



New York City
Fire Department Pension Fund, Subchapter Two
Performance Overview as of June 30, 2016

Total Fund Overview

New York City Fire Department Pension Fund, Subchapter Two

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Equity Markets

The S&P 500 managed to end June modestly positive and returned 2.5% in the second quarter. The Russell 2000 had a strong quarter as 9 out of the 10 economic sectors registered positive returns. From a sector basis, the more defensive sectors led the market higher with Energy, Telecommunications, Utilities and Health Care. Sectors lagging in the quarter were Consumer Discretionary, Information Technology, and Industrials.

Across the developed world, equity markets declined following the UK's decision to leave the EU before rallying in the final days of the quarter. Ireland and Italy led developed markets lower, selling off 9.9% and 9.7% respectively. In local terms, Japanese equity markets declined nearly 7%. While, for US dollar investors, Japan equities returned a positive 1% as the Yen approached a 2 year high against the dollar. The Yen has rallied considerably for the year and continues to benefit from its perceived safe-haven status. Similar to the US, energy was the top sector in developed markets, returning roughly 11.5% while consumer discretionary stocks were one of the weakest returning -8.2% for the quarter.

Within emerging markets, investors looked past the Brexit fears and recognized ongoing positive developments. Latin America was a particular focus, where favorable election results in Peru and further progress in the impeachment process in Brazil led to those markets returning 16.9% and 13.3%, respectively. In contrast, China equity markets continued to waver, trailing the broader benchmark with a return of -1.7%. From a sector perspective, consumer staples stocks performed the best, returning 4.2% for the quarter.

Fixed Income Markets

The second quarter illustrated the current dichotomy within fixed income: safe-haven assets rallied significantly, while risky assets also outperformed as investors continued to search for yield. Globally, the 10 year German bund broke into negative territory, falling 28 bps to -0.13%. In Japan, 10-year bond yields continued to move lower, settling at -0.22%. At home, the U.S. 10 year Treasury yield compressed 29 bps, nearing its all-time low at 1.49%.

The Barclays Aggregate returned 2.2%, while US High Yield returned 5.5% for the quarter. Overall, credit was broadly supported by lower quality sectors. Non-credit risk assets also performed well, as emerging market local debt returned 2.7% in the quarter with a strong rebound in June of 5.9%. For the year, emerging local debt remains one of the best performing risk assets in fixed income, returning over 14%.

Commodity Markets

Commodities posted another strong quarter as the Bloomberg Commodity Index's 12.8% return represented the best quarterly return for the index since 2010. In the energy sector, oil prices continued to recover breaching

Through June 30, 2016



\$50 despite an overhang in US inventories. Among precious metals, gold prices benefited from a demand for safe haven assets and expectations the Federal Reserve would hold policy rates at current levels. Industrial metals also rallied, benefiting from low inventories and higher demand expectations due to stimulus in China. Furthermore, in the agriculture sector, soybean prices reached a 2 year high as flooding in Argentina raised concerns of tighter global supplies.

Hedge Funds

The second quarter began on a positive note as distressed oriented and activist strategies recovered losses following a difficult first quarter. However, the shock of the Brexit vote at the end of quarter resulted in turmoil across many sub-strategies. Among the major sub-strategies, credit-linked approaches led the way in positive performance. Credit strategies broadly benefited from tightening high yield spreads associated with lower credit quality sectors. Structured credit continued to perform well in the second quarter as mortgage-backed and consumer-backed securities produced positive returns. Event-Driven strategies produced mixed result for the quarter. The early gains in merger arbitrage were muted by volatility surrounding the Brexit vote but the recent uptick in merger and acquisition activity is likely to be a positive tailwind. Results for macro strategies were also mixed as some trend strategies struggled with the sharp market movements. In the equity space, volatile price reversals within industries continue to pose challenges for long-short equity. However, yield related equity sectors performed well benefiting some long biased strategies.

Private Markets

Global private buyout deal value was \$88 billion, more than twice of what was transacted in the first quarter. Exit volume also increased over the first quarter but totals for 2016 are down nearly 33% from the prior year period as IPO activity continues to be subdued. The private debt space remains attractive as direct lending spreads have increased across the capital structure in 2016. The increase in credit spreads is partially attributed to Business Development Companies ("BDCs") exiting the lending market due to significant stock underperformance. NEPC continues to advocate allocations to direct lending and for investors to embrace the illiquidity premium in private credit strategies.

In real assets, we are positive on energy, negative on timber, and neutral on agriculture, infrastructure, and metals and mining. NEPC continues to evaluate energy-related investment opportunities, although the stress on company balance sheets has alleviated as commodity prices have rallied off their lows. Our highest conviction remains in private equity, as these managers appear best-equipped to invest and manage assets amidst a volatile commodity recovery.

Through June 30, 2016



In real estate, we remain neutral on US private core real estate and REITS. While valuations in primary markets are well above past peak levels, fundamentals are strong and pricing remains attractive on a relative basis to US Treasuries. We are positive on value-add and opportunistic real estate and believe select European strategies remain attractive. For non-core real estate in the US, we favor cash flow-driven, niche-focused managers who are disciplined and attentive to the current stage of the expansion.

Performance:

For the second quarter of 2016, the Fund returned 2.02% (Gross) and 1.97% (Net), which ranked in the 30th percentile of the Public Master Trust Universe (Gross), underperforming the policy index return of 2.16%. For the one year ended June 30, 2016, the Fund returned 1.67% (Gross) and 1.41% (Net), which ranked in the 26th percentile in the Public Master Trust Universe (Gross). Over the trailing 3-year and 5-year periods, the Fund returned 7.32% (Gross) and 6.93% (Gross), respectively.

Equity Composite

For the quarter, the Total Domestic Equity Portfolio returned 2.50% (Net), underperforming the Russell 3000 Index return of 2.63% by 13 basis points.

At the end of the second quarter, the Fund had an allocation to international equity of 15.8%. Of this total, 40.46% was allocated to emerging markets equity and 59.54% was allocated to developed international markets. The Fund also allocates across style in the international space, with 21.88% of the allocation invested in active value mandates, 2.94% in developed large cap passive, 24.89% in growth mandates, 8.27% in developed small cap active and 1.53% in developed small cap passive mandates. A total of 19.17% of the total international allocation was invested passively, including 14.70% invested in Emerging Markets Passive investments and 4.47% invested in Passive developed investments; remainder includes the actively managed strategies.

The Total Domestic Equity Composite returned 2.50% (Net) in the second composite, underperforming the Russell 3000 Index, which returned 2.63%. The Small Cap Composite posted a return of 4.74% (Net), outperforming the Russell 2000 Index return of 3.79% by 95 basis points. The Mid Cap Composite posted a return of 1.56% (Net), trailing the Russell Midcap Index of 3.18%.

The International Developed Equity Composite returned -0.33% (Net) in the second quarter, outperforming the MSCI EAFE Index which returned -1.46%. The Emerging Markets Composite returned 0.13% (Net) in the second quarter, underperforming the MSCI EM Index which returned 0.66%.

Fixed Income Composite

At the end of the second quarter, the Fund had an allocation to fixed income of 34.2%. Of the allocation to fixed

Through June 30, 2016



income, 51.0% was invested in structured fixed income, 11.0% was allocated to high yield, 14.6% was invested in TIPS, 4.6% was allocated to cash and short term investments, 4.9% allocated to bank loans, 1.4% was in convertible bonds, 2.4% was allocated to economically targeted investments (ETI), 8.1% was allocated to opportunistic fixed income, 0.8% to Progress Fixed and 1.2% allocated to core plus.

The Structured Fixed Income Composite returned 2.89% (Net) in the second quarter, outperforming the NYC Core plus 5 Index return of 2.71% by 18 bps. The Barclays Capital Aggregate Index returned 2.21% for the quarter.

The Enhanced Yield or high yield fixed income composite, posted a return of 4.46% (Net), which underperformed the Citigroup BB&B Capped Index return of 4.89% by 43 bps.

The TIPS Composite returned 1.70% (Net), which underperformed the Barclays Global Inflation Linked: US TIPS Index return of 1.71% for the quarter.

The Opportunistic Fixed composite returned 4.86% (Gross), which underperformed the JP Morgan Global High Yield + 3% Index return of 6.77% by 191 bps.

Real Estate Equity Securities Composite & Private Equity

As of June 30, 2016 the Fund had \$384.3 million invested in REITs for a commitment of 3.5% of Total Fund assets. In the second quarter, the REIT portfolio returned 2.56% (Net), underperforming the DJ US Select Real Estate Securities Index return of 5.42%. As of June 30th, the Fund had an allocation to Private Real Estate of 4.7% and 7.3% allocated to Private Equity.

Hedge Funds

The allocation to hedge funds as of June 30, 2016 was \$394.4 million, 3.6% of the total fund. The second quarter return for the hedge fund portfolio was 0.66%, underperforming the HFRI FOF Composite Index +1% return of 0.86%, and underperforming the 1 Yr. T-bill yield + 4% return of 1.35%.

Total Portfolio Returns: June 30, 2016

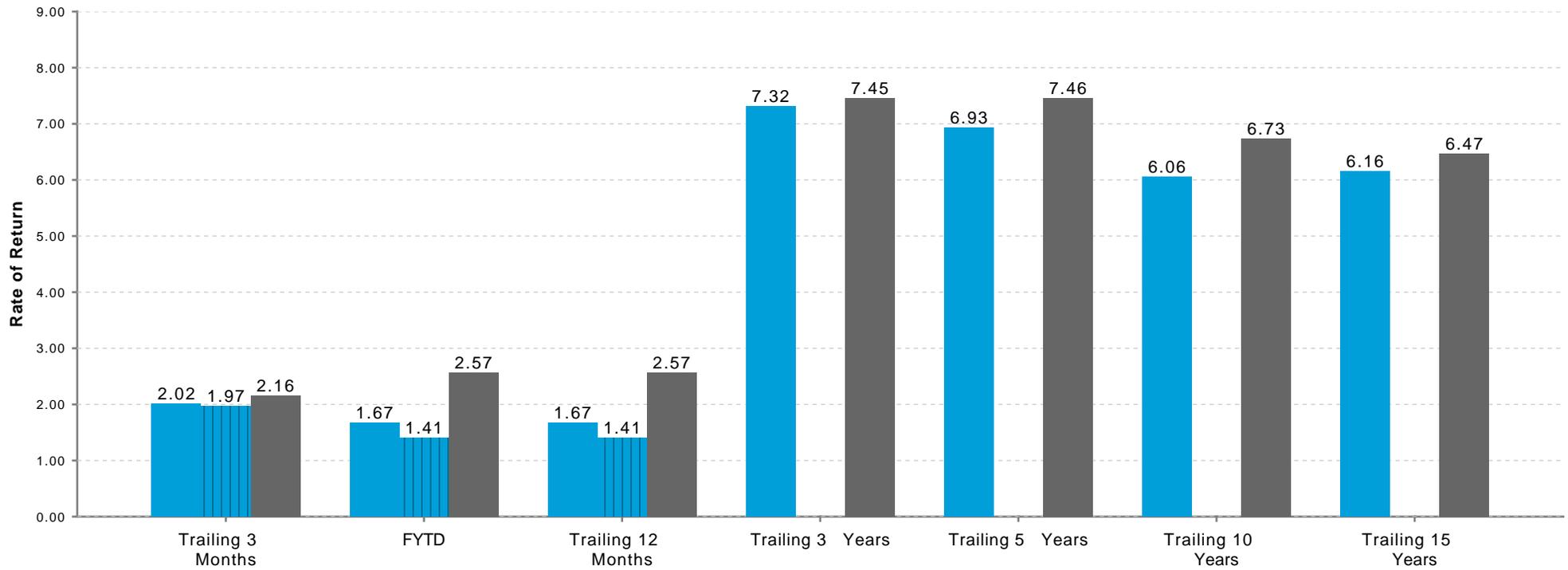


Market Value (Billions)

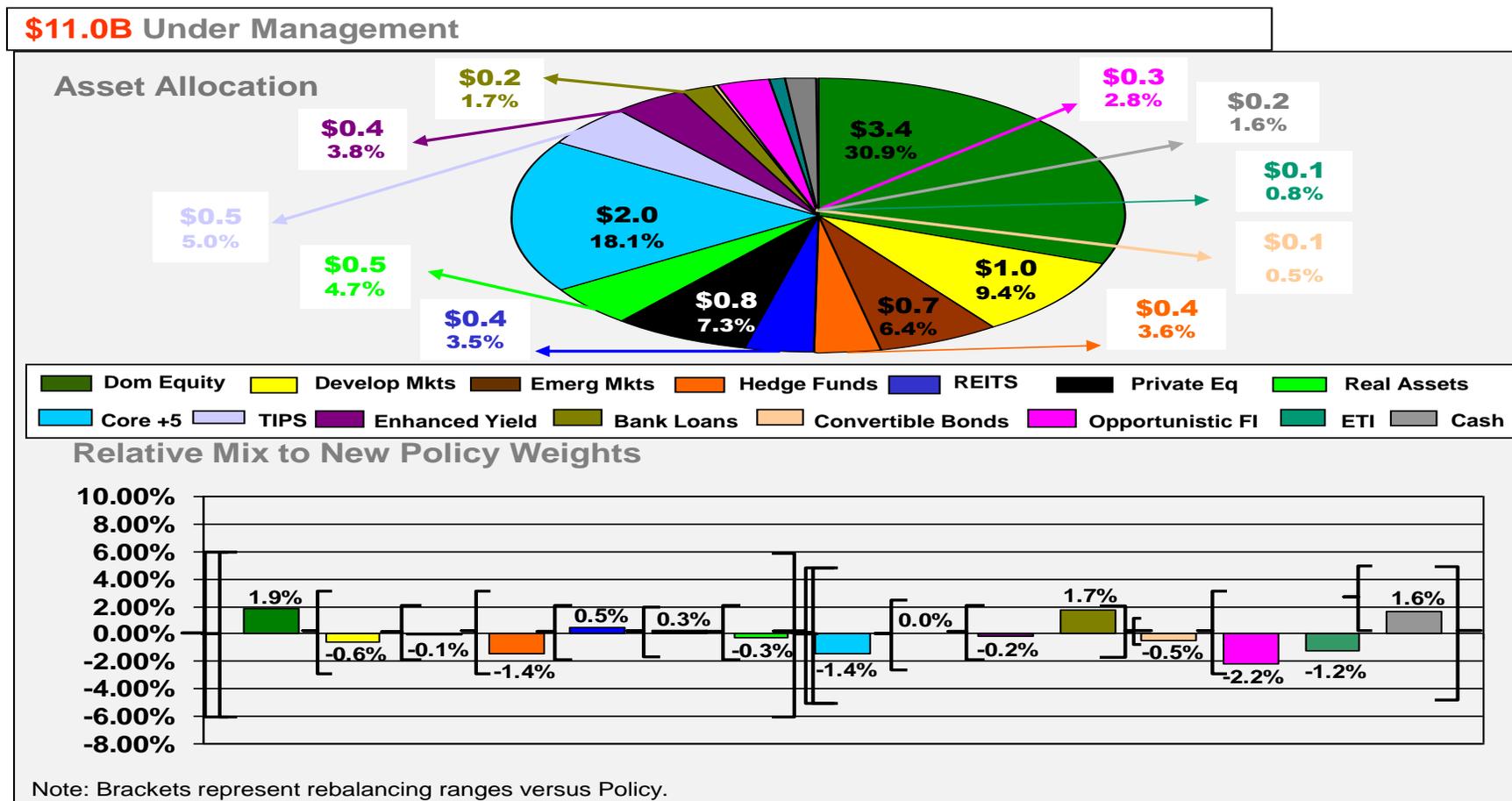
TOTAL FIRE

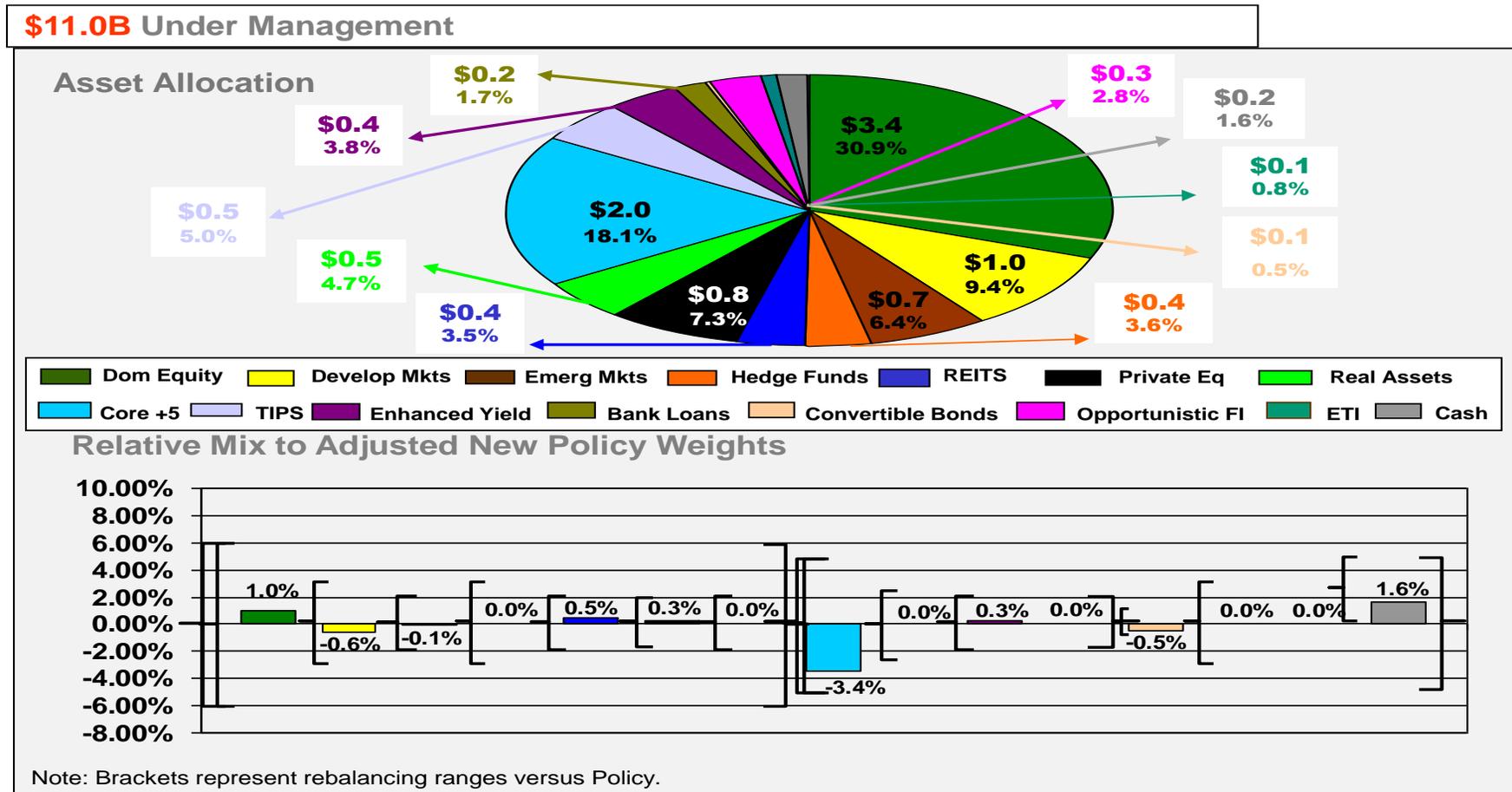
\$11.0

■ Total Fire - Gross ■ Total Fire - Net Mgr ■ Fire Policy Benchmark

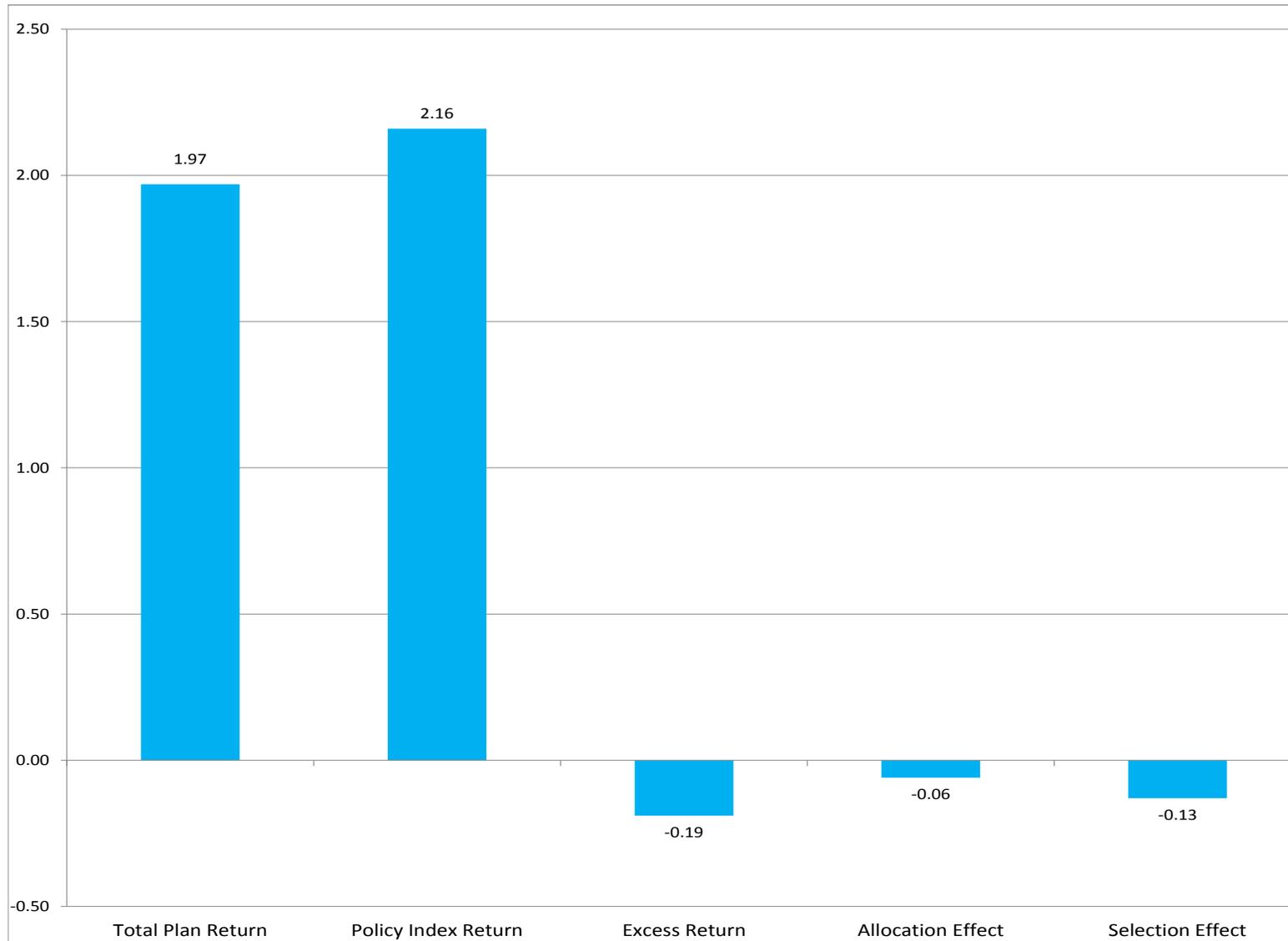


	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 10 Years	Benchmark 10 Years
Standard Deviation						
TOTAL FIRE	6.5	6.2	6.9	7.5	10.3	11.5

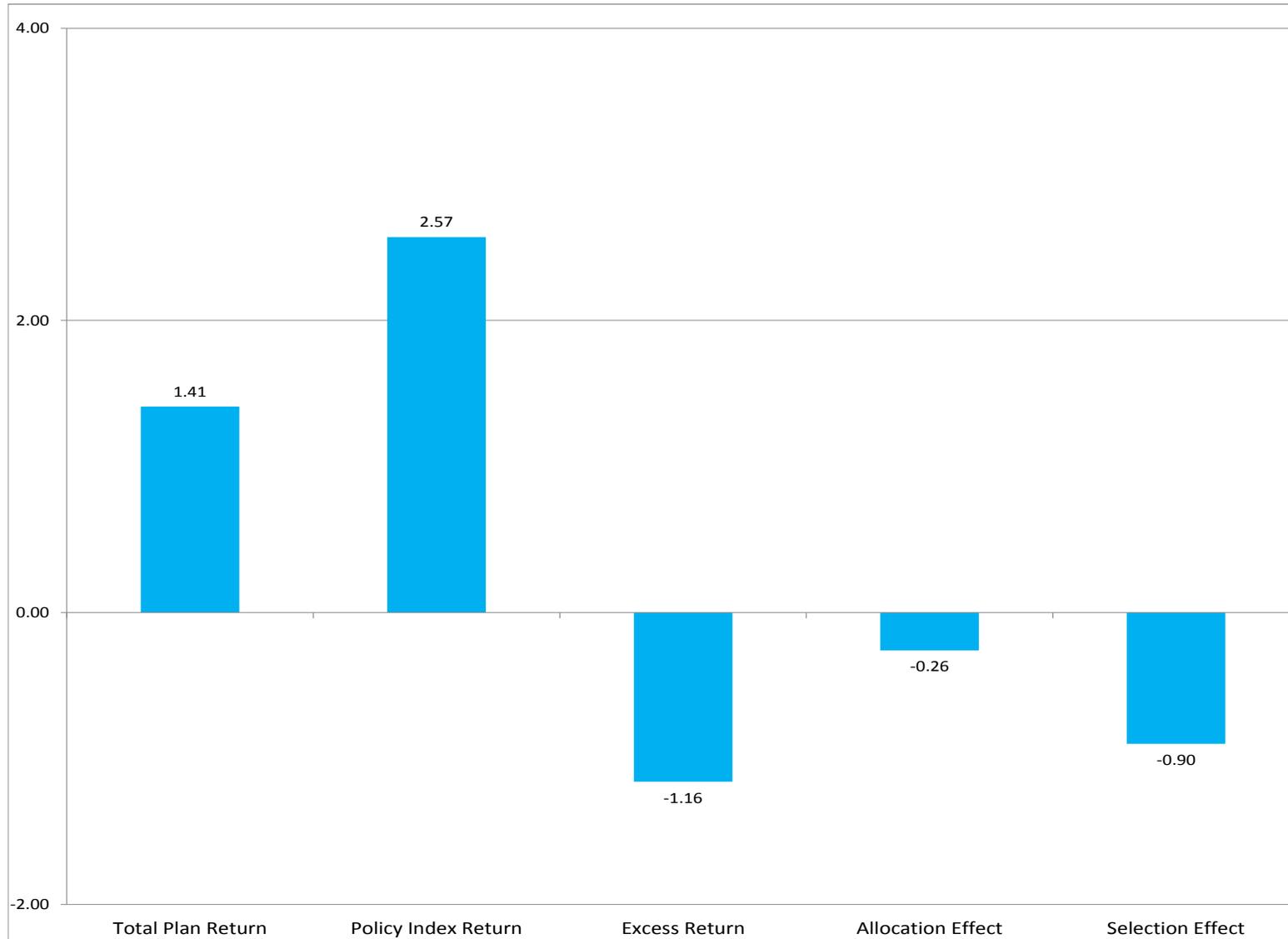




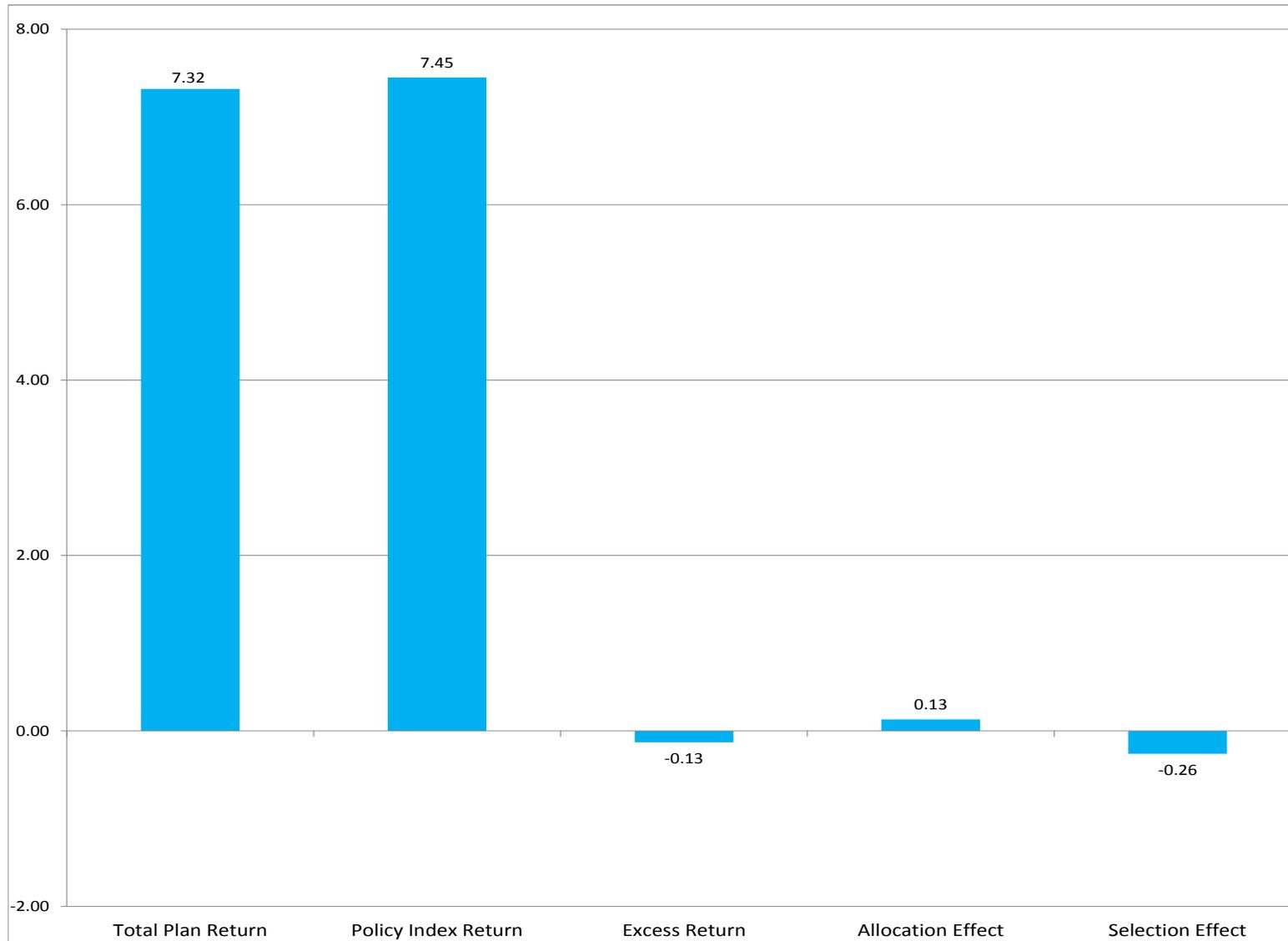
Performance Attribution: Total Plan - Quarter Ending: June 30, 2016



Performance Attribution: Total Plan - 12 Month Ending: June 30, 2016



Performance Attribution: Total Plan Gross of Investment Advisory Fees- 3 Years Ending: June 30, 2016





Allocation Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL FIRE	-0.06	-0.26	0.13	Fire Policy Benchmark
TOTAL DOMESTIC EQUITY	0.00	-0.06	0.14	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.00	-0.02	-0.03	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.01	0.01	-0.02	MSCI EMERGING MARKETS
TOTAL PRIVATE EQUITY	-0.01	-0.02	0.00	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	0.00	0.01	0.01	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.00	0.00	CPI + 4%
TOTAL HEDGE FUNDS	0.00	0.00	0.00	1 Year Treasury Bill Yield + 4%
TOTAL REAL ESTATE SECURITIES	0.01	0.05	-0.01	DJ U.S. Select REIT
TOTAL STRUCTURED	-0.02	-0.19	0.12	NYC - CORE PLUS FIVE
TOTAL ENHANCED YIELD	0.01	-0.01	-0.01	CITIGROUP BB & B
TOTAL BANK LOANS	0.00	0.00	0.00	CSFB LEVERAGED LOAN INDEX
TOTAL TIPS MANAGERS	0.00	-0.06	0.10	BARCLAYS U.S TIPS INDEX
TOTAL CONVERTIBLE BONDS	-0.01	0.04	0.00	BofAML ALL CONVERTIBLE - Ex Mandatory
TOTAL OPPORTUNISTIC FIXED	0.00	0.00	0.00	10% Annual Return
TOTAL CASH	-0.04	-0.01	-0.15	

Selection Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL FIRE	-0.13	-0.90	-0.26	Fire Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.04	-0.29	-0.07	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.11	0.24	0.10	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.04	-0.03	0.04	MSCI EMERGING MARKETS
TOTAL PRIVATE EQUITY	-0.08	0.19	-0.11	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	0.02	0.01	0.03	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.01	0.01	CPI + 4%
TOTAL HEDGE FUNDS	-0.08	-0.30	-0.08	1 Year Treasury Bill Yield + 4%
TOTAL REAL ESTATE SECURITIES	-0.10	-0.29	-0.07	DJ U.S. Select REIT
TOTAL STRUCTURED	0.03	-0.14	0.00	NYC - CORE PLUS FIVE
TOTAL ENHANCED YIELD	-0.02	-0.02	0.01	CITIGROUP BB & B
TOTAL BANK LOANS	-0.01	0.01	0.02	CSFB LEVERAGED LOAN INDEX
TOTAL TIPS MANAGERS	0.00	0.00	0.00	BARCLAYS U.S TIPS INDEX
TOTAL CONVERTIBLE BONDS	-0.01	0.02	-0.01	BofAML ALL CONVERTIBLE - Ex Mandatory
TOTAL OPPORTUNISTIC FIXED	0.06	-0.34	-0.15	10% Annual Return
TOTAL CASH	0.00	0.01	0.01	

*Returns are Gross of Investment Advisory Fees

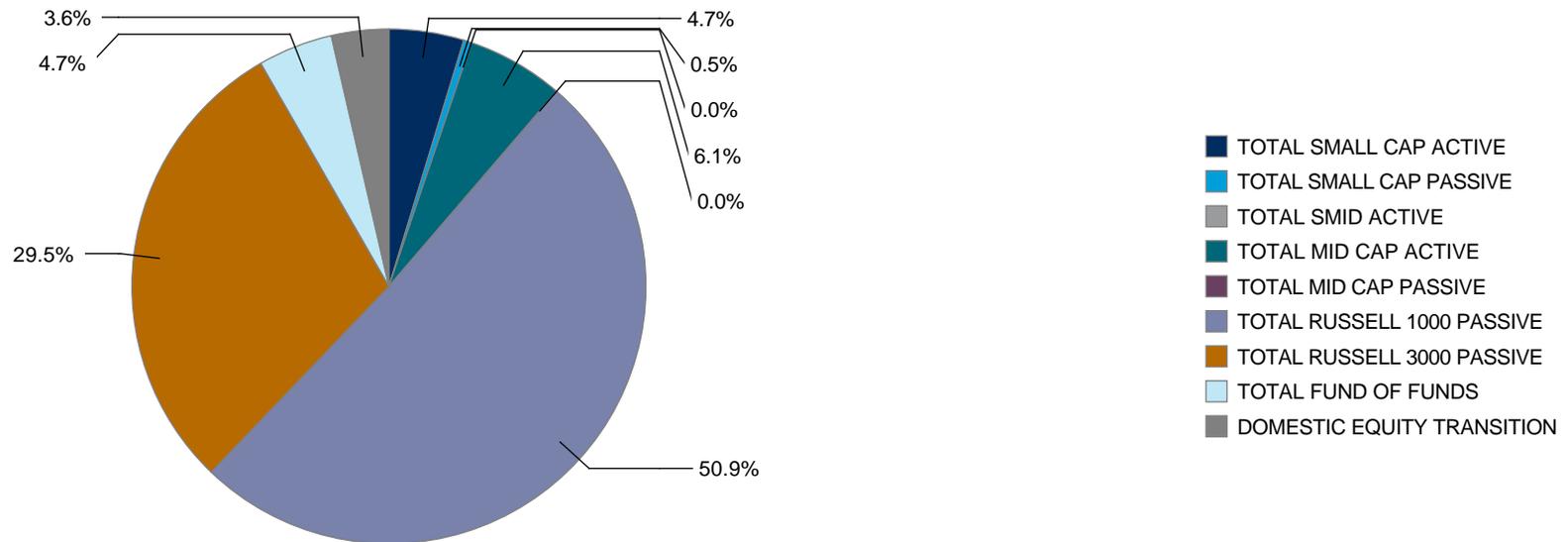
Total Domestic Equity Asset Allocations: June 30, 2016



Market Value (Billions)

TOTAL DOMESTIC EQUITY

\$3.4

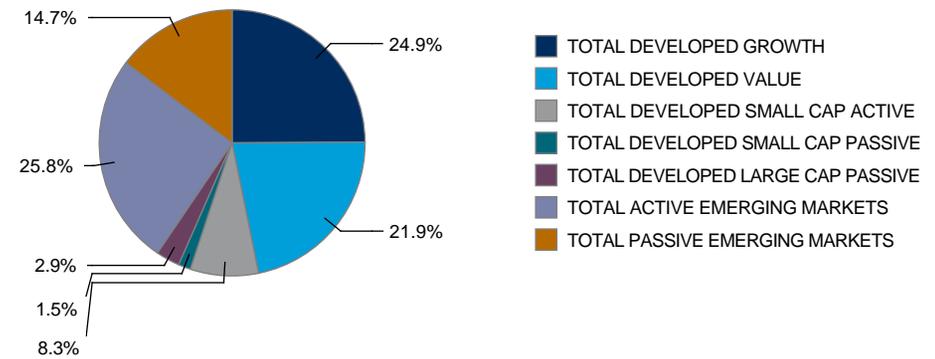
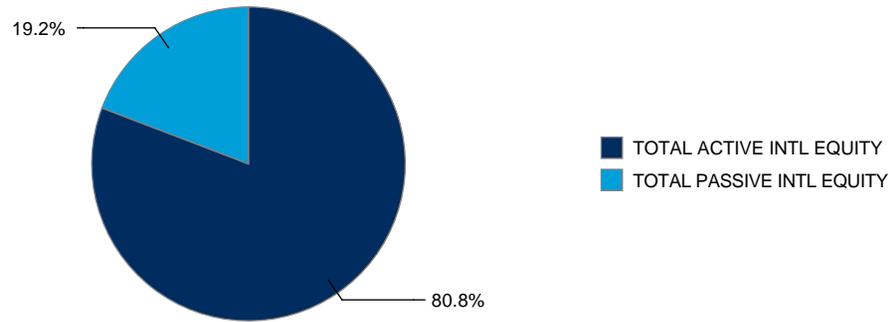


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL SMALL CAP ACTIVE	3.90	4.74	0.84	3.79	4.83	1.04
TOTAL SMALL CAP PASSIVE	2.95	0.47	-2.48	3.79	3.44	-0.35
TOTAL SMID ACTIVE	1.60	0.00	-1.60	4.37		-4.37
TOTAL MID CAP ACTIVE	6.65	6.13	-0.52	3.18	1.93	-1.26
TOTAL MID CAP PASSIVE	7.53	0.00	-7.53	3.99	-0.53	-4.52
TOTAL RUSSELL 1000 ACTIVE	8.17	0.00	-8.17	2.54		-2.54
TOTAL RUSSELL 1000 PASSIVE	33.95	50.85	16.90	2.54	2.67	0.14
TOTAL RUSSELL 3000 PASSIVE	30.80	29.50	-1.30	2.63	2.61	-0.02
TOTAL EMERGING MANAGERS	4.45	4.67	0.22	3.79	1.57	-2.22
DOMESTIC EQUITY TRANSITION	0.00	3.64	3.64			

International Equity Asset Allocation: June 30, 2016



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL INTERNATIONAL EQUITY	\$1.7	15.8

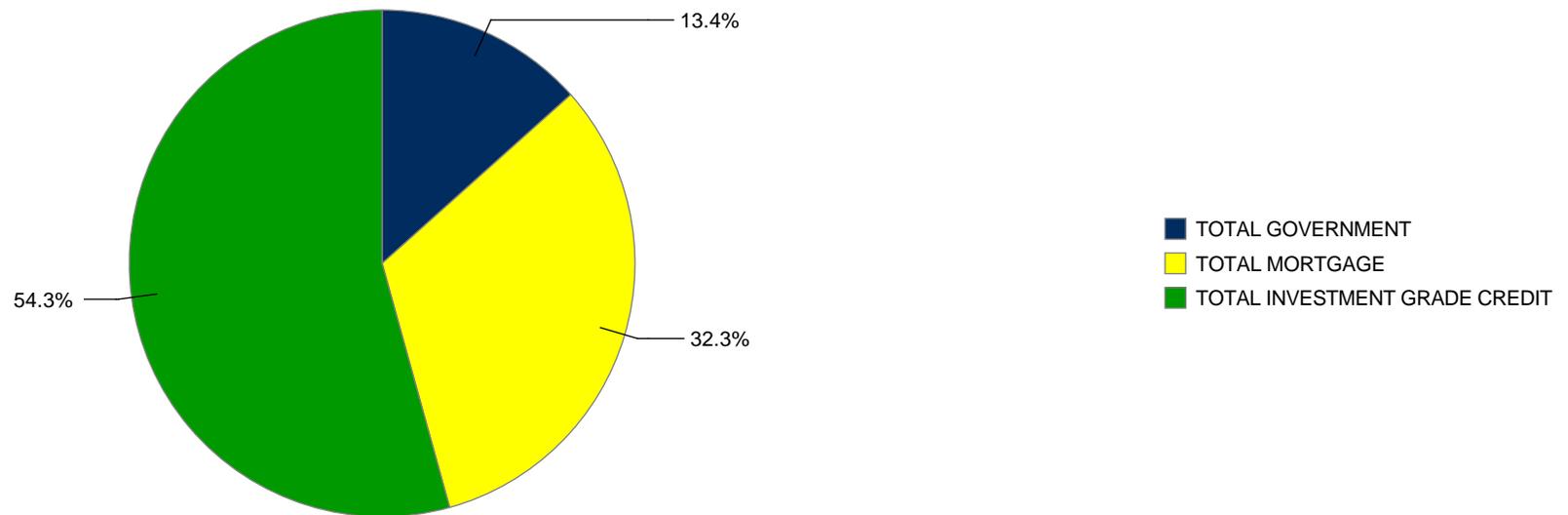


	<u>Asset Class Weight</u>	<u>Quarterly Returns - Fund and Benchmarks</u>		
		<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL DEVELOPED GROWTH	24.89	1.38	(0.15)	1.52
TOTAL DEVELOPED VALUE	21.88	(1.08)	(2.79)	1.71
TOTAL DEVELOPED SMALL CAP ACTIVE	8.27	(2.15)	(2.79)	0.64
TOTAL DEVELOPED SMALL CAP PASSIVE	1.53	(2.26)	(2.60)	0.34
TOTAL DEVELOPED LARGE CAP PASSIVE	2.94	(1.22)	(1.46)	0.24
TOTAL ACTIVE EMERGING MARKETS	25.76	(0.09)	0.66	(0.75)
TOTAL PASSIVE EMERGING MARKETS	14.70	0.72	0.66	0.06
TOTAL INTERNATIONAL EQUITY	100.00	(0.07)	(0.64)	0.57

Structured Fixed Income Asset Allocation: June 30, 2016



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL STRUCTURED	\$1.9	17.4

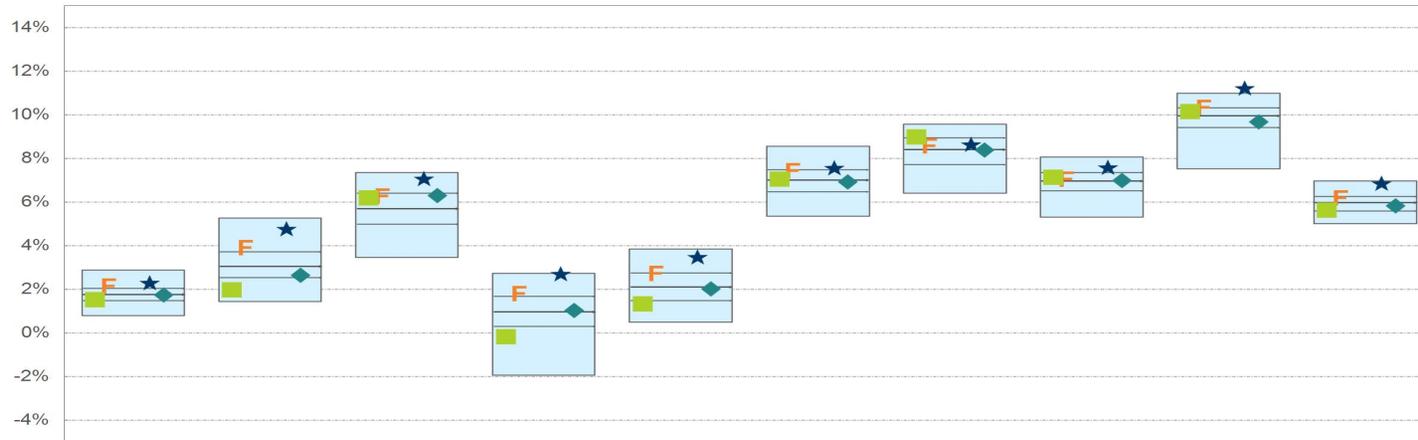


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
Total Treasury/Agency	22.18	13.34	-8.84	3.96	4.00	0.05
Total Mortgage	34.25	32.34	-1.91	1.07	1.14	0.07
Total Inv Grade Credit	43.57	54.32	10.75	3.42	3.73	0.31



City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$1 Billion
Cumulative Periods Ending : June 30, 2016

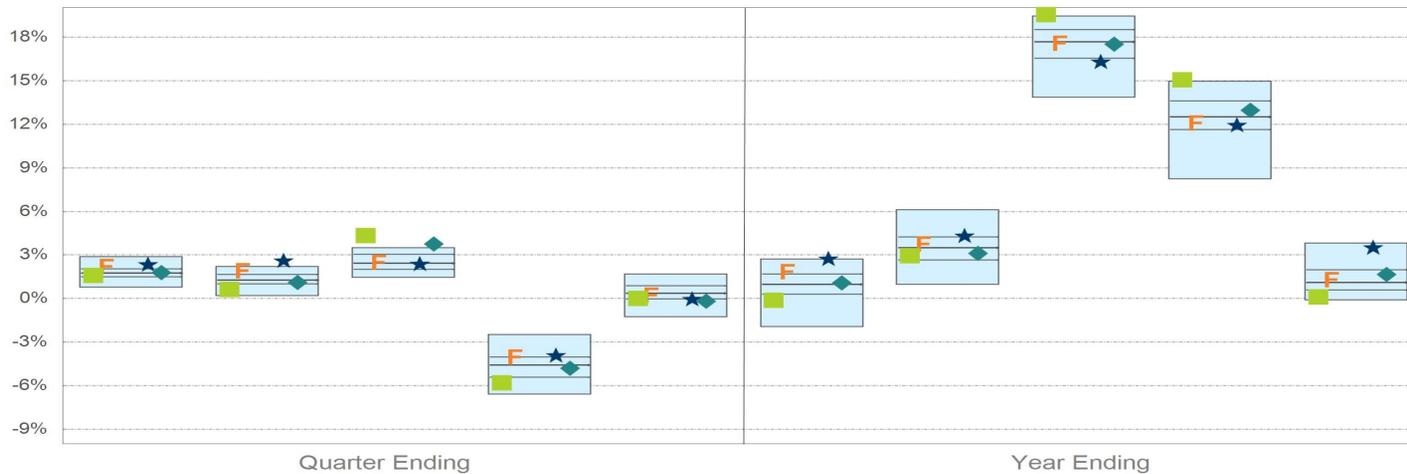


Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	2.87	5.27	7.36	2.73	3.85	8.56	9.57	8.06	10.99	6.96
25th	2.04	3.71	6.41	1.68	2.75	7.48	8.94	7.36	10.33	6.27
50th	1.77	3.05	5.70	0.97	2.11	7.02	8.42	6.96	9.96	5.98
75th	1.49	2.53	4.99	0.30	1.48	6.48	7.72	6.51	9.43	5.60
95th	0.79	1.44	3.47	-1.94	0.48	5.36	6.40	5.31	7.52	5.01
No. Of Obs	61	61	61	61	61	61	61	61	56	55
F Total System - Fire	2.02 (30)	3.78 (21)	6.16 (35)	1.67 (26)	2.61 (26)	7.32 (33)	8.45 (46)	6.93 (55)	10.22 (33)	6.06 (42)
★ Fire Policy Benchmark	2.16 (18)	4.65 (7)	6.95 (12)	2.57 (5)	3.36 (15)	7.45 (26)	8.52 (41)	7.46 (20)	11.11 (2)	6.73 (5)
■ Public Mkt Equiv 25	1.40 (85)	1.84 (88)	6.07 (36)	-0.30 (83)	1.21 (88)	6.93 (50)	8.87 (28)	7.02 (45)	10.02 (46)	5.51 (82)
◆ Public Mkt Equiv 35	1.60 (68)	2.52 (75)	6.17 (33)	0.89 (55)	1.89 (61)	6.80 (61)	8.26 (58)	6.86 (55)	9.56 (67)	5.69 (67)



City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$1 Billion
Consecutive Time Periods: June 30, 2016



Percentile Rankings	Jun 16	Mar 16	Dec 15	Sep 15	Jun 15	Jun 16	Jun 15	Jun 14	Jun 13	Jun 12
5th	2.87	2.20	3.50	-2.47	1.69	2.73	6.10	19.45	14.96	3.83
25th	2.04	1.65	3.06	-4.02	0.89	1.68	4.24	18.53	13.59	1.98
50th	1.77	1.28	2.44	-4.57	0.38	0.97	3.51	17.66	12.51	1.11
75th	1.49	1.02	2.02	-5.41	-0.01	0.30	2.66	16.55	11.63	0.60
95th	0.79	0.22	1.45	-6.57	-1.24	-1.94	0.98	13.85	8.25	-0.07
No. Of Obs	61	61	61	61	61	61	61	61	61	61
F Total System - Fire	2.02 (30)	1.72 (21)	2.30 (58)	-4.23 (33)	0.03 (73)	1.67 (26)	3.55 (48)	17.40 (60)	11.90 (70)	1.10 (51)
★ Fire Policy Benchmark	2.16 (18)	2.44 (4)	2.20 (61)	-4.09 (26)	-0.20 (80)	2.57 (5)	4.15 (28)	16.14 (78)	11.77 (71)	3.33 (5)
■ Public Mkt Equiv 25	1.40 (85)	0.44 (93)	4.15 (1)	-6.00 (88)	-0.17 (80)	-0.30 (83)	2.74 (71)	19.36 (5)	14.88 (5)	-0.08 (95)
◆ Public Mkt Equiv 35	1.60 (68)	0.91 (80)	3.56 (4)	-4.98 (65)	-0.38 (87)	0.89 (55)	2.91 (68)	17.33 (60)	12.76 (41)	1.46 (40)

Wilshire Trust Universe Comparison Service® (TUCS®)

FIRE RETIREMENT SYSTEM				
ACTUAL FEES FOR FISCAL YEAR ENDING JUNE 30, 2015 AND ESTIMATED FEES FOR FY 2016 UPDATED THROUGH SEPTEMBER 2015				
	Actual 2015		Estimates 2016	
INVESTMENT STYLE (EQUITIES)	MV 06-30-15 (\$MM)	Mgmt Fees in Basis Points	MV 09-30-15 (\$MM)	Mgmt in Basis Points
US Equities	3,346	16.71	3,098	14.60
Small Cap Active	172	87.71	159	69.99
Small Cap Growth	40	70.44	37	99.97
Small Cap Value	133	54.23	122	57.03
Small Cap core	-	-	-	-
Small Cap Fundamental Index	-	-	-	-
Small/Mid Cap Active	77	57.97	-	0.00
Small/Mid Cap Growth	-	0.00	-	0.00
Small/Mid Cap Value	77	57.97	-	-
Mid Cap Active	397	56.09	366	58.68
Mid Cap Growth	178	58.56	165	61.46
Mid Cap Value	108	53.90	96	56.12
Mid Cap core	111	54.24	104	56.66
Russell 1000 Active	-	-	-	-
Russell 1000 Fundamental Index	-	-	-	-
Active Emerging Managers (U.S. Equities)	173	70.96	154	74.61
Total US Active Equities	819	66.06	678	64.24
Total US Passive Equities	2,527	0.71	2,420	0.68
Environmental US E. Strategies	-	-	-	-
International Equities	1,804	32.44	1,650	32.10
Active EAFE Equities	1,032	30.39	918	32.19
Growth	457	26.17	401	28.96
Value	429	27.10	380	29.29
Core	0	0.00	-	-
Small Cap	145	47.28	136	49.79
Non-US Environmental Strategies	-	-	-	-
Active Emerging Markets	507	51.04	419	52.16
Total Int'l Active Equities	1,539	37.19	1,337	38.45
Total Int'l Passive Equities	265	4.89	313	4.95
REITS Passive Index	340	36.43	344	34.01

Information provided by the New York City Comptroller

FIRE RETIREMENT SYSTEM				
ACTUAL FEES FOR FISCAL YEAR ENDING JUNE 30, 2015 AND ESTIMATED FEES FOR FY 2016 UPDATED THROUGH SEPTEMBER 2015				
	Actual 2015		Estimates 2016	
INVESTMENT STYLE (FIXED INCOME)	MV 06-30-15 (\$MM)	Mgmt Fees in Basis Points	MV 09-30-15 (\$MM)	Mgmt in Basis Points
Fixed Income	3,572	11.63	3,256	13.05
Structured Program	2,018	6.94	2,032	7.11
Government Sector	228	8.45	236	8.20
Mortgage Sector	817	5.43	827	5.24
Investment Grade Credit Sector	973	7.86	970	8.44
Global Fixed Income	41	6.57	41	20.81
Progress Fixed Emerging Managers	28	34.40	28	34.25
TIPS	300	3.07	297	2.57
Active TIPS	114	7.12	112	5.97
Passive TIPS	187	0.60	185	0.50
Enhanced Yield	410	34.40	392	34.84
Bank Loans	182	36.97	181	37.48
Convertible Bonds	54	42.13	52	52.59
ETI - Access - RBC	20	22.83	19	22.65
ETI - AFL-CIO HIT	42	42.51	43	42.64
Total Public Markets (Externally managed)	8,587	19.61	8,177	18.63
Other ETI Programs	10	-	12	-
In-House Short Term	465	0.00	156	0.00
Total Public Markets	9,062	18.58	8,346	18.26
INVESTMENT STYLE (PRIVATE)				
Hedge Funds	393	168.35	311	144.43
Private Equities	703	133.06	773	143.52 ¹
Real Assets	432	113.78	433	113.52 ¹
Private Real Estate	414	112.87	414	109.01
Infrastructure	18	70.77	19	88.74 ²
Opportunistic Fixed Income	275	63.49	282	64.51
Total Private Markets	1,804	125.52	1,798	124.09 ³
Total Overall	10,866	36.34	10,144	37.02 ⁴
Footnotes				
1 - Private Equity & Real Assets Investments exclude GP CARRY & Incentive Fees .				
2- Infrastructure Fees are based on committed Amounts for each investment which are higher than the actual Market Values.				
3- Private Equity and Private Real Estate fees are based on Invested values and committed amounts depending on the age of the investment.				
4- The Incentive Fees paid for the Fire Fund in 2015 are 16.46 BPS.				

Information provided by the New York City Comptroller

NYC FIRE DEPARTMENT PENSION FUND SECURITIES LENDING INCOME
June 30, 2016

	<u>U.S. FIXED INCOME</u>	<u>U.S. EQUITY</u>	<u>INTERNATIONAL EQUITY</u>	
1989*	\$109,000	--	--	
1990	104,000	--	--	
1991	157,000	--	--	
1992	429,000	\$47,000	\$48,000	
1993	762,000	146,000	102,000	
1994	693,000	267,000	102,000	
1995	495,000	306,000	96,000	
1996	455,000	228,000	179,000	
1997	473,000	512,000	257,000	
1998	789,000	552,000	356,000	
1999	716,000	690,000	408,000	
2000	734,000	897,000	408,000	
2001	1,176,000	1,286,000	561,000	
2002	671,000	1,162,000	506,000	
2003	349,000	644,000	452,000	
2004	505,000	670,000	462,000	
2005	740,000	1,070,000	574,000	
2006	599,000	1,753,000	713,000	
2007	1,437,000	3,180,000	786,000	
2008	4,172,000	6,798,000	1,236,000	
2009	1,606,000	3,588,000	817,000	
2010	760,000	2,047,000	563,000	
2011	977,000	2,674,000	927,000	
2012	1,229,000	3,324,000	832,000	
2013	893,000	3,467,000	704,000	
2014	756,000	2,028,000	1,739,000	
2015	788,000	2,034,000	2,407,000	
2016 (6 Months)	340,000	867,000	1,952,000	
Since Inception	<u>\$22,914,000</u>	<u>\$40,237,000</u>	<u>\$17,187,000</u>	*Inception 4/89

**New York City
Fire Department Pension Fund, Subchapter Two**

Appendix A

Consolidated Performance Report

Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date	
SYSTEM RETURN SUMMARY															
5	FIRE-TOTAL PORTFOLIO - GROSS	10,953	100.00	2.02	1.67	3.78	0.34	7.55	15.87	13.13	0.84	6.93	6.06	8.43	07/01/1987
	FIRE - ESTIMATED INVESTMENT FEES			(0.05)	(0.25)	(0.12)	(0.25)	(0.29)							
	EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL)			(0.03)	(0.14)	(0.07)	(0.15)	(0.16)							
	EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH)			(0.02)	(0.11)	(0.05)	(0.10)	(0.13)							
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	FIRE-TOTAL PORTFOLIO - NET MGR			1.97	1.41	3.65	0.09	7.26							
	FIRE POLICY BENCHMARK			2.16	2.57	4.65	0.43	8.43	14.29	13.45	2.36	7.46	6.73		
	EXCESS RETURN			(0.20)	(1.16)	(1.00)	(0.33)	(1.17)	1.58	(0.32)	(1.52)	(0.53)	0.68		
EQUITY RETURN DETAIL															
26	FIRE-TOTAL EQUITY (INCL PE & RA) - GROSS	7,207	65.79	1.57	0.24	2.95	0.68	8.36	23.36	16.16	(2.14)	8.07	5.88	7.03	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.06)	(0.32)	(0.15)	(0.34)	(0.37)							
	EST MANAGEMENT FEES			(0.06)	(0.32)	(0.15)	(0.34)	(0.37)							
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	FIRE-TOTAL EQUITY (INCL PE & RA) - NET MGR			1.51	(0.07)	2.80	0.35	7.99							
34	FIRE-TOTAL DOMESTIC EQUITY - GROSS	3,385	30.90	2.53	1.31	3.57	0.19	11.05	35.79	16.67	(0.69)	11.20	7.21	12.09	08/01/1979
	ESTIMATED INVESTMENT FEES			(0.03)	(0.14)	(0.07)	(0.15)	(0.17)							
	FIRE-TOTAL DOMESTIC EQUITY - NET MGR			2.50	1.17	3.50	0.04	10.88							
	RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56	33.55	16.42	1.03	11.60	7.40	11.42	
	EXCESS RETURN			(0.13)	(0.96)	(0.12)	(0.44)	(1.67)	2.24	0.26	(1.72)	(0.39)	(0.18)	0.66	
44	FIRE-TOTAL SMALL CAP - GROSS	176	1.61	4.90	1.96	7.58	(0.80)	4.08	38.55	15.20	(5.25)	9.60	5.79	6.41	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.16)	(0.62)	(0.33)	(0.60)	(0.55)							
	FIRE-TOTAL SMALL CAP - NET MGR			4.74	1.34	7.26	(1.41)	3.52							
	RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89	38.82	16.35	(4.18)	8.35	6.20	7.03	
	EXCESS RETURN			0.95	8.07	5.04	3.01	(1.37)	(0.27)	(1.15)	(1.07)	1.25	(0.40)	(0.62)	
54	FIRE-TOTAL MID CAP - GROSS	207	1.89	1.68	(2.63)	2.24	0.19	9.81	37.17	19.96	(3.90)	10.81	6.98	7.65	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.12)	(0.51)	(0.26)	(0.52)	(0.46)							
	FIRE-TOTAL MID CAP - NET MGR			1.56	(3.14)	1.98	(0.33)	9.35							
	RUSSELL MIDCAP (DAILY)			3.18	0.56	5.50	(2.44)	13.22	34.76	17.28	(1.55)	10.90	8.07	9.18	
	EXCESS RETURN			(1.62)	(3.70)	(3.52)	2.11	(3.87)	2.40	2.68	(2.35)	(0.10)	(1.08)	(1.54)	
64	FIRE-TOTAL RUSSELL 1000 - GROSS	1,721	15.71	2.67	3.04	3.88	0.59	12.77	51.93	13.16	(3.66)	12.76	8.17	8.00	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.01)	(0.05)							
	FIRE-TOTAL RUSSELL 1000 - NET MGR			2.67	3.04	3.88	0.58	12.73							
	RUSSELL 1000 (DAILY)			2.54	2.93	3.74	0.92	13.24	33.11	16.42	1.50	11.88	7.51	7.63	
	EXCESS RETURN			0.14	0.10	0.14	(0.33)	(0.51)	18.82	(3.26)	(5.16)	0.88	0.66	0.37	

Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date	
EQUITY RETURN DETAIL															
76	FIRE-TOTAL RUSSELL 3000 PASSIVE - GROSS	999	9.12	2.61	2.21	3.64	0.54	11.97	33.69	16.42	1.06	11.53	7.41	9.37	08/01/1991
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)							
	FIRE-TOTAL RUSSELL 3000 PASSIVE - NET MGR			2.61	2.20	3.63	0.53	11.96							
	RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56	33.55	16.42	1.03	11.60	7.40	9.39	
	EXCESS RETURN			(0.02)	0.06	0.01	0.05	(0.60)	0.14	0.00	0.04	(0.06)	0.01	(0.02)	
86	FIRE-TOTAL FUND OF FUNDS - GROSS	158	1.44	1.57	(8.53)	0.56	(4.85)	3.11	40.14					11.32	06/01/2012
	ESTIMATED INVESTMENT FEES			(0.17)	(0.67)	(0.36)	(0.71)	(0.76)							
	FIRE-TOTAL FUND OF FUNDS - NET MGR			1.40	(9.21)	0.20	(5.56)	2.35							
	RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89	38.82					12.23	
	EXCESS RETURN			(2.39)	(2.48)	(2.02)	(1.14)	(2.55)	1.32					(0.91)	

Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date	
EQUITY RETURN DETAIL															
98	FIRE-TOTAL INTERNATIONAL EQUITY - GROSS	1,728	15.78	(0.07)	(9.23)	0.78	(6.16)	(3.45)	12.74	17.14	(14.05)	0.01	2.27	6.16	07/01/1991
	ESTIMATED INVESTMENT FEES			(0.07)	(0.29)	(0.15)	(0.30)	(0.31)							
	FIRE-TOTAL INTERNATIONAL EQUITY - NET MGR			(0.15)	(9.51)	0.63	(6.46)	(3.77)							
	MSCI AC WORLD EX US (NET)			(0.64)	(10.24)	(1.02)	(5.66)	(3.87)	15.29	16.83	(13.71)	0.10	1.87		
	EXCESS RETURN			0.50	0.73	1.65	(0.80)	0.10	(2.55)	0.31	(0.34)	(0.10)	0.40		
108	FIRE-TOTAL DEVELOPED GROWTH ACTIVE - GROSS	430	3.93	1.38	(5.78)	0.29	(1.24)	(5.48)	23.43	21.24	(11.43)	3.39		0.49	01/01/2008
	ESTIMATED INVESTMENT FEES			(0.07)	(0.27)	(0.14)	(0.28)	(0.27)							
	FIRE-TOTAL DEVELOPED GROWTH ACTIVE - NET MGR			1.30	(6.06)	0.14	(1.52)	(5.75)							
	MSCI EAFE GROWTH			(0.15)	(4.80)	(2.22)	4.09	(4.43)	22.55	16.86	(12.11)	3.24		0.22	
	EXCESS RETURN			1.45	(1.25)	2.36	(5.61)	(1.32)	0.88	4.38	0.69	0.15		0.27	
118	FIRE-TOTAL DEVELOPED VALUE ACTIVE - GROSS	378	3.45	(1.08)	(11.73)	(3.43)	(5.49)	(3.61)	22.38	17.83	(9.91)	1.93	1.97	4.97	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.07)	(0.26)	(0.14)	(0.28)	(0.26)							
	FIRE-TOTAL DEVELOPED VALUE ACTIVE - NET MGR			(1.15)	(11.99)	(3.57)	(5.76)	(3.87)							
	MSCI EAFE VALUE NET (DAILY)			(2.79)	(15.43)	(6.65)	(5.68)	(5.39)	22.95	17.69	(12.17)	0.05	0.21	3.54	
	EXCESS RETURN			1.64	3.44	3.08	(0.08)	1.52	(0.57)	0.15	2.26	1.87	1.76	1.43	
128	FIRE-TOTAL DEVELOPED SMALL CAP ACTIVE - GROSS	143	1.30	(2.15)	(1.27)	(1.65)	10.82	(4.78)						5.97	05/01/2013
	ESTIMATED INVESTMENT FEES			(0.12)	(0.49)	(0.24)	(0.54)	(0.47)							
	FIRE-TOTAL DEVELOPED SMALL CAP ACTIVE - NET MGR			(2.27)	(1.76)	(1.90)	10.28	(5.25)							
	S&P EPAC SMALL CAP USD NET			(2.79)	(4.76)	(3.26)	8.58	(3.43)						4.94	
	EXCESS RETURN			0.52	3.01	1.37	1.69	(1.82)						1.03	
138	FIRE-TOTAL DEVELOPED SMALL CAP PASSIVE - GROSS	26	0.24	(2.26)	(3.06)	(2.70)	9.88							1.51	02/01/2014
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)							(0.02)	
	FIRE-TOTAL DEVELOPED SMALL CAP PASSIVE - NET MGR			(2.26)	(3.08)	(2.71)	9.86							1.49	
	MSCI EAFE SMALL CAP NET (DAILY)			(2.60)	(3.67)	(3.18)	9.59							1.00	
	EXCESS RETURN			0.33	0.59	0.47	0.27							0.49	
148	FIRE-TOTAL DEVELOPED LARGE CAP PASSIVE - GROSS	51	0.46	(1.22)	(9.88)	(4.11)	(0.53)	(4.73)	23.13	17.54		1.98		2.35	02/01/2011
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	0.00	(0.01)							
	FIRE-TOTAL DEVELOPED LARGE CAP PASSIVE - NET MGR			(1.23)	(9.90)	(4.13)	(0.53)	(4.75)							
	MSCI EAFE			(1.46)	(10.16)	(4.42)	(0.81)	(4.90)	22.78	17.32		1.68		2.03	
	EXCESS RETURN			0.24	0.27	0.30	0.29	0.16	0.35	0.22		0.30		0.32	

Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date	
EQUITY RETURN DETAIL															
160	FIRE-TOTAL ACTIVE EMERGING MARKETS - GROSS	445	4.06	(0.09)	(12.12)	3.52	(13.23)	(0.48)	1.87	16.13	(18.38)	(2.77)	3.91	7.91	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.12)	(0.44)	(0.25)	(0.44)	(0.50)							
	FIRE-TOTAL ACTIVE EMERGING MARKETS - NET MGR			(0.20)	(12.56)	3.27	(13.67)	(0.98)							
	MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)	(2.60)	18.22	(18.42)	(3.78)	3.54	7.15	
	EXCESS RETURN			(0.87)	(0.50)	(3.14)	1.24	1.21	4.47	(2.09)	0.05	1.01	0.37	0.76	
170	FIRE-TOTAL PASSIVE EMERGING MARKETS - GROSS	254	2.32	0.72	(12.03)	6.64	(14.86)	(2.23)	(1.97)	18.27	(3.72)		(3.76)	04/01/2011	
	ESTIMATED INVESTMENT FEES			(0.01)	(0.05)	(0.03)	(0.05)	(0.06)							
	FIRE-TOTAL PASSIVE EMERGING MARKETS - NET MGR			0.71	(12.08)	6.61	(14.91)	(2.29)							
	MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)	(2.60)	18.22	(3.78)		(3.82)		
	EXCESS RETURN			0.05	(0.02)	0.20	0.01	(0.10)	0.63	0.04	0.07		0.06		

Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL														
189	*FIRE-TOTAL HEDGE FUNDS - NET MGR HFRI FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN	367	3.35	0.65 0.81 (0.16)	(3.83) (4.45) 0.61	(0.60) (2.09) 1.48	(1.68) 0.73 (2.41)	5.35 4.40 0.95	4.92 10.04 (5.12)	7.85 5.82 2.03	2.38 2.65 (0.27)		2.38 2.65 (0.27)	07/01/2011
199	*FIRE-TOTAL DIRECT HEDGE FUNDS - NET MGR HFRI FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN	317	2.89	0.47 0.81 (0.35)	(3.80) (4.45) 0.65	(0.78) (2.09) 1.31	(1.36) 0.73 (2.09)	5.76 4.40 1.37	4.20 10.04 (5.84)	8.96 5.82 3.13			3.66 4.12 (0.47)	01/01/2012
209	*FIRE-TOTAL PERMAL HEDGE FUNDS OF FUNDS - NET MGR HFRI FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN	49	0.45	1.89 0.81 1.07	(3.84) (4.45) 0.61	0.58 (2.09) 2.66	(3.52) 0.73 (4.26)	3.11 4.40 (1.28)	7.73 10.04 (2.31)	5.05 5.82 (0.78)	1.80 2.65 (0.85)		1.80 2.65 (0.85)	07/01/2011

*Information provided by Alpha Frontier

Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date	
EQUITY RETURN DETAIL															
215	FIRE-TOTAL REAL ESTATE SECURITIES - GROSS	384	3.51	2.65	13.42	6.97	1.39	28.21	2.72	20.17	8.14	10.92	6.46	12.45	01/01/2003
	ESTIMATED INVESTMENT FEES			(0.09)	(0.38)	(0.18)	(0.34)	(0.46)							
	FIRE-TOTAL REAL ESTATE SECURITIES - NET MGR			2.56	13.04	6.79	1.05	27.75							
	DJ US SELECT REAL ESTATE SECURITIES INDEX			5.42	22.72	10.79	4.46	31.85	1.31	17.09	8.87	12.18	6.76	12.00	
	EXCESS RETURN			(2.86)	(9.68)	(4.00)	(3.41)	(4.11)	1.41	3.08	(0.73)	(1.25)	(0.29)	0.44	
225	FIRE-TOTAL PRIVATE EQUITY (TIME WEIGHTED)	801	7.31	1.00	7.11	3.33	11.71	15.81	12.72	11.35	12.50	10.95	10.92	12.56	04/01/2004
	NYC R3000 +3% LAGGED			1.72	2.65	8.88	2.49	21.24	24.53	35.20	5.55	14.57	11.33	12.11	
	EXCESS RETURN			(0.72)	4.46	(5.55)	9.22	(5.43)	(11.81)	(23.86)	6.95	(3.62)	0.41	0.45	
235	FIRE-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED)	487	4.45	2.76	12.92	5.82	15.25	17.21	12.58	14.84	17.72	13.72	4.18	7.88	04/01/2004
	NCREIF NFI-ODCE NET + 100 BP			2.16	11.90	4.41	15.08	12.56	14.02	10.88	16.09	12.77			
	EXCESS RETURN			0.60	1.02	1.41	0.17	4.65	(1.44)	3.96	1.62	0.95			
245	FIRE-TOTAL INFRASTRUCTURE (TIME WEIGHTED)	27	0.24	2.74	10.67	4.79	15.95	20.21						15.82	12/01/2013
	CPI + 4%			1.84	5.10	2.79	4.72	4.70						4.99	
	EXCESS RETURN			0.90	5.58	2.00	11.23	15.51						10.82	

Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date	
FIXED INCOME RETURN DETAIL															
257	FIRE-TOTAL FIXED INCOME - GROSS	3,742	34.16	2.86	4.22	5.30	(0.43)	5.94	0.68	7.72	6.78	4.44	5.90	8.36	02/01/1980
	ESTIMATED INVESTMENT FEES			(0.03)	(0.14)	(0.07)	(0.09)	(0.15)							
	EST MANAGEMENT FEES			(0.03)	(0.14)	(0.07)	(0.09)	(0.15)							
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	FIRE-TOTAL FIXED INCOME - NET MGR			2.83	4.09	5.23	(0.52)	5.79							
265	FIRE-TOTAL STRUCTURED FIXED INCOME - GROSS	1,911	17.45	2.91	6.52	6.21	0.17	7.66	(1.86)	6.85	8.91	4.86	6.07	8.05	01/01/1985
	ESTIMATED INVESTMENT FEES			(0.02)	(0.08)	(0.04)	(0.07)	(0.08)							
	FIRE-TOTAL STRUCTURED FIXED INCOME - NET MGR			2.89	6.45	6.17	0.10	7.57							
	NYC - CORE PLUS FIVE			2.71	7.16	6.33	0.41	7.66	(2.79)	5.41	9.40	4.57	5.87		
	EXCESS RETURN			0.18	(0.71)	(0.16)	(0.31)	(0.09)	0.93	1.44	(0.50)	0.29	0.20		
275	FIRE-TOTAL CORE FIXED INCOME - GROSS	43	0.40	2.15	6.07	5.40	1.36	5.74	(1.20)	6.22	8.18	4.36		5.80	05/01/2009
	ESTIMATED INVESTMENT FEES			(0.05)	(0.22)	(0.11)	(0.19)	(0.17)							
	FIRE-TOTAL CORE FIXED INCOME - NET MGR			2.10	5.85	5.29	1.17	5.57							
	BARCLAYS AGGREGATE (DAILY)			2.21	6.00	5.31	0.55	5.97	(2.02)	4.21	7.84	3.76		4.66	
	EXCESS RETURN			(0.12)	(0.15)	(0.03)	0.62	(0.39)	0.82	2.01	0.34	0.60		1.13	
285	FIRE-TOTAL FIXED INCOME FUND OF FUNDS - GROSS	30	0.27	2.44	6.22	5.20	1.13	6.21	(1.58)					4.03	03/01/2012
	ESTIMATED INVESTMENT FEES			(0.09)	(0.36)	(0.18)	(0.35)	(0.36)							
	FIRE-TOTAL FIXED INCOME FUND OF FUNDS - NET MGR			2.35	5.86	5.02	0.78	5.85							
	BARCLAYS AGGREGATE (DAILY)			2.21	6.00	5.31	0.55	5.97	(2.02)					2.99	
	EXCESS RETURN			0.14	(0.15)	(0.29)	0.23	(0.12)	0.45					1.05	
295	FIRE-TOTAL TIPS - GROSS	547	5.00	1.70	4.32	6.24	(1.31)	3.59	(8.32)	6.99	13.59	2.80	4.88	4.31	06/01/2005
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.03)	(0.07)							
	FIRE-TOTAL TIPS - NET MGR			1.70	4.29	6.23	(1.34)	3.52							
	BARCLAYS GLOBAL INFLATION LINKED: US TIPS (DAILY)			1.71	4.35	6.24	(1.44)	3.64	(8.61)	6.98	13.56	2.63	4.75	4.16	
	EXCESS RETURN			(0.01)	(0.06)	(0.01)	0.09	(0.12)	0.28	0.01	0.03	0.17	0.13	0.15	
305	FIRE-TOTAL ENHANCED YIELD - GROSS	411	3.75	4.55	0.70	6.97	(3.07)	2.54	7.15	13.50	5.89	5.46	7.14	8.16	12/01/1994
	ESTIMATED INVESTMENT FEES			(0.09)	(0.35)	(0.19)	(0.34)	(0.35)							
	FIRE-TOTAL ENHANCED YIELD - NET MGR			4.46	0.35	6.78	(3.40)	2.19							
	CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78	6.17	14.45	6.58	5.63	6.18	6.98	
	EXCESS RETURN			(0.51)	(0.48)	(1.37)	0.81	(0.59)	0.98	(0.95)	(0.69)	(0.17)	0.96	1.18	

Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
FIXED INCOME RETURN DETAIL														
317	FIRE- TOTAL BANK LOANS - GROSS	185	1.69	2.49	1.63	3.58	1.47	2.82	7.00				4.31	12/01/2012
	ESTIMATED INVESTMENT FEES			(0.10)	(0.38)	(0.19)	(0.38)	(0.39)						
	FIRE-TOTAL BANK LOANS - NET MGR			2.39	1.25	3.38	1.09	2.43						
	CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06	6.15				3.55	
	EXCESS RETURN			(0.47)	0.32	(0.85)	1.48	0.38	0.85				0.76	
327	FIRE-TOTAL CONVERTIBLE BONDS - GROSS	53	0.49	2.95	(0.31)	3.11	(0.91)	5.16	14.14	12.20	(3.87)	4.87	6.02	07/01/2008
	ESTIMATED INVESTMENT FEES			(0.13)	(0.51)	(0.26)	(0.51)	(0.54)						
	FIRE-TOTAL CONVERTIBLE BONDS - NET MGR			2.82	(0.82)	2.85	(1.42)	4.62						
	BOFAML ALL CONVERTIBLE EX M AI (DAILY)			4.03	(5.10)	1.36	(2.89)	9.33	25.00	14.41	(3.42)	7.19	7.35	
	EXCESS RETURN			(1.20)	4.28	1.49	1.47	(4.71)	(10.87)	(2.21)	(0.45)	(2.32)	(1.33)	
337	FIRE-TOTAL OPPORTUNISTIC FIXED INCOME 10% ANNUAL RETURN	302	2.76	4.86	(2.35)	1.77	(3.02)	7.41	17.25	16.32	(2.69)	4.94	8.29	11/01/2007
	EXCESS RETURN			2.44	(12.35)	(3.11)	(13.02)	(2.59)	7.25	6.32	(12.69)	(5.06)	(1.71)	
347	FIRE-TOTAL TARGETED INVESTMENTS (NO CASH)	89	0.81	1.90	7.72	5.12	3.06	6.90	(1.71)	4.34	7.21	4.39	5.50	12/01/1984
	FIRE CUSTOM BENCHMARK (NO CASH)			1.83	5.45	4.54	1.05	5.75	(1.74)	3.79	7.17	3.54	4.96	
	EXCESS RETURN			0.07	2.27	0.59	2.01	1.16	0.03	0.55	0.04	0.85	(0.54)	
CASH SUMMARY														
359	FIRE SHORT TERM - GROSS	170	1.55	0.29	0.70	0.64	0.32	0.21	0.24	0.37	0.39	0.40	1.59	12/01/1989
	ESTIMATED INVESTMENT FEES			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	FIRE SHORT TERM - NET MGR			0.29	0.70	0.64	0.32	0.21	0.24	0.37	0.39	0.40	1.59	
363	C/D - FAIL FLOAT EARNINGS	1	0.01											
365	SECURITY LENDING	4	0.03											

**New York City
Fire Department Pension Fund, Subchapter Two**

Appendix B

Public Markets Manager Performance Detail

Public Markets Manager Performance Detail

Net Returns Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
EQUITY SUMMARY							
US EQUITY							
State Street Global Advisors R3000	999	9.12	2.61	2.17	3.63	0.50	11.96
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56
Excess			(0.02)	0.03	0.00	0.03	(0.60)
NYC FIRE BLACKROCK R2000 GROWTH	13	0.12	3.23	(10.63)	(1.58)	(1.29)	5.50
RUSSELL 2000 GROWTH DAILY			3.24	(10.75)	(1.59)	(1.38)	5.60
Excess			(0.01)	0.12	0.02	0.09	(0.11)
NYC FIRE BLACKROCK R2000 VALUE	3	0.03	4.35	(2.57)	6.13	(7.33)	3.80
RUSSELL 2000 VALUE DAILY			4.31	(2.58)	6.08	(7.47)	4.22
Excess			0.05	0.01	0.04	0.13	(0.41)
Brown AM - SCG	41	0.38	7.97	4.08	1.98	8.61	2.92
RUSSELL 2000 GROWTH DAILY			3.24	(10.75)	(1.59)	(1.38)	5.60
Excess			4.73	14.84	3.57	9.99	(2.68)
CEREDEX SCV	69	0.63	6.16	5.34	14.74	(4.73)	2.54
RUSSELL 2000 VALUE DAILY			4.31	(2.58)	6.08	(7.47)	4.22
Excess			1.85	7.92	8.66	2.74	(1.68)
Dalton Greiner Sm Cap-Value	50	0.46	0.69	(3.03)	3.10	(3.32)	4.47
RUSSELL 2000 VALUE DAILY			4.31	(2.58)	6.08	(7.47)	4.22
Excess			(3.62)	(0.45)	(2.98)	4.15	0.25
Iridian Asset Mgmt. MCV	98	0.90	(2.59)	(8.65)	(2.51)	(3.71)	14.03
RUSSELL MIDCAP VALUE (DAILY)			4.77	3.25	8.87	(4.78)	14.75
Excess			(7.36)	(11.90)	(11.38)	1.07	(0.72)

Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Wellington Mgmt. MCC	109	1.00	2.59	(0.99)	2.84	1.78	10.93
S&P 400 MIDCAP INDEX (DAILY)			3.99	1.33	7.93	(2.18)	9.77
Excess			(1.41)	(2.32)	(5.09)	3.95	1.17
NYC FIRE BLACKROCK R1000 GROWTH	851	7.77	0.71	3.12	1.45	5.66	12.91
RUSSELL 1000 GROWTH - DAILY			0.61	3.02	1.36	5.67	13.05
Excess			0.09	0.09	0.09	(0.01)	(0.14)
NYC FIRE BLACKROCK R1000 VALUE	870	7.94	4.71	2.90	6.43	(3.90)	13.39
RUSSELL 1000 VALUE (DAILY)			4.58	2.86	6.30	(3.83)	13.45
Excess			0.13	0.04	0.13	(0.08)	(0.06)
FUND OF FUNDS							
FIRE-FUND OF FUNDS	158	1.44	1.40	(9.21)	0.20	(5.56)	2.35
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(2.39)	(2.48)	(2.02)	(1.14)	(2.55)
FIRE-TOTAL ATTUCKS	24	0.22	0.88	(12.27)	(3.07)	(3.78)	3.16
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(2.92)	(5.54)	(5.28)	0.64	(1.73)
FIRE-TOTAL CAP PROSPECTS	37	0.34	1.79	(10.62)	(0.55)	(6.51)	1.49
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(2.00)	(3.89)	(2.76)	(2.09)	(3.41)
FIRE-TOTAL PIM	97	0.88	1.38	(7.84)	1.35	(5.65)	2.48
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(2.41)	(1.11)	(0.87)	(1.24)	(2.42)
NON - US EQUITY							
Baillie Gifford	177	1.62	(0.42)	(13.47)	(4.28)	(3.81)	(6.77)
MSCI EAFE GROWTH			(0.15)	(4.80)	(2.22)	4.09	(4.43)
Excess			(0.28)	(8.67)	(2.06)	(7.90)	(2.34)

Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Walter Scott	253	2.31	2.55	(0.06)	3.49	0.28	(3.76)
MSCI EAFE GROWTH			(0.15)	(4.80)	(2.22)	4.09	(4.43)
Excess			2.70	4.74	5.71	(3.81)	0.67
Causeway	199	1.82	(1.91)	(13.17)	(6.53)	(2.39)	(4.91)
MSCI EAFE VALUE NET (DAILY)			(2.79)	(15.43)	(6.65)	(5.68)	(5.39)
Excess			0.88	2.26	0.12	3.29	0.48
Sprucegrove	179	1.63	(0.30)	(10.58)	(0.04)	(9.44)	(3.32)
MSCI EAFE VALUE NET (DAILY)			(2.79)	(15.43)	(6.65)	(5.68)	(5.39)
Excess			2.49	4.84	6.60	(3.75)	2.07
Acadian	74	0.67	(0.55)	(0.37)	0.09	8.68	(4.92)
S&P EPAC Small Cap USD NET			(2.79)	(4.76)	(3.26)	8.58	(3.43)
Excess			2.24	4.40	3.36	0.09	(1.49)
Pyramis	69	0.63	(4.04)	(3.20)	(3.93)	11.96	(5.60)
S&P EPAC Small Cap USD NET			(2.79)	(4.76)	(3.26)	8.58	(3.43)
Excess			(1.25)	1.56	(0.67)	3.38	(2.17)
SSGA	51	0.46	(1.23)	(9.90)	(4.12)	(0.55)	(4.75)
MSCI EAFE			(1.46)	(10.16)	(4.42)	(0.81)	(4.90)
Excess			0.24	0.26	0.30	0.27	0.15
SSGA MSCI EAFE Small Cap Index	26	0.24	(2.26)	(3.08)	(2.71)	9.86	
MSCI EAFE SMALL CAP NET (DAILY)			(2.60)	(3.67)	(3.18)	9.59	
Excess			0.33	0.59	0.47	0.27	
EMERGING MARKETS							
Baillie Gifford	150	1.37	(1.63)	(13.92)	(3.85)	(7.99)	0.10
MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)
Excess			(2.29)	(1.87)	(10.26)	6.92	2.28

Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
ACADIAN	101	0.92	0.34	(14.19)	4.33	(15.05)	3.79
MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)
Excess			(0.32)	(2.14)	(2.08)	(0.13)	5.97
PARAMETRIC EM	103	0.94	0.56	(8.75)	8.96	(15.72)	(3.88)
MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)
Excess			(0.10)	3.31	2.55	(0.81)	(1.69)
DFA	91	0.84	0.72	(12.63)	8.85	(19.25)	(4.39)
MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)
Excess			0.06	(0.58)	2.44	(4.33)	(2.20)
CONY GT FIRE Blackrock-MSCI EM MK	254	2.32	0.71	(12.07)	6.61	(14.91)	(2.29)
MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)
Excess			0.05	(0.02)	0.20	0.01	(0.10)
REAL ESTATE SECURITIES							
MS REIT	216	1.97	1.60	9.74	6.07	(1.63)	30.72
Morgan Stanley Custom RESI Index			3.09	12.84	8.01	(1.53)	31.85
Excess			(1.49)	(3.10)	(1.94)	(0.11)	(1.13)
Adelante (Lend Lease Rosen) (REIT)	168	1.54	3.82	17.58	7.73	4.82	33.07
DJ US SELECT REAL ESTATE SECURITIES INDEX			5.42	22.72	10.79	4.46	31.85
Excess			(1.60)	(5.14)	(3.06)	0.36	1.21
FIXED INCOME SUMMARY							
STRUCTURED FIXED INCOME							
Taplin Canida Habacht - Credit	291	2.66	4.31	5.03	8.29	(3.74)	7.73
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			0.89	(2.24)	0.88	(3.10)	0.69

Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
T Rowe Price - Credit	299	2.73	3.69	7.46	7.47	0.16	7.74
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			0.27	0.20	0.06	0.80	0.70
Blackrock - Credit	200	1.83	3.31	6.85	7.22	(0.61)	7.43
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			(0.11)	(0.41)	(0.19)	0.04	0.39
Prudential - Credit	202	1.84	3.39	7.85	7.54	(0.18)	7.19
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			(0.03)	0.59	0.13	0.47	0.14
Prudential-Prinvest - Credit	46	0.42	3.13	5.94	5.05	1.63	7.20
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			(0.29)	(1.32)	(2.35)	2.28	0.16
Blackrock - Mortgage	272	2.49	1.26	4.25	3.19	1.72	6.77
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			0.19	(0.04)	0.13	0.16	0.64
Goldman Sachs - Mortgage	113	1.03	1.00	4.06	2.90	1.66	6.26
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			(0.08)	(0.23)	(0.16)	0.10	0.14
Neuberger Berman - Mortgage	233	2.13	1.03	4.18	2.95	1.38	6.66
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			(0.04)	(0.11)	(0.11)	(0.18)	0.54
Fischer Francis - Govt	127	1.16	3.94	11.76	9.82	0.52	11.44
NYC - Treasury Agency Plus Five			3.96	11.98	9.72	0.72	12.38
Excess			(0.02)	(0.23)	0.10	(0.20)	(0.94)

Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
State Street - Gov't	128	1.17	4.03	11.95	9.79	0.47	12.15
NYC - Treasury Agency Plus Five			3.96	11.98	9.72	0.72	12.38
Excess			0.07	(0.03)	0.07	(0.25)	(0.23)
FIXED INCOME FUND OF FUNDS							
Hillswick	3	0.03	2.24	6.46	5.54	0.61	7.09
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			0.03	0.46	0.23	0.06	1.13
Integrity	3	0.02					
Barclays Aggregate (Daily)							
Excess							
NEW CENTURY	8	0.07	2.09	4.70	4.45	(0.30)	6.53
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			(0.12)	(1.30)	(0.87)	(0.85)	0.56
PUGH CAP	9	0.08	2.42	6.70	5.61	0.79	5.88
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			0.21	0.70	0.30	0.24	(0.09)
Ramirez Asset	7	0.07	2.75	6.46	5.14	1.12	
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	
Excess			0.54	0.46	(0.18)	0.57	
ENHANCED YIELD							
Loomis Sayles - High Yield	110	1.00	7.73	(1.46)	10.44	(8.98)	2.88
BofAML HIGH YIELD MASTER II (DAILY)			5.88	1.71	9.32	(4.64)	2.50
Excess			1.85	(3.17)	1.12	(4.33)	0.37
Penn Capital Mgt	114	1.04	3.23	0.40	4.66	(1.31)	0.39
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78
Excess			(1.73)	(0.43)	(3.50)	2.90	(2.39)

Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
T ROWE EH	187	1.71	3.36	1.42	6.04	(1.28)	2.91
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78
Excess			(1.61)	0.58	(2.12)	2.93	0.13
BANK LOANS							
Babson BL	91	0.83	2.82	0.18	3.30	0.12	1.99
CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06
Excess			(0.04)	(0.75)	(0.93)	0.50	(0.07)
Guggenheim BL	94	0.86	1.98	2.32	3.46	2.07	2.88
CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06
Excess			(0.88)	1.38	(0.77)	2.45	0.83
TIPS							
Blackrock TIPS	139	1.27	1.82	4.42	6.33	(1.24)	3.74
Barclays Global Inflation Linked: US TIPS (Daily)			1.71	4.35	6.24	(1.44)	3.64
Excess			0.12	0.07	0.09	0.20	0.10
State Street TIPS Passive	408	3.73	1.65	4.25	6.21	(1.35)	3.57
Barclays Global Inflation Linked: US TIPS (Daily)			1.71	4.35	6.24	(1.44)	3.64
Excess			(0.05)	(0.10)	(0.04)	0.09	(0.07)
CONVERTIBLE BONDS							
Advent Conv Bonds	53	0.49	2.82	(0.82)	2.85	(1.42)	4.62
BofA ML U.S. Convertible Yield Alternative			5.40	(5.68)	3.84	(8.77)	2.75
Excess			(2.58)	4.86	(0.99)	7.35	1.87
CORE FIXED INCOME							
LM Capital	22	0.20	1.94	5.90	5.12	1.02	5.57
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			(0.27)	(0.10)	(0.20)	0.47	(0.39)

Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
GIA	21	0.19	2.26	5.80	5.47		
Barclays Aggregate (Daily)			2.21	6.00	5.31		
Excess			0.05	(0.21)	0.16		
ECONOMICALLY TARGETED INVESTMENTS							
AFL-CIO HOUSING INV TRUST	55	0.50	1.72	5.29	4.52	1.13	6.10
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			(0.49)	(0.71)	(0.80)	0.58	0.14
ACCESS RBC	18	0.16	1.23	4.42	3.39	1.83	6.66
Access RBC Benchmark			1.18	4.34	3.33	1.40	5.08
Excess			0.05	0.07	0.06	0.43	1.58
CPC CONST FACILITY	3	0.02	(2.49)	7.75	(3.32)	12.90	
CPC CONST BENCHMARK			0.76	2.99	1.52	2.90	
Excess			(3.25)	4.76	(4.84)	10.01	
BOA-PPAR (FNMA)	3	0.03	4.24	23.54	11.62	42.03	13.31
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.90	18.23	7.99	39.53	6.19
CCD-PPAR (FNMA)	1	0.01	2.83	22.59	10.03	6.69	25.71
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			1.49	17.28	6.41	4.20	18.58
CCD-PPAR (GNMA)	1	0.01	3.25	18.13	8.98	5.08	15.37
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.17	13.47	5.97	3.06	8.72
CFSB-PPAR (GNMA)	0	0.00	3.37	19.87	9.40	5.90	15.34
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.29	15.22	6.38	3.88	8.69

Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
CPC-PPAR (FNMA)	2	0.02	4.17	25.93	11.78	8.96	13.91
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.83	20.62	8.15	6.46	6.78
JPMC-PPAR (FNMA)	3	0.02	3.75	25.63	11.10	6.18	11.95
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.41	20.32	7.48	3.68	4.82
LIIF-PPAR (FNMA)	1	0.01	5.93	32.24	19.54	6.29	38.12
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			4.60	26.93	15.92	3.79	30.99
LIIF-PPAR (GNMA)	1	0.00	2.74	11.14	6.85	3.92	9.74
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			1.66	6.49	3.84	1.91	3.09
NCBCI-PPAR (FNMA)	0	0.00	3.40	17.91	9.04	4.97	14.93
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.06	12.60	5.41	2.47	7.81
NCBCI-PPAR (GNMA)	0	0.00	3.51	18.79	9.33	5.53	16.66
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.43	14.13	6.31	3.52	10.01
CASH							
FIRE SHORT TERM	170	1.55	0.29	0.70	0.64	0.32	0.21
91 DAY T-BILL			0.07	0.19	0.15	0.05	0.02
Excess			0.21	0.51	0.49	0.27	0.19
C/D - Fail Float Earnings	1	0.01					
SECURITY LENDING	4	0.03					

**New York City
Fire Department Pension Fund, Subchapter Two**

Appendix C

Alternative Assets Manager Performance Detail

Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
TOTAL PRIVATE EQUITY		1,679,430,027	1,331,597,671	1,017,346,934	806,144,728	1.37	10.4%
TOTAL ACTIVE		1,597,454,655	1,239,333,789	903,235,332	806,144,728	1.38	10.8%
Cypress Merchant Banking Partners II, L.P.	1999	22,586,486	26,930,800	21,720,353	3,527,697	0.94	-1.2%
FdG Capital Partners LLC	1999	25,000,000	28,756,836	42,947,884	6,365,392	1.71	14.8%
Lincolnshire Equity Fund II, L.P.	1999	6,899,005	7,223,050	13,673,658	389,758	1.95	24.6%
SCP Private Equity Partners II, L.P.	2000	15,000,000	16,834,296	5,551,829	3,685,358	0.55	-7.3%
New Mountain Partners, L.P.	2001	9,070,967	8,558,234	12,215,748	216,839	1.45	12.3%
Apollo Investment Fund V, L.P.	2001	15,000,000	23,371,979	45,986,226	529,641	1.99	38.8%
CVC European Equity Partners III, L.P.	2001	10,000,000	11,579,021	29,775,858	270,688	2.59	41.1%
Yucaipa American Alliance Fund I, LP	2002	5,000,000	7,491,869	6,475,457	1,827,390	1.11	3.1%
Landmark Equity Partners XI, L.P.	2002	5,000,000	4,753,167	6,969,592	374,399	1.55	23.5%
FS Equity Partners V, L.P.	2003	10,000,000	8,555,965	16,691,599	987,771	2.07	15.7%
Blackstone Capital Partners IV, L.P.	2003	13,875,989	17,133,309	37,567,326	3,787,994	2.41	36.5%
Ares Corporate Opportunities Fund, L.P.	2003	5,000,000	6,000,993	8,773,548	498,448	1.55	13.6%
Markstone Capital Partners, LP	2004	5,000,000	5,862,384	2,477,825	244,491	0.46	-37.6%
Euro Choice II (Delaware) L.P.	2004	6,752,176	6,714,168	9,040,940	744,146	1.46	7.2%
FdG Capital Partners II LP	2004	5,000,000	5,374,885	6,071,286	250,190	1.18	3.3%
Paladin Homeland Security Fund (NY City), L.P.	2004	7,500,000	8,174,017	2,624,712	1,147,986	0.46	-10.8%
Lincolnshire Equity Fund III, L.P.	2004	5,000,000	4,860,493	6,306,704	2,383,197	1.79	30.2%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 1	2004	2,000,000	2,045,345	1,589,759	936,566	1.24	3.9%
Aurora Equity Partners III L.P.	2004	5,000,000	5,411,986	8,623,720	580,483	1.70	14.4%
Trilantic Capital Partners III L.P.	2004	5,000,000	4,519,812	7,302,147	108,274	1.64	14.6%
Celtic Pharmaceutical Holdings L.P.	2004	2,500,000	2,540,209	40,209	397,602	0.17	-19.2%
Medica III Investments (International) L.P.	2004	3,000,000	2,937,724	1,267,948	1,233,000	0.85	-3.7%
Palladium Equity Partners III, L.P.	2005	10,000,000	10,406,788	14,737,250	5,324,510	1.93	16.9%
New Mountain Partners II, L.P.	2005	2,580,650	2,321,161	4,492,653	44,847	1.95	13.7%
VSS Communications Partners IV, L.P.	2005	2,500,000	2,823,569	1,548,098	668,782	0.79	-4.1%
Carlyle Partners IV, L.P.	2005	5,000,000	5,153,158	9,662,919	564,869	1.98	13.1%
Prism Venture Partners V-A, L.P.	2005	7,500,000	7,690,681	3,821,052	1,563,785	0.70	-7.1%
Snow Phipps Group, L.P.	2005	5,000,000	5,768,591	4,456,499	3,022,216	1.30	7.0%
GI Partners Fund II L.P.	2005	2,500,000	2,530,233	2,988,283	814,285	1.50	6.9%
Blackstone Mezzanine Partners II, L.P.	2005	3,000,000	2,864,827	3,781,012	70,127	1.34	7.9%
Psilos Group Partners III, L.P.	2005	2,500,000	2,657,559	1,282,054	1,967,407	1.22	4.1%
FirstMark Capital I, L.P. (fka FirstMark IV)	2005	1,500,000	1,639,064	3,136,732	6,696,505	6.00	41.0%
USPF II Institutional Fund, L.P.	2005	5,000,000	6,594,940	4,521,278	4,576,864	1.38	6.3%

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Bridgepoint Europe III	2005	5,406,312	4,993,430	3,193,843	2,583,608	1.16	2.2%
JP Morgan Fleming (Tranche A)	2005	3,000,000	2,912,928	2,078,798	1,832,096	1.34	6.5%
Arlington Capital Partners II, L.P.	2005	4,000,000	4,067,113	6,216,490	733,003	1.71	11.2%
Levine Leichtman Capital Partners Deep Value Fund, L.P.	2005	5,000,000	6,229,039	5,736,719	789,492	1.05	1.2%
Aisling Capital II, LP	2006	1,000,000	1,177,469	783,422	323,520	0.94	-1.3%
InterMedia Partners VII, L.P.	2006	2,500,000	2,897,020	1,787,415	2,478,811	1.47	5.9%
Terra Firma Capital Partners III, L.P.	2006	5,223,009	5,265,721	375,657	2,424,869	0.53	-10.0%
Fenway Partners Capital Fund III, L.P.	2006	5,000,000	5,658,696	4,418,192	1,946,070	1.12	2.5%
Blackstone Capital Partners V, L.P.	2006	9,448,250	10,028,738	12,110,954	4,085,456	1.61	8.2%
Avista Capital Partners, L.P.	2006	5,000,000	6,531,151	5,643,654	2,506,746	1.25	5.0%
Apollo Investment Fund VI, L.P.	2006	20,000,000	25,741,832	32,273,940	6,651,537	1.51	9.3%
Ares Corporate Opportunities Fund II, L.P.	2006	5,000,000	5,477,779	8,274,212	920,051	1.68	13.4%
CCMP Capital Investors II, L.P.	2006	5,000,000	5,487,419	6,234,353	3,008,863	1.68	13.9%
CLP 2014 (fka Perseus Partners VII)	2006	5,000,000	5,835,907	1,678,684	417,995	0.36	-25.0%
Euro Choice III L.P.	2006	5,323,349	5,250,336	3,922,645	2,065,066	1.14	2.9%
Thomas, McNerney & Partners II, L.P.	2006	3,000,000	2,905,794	4,841,963	1,720,081	2.26	17.4%
Catterton Partners VI, L.P.	2006	5,000,000	5,520,171	6,788,609	3,698,970	1.90	13.4%
First Reserve Fund XI, L.P.	2006	5,000,000	5,313,265	3,065,224	421,807	0.66	-10.9%
Permira IV, L.P.	2006	5,509,439	5,830,665	6,199,280	2,380,001	1.47	8.0%
Arsenal Capital Partners II, LP	2006	4,000,000	4,888,657	4,615,753	3,333,798	1.63	10.8%
GF Capital Private Equity Fund, L.P.	2006	3,000,000	3,060,562	2,569,670	2,849,739	1.77	14.3%
RRE Ventures IV, L.P.	2006	2,500,000	3,110,269	1,503,208	3,330,147	1.55	8.6%
Coller International Partners V, L.P.	2006	5,000,000	4,321,379	4,746,488	1,439,224	1.43	8.9%
MidOcean Partners III, L.P.	2006	10,000,000	11,234,867	8,563,286	8,084,549	1.48	8.7%
The Fourth Civen Fund	2006	2,810,619	2,866,100	3,663,075	293,913	1.38	6.7%
Falconhead Capital Partners II, L.P.	2006	4,000,000	4,455,013	3,706,827	1,374,739	1.14	2.9%
Atlantic Equity Partners IV, L.P.	2006	3,768,757	3,290,223	-	2,194,981	0.67	-6.3%
Capital Partners Private Equity Income Fund, L.P.	2006	2,000,000	1,913,296	3,166,825	999,745	2.18	21.0%
Pegasus Partners IV, L.P.	2007	7,500,000	8,738,103	3,969,268	4,761,955	1.00	0.0%
Olympus Capital Asia III, L.P.	2007	5,000,000	5,680,093	2,035,624	4,558,158	1.16	4.2%
FTVentures III, LP	2007	2,500,000	2,545,000	3,034,826	2,402,392	2.14	16.7%
Highland Consumer Fund I LP	2007	2,000,000	1,943,212	588,704	908,289	0.77	-4.5%
Montreux Equity Partners IV, L.P.	2007	5,000,000	5,000,000	1,710,911	4,262,549	1.19	3.9%
Gleacher Mezzanine Fund II, L.P.	2007	3,000,000	2,750,179	3,393,030	148,638	1.29	9.7%
SCP Vitalife Partners II Fund	2007	5,000,000	5,024,924	395	3,110,076	0.62	-9.4%
Constellation Venture Capital III, L.P.	2007	5,000,000	5,432,003	1,135,209	3,111,849	0.78	-5.1%

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
United States Power Fund III, L.P.	2007	5,000,000	5,515,908	2,451,221	4,850,154	1.32	5.9%
Carlyle Partners V, L.P.	2007	10,000,000	10,147,097	11,285,390	5,457,632	1.65	13.4%
PCG Clean Energy & Technology Fund (East), LLC	2007	10,000,000	8,820,014	1,108,953	4,445,140	0.63	-8.7%
GSO Capital Opportunities Fund LP	2007	7,500,000	11,200,918	15,242,680	975,660	1.45	17.9%
New Mountain Partners III, L.P.	2007	10,000,000	9,838,881	6,302,939	9,578,184	1.61	11.7%
Vista Equity Partners Fund III, L.P.	2007	7,500,000	7,967,886	16,952,865	3,400,901	2.55	28.4%
Trilantic Capital Partners IV L.P.	2007	7,236,332	7,440,426	8,936,364	2,561,156	1.55	13.7%
Pine Brook Capital Partners, L.P.	2007	7,500,000	7,855,515	4,616,071	4,126,107	1.11	3.8%
Capital Point Partners, L.P.	2007	3,000,000	3,339,064	2,182,562	1,912,935	1.23	5.0%
Post Capital Equity Partners II LP	2007	3,000,000	2,019,923	934,449	1,834,744	1.37	8.1%
Paladin III (NY City), L.P.	2008	7,500,000	8,799,712	4,353,481	7,275,505	1.32	8.0%
Relativity Fund, L.P.	2008	1,631,513	1,612,064	345,053	540,453	0.55	-10.8%
Apollo Investment Fund VII, L.P.	2008	25,000,000	29,506,925	43,796,378	7,472,208	1.74	24.4%
NGN BioMed Opportunity II, L.P.	2008	5,000,000	4,787,955	986,553	2,455,032	0.72	-7.7%
Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	2008	7,500,000	8,177,990	5,630,109	3,591,603	1.13	4.2%
Yucaipa American Alliance Fund II, LP	2008	15,000,000	20,468,035	12,161,707	16,135,178	1.38	9.1%
Levine Leichtman Capital Partners IV, L.P.	2008	5,000,000	5,020,220	6,312,744	2,434,006	1.74	20.6%
Lee Equity Partners Fund, L.P.	2008	6,575,577	8,827,057	10,053,774	665,185	1.21	6.2%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 2	2008	5,000,000	4,643,618	2,459,882	4,518,746	1.50	14.2%
Yucaipa Corporate Initiatives Fund II, LP	2008	4,676,976	4,548,656	1,299,840	2,772,036	0.90	-2.5%
CVC European Equity Partners V, L.P.	2008	13,686,365	14,328,719	13,713,341	6,387,955	1.40	11.1%
GI Partners Fund III L.P.	2008	7,500,000	8,019,462	8,136,237	3,477,638	1.45	12.6%
Ares Corporate Opportunities Fund III, L.P.	2008	10,000,000	11,776,878	10,513,005	10,469,636	1.78	21.1%
GCM Grosvenor NYCFDPF Emerging Manager Co-Investment Fund, L.P.	2008	990,607	1,257,211	1,529,333	477,866	1.60	11.9%
GCM Grosvenor NYCFDPF Emerging Manager Fund, L.P.	2008	8,979,798	9,639,025	5,313,619	6,731,652	1.25	9.2%
First Reserve Fund XII, L.P.	2008	5,000,000	5,323,280	2,349,052	1,662,276	0.75	-7.9%
Landmark Equity Partners XIV, L.P.	2008	13,630,000	12,638,506	10,299,830	6,585,512	1.34	12.9%
Crestview Partners II, L.P.	2008	7,500,000	8,149,036	6,160,634	5,627,411	1.45	12.3%
NB New York City Growth Fund IA	2008	1,208,990	1,208,990	417,624	387,445	0.67	-6.8%
Milestone Partners III, L.P.	2008	3,000,000	3,136,236	1,404,322	1,448,182	0.91	-2.1%
Euro Choice IV L.P.	2008	6,484,005	5,643,065	1,598,124	5,271,901	1.22	6.1%
Avista Capital Partners II, L.P.	2008	10,000,000	12,013,481	12,807,638	8,799,299	1.80	17.6%
Bridgepoint Europe IV	2008	6,700,289	6,113,546	4,790,481	4,111,262	1.46	10.7%
Carpenter Community BancFund-A, L.P.	2008	3,000,000	2,922,576	1,735,627	2,765,789	1.54	8.1%
Blue Wolf Capital Fund II, L.P.	2008	3,000,000	3,252,569	1,194,630	2,690,820	1.19	6.0%
Aisling Capital III, LP	2008	3,500,000	3,652,446	3,310,179	2,419,197	1.57	20.4%

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Onex Partners III LP	2008	5,000,000	5,401,799	3,206,413	4,896,640	1.50	13.1%
NorthBound Emerging Manager Custom Fund LP	2009	5,000,000	4,139,315	2,945,268	3,790,096	1.63	15.9%
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	7,500,000	7,232,040	6,034,790	4,807,347	1.50	13.1%
Scale Venture Partners III, LP	2009	5,000,000	4,893,728	5,456,595	5,160,701	2.17	22.9%
FS Equity Partners VI, L.P.	2009	12,500,000	12,020,409	9,369,101	12,164,457	1.79	18.2%
Lincolnshire Equity Fund IV, L.P.	2009	2,500,000	2,440,689	876,260	2,126,330	1.23	7.8%
Lexington Capital Partners VII, L.P.	2009	10,000,000	8,475,797	7,268,369	5,334,995	1.49	15.8%
Snow Phipps II, L.P.	2010	7,500,000	6,795,153	3,388,427	6,825,656	1.50	17.5%
Trident V, L.P.	2010	15,000,000	15,820,232	3,911,051	15,719,185	1.24	7.9%
Comvest Investment Partners IV, L.P.	2010	20,000,000	18,069,512	15,981,792	16,193,834	1.78	35.8%
Blackstone Capital Partners VI, L.P.	2011	10,000,000	8,859,361	1,532,067	9,103,379	1.20	10.0%
Ampersand 2011	2011	5,000,000	4,825,000	1,738,828	6,516,969	1.71	16.8%
BDCM Opportunity Fund III, L.P.	2011	10,000,000	12,756,957	4,606,283	10,259,605	1.17	8.4%
AXA Secondary Fund V B L.P.	2011	40,000,000	31,639,749	19,762,131	27,720,874	1.50	17.7%
Wellspring Capital Partners V, L.P.	2011	7,500,000	6,726,649	886,679	8,088,413	1.33	15.2%
EQT VI, L.P.	2011	17,730,351	15,087,796	432,427	16,918,638	1.15	5.8%
Pegasus Partners V, L.P.	2011	6,236,975	4,851,868	1,110,265	5,673,572	1.40	12.5%
BC European Capital IX	2011	22,075,705	18,581,135	6,438,926	15,960,015	1.21	8.7%
American Securities Partners VI, L.P.	2011	20,000,000	18,583,632	5,902,910	20,647,701	1.43	19.6%
Vista Equity Partners Fund IV, L.P.	2011	30,000,000	29,757,015	14,273,537	37,743,977	1.75	23.6%
Warburg Pincus Private Equity XI, L.P.	2012	35,000,000	32,075,428	5,889,135	33,400,313	1.22	12.8%
Summit Partners Growth Equity Fund VIII-A, L.P.	2012	30,000,000	25,274,605	6,137,241	25,306,861	1.24	14.6%
<u>NYCFDPF - 2012 Emerging Manager Program</u>	<u>2012</u>	<u>25,000,000</u>	<u>13,444,299</u>	<u>927,873</u>	<u>13,743,140</u>	<u>1.09</u>	<u>7.6%</u>
Trilantic Capital Partners V L.P.	2012	10,000,000	4,589,798	60,595	4,140,510	0.92	-5.3%
Palladium Equity Partners IV, L.P.	2012	10,000,000	4,532,926	377,434	4,507,333	1.08	4.2%
Ares Corporate Opportunities Fund IV, L.P.	2012	20,000,000	15,600,833	1,393,247	16,052,231	1.12	7.5%
Green Equity Investors VI, L.P.	2012	25,000,000	17,384,558	828,615	19,773,165	1.19	10.4%
Platinum Equity Capital Partners III, L.P.	2012	25,000,000	15,694,715	9,036,039	15,325,184	1.55	47.6%
Carlyle Partners VI, L.P.	2013	20,000,000	9,441,985	332,892	9,061,462	0.99	-0.4%
Carlyle Partners VI, L.P. (Side Car)	2014	1,218,333	1,193,499	-	1,092,631	0.92	NM
Landmark Equity Partners XV, L.P.	2013	26,000,000	8,942,119	2,862,495	7,484,115	1.16	12.0%
Landmark - NYC Fund I, L.P.	2013	9,000,000	3,773,738	653,562	3,995,434	1.23	16.2%
Apollo Investment Fund VIII, L.P.	2013	40,000,000	12,829,025	388,431	13,006,010	1.04	4.5%
CVC Capital Partners VI, L.P.	2013	35,220,298	12,972,844	236,858	11,533,993	0.91	NM
Crestview Partners III, L.P.	2013	24,000,000	5,495,327	90,739	5,235,514	0.97	NM
Crestview Partners III (Co-Investment B), L.P.	2013	8,000,000	2,681,773	112,373	2,662,720	1.03	NM

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Olympus Growth Fund VI, L.P.	2014	15,000,000	4,221,138	1,156,836	4,035,131	1.23	24.8%
ASF VI B L.P.	2014	30,000,000	12,363,569	530,349	14,481,648	1.21	NM
ASF VI B NYC Co-Invest L.P.	2014	10,000,000	6,087,868	946,000	6,811,998	1.27	NM
Vista Equity Partners Fund V, L.P.	2014	40,000,000	35,577,190	3,118	39,351,528	1.11	NM
Lexington Capital Partners VIII, L.P.	2014	40,000,000	8,851,772	1,309,615	9,753,682	1.25	NM
Centerbridge Capital Partners III, L.P.	2014	4,200,000	1,140,573	-	1,238,813	1.09	NM
Siris Partners III, L.P.	2015	5,500,000	898,502	-	814,746	0.91	NM
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	14,000,000	3,675,604	-	3,370,487	0.92	NM
Warburg Pincus Private Equity XII, L.P.	2015	36,000,000	1,319,942	-	1,126,034	0.85	NM
ASF VII B L.P.	2015	17,000,000	799,439	3,764	898,555	1.13	NM
ASF VII B NYC Co-Invest L.P.	2015	9,000,000	900	-	900	1.00	NM
EQT VII, L.P.	2015	28,447,147	428,059	-	131,041	0.31	NM
American Securities Partners VII, L.P.	2015	14,000,000	-	-	(68,180)	-	NM
Bridgepoint Europe V L.P.	2015	11,353,718	1,290,885	-	1,325,499	1.03	NM
Bridgepoint Europe V Co-Invest	2015	3,416,670	-	-	-	-	NM
<u>NYCFDPF - 2015 Emerging Manager Program</u>	<u>2015</u>	<u>30,000,000</u>	<u>720,687</u>	<u>-</u>	<u>629,147</u>	<u>0.87</u>	<u>N/A</u>
Ares Corporate Opportunities Fund V, L.P.	2016	17,000,000	-	-	-	-	N/A

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
TOTAL LIQUIDATED		81,975,372	92,263,882	114,111,602	-	1.24	7.1%
AEA Investors 2006 Fund L.P.	2006	7,631,256	8,672,075	10,280,965	-	1.19	7.8%
Aldus/New York Fire Fund, L.P.	2005	-	2,193,743	3,840	-	0.00	-89.5%
Carlyle Partners III, L.P.	2000	13,793,931	16,978,089	36,009,537	-	2.12	23.3%
Clayton, Dubilier & Rice Fund VII, L.P.	2005	4,563,048	5,177,563	5,824,408	-	1.12	2.5%
Clayton, Dubilier & Rice Fund VIII, L.P.	2009	4,386,556	5,279,259	6,035,873	-	1.14	6.2%
DMR Mortgage Opportunity Fund, L.P.	2008	2,394,000	2,394,000	3,221,633	-	1.35	42.8%
Emerald Infrastructure Development Fund	2008	398,721	398,721	2,243	-	0.01	-99.4%
HM 2006 Sector Performance Fund	2007	4,636,998	5,294,879	3,726,790	-	0.70	-12.0%
NewSpring Growth Capital II, L.P.	2006	3,600,000	3,625,096	5,382,213	-	1.48	11.7%
Prism Venture Partners IV, L.P.	2001	15,000,000	15,022,654	11,035,747	-	0.73	-6.5%
Silver Lake Partners II, L.P.	2004	2,547,454	2,915,928	4,157,545	-	1.43	9.1%
Silver Lake Partners III, L.P.	2007	3,182,419	3,812,648	5,179,137	-	1.36	16.6%
Tailwind Capital Partners, L.P.	2007	4,342,889	4,942,340	5,020,459	-	1.02	0.7%
VS&A Communications Partners III, L.P.	1998	10,000,000	10,049,682	13,812,548	-	1.37	6.3%
Vitruvian Investment Partnership I	2007	5,498,100	5,507,204	4,418,664	-	0.80	-7.7%

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
TOTAL REAL ASSETS		828,007,471	640,508,201	322,977,738	511,565,832	1.30	7.5%
TOTAL PRIVATE REAL ESTATE		759,007,471	617,186,688	321,790,152	486,914,465	1.31	7.5%
TOTAL LIQUIDATED PRIVATE REAL ESTATE		20,000,000	19,438,764	23,305,833	-	1.20	9.8%
TOTAL INFRASTRUCTURE		69,000,000	23,321,513	1,187,586	24,651,367	1.11	11.7%
TOTAL PRIVATE REAL ESTATE							
Blackstone Fund IV	2004	5,000,000	6,406,782	7,567,889	1,436,069	1.41	10.8%
The City Investment Fund I	2004	35,000,000	34,515,181	34,495,821	461,109	1.01	0.3%
Canyon Johnson Urban Fund II	2005	10,000,000	8,988,710	3,298,648	498,865	0.42	-11.4%
PRISA SA	2006	7,000,000	7,515,525	1,745,678	9,035,466	1.43	4.2%
Prologis Targeted U.S. Logistics Fund	2006	5,000,000	6,363,720	1,427,708	6,065,284	1.18	2.2%
RREEF America REIT II	2006	7,000,000	9,178,399	3,850,136	9,003,268	1.40	4.7%
UBS Trumbull Property Fund	2006	27,000,000	35,122,100	6,494,178	43,657,423	1.43	7.7%
Colony Realty Partners II	2007	5,000,000	5,355,052	166,526	1,379,500	0.29	-14.2%
Heitman HART	2007	9,000,000	12,357,616	3,357,616	16,278,029	1.59	8.2%
JP Morgan Special Situation Property Fund	2007	5,000,000	5,689,368	1,396,893	6,155,146	1.33	3.7%
JP Morgan Strategic Property Fund	2007	22,000,000	23,812,380	-	41,225,570	1.73	9.0%
PRISA II	2007	20,228,233	21,417,377	3,994,351	26,624,944	1.43	5.1%
RREEF America REIT III	2007	5,000,000	5,000,000	2,645,324	226,576	0.57	-7.5%
Blackstone Real Estate Partners VI	2007	10,000,000	11,072,895	14,702,402	6,003,398	1.87	13.0%
Carlyle Realty Partners V	2007	5,000,000	6,243,405	6,727,698	1,872,280	1.38	8.6%
Colony Investors VIII	2007	20,000,000	21,249,679	5,553,373	3,990,600	0.45	-12.7%
Metropolitan Workforce Housing Fund	2007	3,500,000	3,503,257	1,583,078	2,621,771	1.20	4.0%
AG Realty Fund VII	2008	15,000,000	14,100,000	19,052,743	2,754,823	1.55	13.7%
ARA Asia Dragon Fund	2008	10,000,000	9,284,000	11,886,344	10,996	1.28	7.1%
AREA European Real Estate Fund III, LP	2008	15,000,000	15,243,750	15,243,750	2,939,001	1.19	4.6%
Silverpeak Legacy Partners III	2008	5,000,000	2,216,844	200,380	724,525	0.42	-11.9%
Stockbridge Real Estate Fund III	2008	13,500,000	13,499,074	-	17,788,959	1.32	5.3%
American Value Partners Fund I	2008	5,000,000	3,780,155	2,589,439	1,358,898	1.04	0.9%
Thor Urban Property Fund II	2009	5,000,000	6,469,583	4,418,776	4,570,497	1.39	10.7%
Walton Street Real Estate Fund VI	2009	5,000,000	4,432,393	3,708,294	3,008,550	1.52	10.3%
LaSalle Property Fund	2010	30,000,000	30,000,000	5,750,944	40,245,730	1.53	12.7%
Blackstone Real Estate Partners Europe III (USD Vehicle)	2010	5,000,000	5,107,489	3,544,940	3,747,159	1.43	13.1%
Canyon Johnson Urban Fund III	2010	5,000,000	4,931,163	6,430,124	378,863	1.38	12.7%
Westbrook Real Estate Fund VIII	2010	5,000,000	5,924,912	6,780,163	979,685	1.31	12.6%

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
Carlyle Realty Partners VI	2011	20,000,000	18,340,811	18,557,270	11,981,411	1.67	29.4%
H/2 Special Opportunities Fund II	2011	10,000,000	10,000,001	5,841,270	7,792,503	1.36	14.8%
Blackstone Real Estate Partners VII	2012	30,000,000	35,066,482	20,764,708	31,248,424	1.48	22.4%
Brookfield Strategic Real Estate Partners	2012	15,000,000	15,558,353	4,279,679	16,740,329	1.35	18.2%
Divco West Fund III	2012	30,000,000	29,429,127	41,815,704	8,090,886	1.70	25.7%
Taconic New York City Investment Fund LP	2012	20,000,000	8,272,728	4,090,908	9,837,148	1.68	18.2%
NYC Asset Investor #2 LLC	2013	9,000,000	7,445,529	1,125,534	7,674,437	1.18	13.5%
KTR Industrial Fund III	2013	10,000,000	4,369,869	6,896,859	18,742	1.58	40.6%
NYC Asset Investor #1 LLC	2013	5,000,000	5,332,459	562,896	6,221,871	1.27	20.8%
NYC Asset Investor #3 LLC	2013	6,000,000	1,522,746	23,481	1,541,564	1.03	1.9%
MetLife Core Property Fund	2014	15,000,000	15,000,000	876,425	16,909,313	N/A	N/A
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2014	26,000,000	21,027,526	2,303,232	20,771,847	N/A	N/A
Carlyle Realty Partners VII	2014	15,000,000	5,302,089	19,554	5,730,887	N/A	N/A
Divco West Fund IV	2014	30,000,000	29,131,906	8,451,996	32,116,962	N/A	N/A
Lone Star Real Estate Fund III	2014	25,000,000	21,713,203	4,189,773	21,699,119	N/A	N/A
Blackstone Real Estate Partners VIII	2015	31,500,000	10,228,358	15,581	10,874,212	N/A	N/A
H/2 Special Opportunities Fund III	2015	15,000,000	7,372,580	-	7,457,476	N/A	N/A
Avanath Affordable Housing Fund II	2015	2,220,000	2,055,934	-	2,706,343	N/A	N/A
Jamestown Premier Property Fund	2016	8,000,000	2,202,057	56,233	2,164,606	N/A	N/A
NYCRS Artemis Co-Investment	2016	11,000,000	1,164,099	-	1,600,631	N/A	N/A
USAA Eagle Real Estate Fund	2016	12,000,000	7,523,490	-	7,757,181	N/A	N/A
European Property Investors Special Opportunities Fund IV (EPI)	2016	10,059,238	907,768	-	935,589	N/A	N/A
PW Real Estate Fund III	2016	9,900,000	-	-	-	N/A	N/A
Westbrook Partners X	2016	8,000,000	-	-	-	N/A	N/A
Westbrook Partners X - Co-Investment	2016	5,000,000	-	-	-	N/A	N/A
Exeter Core Industrial Club Fund II	2016	6,000,000	-	-	-	N/A	N/A
Divco West Fund V	2016	12,000,000	-	-	-	N/A	N/A
Lone Star Real Estate Fund V	2016	23,100,000	-	-	-	N/A	N/A

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
TOTAL LIQUIDATED PRIVATE REAL ESTATE							
Canyon Johnson Urban Fund	2003	10,000,000	9,060,242	10,582,954	-	1.17	10.2%
Carbon Capital III	2009	10,000,000	10,378,522	12,722,879	-	1.23	8.5%
TOTAL INFRASTRUCTURE INVESTMENTS							
Brookfield Infrastructure Fund II	2013	15,000,000	8,954,729	998,434	9,853,475	1.21	16.6%
IFM Global Infrastructure	2014	10,000,000	10,154,554	154,554	10,681,657	N/A	N/A
First Reserve Energy Infrastructure Fund II	2014	10,000,000	1,512,380		1,469,123	N/A	N/A
KKR Global Infrastructure Investors II L.P.	2014	12,000,000	2,699,850	34,598	2,647,112	N/A	N/A
Global Infrastructure Partners III-A/B, L.P.	2015	22,000,000	-	-	-	N/A	N/A

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through June 30, 2016



	Vintage Year	Commitment - Closing (Base)	Contributions Cumulative (Local)	Distributions Cumulative	Final Market Value	3 Month Base%	Inception IRR%
TOTAL OPPORTUNISTIC FIXED INCOME		374,379,842	340,148,881	86,587,273	304,948,054	3.66%	5.69%
Avenue Special Situations Fund V, L.P.	2007	5,052,332	5,130,079	6,648,314	55,276	0.26%	NM
Avenue Europe Special Sit. Fund, L.P.	2008	4,952,510	4,495,867	8,913,349	58,810	-10.02%	NM
Torchlight Debt Oppy Fund III, LLC	2009	15,000,000	15,991,888	21,262,292	2,036,115	0.28%	13.27%
Avenue Special Situations Fund VI L.P.	2011	15,000,000	15,378,545	9,118,573	7,204,011	-2.98%	1.59%
Golden Tree	2011	32,000,000	30,000,730	-	40,395,992	3.06%	7.92%
Marathon Centre Street Partnership, L.P.	2011	46,875,000	49,125,000	3,750,000	55,709,325	5.96%	6.29%
AG Centre Street Partnership, L.P.	2012	35,000,000	27,650,000	4,710,636	27,880,306	4.49%	5.48%
Apollo Centre Street Partnership, L.P.	2012	50,000,000	43,886,179	12,398,377	31,891,837	3.29%	0.44%
FCO MA Centre Street L.P.	2012	30,000,000	35,592,923	13,610,522	27,293,354	1.66%	8.78%
OHA Centre Street Partnership, L.P.	2012	37,500,000	36,583,420	5,485,859	35,428,319	6.05%	4.50%
Contrarian Partnership, L.P.	2013	15,000,000	10,500,000	-	10,502,984	10.48%	0.01%
Oaktree Opportunities Fund IX, L.P.	2013	30,000,000	30,000,000	-	28,721,458	0.09%	-2.02%
Ares Centre Street LP	2014	30,000,000	26,721,952	-	29,130,466	2.65%	10.54%
Brightwood Capital Fund III, L.P.	2015	8,000,000	6,092,299	689,351	5,657,407	2.35%	3.98%
Torchlight Debt Opportunity Fund V, LP	2015	20,000,000	3,000,000	-	2,982,394	3.67%	-0.85%

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

Alternative Assets Manager Performance Detail

Through June 30, 2016



	Market Value	MTD Return%	3 Month Return%	FYTD Return%	YTD Return%	1 Year Return%	3 Year Return%	ITD Return%	ITD Cumulative Return%
TOTAL HEDGE FUNDS	366,509,529	0.89%	0.65%	-3.83%	-0.60%	-3.83%	2.07%	2.44%	12.84%
TOTAL DIRECT HEDGE FUNDS	317,048,680	1.00%	0.46%	-3.80%	-0.78%	-3.80%	2.24%	3.59%	17.52%
TOTAL FUND OF FUNDS HEDGE FUNDS	49,460,849	0.19%	1.89%	-3.83%	0.58%	-3.83%	1.16%	1.80%	9.30%
TOTAL DIRECT HEDGE FUNDS									
Altimeter Partners Fund LP	10,365,203	-6.14%	-17.00%	-17.15%	-17.15%			-17.15%	-17.15%
Gotham Targeted Neutral, LP	11,485,958	-0.53%	-1.85%	2.24%	1.29%	2.24%		-4.44%	-6.24%
SRS Partners US, LP	25,891,470	5.23%	6.37%	-3.36%	-10.39%	-3.36%		1.87%	2.82%
Turiya Fund LP	24,283,114	-1.32%	-1.22%	-7.32%	-9.81%	-7.32%		-7.32%	-7.32%
Total Long/Short Equity	72,025,746	0.31%	-1.49%	-5.64%	-9.14%	-5.64%	1.64%	1.64%	5.01%
Fir Tree Value Fund, L.P.	17,452,647	1.01%	7.73%	-14.39%	-3.79%	-14.39%	-1.88%	-0.25%	-0.84%
Luxor Capital Partners, LP	18,669,849	-1.08%	-0.69%	-28.30%	-7.78%	-28.30%		-17.68%	-33.32%
Perry Partners L.P.	14,187,456	-2.63%	-0.22%	-13.85%	-2.82%	-13.85%	-4.00%	-4.78%	-14.02%
Standard General Fund L.P.	6,460,730	0.82%	8.16%	3.07%	6.76%	3.07%		3.61%	7.68%
Total Event Driven	56,770,682	-0.63%	2.86%	-17.10%	-3.69%	-17.10%	-4.27%	-2.70%	-8.92%
Brevan Howard L.P.	40,680,434	0.98%	-0.06%	-3.80%	-0.79%	-3.80%	-0.97%	0.92%	4.31%
CCP Quantitative Fund LP	22,519,893	6.13%	-0.68%	4.64%	6.81%	4.64%	8.51%	0.69%	2.36%
Pharo Gaia Fund, LTD.	13,689,168	5.39%	6.59%	9.51%	8.11%			9.51%	9.51%
Pharo Macro Fund, Ltd.	20,608,120	3.37%	5.25%	9.49%	4.57%	9.49%	8.80%	8.80%	28.80%
Systematica BlueTrend Fund L.P.	23,667,870	2.69%	-5.60%	5.88%	0.28%	5.88%	5.07%	1.87%	7.71%
Total Tactical Trading	121,165,485	3.14%	0.24%	3.48%	2.63%	3.48%	4.24%	1.92%	9.09%
Caspian Select Credit Fund, L.P.	20,217,613	-0.47%	2.71%	-8.79%	0.16%	-8.79%	-0.99%	1.97%	8.47%
D.E. Shaw Composite Fund, L.L.C.	46,869,155	-0.69%	0.32%	9.12%	3.18%	9.12%	12.63%	14.50%	83.95%
Total Relative Value	67,086,768	-0.62%	1.03%	3.02%	2.25%	3.02%	7.11%	9.17%	48.41%
TOTAL FUND OF FUNDS HEDGE FUNDS									
Fund of Funds Hedge Funds	49,460,849	0.19%	1.89%	-3.83%	0.58%	-3.83%	1.16%	1.80%	9.30%

Information provided by Alpha Frontier

New York City
Fire Department Pension Fund, Subchapter Two

Appendix D

Footnotes

Through June 30, 2016



- The Barclays Capital Aggregate (then known as the Lehman Brothers Aggregate) was used prior to 1/1/89. Effective 1/1/89, in the Government Sector, maturities of less than 5 years were dropped from the Salomon and Lehman indices. From that date until 7/1/99 the benchmark was the NYC Core + 5, from Lehman.
- Effective 7/1/94, the NYC Core + 5 Index includes BBB rated securities.
- Effective 7/1/99, the basis of the NYC Index was changed from Lehman Brothers to Salomon. Also effective 7/1/99, only Salomon indices have been used to compare all fixed income managers.
- Effective 4/1/03, the name of the benchmark provider was changed from Salomon to Citigroup.
- Effective 7/1/09, 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.

General Notes

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

Page Specific

Pages 8 & 9 - Portfolio Asset Allocation

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

Pages 10 - 12 - Performance Attribution: Total Plan

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

The indexes and most recent policy weights are as follows:

*U.S. Equity: Russell 3000 * 29.96%*

*International Developed (EAFE) Markets: MSCI EAFE * 10.00%*

*Emerging Markets: MSCI Emerging Markets * 6.50%*

*REITs: Dow Jones Real Estate Securities * 3.00%*

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

*Private Real Estate: NFI - ODCE Net+100BPS * 4.50%*

*Infrastructure: CPI + 4% * 0.24%*

*Hedge Funds: 1yr T- Bill yield + 4% * 3.34%*

*Domestic Fixed Income: NYC Core +5 * 21.58%*

*TIPS: Lehman U.S. TIPS * 5.00%*

*Enhanced Yield: Citigroup BB&B * 3.42%*

*Bank Loans: Credit Suisse Leveraged Loan * 1.70%*

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

*Opportunistic Fixed: 10% Annualized Return * 2.76%*

Page 13 – Allocation and Selection Effects - Asset Class Breakdown

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