



New York City
Employees' Retirement System
Performance Overview as of June 30, 2017

Total Fund Overview

New York City Employees' Retirement System

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Through June 30, 2017



City of New York Employees' Retirement System Second Quarter 2017 Summary

General Economic and Market Conditions: We are now eight years into the economic recovery in the U.S., arguably the latter stages of a mature expansion and at a point where inflationary pressures typically begin to build. Yet price and wage inflation remain stubbornly subdued. Headline and particularly core inflation have drifted down over the past several months. Headline inflation (the CPI – All Urban) climbed above 2% in December 2016 and stayed near 2.5% until May 2017, when it began to ebb. The Index was unchanged in June, meaning zero inflation month to month; the year-over-year change is now 1.6%. The Fed's targeted measure of core inflation (personal consumption expenditures (PCE) less food and energy) slipped to a year-over-year gain of just 1.4% in May and will likely show a flattening similar to the CPI-U in June. This decline in core inflation is both baffling and frustrating to the Fed, and it provides a headwind to its efforts to bring interest rates back to "normal."

Low wage growth is also a mystery in the U.S., where it has remained below 3% for years while the unemployment rate has fallen to a 16-year low of 4.4% in June, and stories of tight labor markets abound in industries around the country.

The explanations for persistent low inflation are varied, but there is no consensus on the cause. The most plausible reasons include: 1) lackluster global growth; 2) excess industrial capacity, much of it in China, pushing down goods prices; and 3) technology, specifically product and process innovations that slash production costs.

Weak wage growth is more of a conundrum, especially in economies such as the U.S. that appear to be at full employment. Why hasn't the job market pressure pushed up overall wages? More plausible explanations include: 1) a large pool remains of workers not properly captured in the official unemployment data (discouraged workers, the long-term unemployed); 2) the replacement of retiring higher-wage baby boomers with lower-wage young workers, skewing the average wage downward; 3) poor productivity growth, paired with 4) use of technology to replace workers with capital, particularly in low-wage, low-skilled jobs; and 5) a related shift in market power from labor to capital. None of these factors alone explain the persistence of low inflation and low wage growth, but the interaction of these factors tells a believable story.

In addition to the conundrum of low inflation, the state of growth weighs heavily on the Fed's deliberations on the path to future interest rate hikes and the size of its balance sheet. Second quarter GDP growth came in at 2.6%, roughly in line with expectations. The solid figure built on the upward revision to disappointing data in the first quarter, which was adjusted up from 0.7% to 1.2%. Consumer spending, job growth, and capital spending have been strong enough to enable the U.S. economy to amble on at a

Through June 30, 2017



reasonable if unspectacular (although sometimes halting) pace for eight years. Consumer spending has been the engine for growth, increasing faster than GDP (2.8% in the second quarter), and supported by gains in employment, disposable income, and household wealth. The combination of a strong job market, continued stock market gains, and the expectation for tax cuts coming from the Trump administration and the Republican Congress has fueled consumer confidence, and with it spending, since the start of 2017—although confidence did take a breather in the second quarter.

Business fixed investment enjoyed a strong first quarter with a 7.2% gain, driven by close to 15% growth in structures (including oil and gas mining), and followed with another 5% gain in the second quarter. The rebound in the oil and gas sector suggests the spending on capital has built some momentum.

Residential housing spending took a hit in the second quarter, falling by 6.8%, somewhat in defiance of the laws of economics as the supply of homes for sale is not keeping up with demand. The nation-wide average price for a new home reached an all-time high in May, topping \$400,000. High prices should be driving builders to build, but the permits and starts for both single-family and multi-family homes declined in May before recovering somewhat in June. The restraint on construction activity may stem from tightened standards on commercial real estate loans, particularly on multi-family homes, and rising interest rates.

Please note that all return figures mentioned below are gross of fee.

Total Fund Performance: For the quarter ended June 30, 2017, the Fund returned +3.02%, twenty nine basis points below the Policy Target return of +3.31%. Over the trailing year, NYCERS has earned a return of +13.24% versus the Policy Target return of +12.93%. Over three years, the total Fund has returned +6.01% annualized. Over the trailing five years, the Fund has gained 9.37% annualized. The trailing 10-year return is +5.65% annualized.

Total Fund Assets: The Fund's assets totaled \$60.7 billion as of the end of the second quarter of 2017.

U.S. Equity: The total domestic equity portion of the NYCERS Fund returned +2.57% for the quarter, below the +3.02% return of the Russell 3000 Index. For the trailing year, NYCERS underperformed the index, returning +18.17% versus +18.51% 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 trailing one, three, five, seven, and ten year return periods.

Through June 30, 2017



In Large Cap, the Fund underperformed the Russell 1000 Index, returning +2.55% versus the Russell 1000's return of +3.06% during the second quarter. Over the past year, the Fund is below the benchmark by 98 basis points, returning +17.05% versus +18.03% for the index.

In Mid Cap, the Fund outperformed the index by 11 basis points for the quarter despite its strictly passive exposure. The Fund returned +2.08% versus the +1.97% return of the S&P Mid Cap Index. Over the past five years, the Fund's +15.06% return is in line with the return of the index (+14.92%).

In Small Cap, the Fund returned +0.93%, below the Russell 2000 return of +2.46% for the quarter. The Fund's one year return of +21.20% underperformed the +24.60% return of the Index.

Developed International: For the quarter, the Fund's Non-U.S. Developed Equity composite returned +6.21% (excluding NYCERS' non-U.S. Environmental and Activist managers), outperforming the MSCI EAFE Index by 9 basis points. The Fund returned +22.21% for the trailing one year period, above the return of the benchmark (+20.27%). 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 +5.52% in the quarter, outperforming the +5.46% 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 +23.67%, outperforming the +22.20% 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 +1.60% during the quarter, while the NYCERS Core Plus Five Index returned +1.82%. For the past year, the structured composite has gained 0.40%, while the benchmark's return is -0.21%. 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.

TIPS: The Fund's TIPS composite delivered a -0.39% return in the quarter, slightly above the -0.40% return for the Bloomberg Barclays Capital US TIPS Index. Over the past year, the Fund's TIPS managers have returned -0.64%, slightly below the benchmark's return of -0.63%. The Fund is ahead of the benchmark over the trailing three, five, seven, and ten year periods.

Through June 30, 2017



High Yield: In high yield, the Fund's managers returned +2.16% for the quarter, while the Citigroup BB&B Index posted a lower return of +2.07%. The Fund outperformed the benchmark over the past year, returning +11.99% as compared to the benchmark's return of +11.47%. 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.

Bank Loans: The NYCERS bank loan composite returned +0.80% in the second quarter, above the Credit Suisse Leveraged Loan Index's return of +0.75%. The Fund underperformed the benchmark for the year returning +7.11% versus +7.49% for the benchmark. The Fund has outperformed the benchmark over the trailing three year period.

Convertibles: The convertible portfolio returned +2.72% in the quarter, below the +3.02% return of the NYCERS Custom Convertible Bond Index. Over the past year, the convertibles portfolio has returned +11.95%, underperforming the benchmark by 330 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 +0.21% over the second quarter, underperforming the blended benchmark of 50% JP Morgan Global High Yield / 50% Credit Suisse Leveraged Loan Index - Plus 300 bps (+2.16%). The Fund returned +12.37% for the trailing one year period, below the return of the blended benchmark (+13.71%). The Fund is below the blended benchmark over the trailing three, five, and seven year periods.

Alternatives: For the quarter, the Private Equity portfolio had approximately \$4.2 billion in invested capital, representing roughly 7.0% of the Total Fund. The Private Real Estate portfolio had approximately \$3.1 billion invested, accounting for roughly 5.2% of the Total Fund. The Infrastructure portfolio had approximately \$225 million invested, or 0.4%. Hedge Fund investments represented approximately \$96 million, or 0.2%. Performance is reported separately by NYCERS' Private Equity, Real Estate and Hedge Fund consultants.

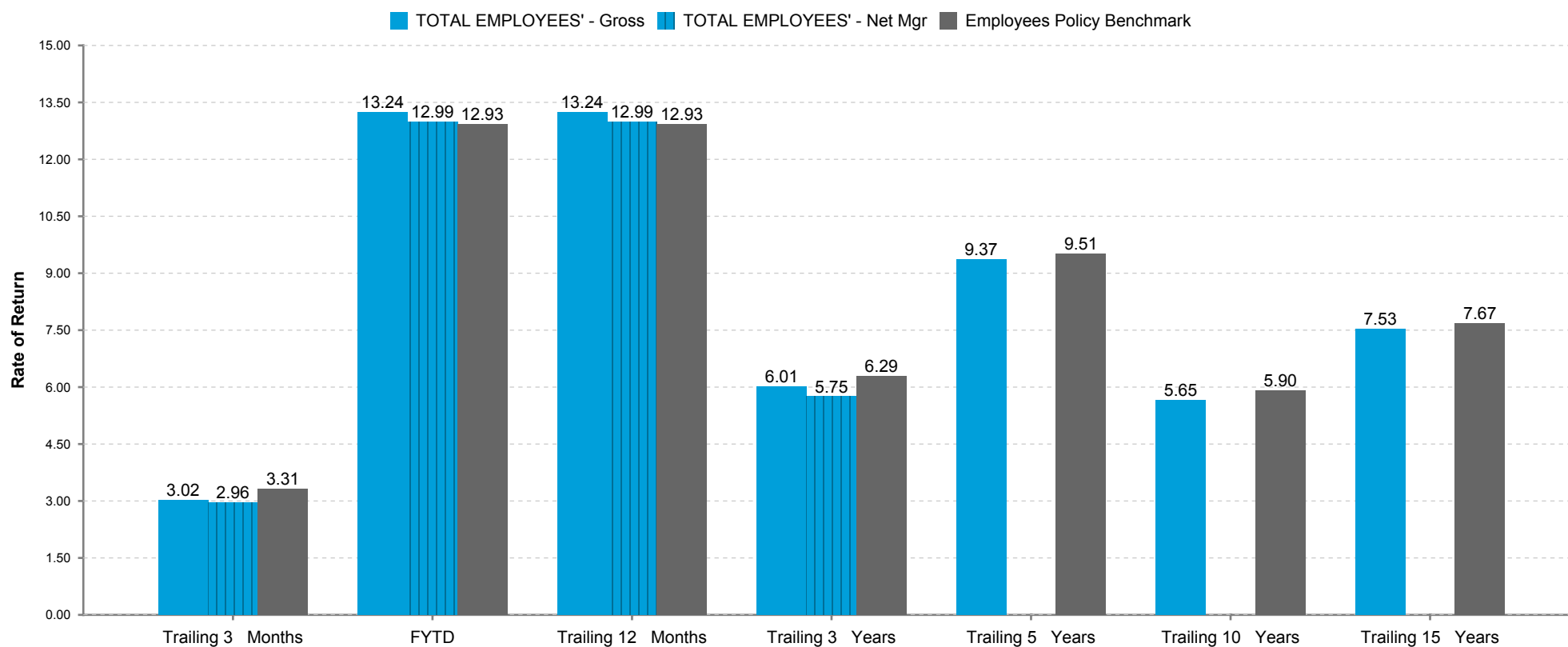
Total Portfolio Returns: June 30, 2017



Market Value (Billions)

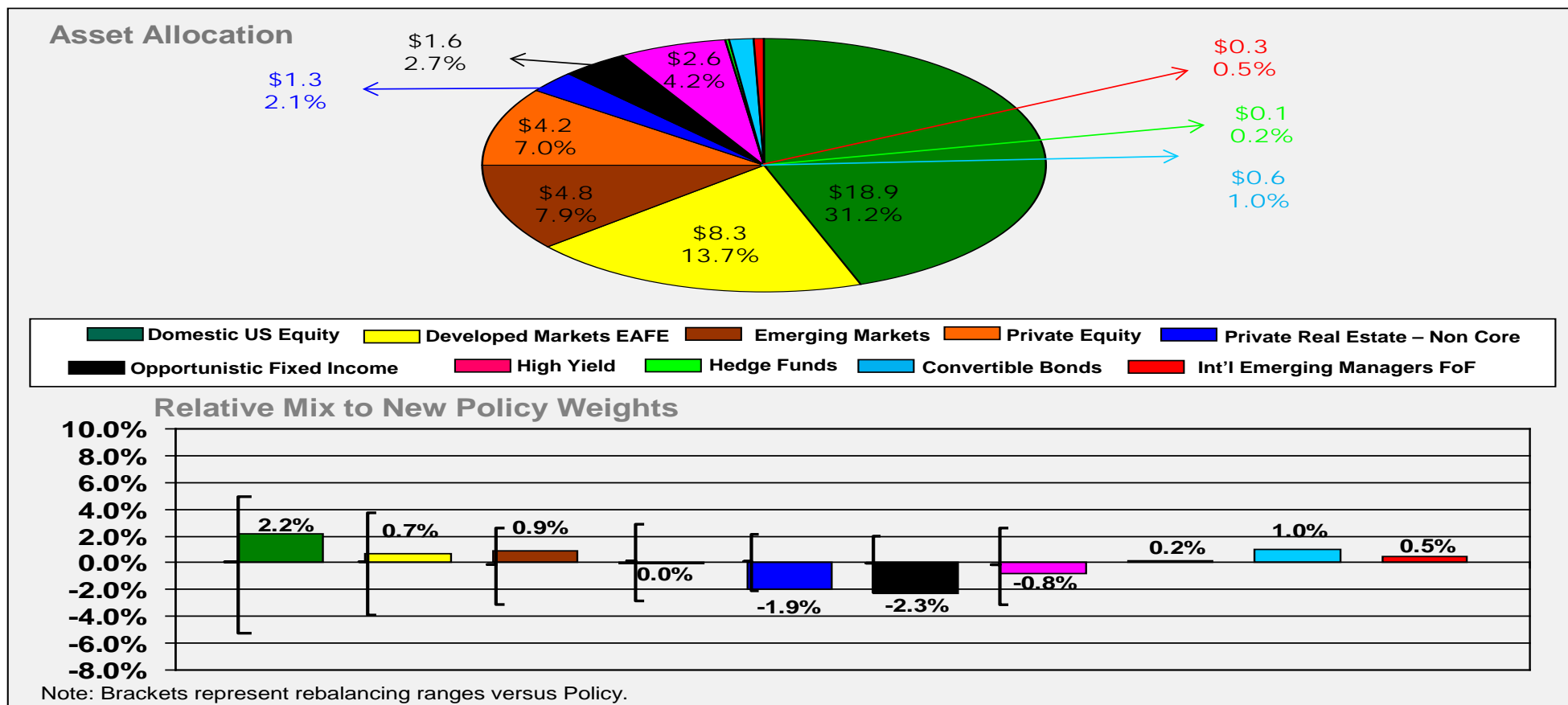
\$60.7

TOTAL EMPLOYEES'

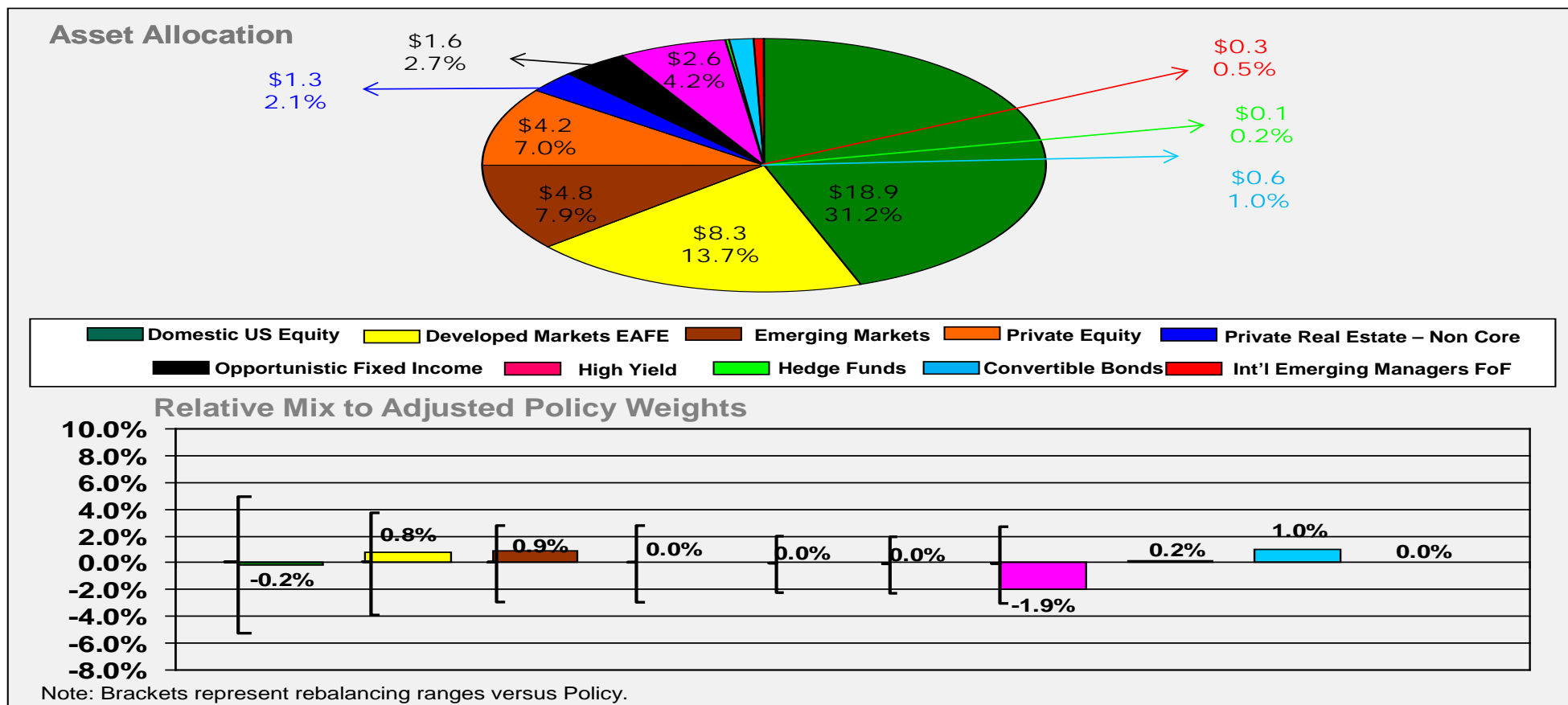


	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 10 Years	Benchmark 10 Years
Standard Deviation						
TOTAL EMPLOYEES'	5.9	5.8	9.4	5.4	10.0	10.8

Portfolio Asset Allocation – Growth :

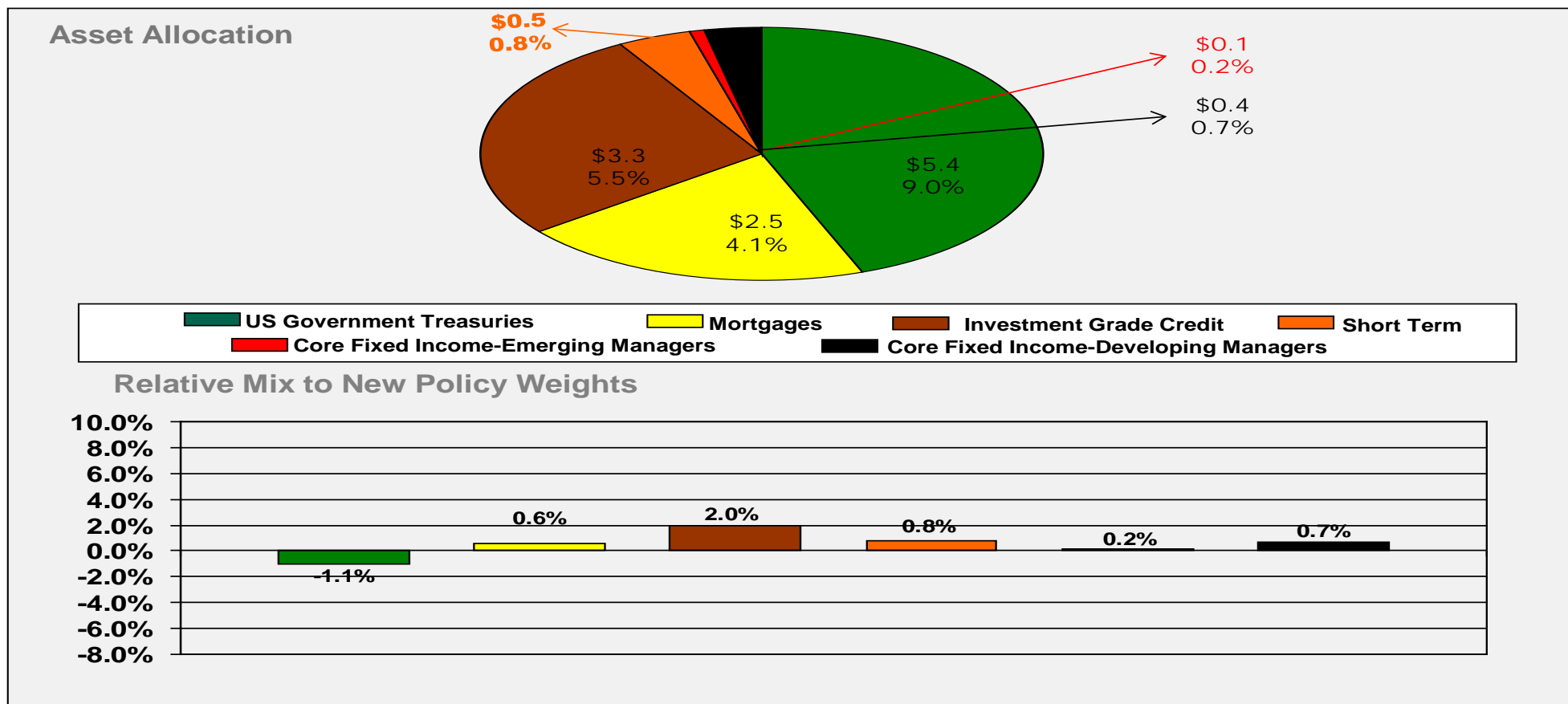


Portfolio Asset Allocation – Growth :

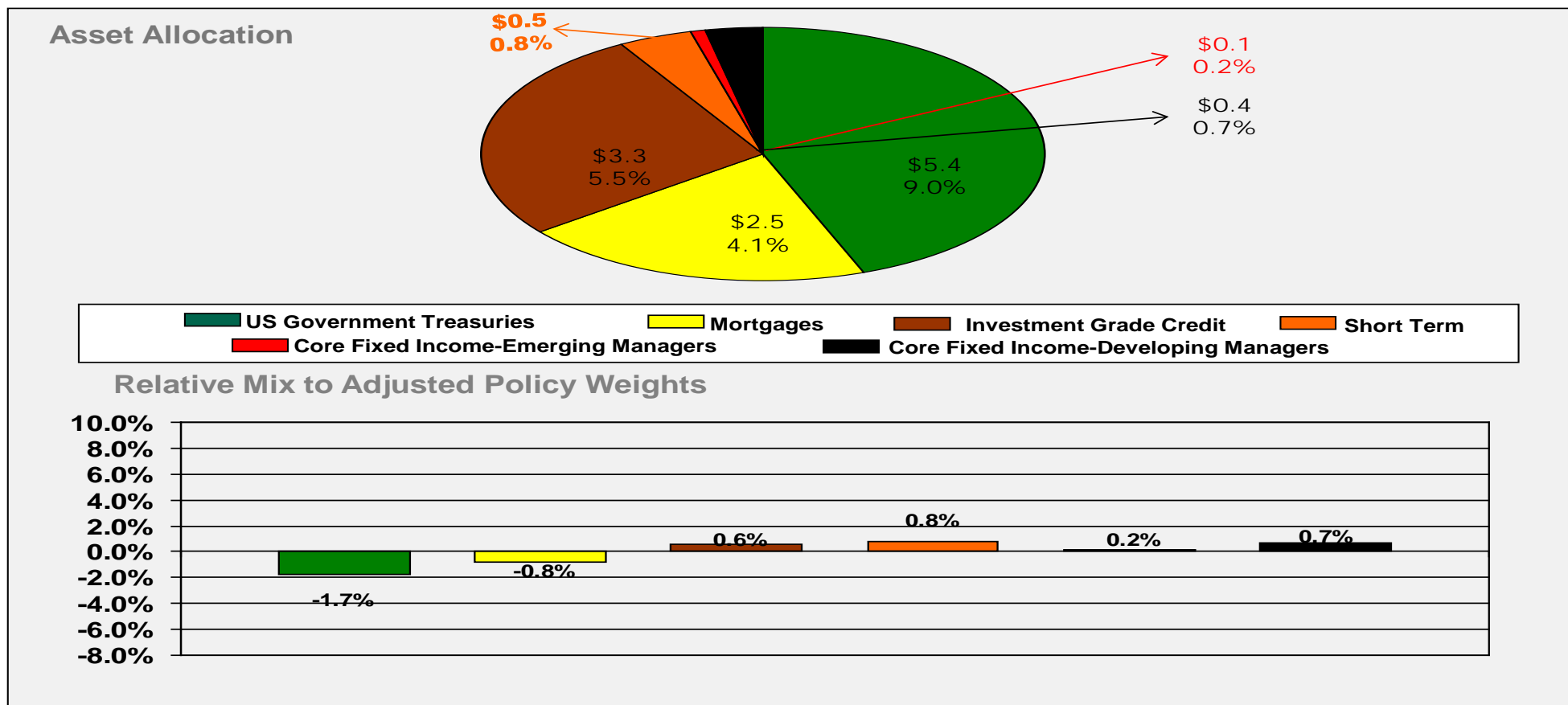


Note: On June 30, 2017 NYCERS' combined Fixed Income and Cash portfolios have a duration of 6.3 years. The duration of the Barclays US Aggregate Index was 6 years on that date.

Portfolio Asset Allocation – Deflation Protection :

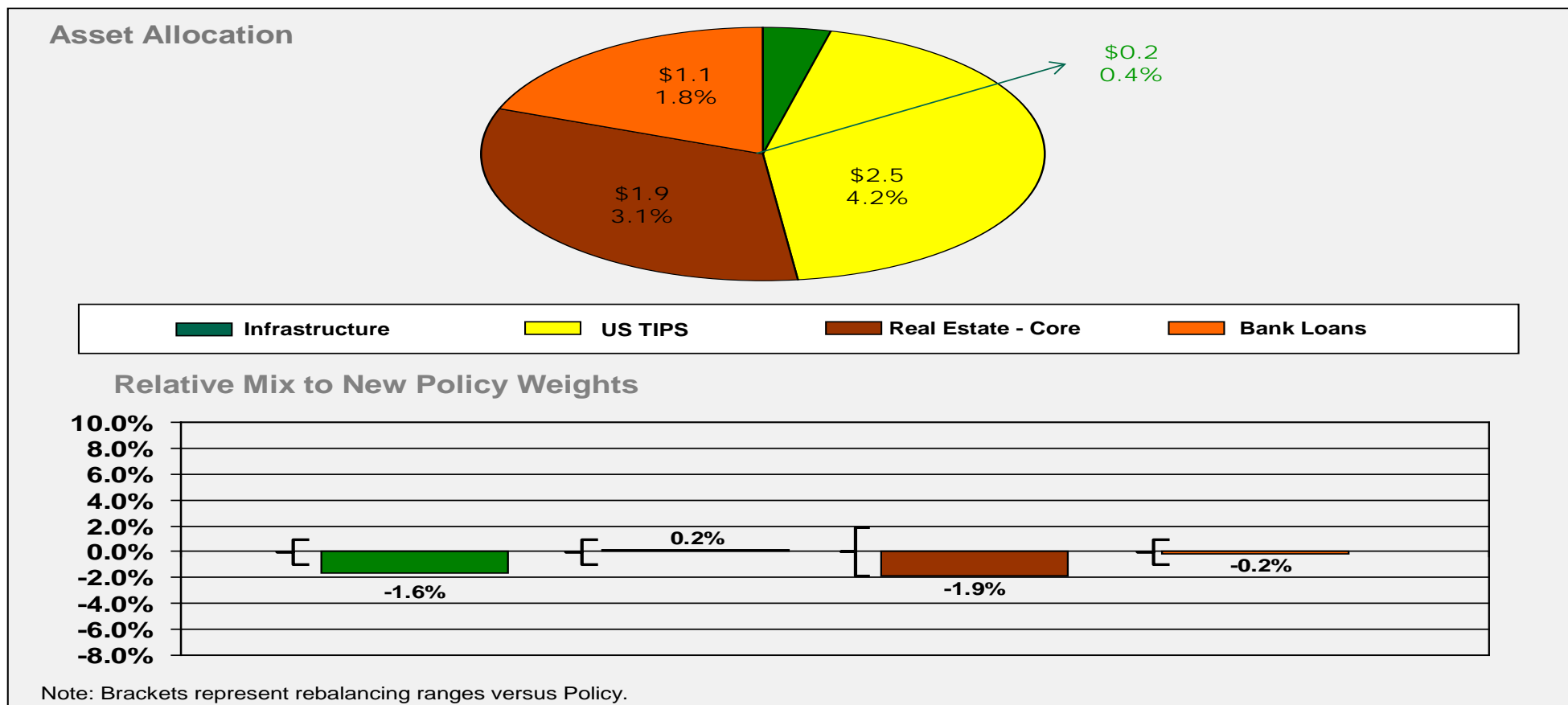


Portfolio Asset Allocation – Deflation Protection :

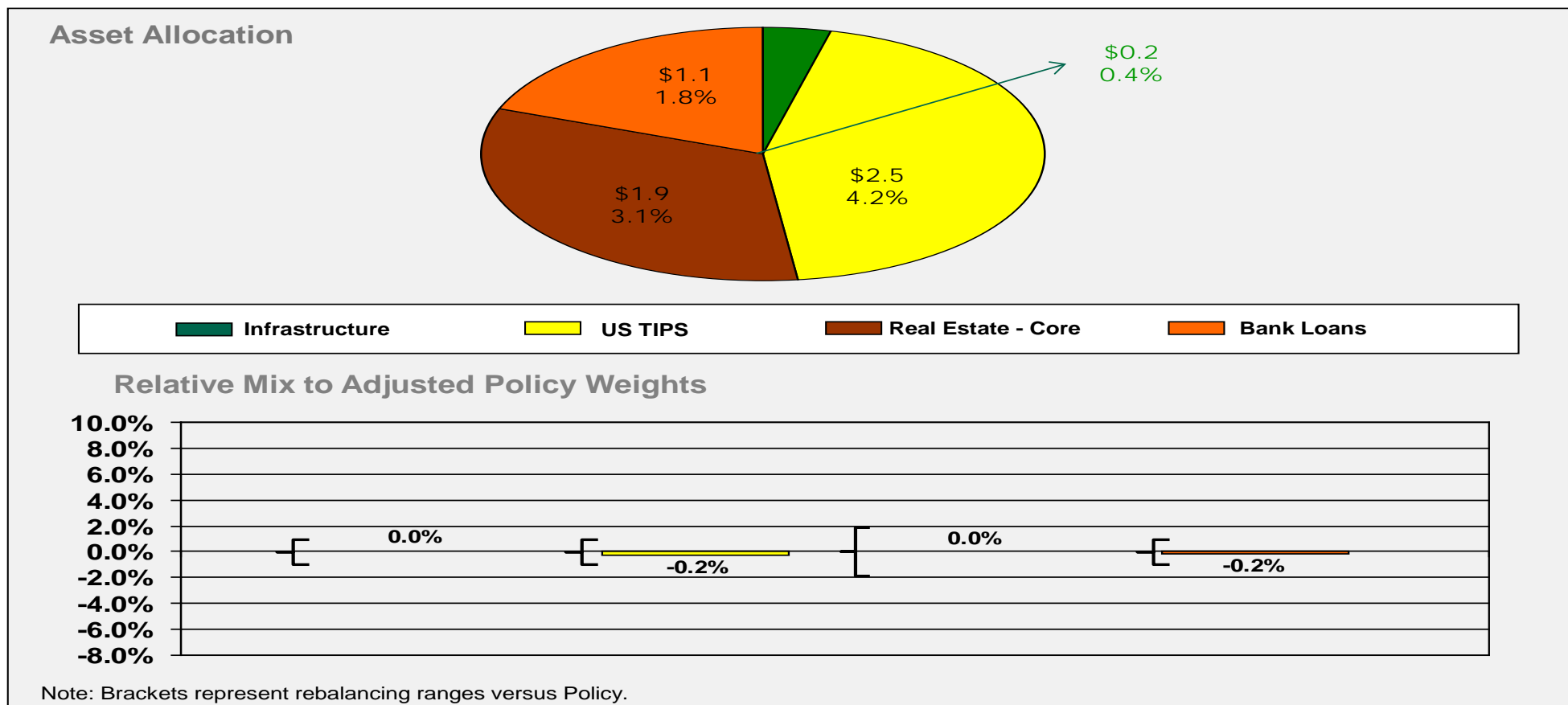


Note: On June 30, 2017 NYCERS' combined Fixed Income and Cash portfolios have a duration of 6.3 years. The duration of the Barclays US Aggregate Index was 6 years on that date.

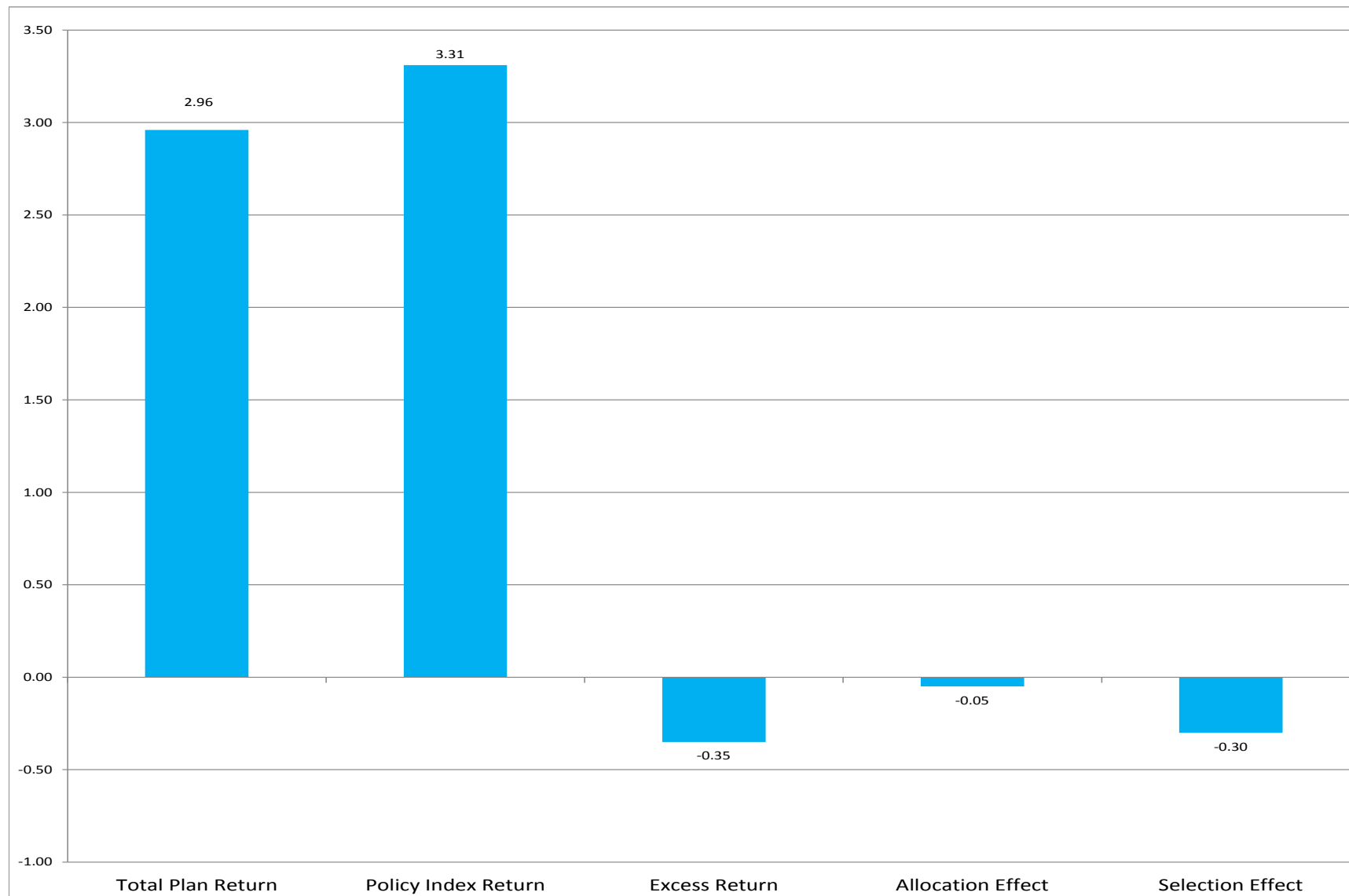
Portfolio Asset Allocation – Inflation Protection :

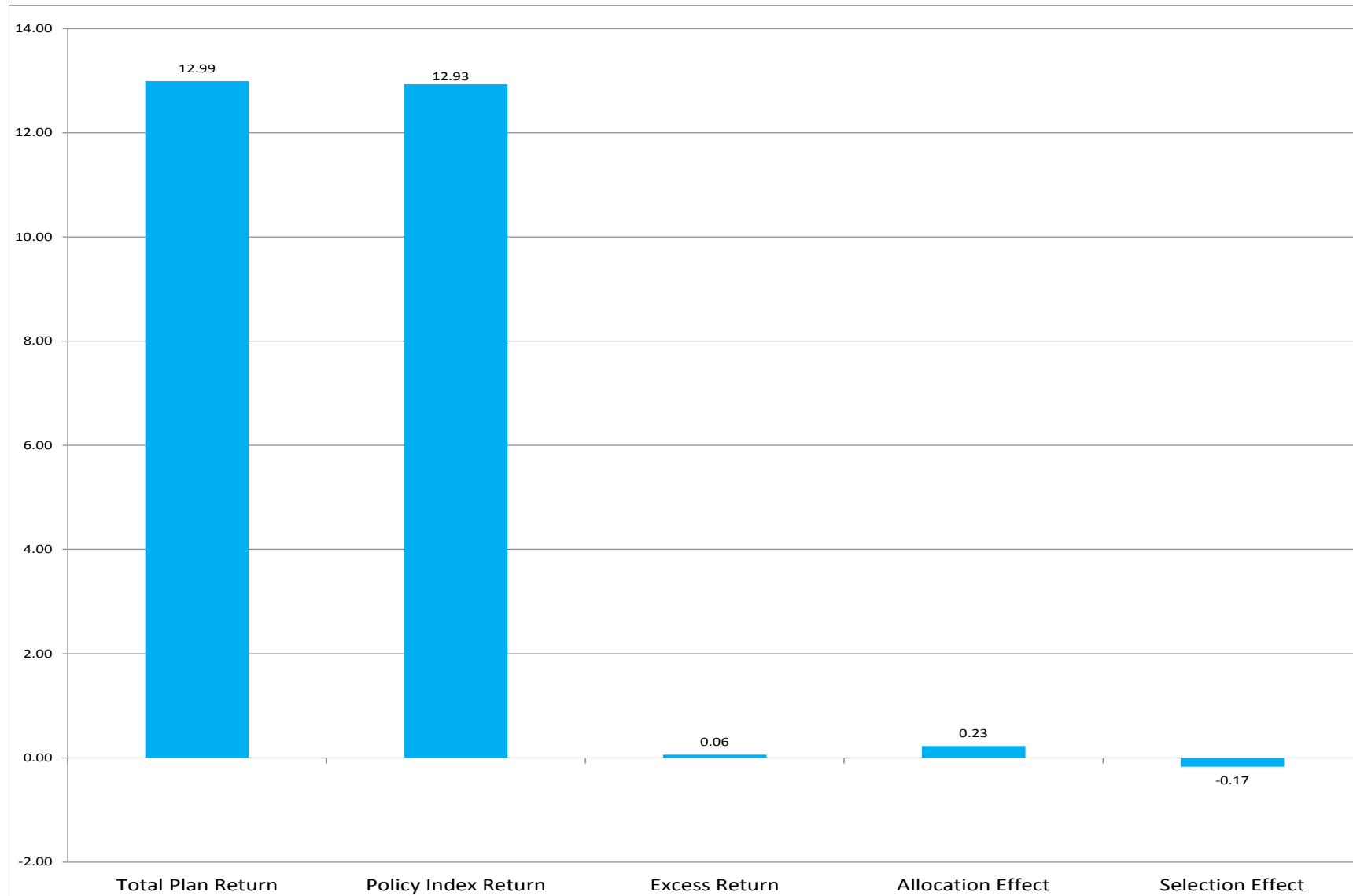


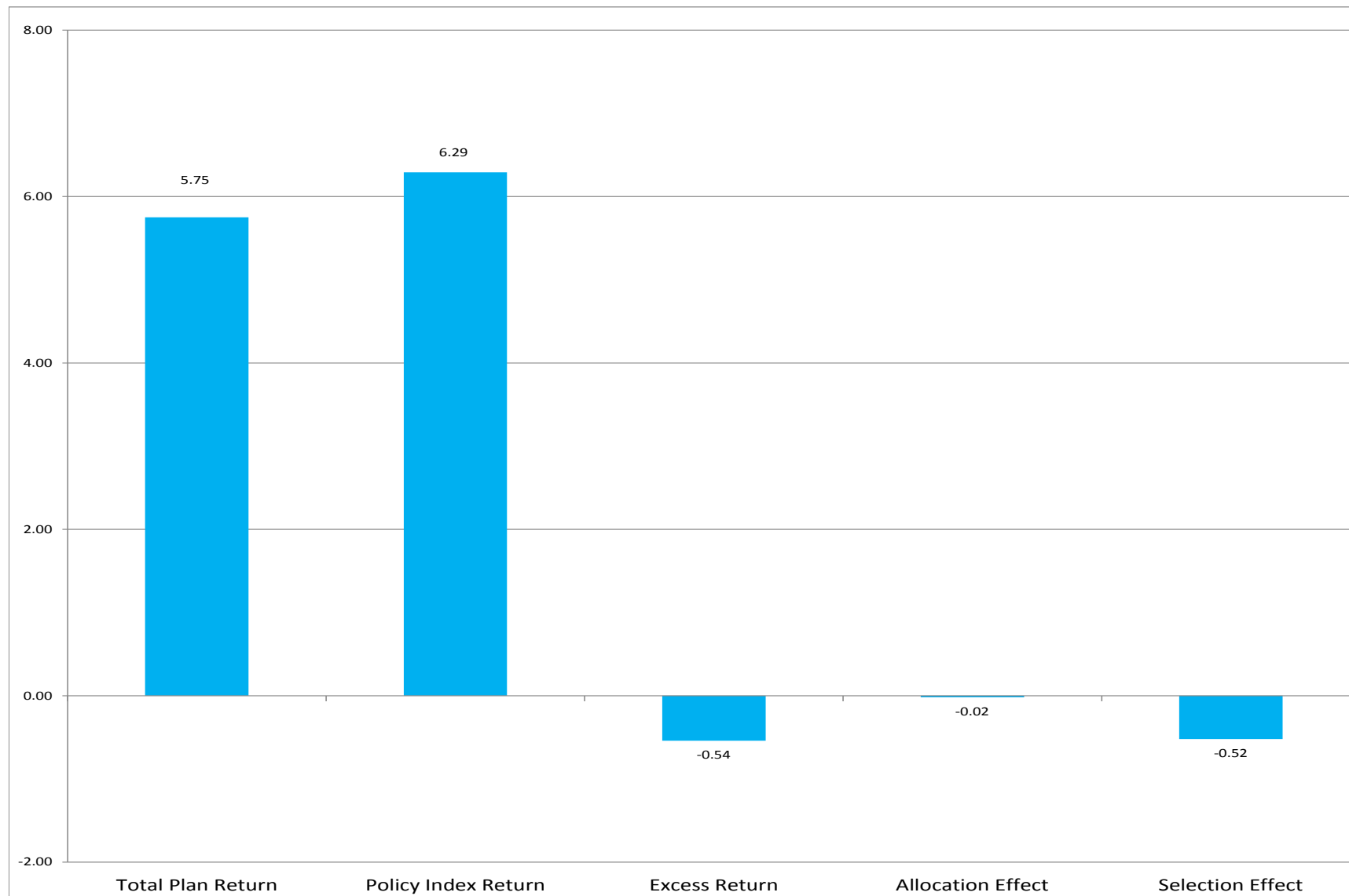
Portfolio Asset Allocation – Inflation Protection :



Note: On June 30, 2017 NYCERS' combined Fixed Income and Cash portfolios have a duration of 6.3 years. The duration of the Barclays US Aggregate Index was 6 years on that date.







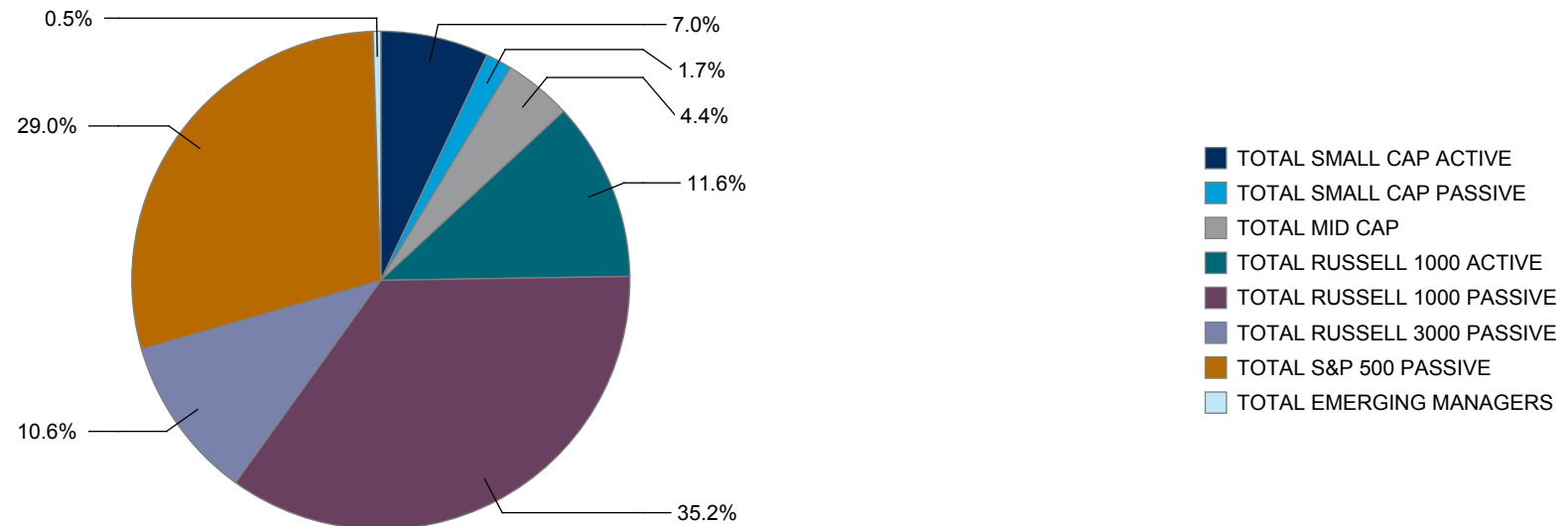
Allocation Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>FYTD</u>	<u>3 Years</u>	<u>Benchmark</u>
TOTAL EMPLOYEES'	-0.05	0.23	-0.02	Employees Policy Benchmark
TOTAL DOMESTIC EQUITY	0.00	0.01	-0.01	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.01	-0.10	-0.04	MSCI EAFE IMI Net
TOTAL EMERGING MARKETS	0.02	0.00	-0.03	FTSE Custom NYCERS Emerging Markets
TOTAL INTERNATIONAL FOF	0.00	0.00	0.00	NYC Blended Custom Benchmark for FoF
TOTAL HEDGE FUNDS	-0.01	-0.02	-0.01	HFRI Fund of Funds Composite Index plus 1%
TOTAL PRIVATE EQUITY	0.00	0.02	0.03	Russell 3K + 300bps
TOTAL PRIVATE REAL ESTATE - CORE	0.00	-0.01	0.00	NCREIF ODCE net
TOTAL PRIVATE REAL ESTATE - NON CORE	0.00	0.01	0.00	NCREIF ODCE net + 200bps
TOTAL INFRASTRUCTURE	0.00	0.00	0.00	CPI + 4%
TOTAL US TREASURY SHORT TERM	-0.09	-0.22	-0.07	Citigroup USBIG Treasury 1-3 Y Index
TOTAL US TREASURY INTERMEDIATE	-0.02	-0.03	-0.01	Citigroup USBIG Treasury/Agency 1-10 y
TOTAL US TREASURY INTERMEDIATE LONG	0.07	0.50	0.17	NYC - Treasury Agency Plus Five
TOTAL INVESTMENT GRADE CREDIT	-0.01	-0.10	-0.03	NYC - Investment Grade Credit
TOTAL MORTGAGES	0.02	0.05	0.02	CITIGROUP MORTGAGE INDEX
TOTAL ETI	0.00	0.00	0.00	ETI Custom Benchmark
TOTAL CORE FI- DEVELOPING MGRS	-0.01	-0.05	-0.02	BBG BARC Agg
TOTAL CORE FI- EMERGING MGRS	0.00	-0.01	0.00	BBG BARC Agg
TOTAL HIGH YIELD	0.02	0.08	0.02	CITIGROUP BB&B
TOTAL BANK LOANS	0.00	0.01	0.00	Credit Suisse Lev Loan Index
TOTAL TIPS MANAGERS	0.01	0.01	0.02	Lehman U.S. TIPS
TOTAL CONVERTIBLE BONDS	0.00	0.01	0.00	Merrill All US Converts
TOTAL OPPORTUNISTIC FIXED	0.00	0.00	0.00	OFI - JPMGHY / CSFB 50/50 Blend Plus 300
TOTAL CASH	-0.04	-0.22	-0.10	

Selection Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>FYTD</u>	<u>3 Years</u>	<u>Benchmark</u>
TOTAL EMPLOYEES'	-0.30	-0.17	-0.52	Employees Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.14	-0.11	-0.20	RUSSELL 3000
TOTAL DEVELOPED EQUITY	-0.03	0.12	0.15	MSCI EAFE IMI Net
TOTAL EMERGING MARKETS	0.00	0.07	-0.05	FTSE Custom NYCERS Emerging Markets
TOTAL INTERNATIONAL FOF	0.00	0.00	0.00	NYC Blended Custom Benchmark for FoF
TOTAL HEDGE FUNDS	0.00	-0.02	-0.09	HFRI Fund of Funds Composite Index plus 1%
TOTAL PRIVATE EQUITY	-0.16	-0.42	-0.19	Russell 3K + 300bps
TOTAL PRIVATE REAL ESTATE - CORE	0.01	-0.01	0.00	NCREIF ODCE net
TOTAL PRIVATE REAL ESTATE - NON CORE	0.03	-0.01	0.00	NCREIF ODCE net + 200bps
TOTAL INFRASTRUCTURE	0.02	0.02	0.01	CPI + 4%
TOTAL US TREASURY SHORT TERM	0.00	0.00	0.00	Citigroup USBIG Treasury 1-3 Y Index
TOTAL US TREASURY INTERMEDIATE	0.00	0.00	0.00	Citigroup USBIG Treasury/Agency 1-10 y
TOTAL US TREASURY INTERMEDIATE LONG	0.00	0.00	0.00	NYC - Treasury Agency Plus Five
TOTAL INVESTMENT GRADE CREDIT	0.01	0.02	0.01	NYC - Investment Grade Credit
TOTAL MORTGAGES	0.00	-0.01	0.00	CITIGROUP MORTGAGE INDEX
TOTAL ETI	0.02	0.00	0.00	ETI Custom Benchmark
TOTAL CORE FI- DEVELOPING MGRS	0.00	0.00	0.00	BBG BARC Agg
TOTAL CORE FI- EMERGING MGRS	0.00	0.00	0.00	BBG BARC Agg
TOTAL HIGH YIELD	0.00	0.01	-0.02	CITIGROUP BB&B
TOTAL BANK LOANS	0.00	-0.01	0.01	Credit Suisse Lev Loan Index
TOTAL TIPS MANAGERS	0.00	0.00	0.00	Lehman U.S. TIPS
TOTAL CONVERTIBLE BONDS	0.00	-0.08	-0.01	Merrill All US Converts
TOTAL OPPORTUNISTIC FIXED	-0.05	0.03	-0.16	OFI - JPMGHY / CSFB 50/50 Blend Plus 300
TOTAL CASH	0.00	0.00	0.01	

Total Domestic Equity Asset Allocations: Quarter Ending June 30, 2017



	Market Value (Billions)	% of Plan
TOTAL DOMESTIC EQUITY	\$18.9	31.2

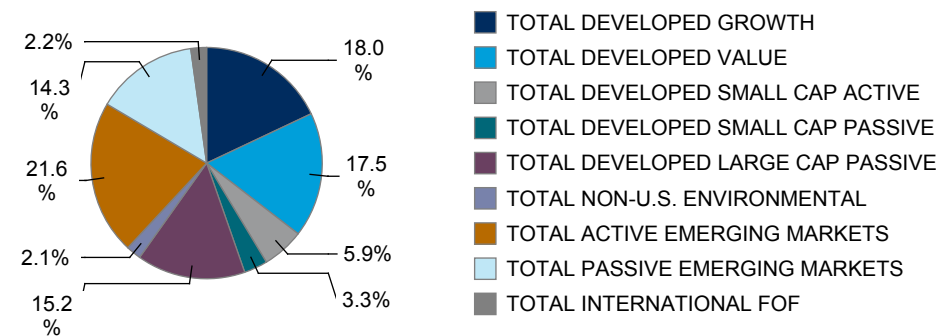
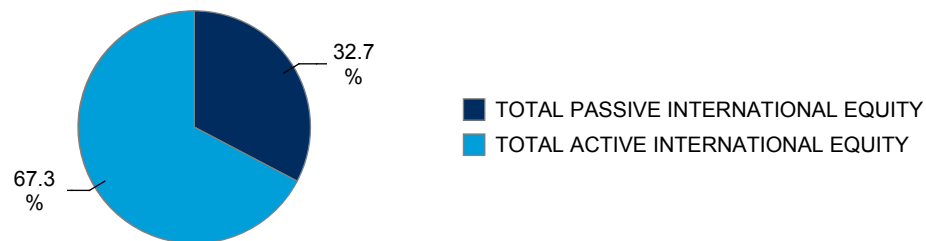


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL SMALL CAP ACTIVE	6.0	7.0	1.0	2.5	0.3	-2.1
TOTAL SMALL CAP PASSIVE	1.0	1.7	0.7	2.5	3.6	1.1
TOTAL MID CAP	4.0	4.4	0.4	2.0	2.1	0.1
TOTAL RUSSELL 1000 ACTIVE	13.0	11.6	-1.4	3.1	1.2	-1.9
TOTAL RUSSELL 1000 PASSIVE	42.4	35.2	-7.3	3.1	3.0	0.0
TOTAL RUSSELL 3000 PASSIVE	11.0	10.6	-0.4	3.0	3.0	0.0
TOTAL S&P 500 PASSIVE	22.0	29.0	7.0	3.1	3.1	0.0
TOTAL EMERGING MANAGERS	0.6	0.5	-0.1	2.5		-2.5

International Equity Asset Allocation: June 30, 2017



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL INTERNATIONAL EQUITY	\$13.4	22.0

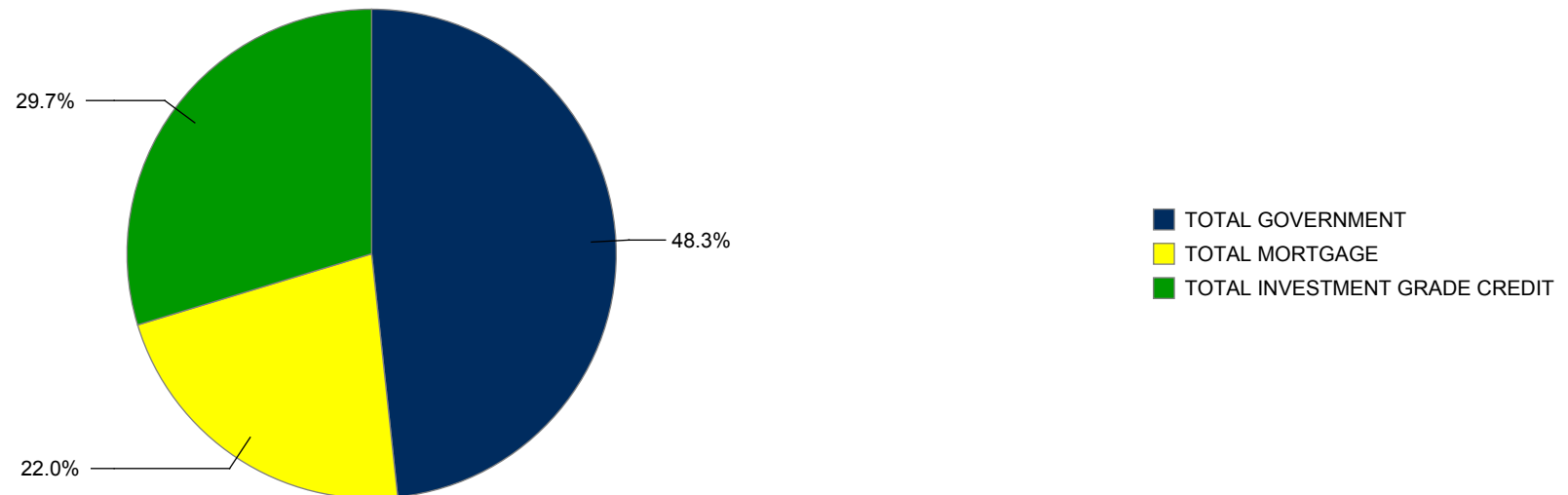


	<u>Asset Class Weight</u>	<u>Quarterly Returns - Fund and Benchmarks</u>		
		<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL DEVELOPED GROWTH	18.02	8.45	7.52	0.93
TOTAL DEVELOPED VALUE	17.48	4.04	4.78	(0.74)
TOTAL DEVELOPED SMALL CAP ACTIVE	5.90	8.47	8.65	(0.18)
TOTAL DEVELOPED SMALL CAP PASSIVE	3.26	8.22	8.10	0.12
TOTAL DEVELOPED LARGE CAP PASSIVE	15.21	5.82	5.63	0.19
TOTAL NON-U.S. ENVIRONMENTAL	2.12	10.77	4.03	6.74
TOTAL ACTIVE EMERGING MARKET	21.57	5.48	5.46	0.02
TOTAL PASSIVE EMERGING MARKETS	14.26	5.57	5.53	0.04
TOTAL INTERNATIONAL FOF	2.16			
TOTAL INTERNATIONAL EQUITY	100.00	6.13	5.78	0.35

Structured Fixed Income Asset Allocation: June 30, 2017



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL STRUCTURED + ETI	\$11.2	18.5



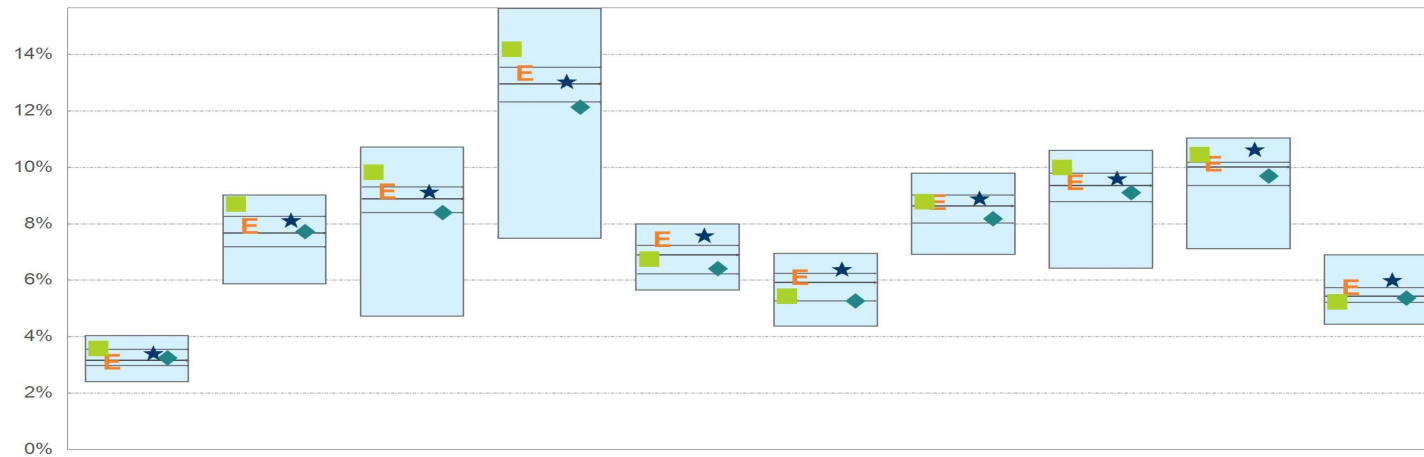
Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL TREASURY/AGENCY	58.82	48.30	-10.52	2.30	1.22	-1.08
TOTAL MORTGAGE	20.59	22.04	1.45	0.92	1.51	0.58
TOTAL INV GRADE CREDIT	20.59	29.66	9.07	2.28	2.42	0.14

Through June 30, 2017



City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion
Cumulative Periods Ending : June 30, 2017



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	4.04	9.02	10.71	15.63	8.00	6.95	9.79	10.60	11.03	6.89
25th	3.55	8.26	9.31	13.54	7.23	6.25	9.01	9.79	10.18	5.73
50th	3.16	7.67	8.89	12.96	6.89	5.92	8.63	9.36	10.01	5.44
75th	2.97	7.19	8.40	12.31	6.22	5.26	8.03	8.79	9.35	5.22
95th	2.41	5.87	4.73	7.49	5.65	4.37	6.92	6.42	7.12	4.45
No. Of Obs	48	48	48	48	47	47	47	47	45	43
E Total System - Employee	3.02 (66)	7.83 (45)	9.06 (41)	13.24 (37)	7.35 (19)	6.01 (39)	8.67 (41)	9.37 (47)	10.03 (43)	5.65 (34)
★ Employees Policy Bench	3.31 (33)	8.02 (31)	9.03 (43)	12.93 (50)	7.48 (11)	6.29 (21)	8.80 (35)	9.51 (39)	10.53 (17)	5.90 (16)
■ Public Mkt Equiv 25	3.49 (25)	8.59 (23)	9.73 (17)	14.09 (19)	6.65 (59)	5.33 (72)	8.68 (39)	9.89 (23)	10.35 (21)	5.13 (77)
◆ Public Mkt Equiv 35	3.14 (52)	7.62 (52)	8.29 (77)	12.03 (81)	6.31 (72)	5.17 (75)	8.08 (68)	9.00 (63)	9.59 (56)	5.27 (65)

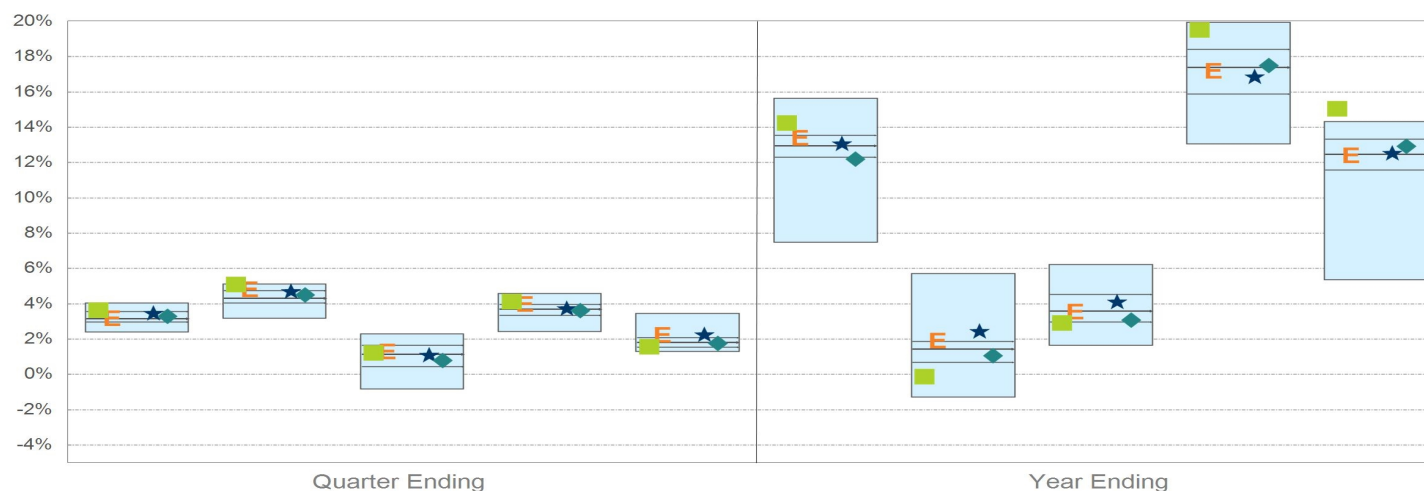
Wilshire Trust Universe Comparison Service® (TUCS®)

Through June 30, 2017



City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion
Consecutive Time Periods: June 30, 2017



Percentile Rankings	Jun 17	Mar 17	Dec 16	Sep 16	Jun 16	Jun 17	Jun 16	Jun 15	Jun 14	Jun 13
5th	4.04	5.13	2.29	4.59	3.44	15.63	5.71	6.23	19.94	14.32
25th	3.55	4.73	1.66	3.97	2.08	13.54	1.86	4.53	18.40	13.32
50th	3.16	4.31	1.14	3.68	1.81	12.96	1.44	3.58	17.40	12.46
75th	2.97	4.04	0.43	3.35	1.54	12.31	0.68	2.97	15.89	11.58
95th	2.41	3.17	-0.82	2.44	1.31	7.49	-1.28	1.66	13.06	5.35
No. Of Obs	48	48	48	48	48	48	47	47	47	47
E Total System - Employee	3.02 (66)	4.67 (29)	1.14 (50)	3.83 (41)	2.09 (23)	13.24 (37)	1.76 (29)	3.40 (56)	17.03 (56)	12.24 (56)
★ Employees Policy Bench	3.31 (33)	4.56 (37)	0.94 (62)	3.58 (52)	2.11 (21)	12.93 (50)	2.28 (15)	3.95 (41)	16.72 (68)	12.38 (52)
■ Public Mkt Equiv 25	3.49 (25)	4.92 (13)	1.05 (56)	3.98 (25)	1.40 (94)	14.09 (19)	-0.30 (85)	2.74 (79)	19.36 (5)	14.88 (1)
◆ Public Mkt Equiv 35	3.14 (52)	4.34 (47)	0.62 (70)	3.46 (66)	1.60 (72)	12.03 (81)	0.89 (63)	2.91 (75)	17.33 (50)	12.76 (35)

Wilshire Trust Universe Comparison Service® (TUCS®)

**NEW YORK CITY EMPLOYEE RETIREMENT SYSTEM
ACTUAL FEES FOR FISCAL YEAR ENDED JUNE 30, 2016 AND
ESTIMATED FEES FOR FY 2017 UPDATED THROUGH NOVEMBER 2016**

INVESTMENT STYLE (EQUITIES)	Actual 2016		Estimates 2017	
	Avg MV 16 (\$MM)	Mgmt Fees BPS	MV 11-30-16 (\$MM)	Mgmt Fees BPS
US Equities	17,885	7.55	19,036	8.14
Small Cap Active	1,373	32.02	1,521	32.40
Small Cap Growth	-	-	-	-
Small Cap Value	280	52.32	312	50.67
Small Cap core	152	75.42	179	72.80
Small Cap Fundamental Index	941	18.96	1,030	19.84
Small/Mid Cap Active	-	-	-	-
Small/Mid Cap Growth	-	-	-	-
Mid Cap Active	-	-	-	-
Mid Cap Growth	-	-	-	-
Mid Cap Value	-	-	-	-
Mid Cap core	-	-	-	-
Russell 1000 Active	1,834	12.36	2,058	11.93
Russell 1000 Fundamental Index	1,834	12.36	2,058	11.93
Active Emerging Managers (U.S. Equities)	1,152	41.51	999	58.07
Total US Active Equities	4,359	26.25	4,578	28.80
Total US Passive Equities	13,196	0.43	14,081	0.49
Environmental US E. Strategies	331	45.13	377	43.16
International Equities	8,734	28.96	9,969	27.36
Active EAFE Equities	4,220	31.89	4,327	32.46
Growth	1,806	27.90	1,854	29.42
Value	1,753	29.37	1,800	29.34
Small Cap	662	49.45	673	49.22
Non-US Environmental Strategies	207	55.70	229	54.83
Active Emerging Markets	2,078	46.50	2,244	48.49
Total Int'l Active Equities	6,506	37.32	6,800	38.51
Total Int'l Passive Equities	2,228	4.57	3,168	3.44
Total Passive Developed Markets	799	2.75	1,573	1.24
Total Passive Emerging Markets	1,430	5.58	1,595	5.62
REITS Passive Index	-	-	-	-

Information provided by the New York City Comptroller

**NEW YORK CITY EMPLOYEE RETIREMENT SYSTEM
ACTUAL FEES FOR FISCAL YEAR ENDED JUNE 30, 2016 AND
ESTIMATED FEES FOR FY 2017 UPDATED THROUGH NOVEMBER 2016**

INVESTMENT STYLE (FIXED INCOME)	Actual 2016		Estimates 2017	
	Avg MV 16 (\$MM)	Mgmt Fees BPS	MV 11-30-16 (\$MM)	Mgmt Fees BPS
Fixed Income	16,642	13.25	17,476	13.28
Structured Program	9,097	7.50	8,519	8.03
Government Sector	1,148	4.32	1,488	3.99
SSGA Long Duration Treasury	-	-	-	-
Mortgage Sector	3,403	6.19	2,440	7.33
Investment Grade Credit Sector	4,545	9.29	4,591	9.71
Global Fixed Income	384	18.25	390	17.81
Progress Fixed Emerging Managers	134	28.68	115	37.50
TIPS	1,922	1.81	2,414	1.80
Active TIPS	469	5.87	592	5.76
Passive TIPS	1,453	0.50	1,822	0.51
Enhanced Yield	1,997	33.96	2,231	33.86
Bank Loans	1,000	33.01	1,060	32.70
Convertible Bonds	521	43.15	552	42.05
ETI - Access - RBC	116	21.79	162	17.78
ETI - AFL-CIO HIT	284	42.50	300	39.53
Total Public Markets (Externally managed)	42,073	14.46	44,747	14.75
Other ETI Programs	322	-	336	-
In-House Short Term	866	0.00	1,398	0.00
Total Public Markets	43,261	14.06	46,480	14.20
INVESTMENT STYLE (PRIVATE)				
Hedge Funds	1,454	131.95	595	81.45
Private Equities	4,142	160.22	4,194	190.04 ¹
Private Real Estate	2,754	102.99	2,844	100.55
Infrastructure	142	63.01	211	104.78 ²
Opportunistic Fixed Income	1,389	88.38	1,534	88.68
Total Private Markets	9,881	130.70 ³	9,378	140.40
Total Overall	53,142	35.75	55,859	35.38

Footnotes

¹ - Private Equity estimates for FY 2017 are based on partnership terms. For funds in the investment period, management fees are based on the committed capital. For funds in the post-investment period, management fees are based on the Market Value as of 6/30/2016.

² - Infrastructure Fees are based on committed amounts for each investment which are higher than the market values.

³ - Private Markets Investments exclude GP CARRY & Incentive Fees.

⁴ - The Incentive Fees paid for the NYCERS Fund in 2016 are 11.07 BPS.

Securities Lending Income

Through June 30, 2017



NYC EMPLOYEES' RETIREMENT SYSTEM SECURITIES LENDING INCOME June 30, 2017

	U. S. FIXED INCOME	U. S. EQUITY	INTERNATIONAL EQUITY	TOTAL
1989	-	-	-	-
1990	256,000	-	-	256,000
1991	754,000	48,000	-	802,000
1992	1,467,000	654,000	367,000	2,488,000
1993	3,445,000	1,308,000	732,000	5,485,000
1994	4,261,000	2,744,000	1,082,000	8,087,000
1995	3,727,000	3,191,000	745,000	7,663,000
1996	3,608,000	3,592,000	1,258,000	8,458,000
1997	3,924,000	5,921,000	1,533,000	11,378,000
1998	6,374,000	7,337,000	1,952,000	15,663,000
1999	6,643,000	6,718,000	2,175,000	15,536,000
2000	6,552,000	7,669,000	3,049,000	17,270,000
2001	10,335,000	10,394,000	4,435,000	25,164,000
2002	5,906,000	7,780,000	3,510,000	17,196,000
2003	2,442,000	4,766,000	3,603,000	10,811,000
2004	3,502,000	5,844,000	3,825,000	13,171,000
2005	5,229,000	8,264,000	4,471,000	17,964,000
2006	4,626,000	10,012,000	4,163,000	18,801,000
2007	9,445,000	15,100,000	4,510,000	29,055,000
2008	25,936,000	26,696,000	6,878,000	59,510,000
2009	8,149,000	16,388,000	4,305,000	28,842,000
2010	3,714,000	10,256,000	3,125,000	17,095,000
2011	4,834,000	12,861,000	5,163,000	22,858,000
2012	6,691,000	16,287,000	4,116,000	27,094,000
2013	5,051,000	17,973,000	3,014,000	26,038,000
2014	5,194,000	14,847,000	5,272,000	25,313,000
2015	5,010,000	16,300,000	6,124,000	27,434,000
2016	6,545,000	19,856,000	5,097,000	31,498,000
2017 (6 months)	4,194,000	8,721,000	2,243,000	15,158,000
Since Inception	157,814,000	261,527,000	86,747,000	506,088,000

New York City
Employees' Retirement System

Appendix A

Consolidated Performance Report

Consolidated Performance Report

Through June 30, 2017



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
SYSTEM RETURN SUMMARY															
5 NYCERS-TOTAL PORTFOLIO - GROSS	60,682	100.00	3.02	13.24	7.83	9.57	(0.17)	7.34	15.73	13.41	6.01	9.37	5.65	8.76	07/01/1987
ESTIMATED INVESTMENT FEES			(0.06)	(0.25)	(0.12)	(0.24)	(0.27)	(0.27)			(0.26)				
EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL)			(0.03)	(0.11)	(0.06)	(0.12)	(0.12)	(0.13)			(0.12)				
EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH)			(0.03)	(0.14)	(0.06)	(0.12)	(0.15)	(0.14)			(0.14)				
EST INCENTIVE FEES															
EST OTHER FEES															
EST FEE OFFSETS															
NYCERS-TOTAL PORTFOLIO - NET MGR			2.96	12.99	7.71	9.33	(0.44)	7.07			5.75				
NYCERS POLICY BENCHMARK			3.31	12.93	8.02	9.43	0.17	8.15	15.33	13.39	6.29	9.51	5.90		
EXCESS RETURN			(0.35)	0.06	(0.31)	(0.09)	(0.62)	(1.09)	0.40	0.02	(0.54)	(0.14)	(0.26)		
EQUITY RETURN DETAIL															
18 NYCERS-TOTAL EQUITY (INCL PE & RA) - GROSS	39,988	65.90	3.94	18.62	10.40	11.39	(0.17)	7.85	22.95	16.08	7.47	12.00	5.47	7.65	04/01/2004
ESTIMATED INVESTMENT FEES			(0.07)	(0.32)	(0.15)	(0.29)	(0.35)	(0.33)			(0.32)				
EST MANAGEMENT FEES			(0.07)	(0.32)	(0.15)	(0.29)	(0.35)	(0.33)							
EST INCENTIVE FEES															
EST OTHER FEES															
EST FEE OFFSETS															
NYCERS-TOTAL EQUITY (INCL PE & RA) - NET MGR			3.87	18.29	10.25	11.10	(0.52)	7.52			7.15				
26 NYCERS-TOTAL DOMESTIC EQUITY - GROSS	18,927	31.19	2.57	18.17	7.83	14.34	(0.67)	11.35	34.39	16.62	8.58	14.45	7.14	11.26	08/01/1979
ESTIMATED INVESTMENT FEES			(0.01)	(0.08)	(0.03)	(0.10)	(0.09)	(0.11)			(0.09)				
NYCERS-TOTAL DOMESTIC EQUITY - NET MGR			2.56	18.09	7.80	14.24	(0.76)	11.24			8.49				
RUSSELL 3000 (DAILY)			3.02	18.51	8.93	12.74	0.48	12.56	33.55	16.42	9.10	14.58	7.26	11.61	
EXCESS RETURN			(0.45)	(0.42)	(1.13)	1.51	(1.24)	(1.31)	0.84	0.21	(0.61)	(0.13)	(0.11)	(0.34)	
36 NYCERS-TOTAL SMALL CAP - GROSS	1,654	2.73	0.93	21.20	2.36	25.30	(5.96)	4.40	41.99	17.81	7.07	14.27	7.08	8.58	04/01/2004
ESTIMATED INVESTMENT FEES			(0.09)	(0.33)	(0.16)	(0.32)	(0.27)	(0.31)			(0.30)				
NYCERS-TOTAL SMALL CAP - NET MGR			0.84	20.87	2.20	24.97	(6.24)	4.09			6.76				
RUSSELL 2000 (DAILY)			2.46	24.60	4.99	21.31	(4.41)	4.89	38.82	16.35	7.36	13.70	6.92	8.27	
EXCESS RETURN			(1.62)	(3.73)	(2.79)	3.67	(1.82)	(0.80)	3.17	1.46	(0.60)	0.57	0.16	0.31	
46 NYCERS-TOTAL MID CAP - GROSS	835	1.38	2.08	19.85	6.21	21.41	(2.19)	9.98	33.13	17.81	8.90	15.05		12.25	02/01/2011
ESTIMATED INVESTMENT FEES			0.08	0.01	0.06	(0.06)	(0.01)	(0.01)			(0.00)				
NYCERS-TOTAL MID CAP - NET MGR			2.17	19.86	6.27	21.35	(2.20)	9.97			8.89				
S&P 400 MIDCAP INDEX (DAILY)			1.97	18.57	5.99	20.74	(2.18)	9.77	33.50	17.88	8.53	14.92		12.13	
EXCESS RETURN			0.20	1.29	0.28	0.61	(0.02)	0.20	(0.37)	(0.07)	0.36	0.14		0.12	
56 NYCERS-TOTAL RUSSELL 1000 - GROSS	8,846	14.58	2.55	17.05	8.12	12.77	(0.27)	13.02	35.73	16.76	8.61	14.97		10.42	07/01/2008
ESTIMATED INVESTMENT FEES			(0.01)	(0.04)	(0.02)	(0.04)	(0.04)	(0.07)			(0.05)				
NYCERS-TOTAL RUSSELL 1000 - NET MGR			2.54	17.01	8.11	12.73	(0.31)	12.95			8.56				
RUSSELL 1000 (DAILY)			3.06	18.03	9.27	12.05	0.92	13.24	33.11	16.42	9.26	14.67		9.73	
EXCESS RETURN			(0.52)	(1.02)	(1.17)	0.68	(1.23)	(0.29)	2.62	0.33	(0.71)	0.30		0.69	

Consolidated Performance Report

Through June 30, 2017



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL																
68	NYCERS-TOTAL RUSSELL 3000 PASSIVE - GROSS ESTIMATED INVESTMENT FEES	2,016	3.32	3.01 (0.00)	18.51 (0.01)	8.90 (0.00)	12.73 (0.01)	0.49 (0.01)	12.89 (0.01)	33.63	16.34	9.20 (0.01)	14.65	7.32	10.07	02/01/1990
	NYCERS-TOTAL RUSSELL 3000 PASSIVE - NET MGR RUSSELL 3000 (DAILY)			3.01 3.02	18.50 18.51	8.89 8.93	12.72 12.74	0.48 0.48	12.88 12.56			9.19 9.10				
	EXCESS RETURN			(0.00)	(0.01)	(0.04)	(0.01)	(0.00)	0.32	0.08	(0.08)	0.09	0.06	0.07	0.04	
78	NYCERS-TOTAL S&P 500 PASSIVE - GROSS ESTIMATED INVESTMENT FEES	5,474	9.02	3.07 (0.00)	17.87 (0.00)	9.22 (0.00)	11.95 (0.00)	1.11 (0.00)	13.62 (0.00)	32.49	15.99	9.48 (0.00)	14.57	7.06	4.97	07/01/2000
	NYCERS-TOTAL S&P 500 PASSIVE - NET MGR S&P 500 INDEX (DAILY)			3.07 3.09	17.86 17.90	9.22 9.34	11.94 11.96	1.11 1.38	13.62 13.69			9.47 9.61				
	EXCESS RETURN			(0.02)	(0.03)	(0.13)	(0.02)	(0.27)	(0.07)	0.10	(0.02)	(0.14)	(0.06)	(0.12)	(0.12)	
88	NYCERS-TOTAL FUND OF FUNDS - GROSS ESTIMATED INVESTMENT FEES	103	0.17												0.70 (0.02)	05/01/2017
	NYCERS-TOTAL FUND OF FUNDS - NET MGR RUSSELL 2000 (DAILY)														0.68 1.35	
	EXCESS RETURN														(0.67)	

Consolidated Performance Report

Through June 30, 2017



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL																
100	NYCERS-TOTAL INTERNATIONAL EQUITY - GROSS	13,361	22.02	6.13	23.02	16.95	7.85	(7.90)	(2.50)	12.45	18.06	2.18	7.62	1.51	6.46	09/01/1990
	ESTIMATED INVESTMENT FEES			(0.08)	(0.33)	(0.16)	(0.30)	(0.28)	(0.30)			(0.30)				
	NYCERS-TOTAL INTERNATIONAL EQUITY - NET MGR			6.05	22.69	16.79	7.55	(8.17)	(2.80)			1.88				
	MSCI AC WORLD EX US (NET)			5.78	20.45	14.10	4.50	(5.66)	(3.87)	15.29	16.83	0.80	7.22	1.13		
	EXCESS RETURN			0.27	2.24	2.69	3.05	(2.51)	1.06	(2.84)	1.23	1.08	0.40	0.38		
110	NYCERS-TOTAL DEVELOPED GROWTH ACTIVE - GROSS	2,407	3.97	8.45	23.10	19.15	4.08	(1.94)	(5.15)	20.21	20.02	4.27	9.77	2.75	7.44	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.07)	(0.34)	(0.16)	(0.29)	(0.28)	(0.27)			(0.29)				
	NYCERS-TOTAL DEVELOPED GROWTH ACTIVE - NET MGR			8.37	22.76	18.99	3.79	(2.22)	(5.42)			3.98				
	MSCI EAFE GROWTH			7.52	15.70	16.68	(3.04)	4.09	(4.43)	22.55	16.86	2.81	9.19	2.06	5.85	
	EXCESS RETURN			0.85	7.07	2.30	6.83	(6.31)	(0.99)	(2.34)	3.16	1.17	0.58	0.69	1.59	
120	NYCERS-TOTAL DEVELOPED VALUE ACTIVE - GROSS	2,336	3.85	4.04	23.80	12.60	6.30	(6.04)	(3.85)	22.15	14.03	0.93	8.04	0.64	5.82	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.07)	(0.35)	(0.16)	(0.30)	(0.27)	(0.26)			(0.28)				
	NYCERS-TOTAL DEVELOPED VALUE ACTIVE - NET MGR			3.97	23.46	12.45	6.00	(6.30)	(4.11)			0.65				
	MSCI EAFE VALUE NET (DAILY)			4.78	25.01	11.12	5.02	(5.68)	(5.39)	22.95	17.69	(0.59)	8.12	(0.08)	5.02	
	EXCESS RETURN			(0.81)	(1.55)	1.33	0.98	(0.62)	1.28	(0.80)	(3.66)	1.24	(0.07)	0.73	0.80	
130	NYCERS-TOTAL DEVELOPED SMALL CAP ACTIVE- GROSS	789	1.30	8.47	24.24	18.27	2.67	10.72	(3.78)			6.58			10.17	05/01/2013
	ESTIMATED INVESTMENT FEES			(0.12)	(0.58)	(0.26)	(0.50)	(0.55)	(0.48)			(0.52)				
	NYCERS-TOTAL DEVELOPED SMALL CAP ACTIVE - NET MGR			8.35	23.66	18.01	2.17	10.18	(4.26)			6.06				
	S&P EPAC SMALL CAP USD NET			8.65	22.97	17.38	1.34	8.58	(3.43)			5.52			9.01	
	EXCESS RETURN			(0.30)	0.69	0.63	0.83	1.59	(0.83)			0.54			1.16	
150	NYCERS-TOTAL DEVELOPED SMALL CAP PASSIVE - GROSS	436	0.72	8.22	23.48	17.01	2.53	9.99				6.08			7.55	02/01/2014
	ESTIMATED INVESTMENT FEES			(0.03)	(0.05)	(0.04)	(0.02)	(0.02)				(0.03)			(0.03)	
	NYCERS-TOTAL DEVELOPED SMALLCAP PASSIVE - NET MGR			8.20	23.43	16.97	2.52	9.97				6.05			7.52	
	MSCI EAFE SMALL CAP NET (DAILY)			8.10	23.18	16.72	2.18	9.59				5.60			7.05	
	EXCESS RETURN			0.09	0.25	0.25	0.33	0.39				0.46			0.47	
160	NYCERS-TOTAL DEVELOPED LARGE CAP PASSIVE - GROSS	2,032	3.35	5.82	19.44	13.05	1.30	(0.41)	(4.98)	23.02	17.60	1.04	8.69		4.81	02/01/2011
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)			(0.02)				
	NYCERS-TOTAL DEVELOPED LARGE CAP PASSIVE - NET MGR			5.82	19.42	13.05	1.28	(0.42)	(5.00)			1.02				
	NYC CUSTOM WORLD EX US INDEX			5.63	19.14	12.74	1.00	(0.81)	(4.90)	22.78	17.32	0.83	8.48		4.52	
	EXCESS RETURN			0.19	0.28	0.31	0.28	0.39	(0.10)	0.24	0.28	0.20	0.21		0.29	

Consolidated Performance Report

Through June 30, 2017



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL																
172	NYCERS-TOTAL ACTIVE EMERGING MARKETS - GROSS	2,882	4.75	5.48	25.37	20.20	12.59	(17.85)	1.02	(0.20)	20.86	0.66	4.91	3.26	8.22	11/01/2005
	ESTIMATED INVESTMENT FEES			(0.11)	(0.56)	(0.26)	(0.52)	(0.41)	(0.50)			(0.48)				
	NYCERS-TOTAL ACTIVE EMERGING MARKETS - NET MGR			5.37	24.81	19.94	12.07	(18.25)	0.52			0.18				
	FTSE CUSTOM NYCERS ALL EMERGING INDEX			5.46	22.20	18.41	13.66	(16.80)	(0.07)	(4.22)	17.84	0.67	3.98	2.53	7.43	
	EXCESS RETURN			(0.09)	2.60	1.52	(1.59)	(1.45)	0.60	4.03	3.02	(0.49)	0.93	0.72	0.79	
182	NYCERS-TOTAL PASSIVE EMERGING MARKETS - GROSS	1,906	3.14	5.57	21.26	18.40	12.55	(17.87)	(1.29)	(4.24)	16.11	(0.45)	3.04		(0.47)	04/01/2011
	ESTIMATED INVESTMENT FEES			(0.01)	(0.06)	(0.03)	(0.06)	(0.05)	(0.06)			(0.06)				
	NYCERS-TOTAL PASSIVE EMERGING MARKETS - NET MGR			5.55	21.20	18.37	12.49	(17.92)	(1.35)			(0.51)				
	MSCI CUSTOM NYCERS EMERGING MARKETS (NET)			5.53	21.22	18.08	12.68	(17.71)								
	EXCESS RETURN			0.03	(0.02)	0.29	(0.19)	(0.21)								
192	NYCERS-TOTAL INTERNATIONAL FUND OF FUNDS - GROSS	289	0.48												3.24	05/01/2017
	ESTIMATED INVESTMENT FEES														(0.09)	
	NYCERS-TOTAL INTERNATIONAL FUND OF FUNDS - NET MGR														3.15	
	NYC BLENDED CUSTOM BENCHMARK FOR FOF (ERS)														3.44	
	EXCESS RETURN														(0.28)	

Consolidated Performance Report

Through June 30, 2017



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL															
207 *NYCERS-TOTAL HEDGE FUND - NET MGR	96	0.16	(0.37)	2.49	0.28	2.24	(1.88)	5.56	4.96	8.16	0.88	3.54		2.57	07/01/2011
HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			1.05	7.54	3.71	1.52	0.73	4.40	10.04	5.82	2.57	4.90		3.45	
EXCESS RETURN			(1.42)	(5.04)	(3.44)	0.72	(2.61)	1.16	(5.08)	2.34	(1.68)	(1.37)		(0.87)	
217 *NYCERS-TOTAL DIRECT HEDGE FUNDS - NET MGR	74	0.12	(0.51)	2.70	(0.15)	2.79	(1.56)	6.02	4.24	9.44	1.12	3.67		3.71	01/01/2012
HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			1.05	7.54	3.71	1.52	0.73	4.40	10.04	5.82	2.57	4.90		4.73	
EXCESS RETURN			(1.56)	(4.84)	(3.86)	1.27	(2.29)	1.62	(5.80)	3.62	(1.45)	(1.24)		(1.02)	
227 *NYCERS-TOTAL PERMAL HEDGE FUNDS - NET MGR	22	0.04	(0.16)	1.59	0.58	1.55	(3.52)	3.12	7.74	5.10	(0.32)	2.89		1.78	07/01/2011
HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			1.05	7.54	3.71	1.52	0.73	4.40	10.04	5.82	2.57	4.90		3.45	
EXCESS RETURN			(1.21)	(5.95)	(3.13)	0.03	(4.25)	(1.27)	(2.30)	(0.73)	(2.89)	(2.01)		(1.67)	

* Information provided by Alpha Frontier

Consolidated Performance Report

Through June 30, 2017



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL															
233 NYCERS-TOTAL PRIVATE EQUITY (TIME WEIGHTED)	4,240	6.99	4.26	16.45	8.46	10.84	10.61	13.99	8.08	12.74	11.61	11.66	8.92	11.98	04/01/2004
NYC R3000 +3% LAGGED			6.51	21.56	11.81	18.37	2.49	21.24	24.53	35.20	13.02	16.43	11.82	12.80	
EXCESS RETURN			(2.26)	(5.11)	(3.35)	(7.53)	8.11	(7.26)	(16.45)	(22.47)	(1.42)	(4.77)	(2.91)	(0.82)	
243 NYCERS-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED)	3,139	5.17	2.66	10.24	5.18	10.84	16.06	15.44	12.61	14.43	13.06	13.05	5.34	9.30	04/01/2004
NCREIF NFI-ODCE NET + 100 BP			1.72	7.96	3.55	8.86	15.08	12.56	14.02	10.88	11.42	11.86			
EXCESS RETURN			0.93	2.27	1.63	1.98	0.98	2.88	(1.41)	3.55	1.63	1.19			
253 NYCERS-TOTAL INFRASTRUCTURE (TIME WEIGHTED)	225	0.37	6.62	13.98	8.42	9.87	15.14	20.16			13.19			14.97	12/01/2013
CPI + 4%			1.00	5.71	2.39	6.18	4.68	4.69			4.98			5.19	
EXCESS RETURN			5.62	8.26	6.03	3.69	10.45	15.46			8.21			9.79	

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	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
FIXED INCOME RETURN DETAIL															
265 NYCERS-TOTAL FIXED INCOME (DOM & GLOBAL) - GROSS	20,656	34.04	1.27	3.27	2.84	6.00	(0.37)	6.18	1.19	8.31	3.04	3.94	5.86	8.38	02/01/1980
ESTIMATED INVESTMENT FEES			(0.03)	(0.13)	(0.06)	(0.14)	(0.13)	(0.15)			(0.14)				
EST MANAGEMENT FEES			(0.03)	(0.13)	(0.06)	(0.14)	(0.13)	(0.15)							
EST INCENTIVE FEES															
EST OTHER FEES															
EST FEE OFFSETS															
NYCERS-TOTAL FIXED INCOME (DOM & GLOBAL) - NET MGR			1.25	3.14	2.78	5.86	(0.50)	6.03			2.91				
273 NYCERS-TOTAL STRUCTURED FIXED INCOME - GROSS	10,475	17.26	1.60	0.40	2.66	3.87	0.28	7.69	(1.73)	6.92	2.96	3.15	5.61	7.85	01/01/1985
ESTIMATED INVESTMENT FEES			(0.01)	(0.06)	(0.03)	(0.07)	(0.07)	(0.09)			(0.07)				
NYCERS-TOTAL STRUCTURED FIXED INCOME - NET MGR			1.59	0.34	2.63	3.79	0.21	7.60			2.89				
NYC - CORE PLUS FIVE			1.82	(0.21)	2.82	3.20	0.41	7.66	(2.79)	5.41	2.97	2.68	5.20		
EXCESS RETURN			(0.23)	0.54	(0.20)	0.60	(0.20)	(0.06)	1.06	1.51	(0.07)	0.47	0.41		
283 NYCERS-TOTAL CORE FI- DEVELOPING MGRS - GROSS	401	0.66	1.57	1.20	2.74	3.80	1.04	5.84	(1.54)	6.23	3.04	2.95		5.13	05/01/2009
ESTIMATED INVESTMENT FEES			(0.04)	(0.18)	(0.09)	(0.19)	(0.18)	(0.17)			(0.18)				
NYCERS-TOTAL CORE FI- DEVELOPING MGRS - NET MGR			1.52	1.03	2.65	3.61	0.86	5.67			2.87				
BBG BARC AGG (DLY)			1.45	(0.31)	2.27	2.65	0.55	5.97	(2.02)	4.21	2.48	2.21		4.04	
EXCESS RETURN			0.08	1.34	0.38	0.96	0.31	(0.30)	0.49	2.02	0.38	0.74		1.09	
293 NYCERS-TOTAL CORE FI- EMERGING MGRS - GROSS	118	0.19	1.72	0.90	2.78	2.87	0.90	6.18	(1.76)	5.51	2.74	2.63	4.85	5.93	01/01/1992
ESTIMATED INVESTMENT FEES			(0.10)	(0.34)	(0.22)	(0.30)	(0.35)	(0.36)			(0.35)				
NYCERS-TOTAL CORE FI- EMERGING MGRS - NET MGR			1.62	0.56	2.55	2.58	0.56	5.82			2.40				
BBG BARC AGG (DLY)			1.45	(0.31)	2.27	2.65	0.55	5.97	(2.02)	4.21	2.48	2.21	4.48	5.61	
EXCESS RETURN			0.17	0.87	0.28	(0.07)	0.01	(0.15)	0.26	1.29	(0.09)	0.42	0.37	0.31	
303 NYCERS-TOTAL TIPS - GROSS	2,531	4.17	(0.39)	(0.64)	0.87	4.74	(1.18)	3.50	(8.42)	7.25	0.70	0.39	4.42	3.91	06/01/2005
ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.03)	(0.07)			(0.03)				
NYCERS-TOTAL TIPS - NET MGR			(0.40)	(0.66)	0.86	4.72	(1.21)	3.42			0.67				
BBG BARC GBL INF-LK: US TIPS (DLY)			(0.40)	(0.63)	0.85	4.68	(1.44)	3.64	(8.61)	6.98	0.63	0.27	4.27	3.75	
EXCESS RETURN			0.01	(0.03)	0.01	0.04	0.23	(0.21)	0.19	0.27	0.04	0.12	0.14	0.16	
313 NYCERS-TOTAL HIGH YIELD - GROSS	2,560	4.22	2.16	11.99	4.68	15.32	(3.82)	2.94	8.31	14.56	4.02	6.87	7.50	7.96	10/01/1994
ESTIMATED INVESTMENT FEES			(0.08)	(0.37)	(0.17)	(0.39)	(0.33)	(0.36)			(0.35)				
NYCERS-TOTAL HIGH YIELD - NET MGR			2.08	11.62	4.51	14.93	(4.15)	2.58			3.67				
CITIGROUP BB & B			2.07	11.47	4.40	15.48	(4.21)	2.78	6.17	14.45	4.07	6.21	6.25	7.08	
EXCESS RETURN			0.01	0.16	0.11	(0.55)	0.06	(0.20)	2.14	0.11	(0.40)	0.66	1.25	0.87	
323 NYCERS- TOTAL BANK LOANS - GROSS	1,091	1.80	0.80	7.11	1.99	9.17	1.18	2.58	6.41		4.09			4.71	12/01/2012
ESTIMATED INVESTMENT FEES			(0.08)	(0.35)	(0.16)	(0.36)	(0.33)	(0.34)			(0.34)				
NYCERS-TOTAL BANK LOANS - NET MGR			0.72	6.77	1.83	8.81	0.85	2.24			3.75				
CSFB LEVERAGED LOAN INDEX			0.75	7.49	1.96	9.88	(0.38)	2.06	6.15		3.49			4.40	
EXCESS RETURN			(0.03)	(0.73)	(0.14)	(1.06)	1.23	0.18	0.26		0.26			0.31	

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Through June 30, 2017



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
FIXED INCOME RETURN DETAIL															
335	NYCERS- TOTAL CONVERTIBLE BONDS - GROSS	594	0.98	2.72	11.95	7.05	7.47	(0.85)	8.42	16.33	11.66	4.83	8.79	6.45	06/01/2008
	ESTIMATED INVESTMENT FEES			(0.10)	(0.46)	(0.21)	(0.46)	(0.43)	(0.47)			(0.45)			
	NYCERS-TOTAL CONVERTIBLE BONDS - NET MGR			2.61	11.48	6.83	7.01	(1.28)	7.95			4.39			
	BOFAML ALL CONVERTIBLE EX M AI (DAILY)			2.98	19.86	8.76	11.71	(2.75)	9.33	25.00	14.41	5.60	11.56	8.11	
	EXCESS RETURN			(0.36)	(8.38)	(1.93)	(4.70)	1.47	(1.38)	(8.68)	(2.76)	(1.21)	(2.77)	(1.66)	
345	NYCERS-TOTAL OPPORTUNISTIC FIXED INCOME	1,640	2.70	0.21	12.37	4.68	8.75	(2.18)	8.15	17.55	20.49	3.96	8.42	7.86	10/01/2007
	OPPORTUNISTIC FIXED INCOME JPMGHY / CSFB 50/50 BLEND PLUS 300			2.16	13.71	5.00	17.40	0.63	4.93	9.99	16.13	7.15	9.11	9.41	
	EXCESS RETURN			(1.95)	(1.35)	(0.33)	(8.66)	(2.81)	3.22	7.56	4.36	(3.18)	(0.69)	(1.55)	
355	NYCERS-TOTAL TARGETED INVESTMENTS (NO CASH)	773	1.27	2.56	(0.43)	3.03	2.97	4.33	8.26	2.35	6.18	4.14	4.76	6.07	12/01/1984
	ERS CUSTOM BENCHMARK (NO CASH)			1.16	0.16	1.83	2.38	1.42	6.03	(1.64)	3.41	2.55	2.24	4.55	
	EXCESS RETURN			1.40	(0.59)	1.20	0.59	2.91	2.22	3.98	2.77	1.59	2.51	1.52	
CASH SUMMARY															
367	EMPLOYEES' SHORT TERM - GROSS	473	0.78	0.27	0.72	0.46	0.76	0.31	0.36	0.19	0.56	0.58	0.46	1.14	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	0.00	
	EMPLOYEES' SHORT TERM - NET MGR			0.27	0.72	0.46	0.76	0.31	0.36	0.19	0.56	0.58	0.46	1.14	
371	C/D - FAIL FLOAT EARNINGS	-	-												
373	SECURITY LENDING	38	0.06												

New York City
Employees' Retirement System

Appendix B

Public Markets Manager Performance Detail

Public Markets Manager Performance Detail

Net Returns Through June 30, 2017



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
EQUITY SUMMARY								
US EQUITY								
State Street Global Advisors R3000	2,016	3.32	3.01	18.49	8.89	12.69	0.39	12.87
RUSSELL 3000 (DAILY)			3.02	18.51	8.93	12.74	0.48	12.56
Excess			(0.01)	(0.02)	(0.04)	(0.04)	(0.09)	0.31
Amalgamated Bank	5,474	9.02	3.07	17.86	9.22	11.94	1.11	13.62
S&P 500 INDEX (DAILY)			3.09	17.90	9.34	11.96	1.38	13.69
Excess			(0.02)	(0.03)	(0.13)	(0.02)	(0.27)	(0.07)
Blackrock Inst R 2000 Growth	258	0.43	4.38	24.51	10.02	11.29	(1.54)	5.70
RUSSELL 2000 GROWTH DAILY			4.39	24.40	9.97	11.32	(1.38)	5.60
Excess			(0.01)	0.11	0.05	(0.03)	(0.16)	0.10
Blackrock Inst R 2000 Value	71	0.12	0.77	24.94	0.64	31.61	(7.49)	4.90
RUSSELL 2000 VALUE DAILY			0.67	24.86	0.54	31.74	(7.47)	4.22
Excess			0.10	0.09	0.10	(0.13)	(0.02)	0.68
RAFI - SC Fundamental	860	1.42	0.16	21.16	(0.10)	27.57	(7.09)	4.56
RUSSELL 2000 (DAILY)			2.46	24.60	4.99	21.31	(4.41)	4.89
Excess			(2.30)	(3.44)	(5.09)	6.26	(2.68)	(0.34)
Ceredex SCV	266	0.44	(2.16)	11.80	(0.87)	29.34	(4.74)	2.58
RUSSELL 2000 VALUE DAILY			0.67	24.86	0.54	31.74	(7.47)	4.22
Excess			(2.83)	(13.06)	(1.41)	(2.40)	2.73	(1.64)
Wellington Small Core	199	0.33	3.96	26.38	9.23	19.25	(2.79)	9.89
RUSSELL 2000 (DAILY)			2.46	24.60	4.99	21.31	(4.41)	4.89
Excess			1.50	1.78	4.24	(2.05)	1.63	4.99

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
State Street GA S&P 400	835	1.38	2.17	19.17	6.27	20.65	(2.31)	9.97
S&P 400 MIDCAP INDEX (DAILY)			1.97	18.57	5.99	20.74	(2.18)	9.77
Excess			0.20	0.60	0.28	(0.09)	(0.13)	0.20
Blackrock Inst R 1000 Growth	3,358	5.53	4.65	20.37	13.95	7.04	5.58	12.90
RUSSELL 1000 GROWTH - DAILY			4.67	20.42	13.99	7.08	5.67	13.05
Excess			(0.02)	(0.05)	(0.04)	(0.04)	(0.09)	(0.15)
Blackrock Inst R 1000 Value	3,287	5.42	1.30	15.33	4.40	17.36	(3.94)	13.51
RUSSELL 1000 VALUE (DAILY)			1.34	15.53	4.66	17.34	(3.83)	13.45
Excess			(0.04)	(0.20)	(0.26)	0.02	(0.11)	0.06
VTL S&P 500 Fundamental	564	0.93	2.53	16.34	7.32	12.68	(1.25)	13.81
S&P 500 INDEX (DAILY)			3.09	17.90	9.34	11.96	1.38	13.69
Excess			(0.56)	(1.55)	(2.03)	0.72	(2.63)	0.12
RAFI - LC Fundamental	1,636	2.70	0.70	13.82	4.37	15.71	(3.17)	12.15
RUSSELL 1000 (DAILY)			3.06	18.03	9.27	12.05	0.92	13.24
Excess			(2.37)	(4.21)	(4.90)	3.66	(4.09)	(1.09)
FUND OF FUNDS								
NYCERS-TOTAL FUND OF FUNDS	103	0.17						
RUSSELL 2000 (DAILY)								
Excess								
NYCERS-TOTAL LEGATO	103	0.17						
RUSSELL 2000 (DAILY)								
Excess								
NON - US EQUITY								
Causeway	1,180	1.94	5.01	22.50	13.61	0.69	(2.41)	(4.94)
MSCI EAFE VALUE NET (DAILY)			4.78	25.01	11.12	5.02	(5.68)	(5.39)
Excess			0.23	(2.51)	2.49	(4.33)	3.28	0.45

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
Sprucegrove	1,156	1.90	2.93	24.20	11.32	11.10	(9.77)	(3.69)
MSCI EAFE VALUE NET (DAILY)			4.78	25.01	11.12	5.02	(5.68)	(5.39)
Excess			(1.84)	(0.80)	0.21	6.08	(4.08)	1.70
Baillie Gifford MTA	1,197	1.97	9.59	28.93	22.47	2.12	(4.67)	(6.81)
MSCI EAFE GROWTH			7.52	15.70	16.68	(3.04)	4.09	(4.43)
Excess			2.07	13.23	5.78	5.16	(8.76)	(2.38)
Walter Scott	1,210	1.99	7.13	17.33	15.67	5.26	0.04	(3.43)
MSCI EAFE GROWTH			7.52	15.70	16.68	(3.04)	4.09	(4.43)
Excess			(0.39)	1.64	(1.01)	8.31	(4.05)	1.00
Acadian	395	0.65	7.71	26.03	18.61	5.15	8.71	(3.02)
S&P EPAC Small Cap USD NET			8.65	22.97	17.38	1.34	8.58	(3.43)
Excess			(0.93)	3.07	1.22	3.82	0.13	0.41
Pyramis	393	0.65	9.05	21.24	17.40	(0.81)	11.68	(5.51)
S&P EPAC Small Cap USD NET			8.65	22.97	17.38	1.34	8.58	(3.43)
Excess			0.41	(1.73)	0.02	(2.15)	3.09	(2.08)
SSGA MTA 121	2,032	3.35	5.82	19.42	13.05	1.28	(0.42)	(5.00)
NYC Custom World ex US Index			5.63	19.14	12.74	1.00	(0.81)	(4.90)
Excess			0.19	0.28	0.31	0.28	0.39	(0.10)
SSGA MSCI EAFE Small Cap Index	436	0.72	8.20	23.43	16.97	2.52	9.97	
MSCI EAFE SMALL CAP NET (DAILY)			8.10	23.18	16.72	2.18	9.59	
Excess			0.09	0.25	0.25	0.33	0.39	
Generation GE MTA	283	0.47	9.98	30.46	23.44	9.93	7.04	11.39
MSCI World Index			4.03	18.20	10.66	7.51	(0.87)	4.94
Excess			5.96	12.27	12.78	2.42	7.91	6.45

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
EMERGING MARKETS								
BALLIE MTA	737	1.21	6.92	25.57	23.64	4.20	(13.67)	4.53
FTSE Custom NYCERS All Emerging Index			5.46	22.20	18.41	13.66	(16.80)	(0.07)
Excess			1.46	3.36	5.22	(9.46)	3.14	4.60
Acadian / MTA	725	1.19	6.56	29.23	21.42	12.66	(18.25)	3.09
FTSE Custom NYCERS All Emerging Index			5.46	22.20	18.41	13.66	(16.80)	(0.07)
Excess			1.09	7.02	3.01	(1.00)	(1.45)	3.16
PARAMETRIC EM	692	1.14	4.92	17.80	16.96	11.58	(19.39)	(1.55)
FTSE Custom NYCERS All Emerging Index			5.46	22.20	18.41	13.66	(16.80)	(0.07)
Excess			(0.54)	(4.40)	(1.45)	(2.09)	(2.59)	(1.48)
DFA MTA	728	1.20	3.14	26.63	17.86	20.31	(22.06)	(4.16)
FTSE Custom NYCERS All Emerging Index			5.46	22.20	18.41	13.66	(16.80)	(0.07)
Excess			(2.33)	4.43	(0.56)	6.65	(5.26)	(4.09)
Blackrock EM	1,906	3.14	5.55	21.20	18.37	12.49	(17.92)	(1.52)
MSCI CUSTOM NYCERS EMERGING MARKETS (NET)			5.53	21.22	18.08	12.68	(17.71)	
Excess			0.03	(0.02)	0.29	(0.19)	(0.21)	
INTERNATIONAL FOF								
NYCERS-TOTAL INTERNATIONAL FOF	289	0.48						
NYC Blended Custom Benchmark for FoF (ERS)								
Excess								
NYCERS-TOTAL INTERNATIONAL BIVIUIM	96	0.16						
NYC Blended Custom Benchmark for FoF (ERS)								
Excess								
NYCERS-TOTAL INTERNATIONAL FIS	96	0.16						
NYC Blended Custom Benchmark for FoF (ERS)								
Excess								

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
NYCERS-TOTAL INTERNATIONAL LEADING EDGE	97	0.16						
NYC Blended Custom Benchmark for FoF (ERS)								
Excess								
FIXED INCOME SUMMARY								
STRUCTURED FIXED INCOME								
Neuberger Berman - Mortgage	512	0.84	0.94	(0.11)	1.37	1.50	1.42	6.99
CITIGROUP MORTGAGE INDEX			0.92	(0.08)	1.36	1.59	1.56	6.12
Excess			0.01	(0.03)	0.01	(0.09)	(0.14)	0.86
Blackrock - Mortgage	856	1.41	1.11	0.61	1.67	2.17	1.67	6.75
CITIGROUP MORTGAGE INDEX			0.92	(0.08)	1.36	1.59	1.56	6.12
Excess			0.19	0.70	0.31	0.58	0.11	0.62
Amundi Smith Breeden - Mortgage	339	0.56	0.91	0.32	1.31	2.06	1.73	6.36
CITIGROUP MORTGAGE INDEX			0.92	(0.08)	1.36	1.59	1.56	6.12
Excess			(0.01)	0.40	(0.05)	0.47	0.16	0.23
Prudential - Corp - Credit	927	1.53	2.26	1.99	3.57	5.89	(0.32)	7.54
NYC - Investment Grade Credit			2.28	1.90	3.69	5.56	(0.65)	7.04
Excess			(0.02)	0.08	(0.11)	0.33	0.33	0.50
T. Rowe Price - Credit	924	1.52	2.59	2.72	4.18	6.00	0.13	7.91
NYC - Investment Grade Credit			2.28	1.90	3.69	5.56	(0.65)	7.04
Excess			0.31	0.82	0.49	0.44	0.78	0.87
Blackrock - Credit	402	0.66	2.51	2.36	4.02	5.50	(0.83)	7.48
NYC - Investment Grade Credit			2.28	1.90	3.69	5.56	(0.65)	7.04
Excess			0.23	0.46	0.33	(0.06)	(0.18)	0.44

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
Taplin Canida Habacht - Credit	476	0.79	2.39	4.87	3.87	9.51	(4.37)	7.83
NYC - Investment Grade Credit			2.28	1.90	3.69	5.56	(0.65)	7.04
Excess			0.10	2.97	0.18	3.95	(3.73)	0.79
Barrow Hanley - Credit	466	0.77	2.44	2.22	3.63	5.88	(0.09)	7.47
NYC - Investment Grade Credit			2.28	1.90	3.69	5.56	(0.65)	7.04
Excess			0.15	0.32	(0.06)	0.32	0.56	0.42
Prudential-Privest - Credit	140	0.23	1.91	2.82	3.62	4.24	1.63	7.20
NYC - Investment Grade Credit			2.28	1.90	3.69	5.56	(0.65)	7.04
Excess			(0.37)	0.91	(0.07)	(1.32)	2.28	0.16
Blackrock - Gov't	1,641	2.70	2.23	(4.40)	3.51	1.24	0.69	11.98
NYC - Treasury Agency Plus Five			2.30	(4.60)	3.42	1.21	0.72	12.38
Excess			(0.07)	0.21	0.09	0.02	(0.03)	(0.40)
State Street - Gov't	2,076	3.42	2.36	(4.07)	3.67	1.57	0.46	12.10
NYC - Treasury Agency Plus Five			2.30	(4.60)	3.42	1.21	0.72	12.38
Excess			0.06	0.54	0.25	0.36	(0.26)	(0.28)
SSGA 1-3 Treasury Index	1,161	1.91	0.17		0.42			
Citigroup USBIG Treasury 1-3 Y Index			0.18		0.44			
Excess			(0.01)		(0.02)			
SSgA Int Gov Bond Index	554	0.91	0.64					
Citigroup USBIG Treasury/Agency 1-10 y			0.64					
Excess			(0.01)					
HIGH YIELD								
Loomis, Sayles - High Yield	485	0.80	2.37	15.65	5.59	21.61	(7.67)	4.89
NYC-Loomis (BoA MLMSTII 7-03/BB&B PRIOR)			2.14	12.75	4.91	17.49	(4.64)	2.50
Excess			0.23	2.90	0.68	4.13	(3.02)	2.38

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
Oaktree - High Yield	377	0.62	2.27	11.01	4.21	14.91	(4.77)	1.52
BofAML HYM CONSTRAINED (DAILY)			2.14	12.74	4.90	17.49	(4.61)	2.51
Excess			0.13	(1.73)	(0.69)	(2.58)	(0.16)	(0.98)
NEUBERGER BERMAN - HIGH YIELD	399	0.66	1.42	10.37	3.87	14.70	(4.00)	2.14
BofAML HIGH YIELD MASTER II (DAILY)			2.14	12.75	4.91	17.49	(4.64)	2.50
Excess			(0.73)	(2.38)	(1.04)	(2.79)	0.64	(0.36)
Stone Harbor - High Yield	229	0.38	1.52	10.25	3.83	12.98	(4.54)	0.97
BofAML HIGH YIELD MASTER II (DAILY)			2.14	12.75	4.91	17.49	(4.64)	2.50
Excess			(0.62)	(2.50)	(1.08)	(4.51)	0.11	(1.54)
T. Rowe Price - High Yield	590	0.97	2.38	10.47	4.47	12.32	(1.28)	2.96
CITIGROUP BB & B			2.07	11.47	4.40	15.48	(4.21)	2.78
Excess			0.31	(0.99)	0.07	(3.15)	2.93	0.18
Shenkman - High Yield	198	0.33	1.89	10.15	4.11	11.86	(2.24)	2.93
CITIGROUP BB & B			2.07	11.47	4.40	15.48	(4.21)	2.78
Excess			(0.18)	(1.31)	(0.29)	(3.61)	1.97	0.14
Penn Capital Mgt	147	0.24	1.98	11.68	4.46	11.97	(1.26)	0.84
CITIGROUP BB & B			2.07	11.47	4.40	15.48	(4.21)	2.78
Excess			(0.09)	0.22	0.07	(3.51)	2.95	(1.95)
Fort Washington	134	0.22	2.50	10.80	5.08	12.55	(4.43)	2.18
CITIGROUP BB & B			2.07	11.47	4.40	15.48	(4.21)	2.78
Excess			0.43	(0.67)	0.68	(2.93)	(0.22)	(0.60)
BANK LOANS								
Babson BL	297	0.49	0.67	6.82	1.74	8.46	0.12	1.99
CSFB LEVERAGED LOAN INDEX			0.75	7.49	1.96	9.88	(0.38)	2.06
Excess			(0.09)	(0.67)	(0.23)	(1.42)	0.50	(0.07)

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
Credit Suisse BL	306	0.50	1.03	7.02	2.23	8.95	2.57	2.67
CSFB LEVERAGED LOAN INDEX			0.75	7.49	1.96	9.88	(0.38)	2.06
Excess			0.28	(0.47)	0.26	(0.92)	2.96	0.61
Guggenheim BL	193	0.32	0.70	5.85	1.55	7.84	2.07	2.88
CSFB LEVERAGED LOAN INDEX			0.75	7.49	1.96	9.88	(0.38)	2.06
Excess			(0.06)	(1.64)	(0.42)	(2.03)	2.45	0.83
Invesco BL	296	0.49	0.47	7.05	1.69	9.68	(0.91)	1.65
CSFB LEVERAGED LOAN INDEX			0.75	7.49	1.96	9.88	(0.38)	2.06
Excess			(0.28)	(0.44)	(0.27)	(0.20)	(0.53)	(0.41)
TIPS								
State Street TIPS MTA	1,910	3.15	(0.40)	(0.67)	0.86	4.73	(1.35)	3.57
BBG BARC Gbl Inf-Lk: US TIPS (Dly)			(0.40)	(0.63)	0.85	4.68	(1.44)	3.64
Excess			0.01	(0.04)	0.01	0.04	0.09	(0.07)
Blackrock TIPS MTA	621	1.02	(0.39)	(0.63)	0.87	4.71	(1.24)	3.74
BBG BARC Gbl Inf-Lk: US TIPS (Dly)			(0.40)	(0.63)	0.85	4.68	(1.44)	3.64
Excess			0.01	(0.01)	0.01	0.02	0.20	0.10
CONVERTIBLE BONDS								
Advent Conv Bonds	360	0.59	1.36	9.35	4.82	7.35	(1.92)	4.68
BofA ML U.S. Convertible Yield Alternative			2.47	12.56	6.29	9.96	(8.77)	2.75
Excess			(1.11)	(3.21)	(1.47)	(2.61)	6.85	1.93
Victory - Conv Bonds	234	0.39	4.59	14.93	10.09	6.47	(0.24)	13.76
BofA Merrill Lynch US Investment Grade Convertible Bond Index			4.02	20.40	9.76	14.23	1.68	15.69
Excess			0.57	(5.47)	0.33	(7.77)	(1.92)	(1.93)

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
CORE FI - EMERGING MANAGERS								
New Century Adv LLC (Core)	27	0.04	1.74	0.83	2.69	1.98	(0.04)	6.09
BBG BARC Agg (Dly)			1.45	(0.31)	2.27	2.65	0.55	5.97
Excess			0.29	1.15	0.42	(0.67)	(0.59)	0.12
Hillswick	10	0.02	1.14	(1.60)	1.82			
BBG BARC Agg (Dly)			1.45	(0.31)	2.27			
Excess			(0.31)	(1.28)	(0.45)			
Integrity	12	0.02	1.34	0.05	2.31			
BBG BARC Agg (Dly)			1.45	(0.31)	2.27			
Excess			(0.10)	0.36	0.04			
Pugh Capital Mgmt Inc (Core)	30	0.05	1.73	0.50	2.69	3.13	0.69	6.05
BBG BARC Agg (Dly)			1.45	(0.31)	2.27	2.65	0.55	5.97
Excess			0.28	0.82	0.42	0.49	0.14	0.08
Ramirez Asset	38	0.06	1.65	1.14	2.62	3.47	0.94	
BBG BARC Agg (Dly)			1.45	(0.31)	2.27	2.65	0.55	
Excess			0.21	1.46	0.34	0.82	0.39	
CORE FI - DEVELOPING MANAGERS								
LM Capital	295	0.49	1.47	0.82	2.52	3.47	0.83	5.67
BBG BARC Agg (Dly)			1.45	(0.31)	2.27	2.65	0.55	5.97
Excess			0.02	1.14	0.24	0.82	0.28	(0.30)
GIA	107	0.18	1.69	1.59	3.02	4.00		
BBG BARC Agg (Dly)			1.45	(0.31)	2.27	2.65		
Excess			0.24	1.91	0.75	1.35		

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
ECONOMICALLY TARGETED INVESTMENTS								
AFL-CIO HOUSING INV TRUST	306	0.50	1.32	(0.38)	2.14	1.94	1.13	6.10
BBG BARC Agg (Dly)			1.45	(0.31)	2.27	2.65	0.55	5.97
Excess			(0.13)	(0.07)	(0.13)	(0.71)	0.58	0.14
ACCESS RBC	106	0.18	1.13	(0.13)	1.62	1.61	1.83	6.66
Access RBC Benchmark			0.80	(0.51)	1.27	1.52	1.40	5.08
Excess			0.33	0.38	0.35	0.09	0.43	1.58
CPC CONST FACILITY	6	0.01	0.61	1.99	2.66	(3.95)	12.90	
CPC CONST BENCHMARK			0.81	3.09	1.58	3.03	2.90	
Excess			(0.20)	(1.10)	1.08	(6.99)	10.00	
BOA-PPAR (FNMA)	20	0.03	4.52	(2.31)	4.77	4.07	42.03	13.31
FNMA Plus 85bps			1.28	0.77	1.99	2.38	2.50	7.13
Excess			3.24	(3.08)	2.77	1.69	39.53	6.19
BOA-PPAR (GNMA)	16	0.03	3.49	(2.60)	3.97	3.13	8.04	15.61
GNMA Plus 65bps			0.77	0.47	1.19	2.28	2.02	6.65
Excess			2.72	(3.07)	2.78	0.85	6.03	8.96
CCD-PPAR (FNMA)	10	0.02	3.46	(2.15)	3.82	3.71	6.69	25.71
FNMA Plus 85bps			1.28	0.77	1.99	2.38	2.50	7.13
Excess			2.18	(2.92)	1.83	1.33	4.20	18.58
CCD-PPAR (GNMA)	7	0.01	2.69	(3.10)	2.75	2.78	5.08	15.37
GNMA Plus 65bps			0.77	0.47	1.19	2.28	2.02	6.65
Excess			1.92	(3.57)	1.56	0.50	3.06	8.72
CFSB-PPAR (GNMA)	3	0.00	3.32	(2.30)	3.55	3.21	5.90	15.34
GNMA Plus 65bps			0.77	0.47	1.19	2.28	2.02	6.65
Excess			2.55	(2.77)	2.36	0.93	3.88	8.69

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
CPC-PPAR (FNMA)	83	0.14	4.14	(1.89)	3.31	6.15	8.96	13.91
FNMA Plus 85bps			1.28	0.77	1.99	2.38	2.50	7.13
Excess			2.87	(2.66)	1.32	3.77	6.46	6.78
CPC - PPAR (GNMA)	96	0.16	2.65	(2.59)	2.42	2.86	5.08	8.41
GNMA Plus 65bps			0.77	0.47	1.19	2.28	2.02	6.65
Excess			1.88	(3.06)	1.23	0.58	3.07	1.76
JPMC-PPAR (FNMA)	68	0.11	7.38	5.61	8.71	7.94	6.18	12.06
FNMA Plus 85bps			1.28	0.77	1.99	2.38	2.50	7.13
Excess			6.10	4.84	6.72	5.56	3.68	4.93
JPMC - PPAR (GNMA)	36	0.06	2.64	(1.83)	2.46	2.99	6.04	13.75
GNMA Plus 65bps			0.77	0.47	1.19	2.28	2.02	6.65
Excess			1.87	(2.30)	1.27	0.72	4.03	7.10
LIIF-PPAR (FNMA)	10	0.02	8.05	(4.70)	8.46	5.03	6.29	38.12
FNMA Plus 85bps			1.28	0.77	1.99	2.38	2.50	7.13
Excess			6.77	(5.47)	6.47	2.65	3.79	30.99
LIIF-PPAR (GNMA)	3	0.01	1.84	(0.64)	2.20	3.88	3.92	9.74
GNMA Plus 65bps			0.77	0.47	1.19	2.28	2.02	6.65
Excess			1.07	(1.11)	1.01	1.61	1.91	3.09
NCBCI PPAR (FNMA)	0	0.00	0.87	(4.87)	0.26	3.46	4.97	14.93
FNMA Plus 85bps			1.28	0.77	1.99	2.38	2.50	7.13
Excess			(0.41)	(5.64)	(1.73)	1.07	2.47	7.81
NCBCI-PPAR (GNMA)	2	0.00	2.61	(2.89)	2.57	3.51	5.53	16.66
GNMA Plus 65bps			0.77	0.47	1.19	2.28	2.02	6.65
Excess			1.84	(3.36)	1.37	1.23	3.52	10.01

Public Markets Manager Performance Detail



Net Returns Through June 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
NHS-PPAR (GNMA)	1	0.00	2.31	(7.48)	(3.32)	3.58	4.90	13.73
GNMA Plus 65bps			0.77	0.47	1.19	2.28	2.02	6.65
Excess			1.55	(7.95)	(4.51)	1.30	2.89	7.08
CASH								
EMPLOYEES' SHORT TERM	473	0.78	0.27	0.72	0.46	0.76	0.31	0.36
91 DAY T-BILL			0.20	0.49	0.31	0.33	0.05	0.02
Excess			0.06	0.24	0.16	0.44	0.27	0.34
C/D - FAIL FLOAT EARNINGS	0	0.00						
SECURITY LENDING	38	0.06						

New York City
Employees' Retirement System

Appendix C

Alternative Assets Manager Performance Detail

Alternative Assets Manager Performance Detail

Through March 31, 2017



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
TOTAL PRIVATE EQUITY		9,177,977,432	7,802,894,508	6,450,987,450	4,345,261,440	1.38	9.3%
TOTAL LIQUIDATED		616,308,646	718,088,658	897,552,311	-	1.25	6.8%
TOTAL ACTIVE		8,561,668,786	7,084,805,849	5,553,435,140	4,345,261,440	1.40	9.6%
TOTAL ACTIVE							
Cypress Merchant Banking Partners II, L.P.	1999	45,172,972	53,944,269	50,537,286	84,201	0.94	-1.2%
FdG Capital Partners LLC	1999	25,000,000	28,954,203	49,959,348	3,193,756	1.84	15.3%
Lincolnshire Equity Fund II, L.P.	1999	18,397,347	19,261,466	36,473,231	612,515	1.93	24.5%
Solera Partners, L.P.	2000	19,999,779	26,510,506	41,635,156	3,180,565	1.69	8.3%
SCP Private Equity Partners II, L.P.	2000	27,442,463	30,827,225	10,819,873	2,589,210	0.43	-10.8%
Apollo Investment Fund V, L.P.	2001	40,000,000	62,528,643	123,105,294	785,508	1.98	38.6%
RRE Ventures III, L.P.	2001	19,999,999	26,323,260	34,078,940	1,367,441	1.35	5.6%
Thomas, McNerney & Partners, L.P.	2002	20,000,000	20,000,000	10,058,105	2,021,765	0.60	-8.8%
Landmark Equity Partners XI, L.P.	2002	55,000,000	52,284,778	77,840,853	3,067,261	1.55	23.4%
FS Equity Partners V, L.P.	2003	25,000,000	21,409,429	41,780,154	1,960,146	2.04	15.5%
Blackstone Capital Partners IV, L.P.	2003	34,418,762	38,818,072	98,629,819	502,515	2.55	39.7%
Ares Corporate Opportunities Fund, L.P.	2003	45,000,000	53,984,770	80,476,920	3,189,153	1.55	13.6%
Markstone Capital Partners, LP	2004	40,000,000	46,899,103	19,822,611	272,215	0.43	-60.5%
FdG Capital Partners II LP	2004	35,000,000	37,624,231	42,499,038	3,001,960	1.21	3.7%
Paladin Homeland Security Fund (NY City), L.P.	2004	15,000,000	16,458,563	6,020,753	421,246	0.39	-13.7%
Lincolnshire Equity Fund III, L.P.	2004	55,000,000	54,398,186	77,422,885	20,760,115	1.80	29.5%
Yucaipa American Alliance Fund I, LP	2004	90,000,000	114,094,892	94,282,024	33,276,643	1.12	2.8%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 1	2004	32,000,000	32,862,069	28,791,917	9,916,882	1.18	2.9%
Aurora Equity Partners III L.P.	2004	50,000,000	54,126,788	87,435,881	2,684,693	1.66	13.9%
Trilantic Capital Partners III L.P.	2004	45,088,848	40,126,836	59,174,224	1,086,257	1.50	12.4%
Celtic Pharmaceutical Holdings L.P.	2004	25,000,000	25,402,094	402,094	3,976,018	0.17	-17.4%
Palladium Equity Partners III, L.P.	2005	35,000,000	36,132,805	51,465,075	22,405,791	2.04	17.7%
New Mountain Partners II, L.P.	2005	46,451,615	41,780,816	80,867,650	899,522	1.96	13.7%
VSS Communications Partners IV, L.P.	2005	24,690,337	28,434,380	19,145,992	1,917,212	0.74	-5.2%
Prism Venture Partners V-A, L.P.	2005	30,000,000	30,762,722	16,713,788	3,573,436	0.66	-8.1%
NB New York City Growth Fund	2005	34,819,694	34,819,694	34,926,469	-	1.00	-0.7%
Snow Phipps Group, L.P.	2005	20,000,000	23,736,380	18,261,746	11,086,146	1.24	5.5%
GI Partners Fund II L.P.	2005	35,000,000	35,453,490	54,585,705	1,943,381	1.59	7.6%
Blackstone Mezzanine Partners II, L.P.	2005	25,000,000	23,479,157	31,735,278	284,630	1.36	8.0%
Psilos Group Partners III, L.P.	2005	35,000,000	37,205,819	17,948,760	25,840,533	1.18	3.0%
USPF II Institutional Fund, L.P.	2005	65,000,000	85,734,194	64,959,840	50,806,389	1.35	5.5%

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

Alternative Assets Manager Performance Detail

Through March 31, 2017



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
JP Morgan Fleming (Tranche A)	2005	43,000,000	42,052,621	32,598,177	22,466,242	1.31	5.6%
Aisling Capital II, LP	2006	6,680,102	7,851,314	5,631,836	2,250,680	1.00	0.1%
InterMedia Partners VII, L.P.	2006	25,000,000	29,198,197	29,591,747	2,341,083	1.09	1.4%
Terra Firma Capital Partners III, L.P.	2006	52,763,299	53,570,980	5,874,626	19,594,229	0.48	-10.5%
BDCM Opportunity Fund II, L.P.	2006	25,000,000	36,886,205	49,351,514	29,984,122	2.15	17.3%
Blackstone Capital Partners V, L.P.	2006	121,624,827	129,293,701	190,068,711	20,087,906	1.63	8.1%
Avista Capital Partners, L.P.	2006	45,000,000	59,007,394	56,414,725	20,359,346	1.30	5.5%
GSC Recovery III, L.P.	2006	25,000,000	28,228,414	31,876,108	515,910	1.15	3.6%
Apollo Investment Fund VI, L.P.	2006	90,000,000	115,838,240	146,651,067	27,531,081	1.50	8.9%
Landmark Equity Partners XIII, L.P.	2006	50,000,000	47,997,218	46,425,511	14,364,824	1.27	5.1%
Ares Corporate Opportunities Fund II, L.P.	2006	50,000,000	54,760,870	88,267,769	4,601,643	1.70	13.4%
Fairview Ventures Fund III, L.P.	2006	25,000,000	26,034,335	23,185,752	26,423,100	1.91	14.6%
Ampersand 2006	2006	25,000,000	25,000,000	41,455,039	15,833,341	2.29	15.2%
CCMP Capital Investors II, L.P.	2006	30,000,000	33,012,190	47,751,976	8,438,195	1.70	13.5%
CLP 2014 (fka Perseus Partners VII)	2006	30,000,000	35,042,372	13,031,494	323,939	0.38	-22.1%
Thomas, McNerney & Partners II, L.P.	2006	25,000,000	25,349,167	48,517,352	8,236,850	2.24	17.2%
Catterton Partners VI, L.P.	2006	45,000,000	50,323,533	62,363,059	29,618,711	1.83	12.2%
First Reserve Fund XI, L.P.	2006	45,000,000	47,820,682	27,252,350	4,922,865	0.67	-9.2%
Arsenal Capital Partners II, LP	2006	22,500,000	26,940,099	35,692,491	9,269,469	1.67	10.5%
RRE Ventures IV, L.P.	2006	35,000,000	43,945,637	22,158,047	43,952,353	1.50	7.2%
MidOcean Partners III, L.P.	2006	60,000,000	68,683,719	74,756,196	42,062,267	1.70	10.7%
GF Capital Private Equity Fund, L.P.	2006	20,000,000	20,626,154	22,607,266	14,342,569	1.79	13.9%
The Fourth Cinven Fund	2006	69,987,775	72,910,838	94,146,833	7,630,412	1.40	6.9%
Pegasus Partners IV, L.P.	2007	30,000,000	35,707,954	21,384,679	12,656,856	0.95	-1.0%
FTVentures III, LP	2007	24,201,990	26,787,896	38,166,196	17,551,921	2.08	16.3%
Co-Investment Partners Europe, L.P.	2007	39,970,866	42,122,634	43,063,207	10,814,918	1.28	4.9%
Montreux Equity Partners IV, L.P.	2007	20,000,000	20,000,000	11,044,696	17,566,701	1.43	6.7%
Quaker BioVentures II, L.P.	2007	20,000,000	18,458,740	14,450,352	8,224,143	1.23	5.1%
SCP Vitalife Partners II Fund	2007	20,000,000	20,099,698	1,579	11,438,236	0.57	-9.2%
Craton Equity Investors I, L.P.	2007	20,000,000	20,089,805	2,153,907	2,842,083	0.25	-19.9%
Nautic Partners VI, L.P.	2007	30,000,000	33,402,321	66,358,140	10,718,001	2.31	19.0%
Constellation Venture Capital III, L.P.	2007	25,000,000	27,297,458	5,676,045	14,868,007	0.75	-5.1%
United States Power Fund III, L.P.	2007	65,000,000	76,903,642	59,406,610	47,182,412	1.39	6.4%
Halyard Capital Fund II, L.P.	2007	25,000,000	21,378,419	22,617,730	8,045,104	1.43	6.9%
Carlyle Partners V, L.P.	2007	70,000,000	71,327,381	97,136,066	25,858,566	1.72	13.7%
PCG Clean Energy & Technology Fund (East), LLC	2007	90,000,000	80,255,584	10,393,035	27,724,698	0.47	-12.5%

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

Alternative Assets Manager Performance Detail

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	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
GSO Capital Opportunities Fund LP	2007	45,000,000	67,298,424	95,262,688	1,533,601	1.44	17.6%
StarVest Partners II, L.P.	2007	25,000,000	24,943,994	1,166,983	22,150,363	0.93	-1.3%
New Mountain Partners III, L.P.	2007	100,000,000	101,251,168	110,781,966	70,535,547	1.79	12.9%
Vista Equity Partners Fund III, L.P.	2007	30,000,000	31,938,590	68,256,720	13,052,874	2.55	27.8%
Trilantic Capital Partners IV L.P.	2007	69,028,637	71,745,894	97,477,579	17,379,644	1.60	14.4%
RLJ Equity Partners Fund I, L.P.	2007	20,000,000	21,432,955	14,847,128	22,116,065	1.72	13.6%
Pine Brook Capital Partners, L.P.	2007	30,000,000	32,686,862	22,502,389	18,899,367	1.27	7.1%
Paladin III (NY City), L.P.	2008	30,000,000	38,017,779	18,719,678	31,355,344	1.32	7.2%
Relativity Fund, L.P.	2008	10,877,829	10,773,614	2,302,071	3,193,058	0.51	-10.9%
Apollo Investment Fund VII, L.P.	2008	100,000,000	119,370,940	180,953,021	28,662,697	1.76	24.0%
NGN BioMed Opportunity II, L.P.	2008	20,000,000	19,151,821	5,946,209	14,380,314	1.06	1.1%
Carpenter Community BancFund-A, L.P.	2008	20,000,000	19,519,654	11,658,453	20,825,471	1.66	8.6%
Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	2008	45,000,000	50,037,422	34,350,633	24,956,036	1.19	5.2%
Yucaipa American Alliance Fund II, LP	2008	120,000,000	163,744,290	97,293,704	130,214,216	1.39	8.1%
Levine Leichtman Capital Partners IV, L.P.	2008	35,000,000	35,177,780	52,380,435	9,503,587	1.76	19.8%
Lee Equity Partners Fund, L.P.	2008	37,261,581	50,519,026	61,415,282	111,590	1.22	6.3%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 2	2008	45,000,000	43,235,206	30,155,071	38,248,296	1.58	13.7%
Yucaipa Corporate Initiatives Fund II, LP	2008	42,092,788	41,094,236	12,669,673	25,420,041	0.93	-1.5%
Leeds Equity Partners V, L.P.	2008	60,000,000	57,744,197	52,032,197	45,998,385	1.70	16.0%
GI Partners Fund III L.P.	2008	45,000,000	48,452,118	53,028,942	19,730,552	1.50	12.7%
Ares Corporate Opportunities Fund III, L.P.	2008	75,000,000	89,904,531	104,086,537	63,517,859	1.86	20.5%
GCM Grosvenor NYCERS Emerging Manager Fund, L.P.	2008	116,737,374	130,673,842	92,475,895	87,622,895	1.38	11.4%
First Reserve Fund XII, L.P.	2008	45,000,000	48,847,073	21,657,549	13,362,288	0.72	-8.6%
Landmark Equity Partners XIV, L.P.	2008	109,120,000	102,979,439	90,572,290	42,595,119	1.29	10.5%
Crestview Partners II, L.P.	2008	50,000,000	55,811,141	47,295,676	50,673,112	1.76	16.0%
Avista Capital Partners II, L.P.	2008	75,000,000	92,405,060	122,866,311	45,379,685	1.82	16.9%
Blue Wolf Capital Fund II, L.P.	2008	25,000,000	27,167,904	15,463,530	20,526,666	1.32	7.8%
Bridgepoint Europe IV	2008	26,647,195	26,766,098	26,535,900	12,125,849	1.44	10.2%
Aisling Capital III, LP	2008	14,000,000	15,370,887	16,014,310	10,313,956	1.71	21.4%
Onex Partners III LP	2008	75,000,000	81,027,018	65,757,036	73,104,134	1.71	14.9%
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	40,000,000	39,698,106	34,998,635	27,545,703	1.58	13.2%
FS Equity Partners VI, L.P.	2009	32,500,000	31,396,407	27,161,960	35,960,579	2.01	18.8%
Lincolnshire Equity Fund IV, L.P.	2009	27,500,000	28,708,964	15,090,212	23,981,006	1.36	9.7%
Lexington Capital Partners VII, L.P.	2009	50,000,000	43,372,898	44,421,984	21,006,030	1.51	14.8%
Snow Phipps II, L.P.	2010	30,000,000	30,521,355	16,053,652	29,131,151	1.48	14.6%
JP Morgan Fleming (Tranche B)	2010	35,000,000	33,250,212	16,927,871	30,133,925	1.42	10.1%

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	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Trident V, L.P.	2010	110,000,000	121,157,308	50,273,396	120,162,963	1.41	10.2%
Blackstone Capital Partners VI, L.P.	2011	120,000,000	118,399,291	47,376,773	111,692,311	1.34	12.2%
Ampersand 2011	2011	25,000,000	24,125,000	19,037,256	31,005,649	2.07	19.0%
BDCM Opportunity Fund III, L.P.	2011	45,000,000	57,406,306	20,728,277	48,516,612	1.21	7.5%
AXA Secondary Fund V B L.P.	2011	120,000,000	96,510,050	84,780,946	67,411,132	1.58	16.7%
Wellspring Capital Partners V, L.P.	2011	40,000,000	39,805,234	38,581,767	22,668,454	1.54	18.1%
EQT VI, L.P.	2011	106,011,986	104,855,100	20,461,608	117,513,356	1.32	9.4%
Pegasus Partners V, L.P.	2011	20,789,916	20,671,526	4,222,810	30,643,479	1.69	17.9%
BC European Capital IX	2011	131,525,535	128,535,808	55,228,408	117,325,925	1.34	11.7%
American Securities Partners VI, L.P.	2011	80,000,000	85,324,106	31,519,032	105,254,415	1.60	20.2%
Vista Equity Partners Fund IV, L.P.	2011	100,000,000	102,127,531	60,190,780	127,926,069	1.84	20.5%
Warburg Pincus Private Equity XI, L.P.	2012	110,000,000	105,373,488	30,255,170	111,406,189	1.34	12.9%
Trilantic Capital Partners V L.P.	2012	70,000,000	49,825,517	13,218,217	47,883,970	1.23	11.2%
Palladium Equity Partners IV, L.P.	2012	55,000,000	35,892,923	3,349,522	39,992,855	1.21	9.4%
Ares Corporate Opportunities Fund IV, L.P.	2012	125,000,000	107,338,322	25,241,328	123,141,028	1.38	15.2%
Green Equity Investors VI, L.P.	2012	120,000,000	127,794,843	24,217,883	138,013,430	1.27	13.0%
Platinum Equity Capital Partners III, L.P.	2012	100,000,000	82,733,908	66,779,961	78,206,762	1.75	48.3%
<u>NYCERS - 2012 Emerging Manager Program</u>	2012	<u>150,000,000</u>	<u>98,383,198</u>	<u>18,359,912</u>	<u>104,284,814</u>	<u>1.25</u>	<u>13.3%</u>
Carlyle Partners VI, L.P.	2013	75,000,000	51,576,059	11,886,932	47,197,255	1.15	8.8%
Carlyle Partners VI, L.P. (Side Car)	2014	4,567,000	4,475,155	-	4,286,203	0.96	-2.4%
Landmark Equity Partners XV, L.P.	2013	75,000,000	33,353,396	14,692,010	25,155,337	1.19	11.8%
Apollo Investment Fund VIII, L.P.	2013	140,000,000	91,758,929	12,218,240	96,212,456	1.18	14.0%
Landmark - NYC Fund I, L.P.	2013	25,000,000	13,231,111	4,905,791	12,450,492	1.31	16.2%
CVC Capital Partners VI, L.P.	2014	118,623,285	67,335,143	829,561	70,253,849	1.06	4.5%
Crestview Partners III, L.P.	2013	66,000,000	20,234,879	333,641	20,116,377	1.01	0.8%
Crestview Partners III (Co-Investment B), L.P.	2013	22,000,000	13,303,182	301,332	14,947,626	1.15	NM
Olympus Growth Fund VI, L.P.	2014	75,000,000	38,925,459	10,401,563	42,270,899	1.35	26.4%
ASF VI B L.P.	2014	83,000,000	47,795,717	5,564,805	55,229,662	1.27	14.6%
ASF VI B NYC Co-Invest L.P.	2014	27,000,000	17,895,244	5,903,373	17,985,109	1.33	16.1%
Vista Equity Partners Fund V, L.P.	2014	125,000,000	124,932,987	23,158,307	122,412,136	1.17	10.5%
Lexington Capital Partners VIII, L.P.	2014	110,000,000	28,241,474	11,959,997	26,502,743	1.36	28.6%
Siris Partners III, L.P.	2015	31,000,000	15,110,157	204,227	14,749,787	0.99	NM
Centerbridge Capital Partners III, L.P.	2015	23,700,000	6,679,105	313,566	7,856,185	1.22	NM
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	78,500,000	22,101,864	-	26,775,188	1.21	NM
Warburg Pincus Private Equity XII, L.P.	2015	205,500,000	48,840,172	-	47,165,881	0.97	NM
ASF VII B L.P.	2015	94,500,000	9,874,123	29,151	12,555,918	1.27	NM

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	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
ASF VII B NYC Co-Invest L.P.	2015	46,000,000	4,600	-	4,600	1.00	NM
EQT VII, L.P.	2015	154,507,531	56,598,738	291,763	57,461,018	1.02	NM
American Securities Partners VII, L.P.	2015	80,000,000	19,694,298	-	20,905,111	1.06	NM
Bridgepoint Europe V L.P.	2015	58,732,023	28,109,416	5,959,601	24,770,421	1.09	NM
Bridgepoint Europe V Co-Invest	2015	17,009,435	6,093,625	-	6,044,544	0.99	NM
<u>NYCERS - 2015 Emerging Manager Program</u>	2015	<u>180,000,000</u>	<u>6,002,197</u>	<u>88,108</u>	<u>6,506,553</u>	<u>1.10</u>	<u>NM</u>
Vista Equity Partners Fund VI, L.P.	2016	158,000,000	59,319,319	229,510	58,108,274	0.98	NM
Platinum Equity Capital Partners IV, L.P.	2016	111,000,000	9,318,077	381,847	10,506,398	1.17	NM
Apax IX USD, L.P.	2016	127,000,000	-	-	(2,230,698)	-	N/A
BC European Capital X	2017	83,404,620	-	-	-	-	N/A
BCEC X Co-Investment	2017	33,321,374	3,120,811	-	3,127,436	1.00	NM
Green Equity Investors VII, L.P.	2017	95,000,000	-	-	-	-	N/A
Ares Corporate Opportunities Fund V, L.P.	2017	95,000,000	-	-	288,376	-	N/A

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Alternative Assets Manager Performance Detail

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	Vintage Year	Style Sector	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
TOTAL PRIVATE REAL ESTATE			4,246,806,713	3,791,095,421	2,138,536,431	3,139,492,051	1.39	7.7%
TOTAL PRIVATE REAL ESTATE								
Almanac Realty Securities VII	2015	Core / Core Plus Portfolio	65,000,000	22,706,663	825,848	24,684,136	1.12	10.1%
Almanac Realty Securities VII (Sidecar IV)	2016	Core / Core Plus Portfolio	20,000,000	4,923,011	153,919	5,470,796	1.14	16.4%
Brookfield Premier Real Estate Partners	2017	Core / Core Plus Portfolio	91,000,000	84,615,105	-	89,540,880	1.06	35.2%
Colony Realty Partners II	2007	Core / Core Plus Portfolio	20,000,000	21,420,211	666,108	4,080,700	0.22	-15.5%
Exeter Industrial Core Club Fund II	2016	Core / Core Plus Portfolio	28,000,000	9,548,000	291,790	9,766,910	1.05	10.7%
Heitman HART	2007	Core / Core Plus Portfolio	115,000,000	166,463,227	51,463,227	225,608,661	1.66	8.2%
Jamestown Premier Property Fund	2016	Core / Core Plus Portfolio	39,000,000	40,847,725	5,005,552	37,853,398	1.05	6.3%
JP Morgan Special Situation Property Fund	2007	Core / Core Plus Portfolio	90,000,000	104,234,275	29,626,168	116,557,995	1.40	4.0%
JP Morgan Strategic Property Fund	2007	Core / Core Plus Portfolio	136,000,000	151,034,530	-	271,097,957	1.79	7.1%
LaSalle Property Fund	2010	Core / Core Plus Portfolio	50,000,000	50,000,000	12,521,525	69,409,802	1.64	11.8%
Lion Industrial Trust - 2007	2017	Core / Core Plus Portfolio	60,000,000	45,000,000	380,183	46,001,746	1.03	13.2%
MetLife Core Property Fund	2014	Core / Core Plus Portfolio	50,000,000	50,000,000	5,275,078	58,806,971	1.28	13.0%
NYC Asset Investor #2 LLC	2013	Core / Core Plus Portfolio	75,000,000	71,982,093	9,890,752	86,058,469	1.33	15.5%
NYCRS Artemis Co-Investment	2016	Core / Core Plus Portfolio	53,000,000	15,677,585	-	20,776,628	1.33	52.5%
PRISA II	2007	Core / Core Plus Portfolio	141,518,761	149,597,017	35,598,429	194,373,623	1.54	5.5%
PRISA SA	2006	Core / Core Plus Portfolio	86,000,000	92,514,113	26,430,200	114,098,179	1.52	4.5%
Prologis Targeted U.S. Logistics Fund	2006	Core / Core Plus Portfolio	25,000,000	33,340,624	8,695,087	35,308,414	1.32	3.5%
RREEF America REIT II	2006	Core / Core Plus Portfolio	86,000,000	113,537,802	51,871,327	115,124,187	1.47	5.0%
RREEF America REIT III - 1410	2007	Core / Core Plus Portfolio	90,000,000	90,000,000	50,554,304	644,151	0.57	-7.6%
UBS Trumbull Property Fund	2006	Core / Core Plus Portfolio	156,000,000	226,298,355	56,500,085	278,342,280	1.48	6.3%
USAA Eagle Real Estate Fund	2016	Core / Core Plus Portfolio	60,000,000	48,808,010	-	54,086,484	1.11	10.2%
American Value Partners Fund I	2008	Non-Core Portfolio	55,000,000	39,320,163	34,693,776	11,888,977	1.18	3.8%
AREA European Real Estate Fund III, LP	2008	Non-Core Portfolio	30,000,000	30,487,500	31,137,500	4,877,223	1.18	4.2%
AREA Real Estate Investment Fund V, LP	2006	Non-Core Portfolio	25,000,000	25,000,001	13,983,143	10,506,530	0.98	-0.3%
Avanath Affordable Housing Fund II	2015	Non-Core Portfolio	8,000,000	7,777,909	-	9,362,567	1.20	12.7%
Blackstone Fund IV	2004	Non-Core Portfolio	30,000,000	38,440,704	48,753,509	5,035,082	1.40	10.4%
Blackstone Real Estate Partners Europe III (USD Vehicle)	2010	Non-Core Portfolio	50,000,000	51,467,427	39,971,647	32,722,356	1.41	11.0%
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2014	Non-Core Portfolio	169,000,000	151,947,710	29,637,259	155,613,277	1.22	11.3%
Blackstone Real Estate Partners VI	2007	Non-Core Portfolio	110,000,000	122,450,239	207,378,842	32,048,133	1.96	13.3%
Blackstone Real Estate Partners VII	2012	Non-Core Portfolio	170,000,000	202,560,643	153,239,729	157,653,554	1.53	19.4%
Blackstone Real Estate Partners VIII	2015	Non-Core Portfolio	151,000,000	68,370,844	18,627,348	63,123,017	1.20	19.3%
Brookfield Strategic Real Estate Partners	2012	Non-Core Portfolio	100,000,000	106,437,601	51,366,994	112,357,636	1.54	18.5%
Canyon Johnson Urban Fund	2003	Non-Core Portfolio	15,000,000	13,590,364	15,874,432	-	1.17	10.2%
Canyon Johnson Urban Fund II	2005	Non-Core Portfolio	40,000,000	35,954,818	15,665,276	353,686	0.45	-10.5%
Canyon Johnson Urban Fund III	2010	Non-Core Portfolio	30,000,000	29,586,980	39,586,665	330,081	1.35	11.9%
Capri Urban Investors	2008	Non-Core Portfolio	60,000,000	59,980,707	26,702,020	24,492,397	0.85	-2.5%
Carbon Capital III	2009	Non-Core Portfolio	40,000,000	43,757,162	53,134,591	-	1.21	8.5%
Carlyle Realty Partners V	2007	Non-Core Portfolio	20,000,000	25,096,567	28,476,363	6,601,366	1.40	8.6%
Carlyle Realty Partners VI	2011	Non-Core Portfolio	70,000,000	66,355,936	80,795,145	32,036,912	1.70	27.0%
Carlyle Realty Partners VII	2014	Non-Core Portfolio	80,000,000	48,172,320	1,647,969	54,169,043	1.16	13.4%
Divco West Fund IV	2014	Non-Core Portfolio	23,000,000	22,334,462	24,367,916	11,631,902	1.61	28.3%

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Alternative Assets Manager Performance Detail

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	Vintage Year	Style Sector	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
Divco West Fund V	2016	Non-Core Portfolio	60,000,000	9,635,108	-	9,321,277	0.97	-25.0%
DRA Growth and Income Fund IX	2017	Non-Core Portfolio	49,000,000	4,537,999	-	4,814,303	N/A	N/A
European Property Investors Special Opportunities IV (EPISO IV)	2016	Non-Core Portfolio	49,178,496	12,857,637	1,263,170	11,290,206	0.98	-4.2%
H/2 Special Opportunities Fund II	2011	Non-Core Portfolio	40,000,000	39,999,999	34,429,722	25,071,184	1.49	15.4%
H/2 Special Opportunities Fund III	2015	Non-Core Portfolio	65,000,000	56,306,707	4,097,599	63,579,308	1.20	18.3%
H/2 Special Opportunities Fund IV	2017	Non-Core Portfolio	91,000,000	7,834,697	-	8,027,471	1.02	7.3%
JP Morgan Urban Renaissance Property Fund	2009	Non-Core Portfolio	16,360,625	4,206,523	4,206,523	-	1.00	0.0%
KTR Industrial Fund III	2013	Non-Core Portfolio	40,000,000	17,479,475	27,587,374	74,468	1.58	40.5%
Lone Star Real Estate Fund III	2014	Non-Core Portfolio	100,000,000	93,621,050	49,614,515	75,890,001	1.34	19.4%
Metropolitan Workforce Housing Fund	2007	Non-Core Portfolio	14,000,000	14,013,027	14,780,081	2,186,257	1.21	3.9%
NYC Asset Investor #1 LLC	2013	Non-Core Portfolio	50,000,000	53,864,045	7,775,953	60,329,289	1.26	11.7%
NYC Asset Investor #3 LLC	2013	Non-Core Portfolio	50,000,000	25,478,389	195,673	28,994,097	1.15	9.3%
PRISA III	2008	Non-Core Portfolio	50,000,000	59,140,150	-	135,045,361	2.28	12.8%
PW Real Estate Fund III LP	2016	Non-Core Portfolio	46,748,831	11,343,056	-	10,077,576	0.89	-23.1%
Silverpeak Legacy Partners III	2008	Non-Core Portfolio	50,000,000	22,168,479	3,121,878	5,601,792	0.39	-11.6%
Stockbridge Real Estate Fund III	2008	Non-Core Portfolio	27,000,000	26,998,145	16,829,753	14,492,802	1.16	2.5%
Taconic New York City Investment Fund LP	2012	Non-Core Portfolio	70,000,000	28,954,546	22,113,636	29,842,447	1.79	17.1%
The City Investment Fund I	2004	Non-Core Portfolio	225,000,000	221,883,300	224,384,674	481,132	1.01	0.3%
Thor Urban Property Fund II	2009	Non-Core Portfolio	40,000,000	51,756,666	54,781,251	20,195,905	1.45	10.9%
Tishman Speyer Separate Account (ERS)	2004	Non-Core Portfolio	100,000,000	71,066,452	259,755,306	-	3.66	63.2%
UrbanAmerica II	2007	Non-Core Portfolio	25,000,000	23,222,735	2,551,754	-	0.11	-25.4%
Walton Street Real Estate Fund VI	2009	Non-Core Portfolio	50,000,000	44,323,933	43,983,619	22,138,340	1.49	9.2%
Westbrook Real Estate Fund VII	2008	Non-Core Portfolio	40,000,000	43,586,558	38,472,731	13,820,551	1.20	3.4%
Westbrook Real Estate Fund VIII	2010	Non-Core Portfolio	50,000,000	59,390,857	67,801,514	9,892,760	1.31	12.0%
Westbrook Real Estate Fund X	2016	Non-Core Portfolio	36,000,000	5,787,487	-	5,829,419	1.01	2.0%

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

Alternative Assets Manager Performance Detail

Through March 31, 2017



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
TOTAL INFRASTRUCTURE		584,866,510	219,563,188	12,858,693	247,670,474	1.20	12.8%
TOTAL INFRASTRUCTURE INVESTMENTS							
Brookfield Infrastructure Fund II	2013	75,000,000	57,034,236	7,499,627	65,383,740	1.30	14.2%
First Reserve Energy Infrastructure Fund II, L.P.	2014	45,000,000	16,507,706	1,136,233	26,740,748	1.70	70.8%
IFM Global Infrastructure Fund	2014	75,000,000	77,422,805	2,422,805	87,544,665	1.20	8.6%
KKR Global Infrastructure Investors II L.P.	2014	77,000,000	33,235,789	1,161,275	32,364,896	1.00	1.1%
Actis Energy 4	2016	64,300,000	1,913,351	3,346	1,278,000	N/A	N/A
Brookfield Infrastructure Fund III, L.P.	2016	91,000,000	14,835,280	288,508	16,256,292	N/A	N/A
Global Infrastructure Partners III-A/B, L.P.	2016	106,000,000	18,614,021	346,900	18,102,133	N/A	N/A
EQT Infrastructure III	2017	51,566,510	-	-	-	N/A	N/A

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

Alternative Assets Manager Performance Detail

Through June 30, 2017



	Vintage Year	Commitment - Closing (Base)	Contributions Cumulative (Local)	Distributions Cumulative	Final Market Value	3 Month Base%	Inception IRR%
TOTAL OPPORTUNISTIC FIXED INCOME		2,137,844,660	2,052,825,707	940,541,296	1,612,541,292	1.05%	7.95%
Avenue Special Situations Fund V, L.P.	2007	75,784,973	76,951,175	100,497,096	866,777	0.00%	NM
Avenue Europe Special Sit. Fund, L.P.	2008	31,362,194	27,839,090	53,703,162	-		NM
PIMCO DiSCO Fund, L.P.	2008	150,000,000	150,427,750	204,457,599	876,256		11.23%
Alliance Bernstein PPIP Fund, L.P.	2009	41,697,493	41,697,493	57,295,571	-		15.51%
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	61,058,039	18,983,294	0.00%	1.12%
Golden Tree	2011	140,000,000	131,253,192	--	192,999,949	2.17%	8.18%
Marathon Centre Street Partnership, L.P.	2011	218,750,000	241,500,000	52,500,000	275,769,002	-0.43%	8.28%
AG Centre Street Partnership, L.P.	2012	180,000,000	142,200,000	47,626,130	132,159,472	-1.33%	6.12%
Apollo Centre Street Partnership, L.P.	2012	268,750,000	296,149,389	77,129,065	241,923,232	1.69%	3.27%
FCO MA Centre Street L.P.	2012	140,000,000	191,279,508	83,017,526	133,948,850	0.00%	8.67%
OHA Centre Street Partnership, L.P.	2012	175,000,000	177,549,579	56,311,815	170,279,956	2.72%	7.76%
Contrarian Partnership, L.P.	2013	90,000,000	90,000,000	-	103,602,283	1.37%	6.20%
Lone Star Fund VIII(U.S.), L.P.	2013	100,000,000	98,438,980	83,945,296	44,306,952	0.00%	17.97%
Oaktree Opportunities Fund IX, L.P.	2013	100,000,000	100,000,000	14,967,825	91,408,701	3.06%	2.01%
Ares Centre Street LP	2014	140,000,000	128,117,072	-	152,953,456	1.71%	10.18%
Brightwood Capital Fund III, L.P.	2015	35,000,000	28,403,806	5,724,537	24,173,553	0.00%	1.53%
Torchlight Debt Opportunity Fund V, LP	2015	67,000,000	23,450,000	582,774	18,952,217	4.02%	13.26%
Brightwood Capital Fund IV, LP	2016	87,500,000	8,750,000	-	9,286,842	0.00%	9.20%

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

Alternative Assets Manager Performance Detail

Through June 30, 2017



	Market Value	MTD Return%	3 Month Return%	FYTD Return%	YTD Return%	1 Year Return%	3 Year Return%	ITD Return%	ITD Cumulative Return%
TOTAL HEDGE FUNDS	95,598,285	0.06%	-0.37%	2.49%	0.27%	2.49%	0.88%	2.57%	16.47%
TOTAL DIRECT HEDGE FUNDS	73,791,787	0.07%	-0.51%	2.70%	-0.15%	2.70%	1.12%	3.71%	22.21%
FUND OF FUNDS HEDGE FUNDS	21,806,499	0.00%	-0.16%	1.59%	0.58%	1.59%	-0.32%	1.78%	11.14%
TOTAL DIRECT HEDGE FUNDS									
Brevan Howard L.P.	52,391,226	-1.34%	-2.43%	0.06%	-4.13%	0.06%	0.84%	0.71%	3.90%
Tactical Trading	52,391,226	-1.34%	-2.41%	0.27%	-4.01%	0.27%	1.28%	-0.11%	-0.60%
Luxor Capital Partners Liquidating SPV, LLC.	9,995,466	12.75%	14.69%	7.55%	19.45%	7.55%		7.55%	7.55%
Perry Partners L.P.	11,405,095	-3.07%	-4.24%	2.07%	-8.09%	2.07%	-7.16%	-3.15%	-12.24%
Event Driven	21,400,561	3.73%	4.52%	5.33%	4.35%	5.33%	-6.18%	-2.35%	-9.44%
FUND OF FUNDS HEDGE FUNDS									
Fund of Funds Hedge Funds	21,806,499	0.00%	-0.16%	1.59%	0.58%	1.59%	-0.32%	1.78%	11.16%

Information provided by Alpha Frontier

New York City
Employees' Retirement System

Appendix D

Footnotes

Through June 30, 2017



- 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 - 13 - Portfolio Asset Allocation

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

Pages 14 -16 - 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.

Glossary of Terms

Through June 30, 2017



The indexes and most recent policy weights are as follows:

*U.S. Equity: Russell 3000 * 31.33%*

*International Developed (EAFE) Markets: MSCI EAFE IMI Net * 12.89%*

*Emerging Markets: FTSE Custom NYCRS Emerging Markets * 7.01%*

International Emerging Managers FOF: NYC Blended Custom Benchmark for FoF 0.48%*

*REITs: Dow Jones Real Estate Securities * 0.00%*

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

*Private Real Estate – Core: NFI - ODCE Net * 3.13%*

*Private Real Estate – Non Core: NFI - ODCE Net + 200bps * 2.10%*

*Infrastructure: CPI + 4% * 0.37%*

*Hedge Funds: HFRI Fund of Funds Composite Index plus 1% * 0.00%*

*US Treasury Short Term: Citigroup USBIG Treasury 1-3Y * 0.00%*

*US Treasury Intermediate: Citigroup USBIG Treasury/Agency 1-10Y * 0.00%*

*US Treasury Intermediate Long: NYC Treasury Agency + 5 * 10.69%*

*Core FI-Developing Managers: BBG Barc Agg * 0.00%*

*Core FI-Emerging Managers: BBG Barc Agg * 0.00%*

*Mortgage: Citigroup Mortgage Index * 3.60%*

*ETI: ETI Custom Benchmark * 1.27%*

*Investment Grade Credit: NYC – Investment Grade Credit * 4.87%*

*High Yield: Citigroup BB&B * 6.15%*

Through June 30, 2017



*Bank Loans: Credit Suisse Leveraged Loan * 2.00%*

*TIPS: Lehman U.S. TIPS * 4.41%*

*Convertible Bonds: BofAML All Convertibles Ex Mandatory * 0.00%*

*Opportunistic Fixed: OFI - JPMGHY / CSFB 50/50 Blend Plus 300 b.p. per annum * 2.71%*

Page 17 – 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.