82	5.21	9.72	10.78	-1.07
<b>No. Of Obs</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>
<b>E Total System - Employee</b>	2.13 (67)	-4.51 (62)	0.28 (72)	2.08 (70)	1.90 (31)	-0.17 (82)	7.34 (52)	15.73 (55)	13.41 (45)	1.13 (50)
<b>★ Employees Policy Bench</b>	2.12 (67)	-4.30 (45)	0.06 (79)	2.44 (27)	1.73 (40)	0.17 (72)	8.15 (18)	15.33 (60)	13.39 (45)	2.14 (27)
<b>■ Public Mkt Equiv 25</b>	4.15 (1)	-6.00 (100)	-0.17 (89)	2.67 (18)	1.87 (34)	0.35 (67)	5.88 (84)	20.94 (1)	13.75 (34)	-0.89 (91)
<b>◆ Public Mkt Equiv 35</b>	3.56 (5)	-4.98 (87)	-0.38 (96)	2.48 (27)	2.07 (22)	0.46 (55)	6.31 (75)	17.86 (22)	12.47 (82)	0.65 (70)

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  
December 31, 2015**

	<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	
Since Inception	<u>\$147,075,000</u>	<u>\$232,950,000</u>	<u>\$79,407,000</u>	*Inception 7/90

**New York City  
Employees' Retirement System**

# Appendix A

## Consolidated Performance Report

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
<b>SYSTEM RETURN SUMMARY</b>															
5	NYCERS-TOTAL PORTFOLIO - GROSS	52,229	100.00	2.13	(2.47)	(0.17)	7.34	15.73	13.41	1.13	13.79	7.30	5.99	8.60	07/01/1987
	ESTIMATED INVESTMENT FEES			(0.07)	(0.13)	(0.27)	(0.27)								
	EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL)			(0.03)	(0.06)	(0.12)	(0.13)								
	EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH)			(0.04)	(0.07)	(0.15)	(0.14)								
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	NYCERS-TOTAL PORTFOLIO - NET MGR			2.07	(2.60)	(0.44)	7.07								
	NYCERS POLICY BENCHMARK			2.12	(2.27)	0.17	8.15	15.33	13.39	2.14	13.84	7.67	6.22		
	EXCESS RETURN			(0.05)	(0.32)	(0.61)	(1.08)	0.40	0.02	(1.01)	(0.04)	(0.37)	(0.23)		
<b>EQUITY RETURN DETAIL</b>															
18	NYCERS-TOTAL EQUITY (INCL PE & RA) - GROSS	34,849	66.72	3.66	(3.26)	(0.17)	7.85	22.95	16.08	(1.39)	15.65	8.67	5.97	6.76	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.09)	(0.15)	(0.35)	(0.33)								
	EST MANAGEMENT FEES			(0.09)	(0.15)	(0.35)	(0.33)								
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	NYCERS-TOTAL EQUITY (INCL PE & RA) - NET MGR			3.57	(3.41)	(0.52)	7.52								
26	NYCERS-TOTAL DOMESTIC EQUITY - GROSS	17,747	33.98	5.55	(2.46)	(0.67)	11.35	34.39	16.62	0.17	17.16	11.67	7.19	11.11	08/01/1979
	ESTIMATED INVESTMENT FEES			(0.02)	(0.04)	(0.09)	(0.11)								
	NYCERS-TOTAL DOMESTIC EQUITY - NET MGR			5.53	(2.50)	(0.76)	11.24								
	RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56	33.55	16.42	1.03	16.93	12.18	7.35	11.48	
	EXCESS RETURN			(0.74)	(1.07)	(1.24)	(1.31)	0.84	0.21	(0.85)	0.23	(0.51)	(0.17)	(0.37)	
36	NYCERS-TOTAL SMALL CAP - GROSS	1,612	3.09	2.62	(8.83)	(5.96)	4.40	41.99	17.81	(4.50)	29.84	9.42	6.99	7.42	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.07)	(0.13)	(0.27)	(0.31)								
	NYCERS-TOTAL SMALL CAP - NET MGR			2.55	(8.96)	(6.24)	4.09								
	RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89	38.82	16.35	(4.18)	26.85	9.19	6.80	7.14	
	EXCESS RETURN			(1.04)	(0.21)	(1.82)	(0.80)	3.17	1.46	(0.33)	2.99	0.23	0.18	0.28	
46	NYCERS-TOTAL MID CAP - GROSS	1,692	3.24	2.54	(6.13)	(2.19)	9.98	33.13	17.81					10.40	02/01/2011
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.01)	(0.01)								
	NYCERS-TOTAL MID CAP - NET MGR			2.54	(6.13)	(2.20)	9.97								
	S&P 400 MIDCAP INDEX (DAILY)			2.60	(6.11)	(2.18)	9.77	33.50	17.88					10.43	
	EXCESS RETURN			(0.06)	(0.02)	(0.02)	0.20	(0.37)	(0.07)					(0.02)	
56	NYCERS-TOTAL RUSSELL 1000 - GROSS	7,097	13.59	6.13	(1.24)	(0.27)	13.02	35.73	16.76	0.66	16.74	12.45		9.69	07/01/2008
	ESTIMATED INVESTMENT FEES			(0.01)	(0.02)	(0.04)	(0.07)								
	NYCERS-TOTAL RUSSELL 1000 - NET MGR			6.12	(1.26)	(0.31)	12.95								
	RUSSELL 1000 (DAILY)			6.50	(0.78)	0.92	13.24	33.11	16.42	1.50	16.10	12.44		8.80	
	EXCESS RETURN			(0.37)	(0.49)	(1.23)	(0.29)	2.62	0.33	(0.84)	0.64	0.01		0.88	

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
<b>EQUITY RETURN DETAIL</b>															
68	NYCERS-TOTAL RUSSELL 3000 PASSIVE - GROSS	1,644	3.15	6.32	(1.40)	0.49	12.89	33.63	16.34	1.05	17.22	12.25	7.41	9.81	02/01/1990
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)								
	NYCERS-TOTAL RUSSELL 3000 PASSIVE - NET MGR			6.32	(1.41)	0.48	12.88								
	RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56	33.55	16.42	1.03	16.93	12.18	7.35	9.77	
	EXCESS RETURN			0.05	0.03	(0.00)	0.32	0.08	(0.08)	0.02	0.29	0.07	0.06	0.05	
78	NYCERS-TOTAL S&P 500 PASSIVE - GROSS	4,346	8.32	7.05	(0.09)	1.11	13.62	32.49	15.99	1.74	14.90	12.43	7.22	4.10	07/01/2000
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)								
	NYCERS-TOTAL S&P 500 PASSIVE - NET MGR			7.05	(0.09)	1.11	13.62								
	S&P 500 INDEX (DAILY)			7.04	0.15	1.38	13.69	32.39	16.00	2.11	15.06	12.57	7.31	4.22	
	EXCESS RETURN			0.00	(0.24)	(0.27)	(0.07)	0.10	(0.02)	(0.37)	(0.16)	(0.14)	(0.09)	(0.12)	
88	NYCERS-TOTAL FUND OF FUNDS - GROSS	1,031	1.97	4.50	(4.36)	(2.85)	8.19	37.19	16.17	(0.20)	17.79	10.82	7.09	8.60	07/01/1993
	ESTIMATED INVESTMENT FEES			(0.15)	(0.28)	(0.57)	(0.64)								
	NYCERS-TOTAL FUND OF FUNDS - NET MGR			4.35	(4.64)	(3.41)	7.55								
	RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56	33.55	16.42	1.03	16.93	12.18	7.35	9.10	
	EXCESS RETURN			(1.92)	(3.20)	(3.89)	(5.01)	3.63	(0.25)	(1.23)	0.86	(1.35)	(0.26)	(0.49)	

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
<b>EQUITY RETURN DETAIL</b>															
100	NYCERS-TOTAL INTERNATIONAL EQUITY - GROSS	8,709	16.67	2.56	(10.38)	(7.90)	(2.50)	12.45	18.06	(14.05)	14.04	0.49	2.77	5.87	09/01/1990
	ESTIMATED INVESTMENT FEES			(0.07)	(0.14)	(0.28)	(0.30)								
	NYCERS-TOTAL INTERNATIONAL EQUITY - NET MGR			2.48	(10.52)	(8.17)	(2.80)								
	MSCI AC WORLD EX US (NET)			3.24	(9.32)	(5.66)	(3.87)	15.29	16.83	(13.71)	11.15	1.06	2.92		
	EXCESS RETURN			(0.76)	(1.20)	(2.51)	1.06	(2.84)	1.23	(0.34)	2.89	(0.57)	(0.15)		
110	NYCERS-TOTAL DEVELOPED GROWTH ACTIVE - GROSS	1,816	3.48	5.78	(6.73)	(1.94)	(5.15)	20.21	20.02	(12.92)	10.16	3.16	4.19	6.46	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.07)	(0.14)	(0.28)	(0.27)								
	NYCERS-TOTAL DEVELOPED GROWTH ACTIVE - NET MGR			5.71	(6.87)	(2.22)	(5.42)								
	MSCI EAFE GROWTH			6.67	(2.64)	4.09	(4.43)	22.55	16.86	(12.11)	12.25	4.60	4.03	5.51	
	EXCESS RETURN			(0.96)	(4.23)	(6.31)	(0.99)	(2.34)	3.16	(0.80)	(2.09)	(1.43)	0.16	0.95	
120	NYCERS-TOTAL DEVELOPED VALUE ACTIVE - GROSS	1,700	3.25	2.99	(8.79)	(6.04)	(3.85)	22.15	14.03	(11.01)	10.07	2.29	2.62	4.97	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.07)	(0.13)	(0.27)	(0.26)								
	NYCERS-TOTAL DEVELOPED VALUE ACTIVE - NET MGR			2.92	(8.92)	(6.30)	(4.11)								
	MSCI EAFE VALUE NET (DAILY)			2.68	(9.41)	(5.68)	(5.39)	22.95	17.69	(12.17)	3.25	2.55	1.96	4.30	
	EXCESS RETURN			0.24	0.48	(0.62)	1.28	(0.80)	(3.66)	1.16	6.82	(0.26)	0.67	0.67	
130	NYCERS-TOTAL DEVELOPED SMALL CAP ACTIVE- GROSS	675	1.29	6.69	0.42	10.72	(3.78)							8.15	05/01/2013
	ESTIMATED INVESTMENT FEES			(0.13)	(0.25)	(0.55)	(0.48)								
	NYCERS-TOTAL DEVELOPED SMALL CAP ACTIVE - NET MGR			6.56	0.17	10.18	(4.26)								
	S&P EPAC SMALL CAP INDEX			5.86	(1.46)	8.95	(3.10)							7.57	
	EXCESS RETURN			0.69	1.63	1.22	(1.16)							0.58	
140	NYCERS-TOTAL INTERNATIONAL FUND OF FUNDS ACTIVE - GROS	50	0.10	5.36	(4.34)	1.16	(4.89)	21.26	18.84	(13.33)	12.96	3.74		0.12	12/01/2007
	ESTIMATED INVESTMENT FEES			(0.18)	(0.31)	(0.64)	(0.65)								
	NYCERS-TOTAL INTERNATIONAL FUND OF FUNDS ACTIVE - NET MGR			5.18	(4.65)	0.52	(5.54)								
	MSCI EAFE			4.71	(6.01)	(0.81)	(4.90)	22.78	17.32	(12.14)	7.75	3.60		(0.79)	
	EXCESS RETURN			0.47	1.36	1.33	(0.64)	(1.52)	1.52	(1.19)	5.21	0.14		0.91	
150	NYCERS-TOTAL DEVELOPED SMALLCAP PASSIVE - GROSS	250	0.48	6.73	(0.46)	9.99								3.51	02/01/2014
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.02)								(0.02)	
	NYCERS-TOTAL DEVELOPED SMALLCAP PASSIVE - NET MGR			6.73	(0.47)	9.97								3.49	
	MSCI EAFE SMALL CAP NET (DAILY)			6.79	(0.51)	9.59								2.98	
	EXCESS RETURN			(0.06)	0.04	0.39								0.51	
160	NYCERS-TOTAL DEVELOPED LARGE CAP PASSIVE - GROSS	560	1.07	4.68	(5.93)	(0.41)	(4.98)	23.02	17.60					3.43	02/01/2011
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.02)	(0.02)								
	NYCERS-TOTAL DEVELOPED LARGE CAP PASSIVE - NET MGR			4.68	(5.94)	(0.42)	(5.00)								
	MSCI EAFE			4.71	(6.01)	(0.81)	(4.90)	22.78	17.32					3.18	
	EXCESS RETURN			(0.03)	0.07	0.39	(0.10)	0.24	0.28					0.25	

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
<b>EQUITY RETURN DETAIL</b>															
172	NYCERS-TOTAL ACTIVE EMERGING MARKETS - GROSS ESTIMATED INVESTMENT FEES	2,017	3.86	(1.14)	(16.83)	(17.85)	1.02	(0.20)	20.86	(18.86)	27.44	(4.07)	5.13	6.27	11/01/2005
	NYCERS-TOTAL ACTIVE EMERGING MARKETS - NET MGR			(1.26)	(17.04)	(18.25)	0.52								
	FTSE CUSTOM NYCERS ALL EMERGING INDEX			(0.71)	(16.20)	(16.80)	(0.07)	(4.22)	17.84	(18.20)	23.58	(5.15)	4.02	5.45	
	EXCESS RETURN			<b>(0.55)</b>	<b>(0.83)</b>	<b>(1.45)</b>	<b>0.60</b>	<b>4.03</b>	<b>3.02</b>	<b>(0.67)</b>	<b>3.86</b>	<b>1.08</b>	<b>1.12</b>	<b>0.83</b>	
182	NYCERS-TOTAL PASSIVE EMERGING MARKETS - GROSS ESTIMATED INVESTMENT FEES	1,431	2.74	(0.92)	(17.22)	(17.87)	(1.29)	(4.24)	16.11				(6.45)	04/01/2011	
	NYCERS-TOTAL PASSIVE EMERGING MARKETS - NET MGR			(0.01)	(0.02)	(0.05)	(0.06)								
	MSCI CUSTOM NYCERS EMERGING MARKETS (NET)			(0.94)	(17.24)	(17.92)	(1.35)								
	EXCESS RETURN			<b>(0.71)</b>	<b>(16.82)</b>	<b>(17.71)</b>									
				<b>(0.23)</b>	<b>(0.42)</b>	<b>(0.21)</b>									

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>														
194	*NYCERS-TOTAL HEDGE FUND	1,457	2.79	(1.24)	(3.32)	(1.31)	6.19	5.58	8.81				3.48	07/01/2011
	HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			1.03	(2.36)	0.79	4.40	10.04	5.82				3.44	
	EXCESS RETURN			(2.27)	(0.96)	(2.09)	1.79	(4.45)	2.98				0.04	
204	*NYCERS-TOTAL DIRECT HEDGE FUNDS	1,212	2.32	(1.40)	(3.44)	(1.58)	6.01	4.24	9.44				4.45	01/01/2012
	HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			1.03	(2.36)	0.79	4.40	10.04	5.82				5.21	
	EXCESS RETURN			(2.43)	(1.09)	(2.37)	1.61	(5.80)	3.62				(0.76)	
214	*NYCERS-TOTAL FUND OF FUNDS HEDGE FUNDS	245	0.47	(1.25)	(4.11)	(2.94)	3.74	8.39	5.73				2.51	07/01/2011
	HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			1.03	(2.36)	0.79	4.40	10.04	5.82				3.44	
	EXCESS RETURN			(2.28)	(1.75)	(3.73)	(0.66)	(1.65)	(0.10)				(0.93)	

\*Information Provided by Alpha Frontier

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
<b>EQUITY RETURN DETAIL</b>															
226	NYCERS-TOTAL PRIVATE EQUITY (TIME WEIGHTED)	4,091	7.83	0.22	3.03	10.61	13.99	8.08	12.74	13.78	14.02	11.82	9.20	11.84	04/01/2004
	NYC R3000 +3% LAGGED			(6.54)	(5.72)	2.49	21.24	24.53	35.20	5.55	15.96	17.17	11.43	11.84	
	EXCESS RETURN			6.77	8.75	8.11	(7.26)	(16.45)	(22.47)	8.23	(1.95)	(5.35)	(2.23)	(0.00)	
236	NYCERS-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED)	2,708	5.18	3.31	6.80	16.06	15.44	12.61	14.43	22.28	8.46	16.12	7.97	9.11	04/01/2004
	NCREIF NFI-ODCE NET + 100 BP			3.36	7.17	15.08	12.56	14.02	10.88	16.09		13.71			
	EXCESS RETURN			(0.05)	(0.38)	0.98	2.88	(1.41)	3.55	6.19		2.41			
246	NYCERS-TOTAL INFRASTRUCTURE (TIME WEIGHTED)	134	0.26	3.25	5.13	15.14	20.16							16.85	12/01/2013
	CPI + 4%			1.10	2.01	4.69	4.70							4.81	
	EXCESS RETURN			2.15	3.12	10.45	15.45							12.04	

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
<b>FIXED INCOME RETURN DETAIL</b>															
258	NYCERS-TOTAL FIXED INCOME (DOM & GLOBAL) - GROSS	17,377	33.27	(0.74)	(1.07)	(0.37)	6.18	1.19	8.31	6.77	10.03	4.36	5.61	8.49	02/01/1980
	ESTIMATED INVESTMENT FEES			(0.03)	(0.07)	(0.13)	(0.15)								
	EST MANAGEMENT FEES			(0.03)	(0.07)	(0.13)	(0.15)								
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	NYCERS-TOTAL FIXED INCOME (DOM & GLOBAL) - NET MGR			(0.77)	(1.14)	(0.50)	6.03								
266	NYCERS-TOTAL STRUCTURED FIXED INCOME - GROSS	9,078	17.38	(0.45)	0.41	0.28	7.69	(1.73)	6.92	8.85	9.42	4.31	5.49	8.02	01/01/1985
	ESTIMATED INVESTMENT FEES			(0.02)	(0.04)	(0.07)	(0.09)								
	NYCERS-TOTAL STRUCTURED FIXED INCOME - NET MGR			(0.47)	0.38	0.21	7.60								
	NYC - CORE PLUS FIVE			(0.49)	0.78	0.41	7.66	(2.79)	5.41	9.40	7.13	3.92	5.10		
	EXCESS RETURN			0.02	(0.41)	(0.20)	(0.06)	1.06	1.51	(0.55)	2.28	0.39	0.39		
276	NYCERS-TOTAL CORE FIXED INCOME - GROSS	377	0.72	(0.13)	0.46	1.04	5.84	(1.54)	6.23	8.11	7.47	3.87		5.30	05/01/2009
	ESTIMATED INVESTMENT FEES			(0.05)	(0.09)	(0.18)	(0.17)								
	NYCERS-TOTAL CORE FIXED INCOME - NET MGR			(0.18)	0.36	0.86	5.67								
	BARCLAYS AGGREGATE (DAILY)			(0.57)	0.65	0.55	5.97	(2.02)	4.21	7.84	6.54	3.25		4.21	
	EXCESS RETURN			0.39	(0.29)	0.31	(0.30)	0.49	2.02	0.27	0.92	0.63		1.09	
286	NYCERS-TOTAL FIXED INCOME FUND OF FUNDS - GROSS	112	0.21	(0.30)	0.96	0.90	6.18	(1.76)	5.51	8.39	7.43	3.78	5.19	6.06	01/01/1992
	ESTIMATED INVESTMENT FEES			(0.09)	(0.17)	(0.35)	(0.36)								
	NYCERS-TOTAL FIXED INCOME FUND OF FUNDS - NET MGR			(0.39)	0.79	0.56	5.82								
	BARCLAYS AGGREGATE (DAILY)			(0.57)	0.65	0.55	5.97	(2.02)	4.21	7.84	6.54	3.25	4.51	5.76	
	EXCESS RETURN			0.18	0.13	0.01	(0.15)	0.26	1.29	0.55	0.89	0.53	0.68	0.30	
296	NYCERS-TOTAL TIPS - GROSS	1,728	3.31	(0.67)	(1.82)	(1.18)	3.50	(8.42)	7.25	13.50	6.47	2.66	4.08	3.93	06/01/2005
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.03)	(0.07)								
	NYCERS-TOTAL TIPS - NET MGR			(0.67)	(1.83)	(1.21)	3.42								
	BARCLAYS GLOBAL INFLATION LINKED: US TIPS (DAILY)			(0.64)	(1.78)	(1.44)	3.64	(8.61)	6.98	13.56	6.31	2.55	3.93	3.76	
	EXCESS RETURN			(0.03)	(0.05)	0.23	(0.21)	0.19	0.27	(0.06)	0.16	0.11	0.15	0.17	
306	NYCERS-TOTAL ENHANCED YIELD - GROSS	1,928	3.69	(2.00)	(6.65)	(3.82)	2.94	8.31	14.56	5.73	14.24	5.37	6.77	7.59	10/01/1994
	ESTIMATED INVESTMENT FEES			(0.09)	(0.16)	(0.33)	(0.36)								
	NYCERS-TOTAL ENHANCED YIELD - NET MGR			(2.08)	(6.81)	(4.15)	2.58								
	CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78	6.17	14.45	6.58	13.35	4.98	5.60	6.66	
	EXCESS RETURN			(0.38)	(0.04)	0.06	(0.20)	2.14	0.11	(0.85)	0.89	0.39	1.17	0.93	
316	NYCERS- TOTAL BANK LOANS - GROSS	984	1.88	(1.37)	(2.01)	1.18	2.58	6.41						3.41	12/01/2012
	ESTIMATED INVESTMENT FEES			(0.08)	(0.16)	(0.33)	(0.34)								
	NYCERS-TOTAL BANK LOANS - NET MGR			(1.45)	(2.17)	0.85	2.24								
	CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06	6.15						2.74	
	EXCESS RETURN			0.51	0.99	1.23	0.18	0.26						0.67	

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
<b>FIXED INCOME RETURN DETAIL</b>														
328	NYCERS- TOTAL CONVERTIBLE BONDS - GROSS	520	1.00	1.54	(3.10)	(0.85)	8.42	16.33	11.66	(3.02)	14.54	6.25	5.80	06/01/2008
	ESTIMATED INVESTMENT FEES			(0.11)	(0.21)	(0.43)	(0.47)							
	NYCERS-TOTAL CONVERTIBLE BONDS - NET MGR			1.44	(3.31)	(1.28)	7.95							
	BOFAML ALL CONVERTIBLE EX M AI (DAILY)			0.89	(6.37)	(2.89)	9.33	25.00	14.41	(3.42)	16.52	7.96	6.98	
	EXCESS RETURN			<b>0.54</b>	<b>3.06</b>	<b>1.61</b>	<b>(1.38)</b>	<b>(8.68)</b>	<b>(2.76)</b>	<b>0.39</b>	<b>(1.98)</b>	<b>(1.71)</b>	<b>(1.18)</b>	
338	NYCERS-TOTAL OPPORTUNISTIC FIXED INCOME	1,371	2.62	(1.83)	(3.78)	(2.18)	8.15	17.55	20.49	(4.40)	26.01	7.45	7.65	10/01/2007
	10% ANNUAL RETURN			2.41	4.88	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	
	EXCESS RETURN			<b>(4.25)</b>	<b>(8.66)</b>	<b>(12.18)</b>	<b>(1.85)</b>	<b>7.55</b>	<b>10.49</b>	<b>(14.40)</b>	<b>16.01</b>	<b>(2.55)</b>	<b>(2.35)</b>	
348	NYCERS-TOTAL TARGETED INVESTMENTS (NO CASH)	723	1.38	(0.66)	4.80	4.29	8.26	2.35	6.18	6.66	6.88	5.53	6.22	12/01/1984
	EMPLOYEES CUSTOM BENCHMARK (NO CASH)			(0.18)	1.12	1.42	6.03	(1.64)	3.41	7.66	6.47	3.32	4.74	
	EXCESS RETURN			<b>(0.48)</b>	<b>3.68</b>	<b>2.86</b>	<b>2.22</b>	<b>3.98</b>	<b>2.77</b>	<b>(1.00)</b>	<b>0.41</b>	<b>2.20</b>	<b>1.49</b>	
<b>CASH SUMMARY</b>														
360	EMPLOYEES' SHORT TERM - GROSS	556	1.06	(0.14)	0.01	0.31	0.36	0.19	0.56	0.92	0.26	0.47	1.80	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			(0.14)	0.01	0.31	0.36	0.19	0.56	0.92	0.26	0.47	1.80	
364	C/D - FAIL FLOAT EARNINGS	3	0.01											
366	SECURITY LENDING	-0	-0.00											

New York City  
Employees' Retirement System

# Appendix B

## Public Markets Manager Performance Detail

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
<b>EQUITY SUMMARY</b>						
<b>US EQUITY</b>						
State Street Global Advisors R3000	1,643	3.15	6.25	(1.49)	0.39	12.87
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56
Excess			(0.02)	(0.05)	(0.09)	0.31
Amalgamated Bank	4,346	8.32	7.05	(0.09)	1.11	13.62
S&P 500 INDEX (DAILY)			7.04	0.15	1.38	13.69
Excess			0.00	(0.24)	(0.27)	(0.07)
Blackrock Inst R 2000 Growth	211	0.40	4.27	(9.35)	(1.54)	5.70
RUSSELL 2000 GROWTH DAILY			4.32	(9.31)	(1.38)	5.60
Excess			(0.05)	(0.05)	(0.16)	0.10
Blackrock Inst R 2000 Value	54	0.10	2.90	(8.32)	(7.49)	4.90
RUSSELL 2000 VALUE DAILY			2.88	(8.17)	(7.47)	4.22
Excess			0.02	(0.15)	(0.02)	0.68
RAFI - SC Fundamental	925	1.77	2.78	(9.04)	(7.09)	4.56
RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89
Excess			(0.81)	(0.28)	(2.68)	(0.34)
Ceredex SCV	269	0.51	(0.52)	(8.20)	(4.74)	2.58
RUSSELL 2000 VALUE DAILY			2.88	(8.17)	(7.47)	4.22
Excess			(3.39)	(0.03)	2.73	(1.64)
Wellington Small Core	153	0.29	4.28	(6.69)	(2.79)	9.89
RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89
Excess			0.69	2.06	1.63	4.99

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
State Street GA S&P 400	1,692	3.24	2.54	(6.13)	(2.31)	9.97
S&P 400 MIDCAP INDEX (DAILY)			2.60	(6.11)	(2.18)	9.77
Excess			(0.06)	(0.02)	(0.13)	0.20
Blackrock Inst R 1000 Growth	2,753	5.27	7.31	1.58	5.58	12.90
RUSSELL 1000 GROWTH - DAILY			7.32	1.64	5.67	13.05
Excess			(0.01)	(0.06)	(0.09)	(0.15)
Blackrock Inst R 1000 Value	2,521	4.83	5.57	(3.31)	(3.94)	13.51
RUSSELL 1000 VALUE (DAILY)			5.64	(3.23)	(3.83)	13.45
Excess			(0.07)	(0.08)	(0.11)	0.06
VTL S&P 500 Fundamental	467	0.89	5.58	(2.18)	(1.25)	13.81
S&P 500 INDEX (DAILY)			7.04	0.15	1.38	13.69
Excess			(1.46)	(2.33)	(2.63)	0.12
RAFI - LC Fundamental	1,356	2.60	4.98	(2.64)	(3.17)	12.15
RUSSELL 1000 (DAILY)			6.50	(0.78)	0.92	13.24
Excess			(1.52)	(1.87)	(4.09)	(1.09)
<b>FUND OF FUNDS</b>						
NYCERS-TOTAL FUND OF FUNDS	1,031	1.97	4.35	(4.64)	(3.41)	7.55
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56
Excess			(1.92)	(3.20)	(3.89)	(5.01)
NYCERS-TOTAL ATTUCKS	314	0.60	4.11	(4.90)	(3.63)	9.46
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56
Excess			(2.16)	(3.47)	(4.10)	(3.10)
NYCERS-TOTAL CAPITAL PROSPECTS	75	0.14	5.28	(3.69)	(2.40)	9.13
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56
Excess			(0.99)	(2.26)	(2.88)	(3.42)

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
<b>NYCERS-TOTAL PROGRESS EQUITY</b>						
NYCERS-TOTAL PROGRESS EQUITY	405	0.77	3.86	(5.66)	(4.66)	6.99
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56
Excess			(2.41)	(4.23)	(5.14)	(5.57)
<b>NYCERS-TOTAL F I S</b>						
NYCERS-TOTAL F I S	238	0.45	5.24	(2.79)	(1.25)	5.52
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56
Excess			(1.03)	(1.35)	(1.73)	(7.03)
<b>U.S. ENVIRONMENTAL</b>						
Walden Asset Management (ENVRN)	324	0.62	3.78	(5.37)	(3.33)	(0.34)
RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89
Excess			0.19	3.39	1.08	(5.24)
<b>NON - US EQUITY</b>						
Causeway	833	1.59	3.75	(7.12)	(2.41)	(4.94)
MSCI EAFE VALUE NET (DAILY)			2.68	(9.41)	(5.68)	(5.39)
Excess			1.08	2.29	3.28	0.45
Sprucegrove	867	1.66	2.13	(10.60)	(9.77)	(3.69)
MSCI EAFE VALUE NET (DAILY)			2.68	(9.41)	(5.68)	(5.39)
Excess			(0.55)	(1.19)	(4.08)	1.70
Baillie Gifford MTA	851	1.63	4.55	(10.31)	(4.67)	(6.81)
MSCI EAFE GROWTH			6.67	(2.64)	4.09	(4.43)
Excess			(2.12)	(7.67)	(8.76)	(2.38)
Walter Scott	965	1.85	6.75	(3.61)	0.04	(3.43)
MSCI EAFE GROWTH			6.67	(2.64)	4.09	(4.43)
Excess			0.09	(0.97)	(4.05)	1.00
Acadian	337	0.65	6.55	(0.35)	8.71	(3.02)
S&P EPAC Small Cap Index			5.86	(1.46)	8.95	(3.10)
Excess			0.69	1.11	(0.24)	0.08

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
Pyramis	338	0.65	6.56	0.69	11.68	(5.51)
S&P EPAC Small Cap Index			5.86	(1.46)	8.95	(3.10)
Excess			0.70	2.15	2.72	(2.41)
SSGA MTA 121	560	1.07	4.68	(5.94)	(0.42)	(5.00)
MSCI EAFE			4.71	(6.01)	(0.81)	(4.90)
Excess			(0.03)	0.07	0.39	(0.10)
SSGA MSCI EAFE Small Cap Index	250	0.48	6.73	(0.47)	9.97	
MSCI EAFE SMALL CAP NET (DAILY)			6.79	(0.51)	9.59	
Excess			(0.06)	0.04	0.39	
Generation GE MTA	208	0.40	9.91	1.38	7.04	11.39
MSCI World Index			5.50	(3.41)	(0.87)	4.94
Excess			4.41	4.79	7.91	6.45
<b>INTERNATIONAL FUND OF FUNDS</b>						
NYCERS-TOTAL INTERNATIONAL FUND OF FUNDS	50	0.10	5.18	(4.65)	0.52	(5.54)
MSCI EAFE			4.71	(6.01)	(0.81)	(4.90)
Excess			0.47	1.36	1.33	(0.64)
<b>EMERGING MARKETS</b>						
BALLIE MTA	542	1.04	1.01	(13.80)	(13.67)	4.53
FTSE Custom NYCERS All Emerging Index			(0.71)	(16.20)	(16.80)	(0.07)
Excess			1.72	2.41	3.14	4.60
Acadian / MTA	487	0.93	(2.23)	(17.17)	(18.25)	3.09
FTSE Custom NYCERS All Emerging Index			(0.71)	(16.20)	(16.80)	(0.07)
Excess			(1.52)	(0.96)	(1.45)	3.16
PARAMETRIC EM	477	0.91	(2.22)	(17.63)	(19.39)	(1.55)
FTSE Custom NYCERS All Emerging Index			(0.71)	(16.20)	(16.80)	(0.07)
Excess			(1.51)	(1.42)	(2.59)	(1.48)

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
DFA MTA	511	0.98	(1.76)	(19.86)	(22.06)	(4.16)
FTSE Custom NYCERS All Emerging Index			(0.71)	(16.20)	(16.80)	(0.07)
Excess			(1.05)	(3.66)	(5.26)	(4.09)
Blackrock EM	1,431	2.74	(0.94)	(17.24)	(17.92)	(1.52)
MSCI CUSTOM NYCERS EMERGING MARKETS (NET)			(0.71)	(16.82)	(17.71)	
Excess			(0.23)	(0.42)	(0.21)	

## FIXED INCOME SUMMARY

### STRUCTURED FIXED INCOME

Neuberger Berman - Mortgage	1,053	2.02	(0.18)	1.06	1.42	6.99
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	6.12
Excess			(0.11)	(0.14)	(0.14)	0.86
Blackrock - Mortgage	1,193	2.28	(0.15)	1.01	1.67	6.75
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	6.12
Excess			(0.07)	(0.19)	0.11	0.62
Wellington - Mortgage	512	0.98	(0.21)	1.04	1.35	6.77
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	6.12
Excess			(0.13)	(0.16)	(0.21)	0.65
Goldman Sachs - Mortgage	544	1.04	(0.15)	1.09	1.60	6.24
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	6.12
Excess			(0.08)	(0.10)	0.04	0.12
Amundi Smith Breeden - Mortgage	218	0.42	(0.10)	1.11	1.73	6.36
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	6.12
Excess			(0.02)	(0.08)	0.16	0.23

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
Prudential - Corp - Credit	1,176	2.25	(0.37)	0.26	(0.32)	7.54
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			0.07	0.39	0.33	0.50
T. Rowe Price - Credit	856	1.64	(0.08)	0.01	0.13	7.91
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			0.35	0.14	0.78	0.87
Blackrock - Credit	851	1.63	(0.69)	(0.50)	(0.83)	7.48
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			(0.25)	(0.36)	(0.18)	0.44
Taplin Canida Habacht - Credit	724	1.39	(1.29)	(3.21)	(4.37)	7.83
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			(0.86)	(3.08)	(3.73)	0.79
Barrow Hanley - Credit	646	1.24	(0.12)	0.24	(0.09)	7.47
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			0.31	0.38	0.56	0.42
Prudential-Privest - Credit	192	0.37	(0.34)	0.84	1.63	7.20
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			0.09	0.98	2.28	0.16
Blackrock - Gov't	557	1.07	(1.35)	1.82	0.69	11.98
NYC - Treasury Agency Plus Five			(1.29)	2.06	0.72	12.38
Excess			(0.06)	(0.24)	(0.03)	(0.40)
State Street - Gov't	557	1.07	(1.30)	1.76	0.46	12.10
NYC - Treasury Agency Plus Five			(1.29)	2.06	0.72	12.38
Excess			(0.01)	(0.30)	(0.26)	(0.28)

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
<b>ENHANCED YIELD</b>						
Loomis, Sayles - High Yield	369	0.71	(5.52)	(10.94)	(7.67)	4.89
NYC-Loomis (BoA MLMSTII 7-03/BB&B PRIOR)			(2.17)	(6.96)	(4.64)	2.50
Excess			(3.35)	(3.98)	(3.02)	2.38
<b>Oaktree - High Yield</b>						
Oaktree - High Yield	307	0.59	(2.21)	(7.08)	(4.77)	1.52
BofAML HYM CONSTRAINED (DAILY)			(2.16)	(6.93)	(4.61)	2.51
Excess			(0.05)	(0.15)	(0.16)	(0.98)
<b>NEUBERGER BERMAN - HIGH YIELD</b>						
NEUBERGER BERMAN - HIGH YIELD	326	0.62	(1.41)	(5.99)	(4.00)	2.14
BofAML HIGH YIELD MASTER II (DAILY)			(2.17)	(6.96)	(4.64)	2.50
Excess			0.76	0.97	0.64	(0.36)
<b>Stone Harbor - High Yield</b>						
Stone Harbor - High Yield	191	0.37	(0.65)	(6.22)	(4.54)	0.97
BofAML HIGH YIELD MASTER II (DAILY)			(2.17)	(6.96)	(4.64)	2.50
Excess			1.52	0.74	0.11	(1.54)
<b>T. Rowe Price - Enhanced Yield</b>						
T. Rowe Price - Enhanced Yield	336	0.64	(0.40)	(4.40)	(1.28)	2.96
CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78
Excess			1.31	2.37	2.93	0.18
<b>Shenkman - High Yield</b>						
Shenkman - High Yield	166	0.32	(1.41)	(5.41)	(2.24)	2.93
CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78
Excess			0.29	1.36	1.97	0.14
<b>Penn Capital Mgt</b>						
Penn Capital Mgt	123	0.23	(1.11)	(4.09)	(1.26)	0.84
CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78
Excess			0.60	2.68	2.95	(1.95)
<b>Fort Washington</b>						
Fort Washington	110	0.21	(1.39)	(7.13)	(4.43)	2.18
CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78
Excess			0.32	(0.36)	(0.22)	(0.60)

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
<b>BANK LOANS</b>						
Babson BL	268	0.51	(2.13)	(3.02)	0.12	1.99
CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06
Excess			(0.17)	0.14	0.50	(0.07)
Credit Suisse BL	274	0.53	(0.82)	(1.02)	2.57	2.67
CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06
Excess			1.14	2.15	2.96	0.61
Guggenheim BL	176	0.34	(1.03)	(1.11)	2.07	2.88
CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06
Excess			0.94	2.06	2.45	0.83
Invesco BL	265	0.51	(1.67)	(3.18)	(0.91)	1.65
CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06
Excess			0.29	(0.01)	(0.53)	(0.41)
<b>TIPS</b>						
State Street TIPS MTA	1,307	2.50	(0.67)	(1.84)	(1.35)	3.57
Barclays Global Inflation Linked: US TIPS (Daily)			(0.64)	(1.78)	(1.44)	3.64
Excess			(0.03)	(0.07)	0.09	(0.07)
Blackrock TIPS MTA	421	0.81	(0.68)	(1.80)	(1.24)	3.74
Barclays Global Inflation Linked: US TIPS (Daily)			(0.64)	(1.78)	(1.44)	3.64
Excess			(0.05)	(0.02)	0.20	0.10
<b>CONVERTIBLE BONDS</b>						
Advent Conv Bonds	321	0.61	0.02	(3.93)	(1.92)	4.68
BofA ML U.S. Convertible Yield Alternative			(3.79)	(9.44)	(9.05)	2.75
Excess			3.81	5.51	7.13	1.93

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
Victory - Conv Bonds	200	0.38	3.79	(2.31)	(0.24)	13.76
BofA Merrill Lynch US Investment Grade Convertible Bond Index			4.17	(0.77)	1.68	15.69
Excess			(0.38)	(1.55)	(1.92)	(1.93)
<b>FIXED INCOME FUND OF FUNDS</b>						
New Century Adv LLC (Core)	47	0.09	(0.75)	0.29	(0.04)	6.09
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			(0.18)	(0.36)	(0.59)	0.12
Pugh Capital Mgmt Inc (Core)	29	0.05	(0.37)	1.08	0.69	6.05
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			0.20	0.43	0.14	0.08
Ramirez Asset	36	0.07	0.06	1.20	0.94	
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	
Excess			0.63	0.55	0.39	
<b>CORE FIXED INCOME</b>						
LM Capital	278	0.53	(0.02)	0.48	0.83	5.67
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			0.55	(0.17)	0.28	(0.30)
GIA	99	0.19	(0.61)	0.03		
Barclays Aggregate (Daily)			(0.57)	0.65		
Excess			(0.04)	(0.62)		
<b>ECONOMICALLY TARGETED INVESTMENTS</b>						
AFL-CIO HOUSING INV TRUST	293	0.56	(0.69)	0.74	1.13	6.10
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			(0.12)	0.09	0.58	0.14

# Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
ACCESS RBC	114	0.22	(0.41)	1.00	1.84	6.67
Access RBC Benchmark			(0.34)	0.98	1.40	5.08
Excess			(0.07)	0.02	0.43	1.59
CPC CONST FACILITY	10	0.02	2.89	7.50	8.91	
CPC CONST BENCHMARK			0.73	1.45	2.90	
Excess			2.16	6.06	6.01	
BOA-PPAR (FNMA)	20	0.04	(1.33)	10.68	42.03	13.31
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.34)	9.05	39.53	6.19
BOA-PPAR (GNMA)	16	0.03	(1.35)	12.09	8.04	15.61
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.73)	10.50	6.03	8.96
CCD-PPAR (FNMA)	9	0.02	(1.33)	11.41	6.69	25.71
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.34)	9.78	4.20	18.58
CCD-PPAR (GNMA)	7	0.01	(1.18)	8.39	5.08	15.37
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.56)	6.80	3.06	8.72
CFSB-PPAR (GNMA)	3	0.01	(1.45)	9.58	5.90	15.34
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.82)	7.98	3.88	8.69
CPC-PPAR (FNMA)	63	0.12	(0.12)	12.66	8.96	13.91
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(0.12)	11.03	6.46	6.78

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
CPC - PPAR (GNMA)	107	0.20	(1.23)	7.60	5.08	8.41
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.61)	6.00	3.07	1.76
JPMC-PPAR (FNMA)	33	0.06	(1.11)	13.08	6.18	12.06
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.12)	11.45	3.68	4.93
JPMC - PPAR (GNMA)	38	0.07	(0.79)	8.44	6.04	13.75
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.17)	6.84	4.03	7.10
LIIF-PPAR (FNMA)	3	0.00	(1.36)	10.62	6.29	38.12
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.37)	9.00	3.79	30.99
LIIF-PPAR (GNMA)	3	0.01	(1.08)	4.02	3.92	9.74
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.46)	2.42	1.91	3.09
NCBCI PPAR (FNMA)	0	0.00	(1.09)	8.14	4.97	14.93
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.10)	6.51	2.47	7.81
NCBCI-PPAR (GNMA)	2	0.00	(1.23)	8.66	5.53	16.66
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.61)	7.06	3.52	10.01
NHS-PPAR (GNMA)	1	0.00	(1.12)	6.91	4.90	13.73
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.49)	5.32	2.89	7.08

## Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
CASH						
EMPLOYEES' SHORT TERM	556	1.06	(0.14)	0.01	0.31	0.36
91 DAY T-BILL			0.03	0.05	0.05	0.02
Excess			(0.16)	(0.03)	0.27	0.34
C/D - FAIL FLOAT EARNINGS	3	0.01				
SECURITY LENDING	-0	-0.00				

**New York City  
Employees' Retirement System**

# Appendix C

## Alternative Assets Manager Performance Detail

# Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
<b>TOTAL PRIVATE EQUITY</b>		7,973,385,071	6,818,892,411	5,148,594,470	4,065,491,664	1.35	9.2%
<b>TOTAL ACTIVE</b>		7,472,136,368	6,247,564,285	4,459,396,855	4,065,491,664	1.36	9.6%
Cypress Merchant Banking Partners II, L.P.	1999	45,172,972	53,861,600	43,440,706	7,242,488	0.94	-1.1%
FdG Capital Partners LLC	1999	25,000,000	28,756,835	42,947,883	4,464,067	1.65	14.5%
Lincolnshire Equity Fund II, L.P.	1999	18,397,347	19,261,466	36,463,088	1,197,237	1.96	24.6%
Solera Partners, L.P.	2000	19,999,779	26,412,911	41,635,156	4,811,226	1.76	8.8%
SCP Private Equity Partners II, L.P.	2000	27,442,463	30,827,225	9,060,182	5,379,043	0.47	-10.3%
New Mountain Partners, L.P.	2001	18,141,933	17,116,468	24,431,489	441,486	1.45	12.4%
Apollo Investment Fund V, L.P.	2001	40,000,000	62,509,880	122,768,943	1,499,534	1.99	38.6%
RRE Ventures III, L.P.	2001	19,999,999	26,200,206	33,075,548	3,262,292	1.39	6.1%
Yucaipa American Alliance Fund I, LP	2002	90,000,000	114,094,892	94,282,024	42,323,430	1.20	4.6%
Thomas, McNerney & Partners, L.P.	2002	20,000,000	20,000,000	7,003,139	5,198,848	0.61	-10.1%
BDCM Opportunity Fund, L.P.	2002	25,000,000	52,554,619	89,778,751	371,408	1.72	22.8%
Landmark Equity Partners XI, L.P.	2002	55,000,000	52,284,778	76,417,080	4,934,314	1.56	23.7%
FS Equity Partners V, L.P.	2003	25,000,000	22,914,838	39,909,674	5,604,284	1.99	15.8%
Blackstone Capital Partners IV, L.P.	2003	34,418,762	38,818,072	96,545,606	2,260,454	2.55	39.7%
Ares Corporate Opportunities Fund, L.P.	2003	45,000,000	54,008,942	77,332,286	5,777,147	1.54	13.6%
Markstone Capital Partners, LP	2004	40,000,000	46,899,103	19,568,130	2,210,408	0.46	-44.8%
FdG Capital Partners II LP	2004	35,000,000	37,398,788	42,499,038	2,090,030	1.19	3.5%
Paladin Homeland Security Fund (NY City), L.P.	2004	15,000,000	16,236,925	4,919,658	3,003,584	0.49	-10.1%
Lincolnshire Equity Fund III, L.P.	2004	55,000,000	53,272,062	69,373,748	28,331,031	1.83	31.1%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 1	2004	32,000,000	32,452,414	18,854,047	19,772,050	1.19	3.4%
Aurora Equity Partners III L.P.	2004	50,000,000	54,119,877	86,237,201	5,272,338	1.69	14.4%
Trilantic Capital Partners III L.P.	2004	45,088,848	40,021,959	58,694,581	1,633,400	1.51	12.5%
Celtic Pharmaceutical Holdings L.P.	2004	25,000,000	25,402,094	402,094	3,976,018	0.17	-20.3%
Palladium Equity Partners III, L.P.	2005	35,000,000	35,700,350	48,905,493	23,517,660	2.03	18.8%
New Mountain Partners II, L.P.	2005	46,451,615	41,776,299	77,688,562	4,302,313	1.96	13.8%
VSS Communications Partners IV, L.P.	2005	25,000,000	28,201,361	15,227,011	6,547,316	0.77	-4.6%
Prism Venture Partners V-A, L.P.	2005	30,000,000	30,762,722	14,685,847	9,398,065	0.78	-4.9%
Erasmus New York City Growth Fund	2005	34,819,694	34,819,694	31,991,019	(1,875,661)	0.86	-3.0%
Quadrangle Capital Partners II LP	2005	60,636,859	60,873,246	63,467,384	16,542,731	1.31	5.7%
Snow Phipps Group, L.P.	2005	20,000,000	22,991,038	17,825,994	12,516,236	1.32	7.8%
GI Partners Fund II L.P.	2005	35,000,000	35,385,288	41,075,544	13,242,388	1.54	7.3%

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

# Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Blackstone Mezzanine Partners II, L.P.	2005	25,000,000	23,466,337	28,375,919	2,744,230	1.33	7.5%
Psilos Group Partners III, L.P.	2005	35,000,000	37,205,819	17,948,760	28,974,371	1.26	4.9%
USPF II Institutional Fund, L.P.	2005	65,000,000	85,734,194	57,727,010	54,442,663	1.31	5.6%
JP Morgan Fleming (Tranche A)	2005	43,000,000	41,147,918	29,151,049	27,138,750	1.37	7.2%
Aisling Capital II, LP	2006	6,680,102	7,814,346	5,070,342	3,242,692	1.06	1.3%
InterMedia Partners VII, L.P.	2006	25,000,000	28,671,799	16,147,308	28,128,418	1.54	6.8%
Terra Firma Capital Partners III, L.P.	2006	52,770,435	53,016,322	2,633,169	26,768,135	0.55	-10.0%
BDCM Opportunity Fund II, L.P.	2006	25,000,000	36,038,045	33,989,275	34,151,435	1.89	16.8%
Blackstone Capital Partners V, L.P.	2006	122,052,590	128,937,557	138,011,858	67,430,149	1.59	8.1%
Avista Capital Partners, L.P.	2006	45,000,000	58,410,347	48,322,189	26,871,195	1.29	5.8%
GSC Recovery III, L.P.	2006	25,000,000	28,115,695	29,562,961	2,817,843	1.15	3.7%
Apollo Investment Fund VI, L.P.	2006	90,000,000	115,838,240	142,714,932	34,522,392	1.53	9.7%
Landmark Equity Partners XIII, L.P.	2006	50,000,000	47,830,446	42,503,564	20,150,636	1.31	6.2%
Ares Corporate Opportunities Fund II, L.P.	2006	50,000,000	54,759,682	82,742,122	10,456,094	1.70	13.8%
Fairview Ventures Fund III, L.P.	2006	25,000,000	25,378,772	16,206,446	29,113,585	1.79	15.6%
Ampersand 2006	2006	25,000,000	25,000,000	25,032,244	23,020,014	1.92	13.6%
CCMP Capital Investors II, L.P.	2006	30,000,000	32,935,583	36,254,007	17,992,990	1.65	13.9%
CLP 2014 (fka Perseus Partners VII)	2006	30,000,000	34,974,032	10,016,974	393,234	0.30	-36.6%
Thomas, McNerney & Partners II, L.P.	2006	25,000,000	23,769,167	40,366,658	11,301,100	2.17	16.8%
Catterton Partners VI, L.P.	2006	45,000,000	49,320,136	59,555,525	33,369,493	1.88	13.5%
First Reserve Fund XI, L.P.	2006	45,000,000	47,820,682	26,739,005	7,291,913	0.71	-8.3%
Arsenal Capital Partners II, LP	2006	22,500,000	26,890,523	24,436,291	17,414,660	1.56	10.1%
RRE Ventures IV, L.P.	2006	35,000,000	42,884,278	10,463,907	55,627,961	1.54	8.9%
MidOcean Partners III, L.P.	2006	60,000,000	66,754,363	45,426,357	49,512,516	1.42	8.2%
GF Capital Private Equity Fund, L.P.	2006	20,000,000	20,626,154	17,106,190	18,764,061	1.74	15.3%
The Fourth Cinven Fund	2006	71,472,848	71,209,741	75,477,506	23,980,576	1.40	6.9%
Pegasus Partners IV, L.P.	2007	30,000,000	34,805,032	15,876,945	20,196,909	1.04	0.9%
FTVentures III, LP	2007	24,201,990	24,651,990	26,252,186	23,527,842	2.02	16.4%
Co-Investment Partners Europe, L.P.	2007	39,930,472	41,853,743	23,735,861	30,068,281	1.29	5.6%
Montreux Equity Partners IV, L.P.	2007	20,000,000	20,000,000	6,843,774	21,081,452	1.40	7.6%
Quaker BioVentures II, L.P.	2007	20,000,000	17,658,740	10,437,474	12,998,807	1.33	7.8%
SCP Vitalife Partners II Fund	2007	20,000,000	20,009,698	1,579	17,164,078	0.86	-3.3%
Craton Equity Investors I, L.P.	2007	20,000,000	20,089,805	71,125	7,146,665	0.36	-17.7%
Nautic Partners VI, L.P.	2007	30,000,000	33,393,732	40,716,824	30,147,029	2.12	18.4%

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

# Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Constellation Venture Capital III, L.P.	2007	25,000,000	26,861,250	5,676,045	14,256,523	0.74	-6.6%
United States Power Fund III, L.P.	2007	65,000,000	64,966,042	31,625,128	54,770,345	1.33	5.9%
Halyard Capital Fund II, L.P.	2007	25,000,000	21,006,320	10,099,612	20,466,754	1.46	7.7%
Carlyle Partners V, L.P.	2007	70,000,000	70,942,512	71,159,143	45,609,571	1.65	13.9%
PCG Clean Energy & Technology Fund (East), LLC	2007	90,000,000	79,380,090	9,345,681	42,467,846	0.65	-8.8%
GSO Capital Opportunities Fund LP	2007	45,000,000	67,136,185	90,834,689	6,502,667	1.45	18.1%
StarVest Partners II, L.P.	2007	25,000,000	24,134,957	1,166,983	19,786,354	0.87	-3.6%
New Mountain Partners III, L.P.	2007	100,000,000	97,401,080	57,650,292	90,632,510	1.52	11.0%
Vista Equity Partners Fund III, L.P.	2007	30,000,000	31,860,199	67,811,388	13,641,005	2.56	28.8%
Trilantic Capital Partners IV L.P.	2007	69,028,637	68,953,720	79,906,986	29,466,739	1.59	14.7%
RLJ Equity Partners Fund I, L.P.	2007	20,000,000	20,921,728	8,301,877	19,713,285	1.34	9.6%
Pine Brook Capital Partners, L.P.	2007	30,000,000	30,290,730	17,835,817	20,134,862	1.25	8.0%
Paladin III (NY City), L.P.	2008	30,000,000	32,832,220	16,523,491	24,401,008	1.25	6.5%
Relativity Fund, L.P.	2008	10,877,829	10,773,614	2,302,071	3,676,397	0.55	-11.3%
Apollo Investment Fund VII, L.P.	2008	100,000,000	115,646,730	170,557,364	34,224,438	1.77	25.1%
NGN BioMed Opportunity II, L.P.	2008	20,000,000	18,651,821	3,946,209	10,031,849	0.75	-7.1%
Carpenter Community BancFund-A, L.P.	2008	20,000,000	19,519,654	11,326,549	18,276,033	1.52	8.3%
Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	2008	45,000,000	47,004,475	33,750,235	23,755,986	1.22	6.9%
Yucaipa American Alliance Fund II, LP	2008	120,000,000	161,469,146	95,518,980	134,976,410	1.43	10.5%
Levine Leichtman Capital Partners IV, L.P.	2008	35,000,000	35,033,723	40,333,273	18,384,481	1.68	20.2%
Lee Equity Partners Fund, L.P.	2008	42,500,000	50,364,907	23,680,805	42,182,020	1.31	9.0%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 2	2008	45,000,000	38,830,500	18,459,414	38,860,016	1.48	14.3%
Yucaipa Corporate Initiatives Fund II, LP	2008	42,092,788	40,842,713	11,698,560	23,860,084	0.87	-3.4%
Leeds Equity Partners V, L.P.	2008	60,000,000	50,062,855	33,414,337	43,664,119	1.54	14.8%
GI Partners Fund III L.P.	2008	45,000,000	47,862,151	45,518,789	26,294,514	1.50	14.2%
Ares Corporate Opportunities Fund III, L.P.	2008	75,000,000	87,284,864	78,615,245	70,559,708	1.71	21.1%
GCM Grosvenor NYCERS Emerging Manager Co-Investment F	2008	12,875,950	14,631,461	19,755,245	5,623,402	1.73	13.8%
GCM Grosvenor NYCERS Emerging Manager Fund, L.P.	2008	116,737,374	114,676,048	60,774,988	85,676,978	1.28	10.6%
First Reserve Fund XII, L.P.	2008	45,000,000	46,721,786	20,747,425	19,051,486	0.85	-4.5%
Landmark Equity Partners XIV, L.P.	2008	109,120,000	99,614,931	75,293,071	62,501,190	1.38	15.4%
Crestview Partners II, L.P.	2008	50,000,000	52,467,104	35,275,091	42,574,987	1.48	13.7%
Avista Capital Partners II, L.P.	2008	75,000,000	88,741,615	89,568,747	73,925,709	1.84	18.9%
Blue Wolf Capital Fund II, L.P.	2008	25,000,000	26,744,713	9,980,200	19,953,907	1.12	4.3%
Bridgepoint Europe IV	2008	26,754,008	24,454,185	16,142,217	17,717,657	1.38	10.0%

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

# Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Aisling Capital III, LP	2008	14,000,000	14,142,218	12,705,241	10,441,568	1.64	23.5%
Onex Partners III LP	2008	75,000,000	80,895,903	45,979,174	69,672,840	1.43	12.8%
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	40,000,000	38,176,343	28,981,847	29,136,583	1.52	14.4%
FS Equity Partners VI, L.P.	2009	32,500,000	33,249,926	18,952,494	41,444,055	1.82	21.2%
Lincolnshire Equity Fund IV, L.P.	2009	27,500,000	26,584,594	9,638,864	22,471,490	1.21	8.0%
Lexington Capital Partners VII, L.P.	2009	50,000,000	40,847,974	32,119,966	29,564,781	1.51	17.2%
Snow Phipps II, L.P.	2010	30,000,000	23,690,061	13,503,644	20,847,633	1.45	16.4%
JP Morgan Fleming (Tranche B)	2010	35,000,000	30,387,280	9,079,001	34,322,769	1.43	13.6%
Trident V, L.P.	2010	110,000,000	114,453,138	22,309,083	117,697,962	1.22	8.6%
Blackstone Capital Partners VI, L.P.	2011	120,000,000	90,314,579	17,289,780	92,249,444	1.21	11.5%
Ampersand 2011	2011	25,000,000	24,125,000	1,410,929	38,235,005	1.64	17.8%
BDCM Opportunity Fund III, L.P.	2011	45,000,000	56,274,108	20,728,277	44,628,139	1.16	9.8%
AXA Secondary Fund V B L.P.	2011	120,000,000	90,573,064	50,593,784	87,897,700	1.53	20.2%
Wellspring Capital Partners V, L.P.	2011	40,000,000	30,439,913	3,069,548	34,226,104	1.23	11.7%
EQT VI, L.P.	2011	106,019,238	88,712,983	2,195,346	92,590,047	1.07	3.4%
Pegasus Partners V, L.P.	2011	20,789,916	14,633,567	3,700,886	15,514,105	1.31	10.7%
BC European Capital IX	2011	132,260,578	102,781,173	19,357,452	91,401,167	1.08	3.9%
American Securities Partners VI, L.P.	2011	80,000,000	73,899,688	23,516,623	79,258,659	1.39	22.3%
Vista Equity Partners Fund IV, L.P.	2011	100,000,000	94,600,542	42,497,664	109,659,869	1.61	22.0%
Warburg Pincus Private Equity XI, L.P.	2012	110,000,000	85,426,872	16,926,030	91,289,040	1.27	16.9%
Trilantic Capital Partners V L.P.	2012	70,000,000	22,755,101	278,137	20,309,224	0.90	-5.8%
Palladium Equity Partners IV, L.P.	2012	55,000,000	24,630,717	1,557,188	24,862,400	1.07	5.2%
Ares Corporate Opportunities Fund IV, L.P.	2012	125,000,000	89,089,778	8,707,794	91,246,307	1.12	9.9%
Green Equity Investors VI, L.P.	2012	120,000,000	78,908,405	3,018,863	90,122,432	1.18	13.3%
Platinum Equity Capital Partners III, L.P.	2012	100,000,000	48,573,953	33,706,195	38,760,010	1.49	45.4%
<u>NYCERS - 2012 Emerging Manager Program</u>	<u>2012</u>	<u>150,000,000</u>	<u>62,400,760</u>	<u>2,830,708</u>	<u>65,316,384</u>	<u>1.09</u>	<u>N/A</u>
Carlyle Partners VI, L.P.	2013	75,000,000	27,168,938	986,795	25,470,696	0.97	-2.3%
Carlyle Partners VI, L.P. (Side Car)	2013	8,250,000	1,820,910	-	1,683,368	0.92	N/M
Landmark Equity Partners XV, L.P.	2013	75,000,000	23,744,449	5,612,631	22,854,995	1.20	N/M
Landmark - NYC Fund I, L.P.	2013	25,000,000	10,482,609	973,165	11,367,770	1.18	N/M
Apollo Investment Fund VIII, L.P.	2013	140,000,000	31,555,100	863,017	30,094,357	0.98	N/M
CVC Capital Partners VI, L.P.	2013	122,299,217	18,744,229	829,561	13,025,342	0.74	N/M
Crestview Partners III, L.P.	2013	66,000,000	8,954,705	181,686	8,335,431	0.95	N/M
Crestview Partners III (Co-Investment B), L.P.	2013	22,000,000	-	-	-	-	N/M

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

# Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Olympus Growth Fund VI, L.P.	2014	75,000,000	15,560,952	5,413,183	13,511,359	1.22	N/M
ASF VI B L.P.	2014	83,000,000	30,623,929	808,159	37,262,042	1.24	N/M
ASF VI B NYC Co-Invest L.P.	2014	27,000,000	15,768,881	2,025,000	17,829,922	1.26	N/M
Vista Equity Partners Fund V, L.P.	2014	125,000,000	79,885,518	9,745	84,713,990	1.06	N/M
Lexington Capital Partners VIII, L.P.	2014	110,000,000	11,097,339	19,202	16,718,959	1.51	N/M
Centerbridge Capital Partners III, L.P.	2014	23,700,000	3,771,487	-	3,807,082	1.01	N/M
Siris Partners III, L.P.	2015	31,000,000	311,016	-	(74,408)	(0.24)	N/M
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	78,500,000	16,471,687	-	15,237,447	0.93	N/M
EQT VII, L.P.	2015	159,031,425	-	-	-	-	N/M
American Securities Partners VII, L.P.	2015	80,000,000	-	-	-	-	N/M
Bridgepoint Europe V L.P.	2015	60,543,543	-	-	(332,579)	-	N/M
Bridgepoint Europe V Co-Invest	2015	17,577,158	-	-	-	-	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%
Vitruvian Investment Partnership I	2007	54,981,001	55,072,045	42,666,644	-	0.77	-9.0%

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

# Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
<b>TOTAL REAL ASSETS</b>		4,120,679,386	3,273,856,088	1,618,836,748	2,734,890,565	1.33	7.3%
<b>TOTAL PRIVATE REAL ESTATE</b>		3,848,679,386	3,156,492,923	1,614,640,315	2,612,893,227	1.34	7.3%
<b>TOTAL LIQUIDATED PRIVATE REAL ESTATE</b>		71,360,625	61,554,049	73,215,546	-	1.19	9.8%
<b>TOTAL INFRASTRUCTURE</b>		272,000,000	117,363,165	4,196,433	121,997,338	1.08	13.3%
<b>TOTAL PRIVATE REAL ESTATE</b>							
Blackstone Fund IV	2004	30,000,000	38,440,704	42,090,975	13,117,389	1.44	11.5%
The City Investment Fund I	2004	225,000,000	221,883,300	221,759,650	3,047,253	1.01	0.3%
Tishman Speyer Separate Account (ERS)	2004	100,000,000	71,066,452	259,238,975	84,963	3.65	63.2%
Canyon Johnson Urban Fund II	2005	40,000,000	35,954,818	7,727,927	10,188,161	0.50	-9.2%
AREA Real Estate Investment Fund V, LP	2006	25,000,000	25,000,001	9,268,520	12,862,290	0.89	-2.0%
PRISA SA	2006	86,000,000	91,971,383	19,214,431	107,409,548	1.38	3.9%
Prologis Targeted U.S. Logistics Fund	2006	25,000,000	31,511,863	6,786,960	28,438,405	1.12	1.6%
RREEF America REIT II	2006	86,000,000	113,537,802	46,120,920	106,933,073	1.35	4.5%
UBS Trumbull Property Fund	2006	156,000,000	206,998,649	40,656,777	249,157,090	1.40	6.3%
Blackstone Real Estate Partners VI	2007	110,000,000	121,423,991	150,844,936	76,787,402	1.87	13.5%
Carlyle Realty Partners V	2007	20,000,000	24,904,381	26,049,950	7,569,251	1.35	8.3%
Colony Realty Partners II	2007	20,000,000	21,420,211	666,108	8,124,600	0.41	-10.9%
Heitman HART	2007	115,000,000	153,469,157	38,469,157	195,818,207	1.53	7.9%
JP Morgan Special Situation Property Fund	2007	90,000,000	101,531,204	23,042,138	105,705,980	1.27	3.2%
JP Morgan Strategic Property Fund	2007	136,000,000	147,579,250	-	237,422,015	1.61	6.9%
Metropolitan Workforce Housing Fund	2007	14,000,000	14,013,027	6,184,768	9,364,123	1.11	2.4%
PRISA II	2007	141,518,761	149,597,017	23,854,020	177,895,608	1.35	4.5%
RREEF America REIT III - 1410	2007	90,000,000	90,000,000	43,893,762	8,151,691	0.58	-7.5%
UrbanAmerica II	2007	25,000,000	23,222,735	938,145	2,701,238	0.16	-22.3%
American Value Partners Fund I	2008	55,000,000	39,149,355	24,675,140	20,213,194	1.15	3.4%
AREA European Real Estate Fund III, LP	2008	30,000,000	30,487,500	28,155,000	8,026,066	1.19	4.6%
Capri Urban Investors	2008	60,000,000	59,980,707	15,777,250	35,523,053	0.86	-2.9%
PRISA III	2008	50,000,000	56,537,333	-	109,036,212	1.93	12.6%
Silverpeak Legacy Partners III	2008	50,000,000	22,168,479	2,003,826	7,281,675	0.42	-12.6%
Stockbridge Real Estate Fund III	2008	27,000,000	26,285,345	-	36,276,835	1.38	6.7%
Westbrook Real Estate Fund VII	2008	40,000,000	43,370,388	28,775,762	21,774,475	1.17	3.1%
Thor Urban Property Fund II	2009	40,000,000	51,756,666	32,801,010	36,923,752	1.35	10.5%

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

## Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
Walton Street Real Estate Fund VI	2009	50,000,000	44,323,933	31,491,758	34,879,632	1.50	10.6%
Blackstone Real Estate Partners Europe III (USD Vehicle)	2010	50,000,000	50,859,563	31,414,419	41,925,157	1.44	14.7%
Canyon Johnson Urban Fund III	2010	30,000,000	29,586,980	37,987,841	2,624,184	1.37	12.7%
LaSalle Property Fund	2010	50,000,000	50,000,000	8,167,744	64,799,410	1.46	12.8%
Westbrook Real Estate Fund VIII	2010	50,000,000	59,156,035	62,311,307	14,952,102	1.31	12.9%
Carlyle Realty Partners VI	2011	70,000,000	63,286,685	52,219,201	48,455,483	1.59	29.8%
H/2 Special Opportunities Fund II	2011	40,000,000	39,999,999	21,920,972	31,931,949	1.35	16.2%
Blackstone Real Estate Partners VII	2012	170,000,000	190,019,460	102,759,954	179,237,965	1.48	25.6%
Brookfield Strategic Real Estate Partners	2012	100,000,000	100,662,023	24,874,226	102,468,787	1.27	17.7%
Taconic New York City Investment Fund LP	2012	70,000,000	28,954,546	636,364	39,426,566	1.38	12.8%
KTR Industrial Fund III	2013	40,000,000	17,479,475	27,417,626	221,714	1.58	40.6%
NYC Asset Investor #1 LLC	2013	50,000,000	39,639,715	5,371,486	45,714,923	1.29	26.5%
NYC Asset Investor #2 LLC	2013	75,000,000	51,763,813	8,894,649	49,748,595	1.13	12.2%
NYC Asset Investor #3 LLC	2013	50,000,000	11,400,299	195,673	11,613,828	1.04	3.4%
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2014	169,000,000	99,220,006	10,224,773	98,757,761	1.10	N/A
Carlyle Realty Partners VII	2014	80,000,000	19,757,677	-	18,896,142	0.96	N/A
Divco West Fund IV	2014	23,000,000	20,915,719	2,827,576	23,570,954	1.26	N/A
Lone Star Real Estate Fund III	2014	100,000,000	71,798,847	11,956,049	70,178,582	1.14	N/A
MetLife Core Property Fund	2014	50,000,000	50,000,000	1,757,044	54,180,301	1.12	N/A
Almanac Realty Securities VII	2015	65,000,000	13,345,422	-	13,290,422	99.59%	N/A
Avanath Affordable Housing Fund II	2015	8,000,000	6,522,390	-	6,133,297	94.03%	N/A
Blackstone Real Estate Partners VIII	2015	151,000,000	6,526,949	-	7,142,847	109.44%	N/A
H/2 Special Opportunities Fund III	2015	65,000,000	16,457,620	-	16,909,077	102.74%	N/A
Jamestown Premier Property Fund	2015	39,000,000	-	-	-	N/A	N/A
NYC/Artemis Co-investment Program	2015	53,000,000	-	-	-	N/A	N/A
USAA Eagle Fund	2015	60,000,000	-	-	-	N/A	N/A
Tristan EPISO 4	2015	48,400,000	-	-	-	N/A	N/A
Westbrook Partners X	2015	36,000,000	-	-	-	N/A	N/A
PW Real Estate Fund III	2015	48,400,000	-	-	-	N/A	N/A

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

## Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
<b>TOTAL LIQUIDATED PRIVATE REAL ESTATE</b>							
Canyon Johnson Urban Fund LP	2003	15,000,000	13,590,364	15,874,432	-	1.17	10.2%
BlackRock Carbon Capital III Co-Investments, LLC	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%
<b>TOTAL INFRASTRUCTURE INVESTMENTS</b>							
Brookfield Infrastructure Fund II	2013	75,000,000	34,505,456	4,035,206	37,406,667	1.20	18.4%
IFM Global Infrastructure	2014	75,000,000	75,161,227	161,227	77,434,621	N/M	N/M
First Reserve Energy Infrastructure Fund II	2014	45,000,000	2,665,847	-	2,064,905	N/M	N/M
KKR Global Infrastructure Investors II L.P.	2014	77,000,000	5,030,635	-	5,091,145	N/M	N/M

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

## Alternative Assets Manager Performance Detail

Through December 31, 2015



	Vintage Year	Commitment - Closing (Base)	Contributions Cumulative (Local)	Distributions Cumulative	Final Market Value	3 Month Base%	Inception IRR%
<b>TOTAL OPPORTUNISTIC FIXED INCOME</b>		1,808,155,431	1,588,342,711	457,521,038	1,336,350,113	-2.47%	5.90%
Avenue Special Situations Fund V, L.P.	2007	75,784,973	76,951,175	99,724,647	813,418	0.00%	N/M
Avenue Europe Special Sit. Fund, L.P.	2008	29,870,458	27,839,090	53,301,171	899,718	-2.69%	N/M
AG GECC PPIP Fund, L.P.	2010	30,000,000	27,052,129	41,724,862	50,500		20.19%
Avenue Special Situations Fund VI L.P.	2011	70,000,000	71,766,544	40,860,441	43,111,948	0.00%	4.44%
Golden Tree	2011	140,000,000	131,253,192	-	168,798,793	-0.85%	7.67%
Marathon Centre Street Partnership, L.P.	2011	218,750,000	210,000,000	17,500,000	225,115,001	-3.76%	5.11%
AG Centre Street Partnership, L.P.	2012	180,000,000	142,200,000	24,226,130	135,554,554	-3.79%	4.50%
Apollo Centre Street Partnership, L.P.	2012	268,750,000	219,763,211	47,413,618	166,760,679	-6.36%	-1.43%
FCO MA Centre Street L.P.	2012	140,000,000	151,828,295	47,536,012	115,783,269	0.00%	8.38%
OHA Centre Street Partnership, L.P.	2012	140,000,000	165,600,677	25,600,677	150,025,364	-3.27%	2.74%
Contrarian Partnership, L.P.	2013	90,000,000	54,000,000	-	48,857,920	-3.07%	-5.44%
Lone Star Fund VIII(U.S.), L.P.	2013	100,000,000	83,944,347	57,929,861	61,304,953	0.00%	35.56%
Oaktree Opportunities Fund IX, L.P.	2013	100,000,000	100,000,000	-	93,594,426	-1.80%	-3.98%
Ares Centre Street LP	2014	140,000,000	91,990,244	-	97,072,561	1.25%	9.36%
Brightwood Capital Fund III, L.P.	2015	35,000,000	26,653,806	1,703,619	26,241,714	0.00%	4.80%
Torchlight Debt Opportunity Fund V, LP	2015	50,000,000	7,500,000	-	2,365,296	-0.10%	-5.61%

Information provided by Alpha Frontier

# Alternative Assets Manager Performance Detail

Through December 31, 2015



	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>	1,457,382,740	-1.58%	-1.39%	-3.61%	-1.88%	-1.88%	2.83%	2.87%	13.60%
<b>TOTAL DIRECT HEDGE FUNDS</b>	1,211,923,950	-1.69%	-1.39%	-3.44%	-1.56%	-1.56%	2.85%	4.46%	19.07%
<b>TOTAL FUND OF FUNDS HEDGE FUNDS</b>	245,458,790	-1.06%	-1.39%	-4.39%	-3.52%	-3.52%	2.34%	1.90%	8.83%
<b>TOTAL DIRECT HEDGE FUNDS</b>									
BlueTrend Fund L.P.	95,594,800	-2.94%	-1.92%	5.58%	3.91%	3.91%	1.30%	2.06%	7.41%
SRS Partners US, LP - Class B - 1	55,933,793	4.21%	7.57%	7.84%	14.74%	14.74%		14.74%	14.74%
Standard General Fund L.P.	25,215,873	-0.71%	-1.55%	-3.46%	-2.61%	-2.61%		0.54%	0.86%
Brevan Howard L.P. - Series B	48,022,933	-3.88%	-2.19%	-3.52%	-1.96%	-1.96%	-0.10%	0.63%	2.48%
Brevan Howard L.P. - Series L	105,523,663	-3.41%	-1.82%	-2.55%	-0.48%	-0.48%		-0.18%	-0.45%
Caspian Select Credit Fund, L.P.	108,116,778	-2.77%	-5.66%	-8.94%	-10.39%	-10.39%	0.45%	2.20%	8.30%
CCP Quantitative Fund LP	105,416,860	-3.20%	0.86%	-2.03%	-4.71%	-4.71%		-1.45%	-4.17%
D.E. Shaw Composite Fund, L.L.C.	182,927,855	2.52%	4.13%	5.75%	14.61%	14.61%	14.91%	15.55%	78.28%
Fir Tree Value Fund, L.P.	104,011,899	-3.32%	-2.77%	-11.01%	-8.58%	-8.58%		1.04%	3.07%
Luxor Capital Partners, LP	79,534,832	-6.83%	-11.12%	-22.26%	-18.70%	-18.70%		-18.52%	-27.70%
Perry Partners L.P.	97,326,064	-3.45%	-5.30%	-11.35%	-13.32%	-13.32%		-4.63%	-11.52%
Pharo Gaia Fund, LTD.	50,141,245	1.30%		1.30%	1.30%			1.30%	1.30%
Pharo Macro Fund, Ltd.	102,236,479	-0.18%	-1.74%	4.71%	3.57%	3.57%		8.70%	23.18%
Turiya Fund LP - Class I Interests	51,920,876	0.23%	0.85%	2.76%	2.76%			2.76%	2.76%
<b>TOTAL FUND OF FUNDS HEDGE FUNDS</b>									
Fund of Funds Hedge Funds	245,458,790	-1.06%	-1.39%	-4.39%	-3.52%	-3.52%	2.34%	1.90%	8.83%

Information provided by Alpha Frontier

**New York City  
Employees' Retirement System**

# Appendix D

## Footnotes

Through December 31, 2015



- 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 \* 33.41%*

*International Developed (EAFE) Markets: MSCI EAFE \* 10.14%*

*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 \* 5.01%*

*Infrastructure: CPI + 4% \* 0.24%*

*Hedge Funds: 1yr T- Bill yield + 4% \* 2.85%*

*Domestic Fixed Income: NYC Core +5 \* 21.16%*

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

*Enhanced Yield: Citigroup BB&B \* 3.35%*

*Bank Loans: Credit Suisse Leveraged Loan \* 1.86%*

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

*Opportunistic Fixed: 10% Annualized Return \* 2.59%*

### **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.