



New York City
Fire Department Pension Fund, Subchapter Two
Performance Overview as of December 31, 2015

Total Fund Overview

New York City Fire Department Pension Fund, Subchapter Two

Table of Contents:

Consultant's Commentary & Performance Charts	p.3
Appendix A - Consolidated Performance Report	p.23
Appendix B - Public Markets Manager Performance Detail	p.32
Appendix C - Alternative Assets Manager Performance Detail	p.43
Appendix D - Footnotes	p.53

Equity Markets

US equities ended a volatile 2015 on a strong note. Despite a solid last quarter, the year saw the lowest gains for the S&P 500 since 2008 and for the Russell 2000 since 2011. Earlier in the quarter, equities rallied amid robust corporate earnings and macroeconomic data. Subsequently, stocks faltered amid plunging oil prices and concerns around the impact of a stronger US dollar as the Fed tightens monetary policy. The consumer discretionary sector led performance in large caps in 2015 while healthcare dominated small caps; energy was the worst performing sector in both. Growth bested value in large and small equities.

Meanwhile, developed markets recouped a portion of their third quarter losses, gaining 4.8% in the last quarter. For the year, international equities were down around 0.4%. The energy and materials sectors drove losses, trading down over 16% in 2015; consumer staples and healthcare were the strongest performers, up over 8%.

Emerging economies returned 0.7% as the Fed's 25 basis points rate hike—its first since 2006—drove markets lower; healthcare and consumer discretionary sectors gained during the quarter while industrials and staples lagged. For 2015, the materials sector—down over 20%—was a major detractor of performance. Brazil traded off 41% as the real declined sharply amid the country's political and economic problems.

Fixed Income Markets

At home, the Fed's well telegraphed rate hike drove government yields higher in the fourth quarter, resulting in losses for Treasuries with maturities of less than one year. Within corporate credit, the precipitous selloff in commodity-related sectors was unrelenting. Consequently, high-yield debt was the worst performer during the quarter and in 2015, losing 2.07% and 4.47%, respectively; in high yield, energy and metals and mining lost nearly 25% last year. Investment-grade credit spreads widened 34 basis points over the course of 2015 to 165 basis points; contributors included global growth concerns, falling commodity prices, and record issuance of \$1.3 trillion which hampered liquidity.

Abroad, emerging market debt remained hindered by a strengthening US dollar, causing the local currency index to lose 0.01% compared to returns of 1.25% for the dollar-denominated index. Within developed markets, weakening currencies aided losses of 1.23%, according to the Citigroup WGBI Index.

The US dollar strode into the fourth quarter on the back of one of its strongest rallies in history, fueled by a hawkish Fed and concerns around growth abroad. This bullish trend persisted for the three months ended December 31. The euro fell modestly during this time to 1.08 from 1.12, testing multi-year lows along the way as the ECB continued its stimulus plan. The Japanese yen was nearly flat, ending the quarter at 120. Emerging market currencies rebounded briefly in the last quarter only to stumble in December. The Brazilian real experienced modest gains in October and November after hitting multi-year lows in September but then trended

downwards. Economies heavily reliant on exporting commodities also saw their currencies depreciate with the protracted decline in commodity prices.

Commodity Markets

Commodities continued their freefall in the fourth quarter, losing 10.5%, according to the Bloomberg Commodity Index. They ended 2015 down 24.6% with 21 of the 22 single-commodity indexes posting losses. Cotton was the one bright spot while crude oil was the biggest loser with prices falling over 40%. Last year represented the fifth consecutive annual loss for commodities and the longest decline since the index data was first tracked in 1991. Volatility was a way of life in 2015 with monthly returns ranging from gains of 5.7% to losses of 10.6%. Warm winter weather conditions in the Northern United States and Europe were detrimental to energy, keeping prices depressed amid an oversupply in crude and natural gas. Weakening manufacturing data out of China, the world's largest metal consumer, and the devaluation of the yuan kept the price of industrial metals low. The potential for future rate hikes by the Fed kept precious metals in check, while plentiful inventories across a wide array of crops held back agricultural prices.

Hedge Funds

The CS Hedge Fund Index oscillated from positive to negative throughout 2015, ending the year with moderate losses of 0.7%. Low interest rates, steep commodity price declines and intense volatility in equities contributed to negative returns last year— a first since 2011—for both the CS Hedge Fund Index and the HFRI Fund Weighted Composite. Hedge fund sub-strategies had mixed results for the fourth quarter with equity-linked approaches outperforming credit and macro as global equities rebounded from third quarter lows and credit spreads widened.

Event-driven strategies lost 2.3% in the fourth quarter despite a brief rally in October. Global macro strategies started off the year on firm footing but were negatively affected by choppy, volatile markets. Discretionary strategies outperformed systematic strategies on the quarter, returning 0.6% and -1.1%, respectively. The CS Global Macro Index ended the year with gains of 0.6% while the Managed Futures Index posted losses of 0.9%.

Equity long/ short and emerging markets strategies were the best performing sub-strategies in the last quarter. The CS Emerging Markets Index benefited from a recovery in funds focused on China and Brazil, ending the quarter up 2.8%; while the index posted a modest loss of 0.2% in 2015, it outperformed the MSCI EM Index which lost 14.2%.

Private Markets

For venture/ growth equity, top quartile returns are attractive, but access is difficult and the risk-return tradeoff outside of the top quartile is questionable. Valuations, investment volume and average deal sizes have significantly increased over the past two years. Buyouts/ special situation strategies have performed consistently over market cycles but purchase prices hover around record highs in developed geographies (although the amount of equity in these transactions is higher than before the financial crisis). Sponsors have proven their ability to preserve capital, with median investment multiples from the last buyout boom rebounding to 1.5x-1.6x with continued upside potential. Low default rates at home and ready capital are creating a challenging environment for distressed opportunities (except in energy). Conditions in Europe are more attractive because of over \$1 trillion of non-performing loans on bank balance sheets and Basel III requirements. We expect lower returns for mezzanine and direct-lending strategies. Creativity and alpha remain important for secondaries, fund of funds and co-investments.

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 given the market dislocation. Our highest conviction remains in private equity and credit as these strategies appear best equipped to invest and manage assets as stress continues to build. We are evaluating the midstream (MLP) space, which has experienced a huge selloff but risks remain. For this reason, we believe that asset selection is critical.

In real estate, we remain neutral on US private core real estate and REITS. While valuations in primary markets are above levels seen before the financial crisis, fundamentals are strong and pricing remains attractive on a relative basis to Treasuries. We are neutral on real estate debt as competition among traditional lenders keeps yields low. We are positive on value -add and opportunistic real estate and still believe Europe is attractive. For non-core real estate in the US, we favor cash flow-driven, niche-focused managers with a demonstrated ability to navigate volatility.

Performance:

For the fourth quarter of 2015, the Fund returned 2.30%, which ranked in the 59th percentile of the Public Master Trust Universe, outperforming the policy index return of 2.20%. Deviations from the policy added 10 basis points from aggregate performance during the quarter. For the year ended December 31, 2015, the Fund returned 0.34%, which ranked in the 54th percentile in the Public Master Trust Universe, with deviations from the policy detracting 9 basis points over the trailing year. Over the trailing 3-year and 5-year periods, the Fund returned 7.74% and 7.37%, respectively.

Equity Composite

For the quarter, the Total Domestic Equity Portfolio returned 5.61%, underperforming the Russell 3000 Index return of 6.27% by 66 basis points.

At the end of the fourth quarter, the Fund had an allocation to international equity of 16.2%. Of this total, 38.96% was allocated to emerging markets equity and 61.04% was allocated to developed international markets. The Fund also allocates across style in the international space, with 22.83% of the allocation invested in active value mandates, 3.09% in developed large cap passive, 25.02% in growth mandates, 8.49% in developed small cap active and 1.58% in developed small cap passive mandates. A total of 18.57% of the total international allocation was invested passively, including 13.90% invested in Emerging Markets Passive investments and 4.67% invested in Passive developed investments; remainder includes the actively managed strategies.

The International Developed Equity Composite returned 5.33% in the fourth quarter, underperforming the MSCI EAFE Index which returned 4.71%. The Emerging Markets Composite returned 1.92% in the fourth quarter, outperforming the MSCI EM Index which returned 0.66%.

Fixed Income Composite

At the end of the fourth quarter, the Fund had an allocation to fixed income of 34.4%. Of the allocation to fixed income, 55.5% was invested in structured fixed income, 10.6% was allocated to high yield, 8.1% was invested in TIPS, 7.5% was allocated to cash and short term investments, 4.9% allocated to bank loans, 1.4% was in convertible bonds, 2.3% was allocated to economically targeted investments (ETI), 7.8% was allocated to opportunistic fixed income, 0.8% to Progress Fixed and 1.1% allocated to core plus.

The Structured Fixed Income Composite returned -0.45% in the fourth quarter, outperforming the NYC Core plus 5 Index return of -0.49% by 4 bps. The Barclays Capital Aggregate Index returned -0.57% for the quarter.

The Enhanced Yield or high yield fixed income composite, posted a return of -1.69%, which outperformed the Citigroup BB&B Capped Index return of -1.73% by 4 bps.

The TIPS Composite returned -0.67%, which underperformed the Barclays Global Inflation Linked: US TIPS Index return of -0.64% for the quarter.

The Opportunistic Fixed Composite returned -2.13%, which underperformed the JP Morgan Global High Yield + 3% Index return of -1.34% by 79 bps.

Real Estate Equity Securities Composite & Private Equity

As of December 31, 2015 the Fund had \$359.9 million invested in REITs for a commitment of 3.4% of Total Fund assets. In the fourth quarter, the REIT portfolio returned 4.80%, underperforming the DJ US Select Real Estate Securities Index return of 7.55%. As of December 31st, the Fund had an allocation to Private Real Estate

Through December 31, 2015



of 4.3% and 7.4% allocated to Private Equity.

Hedge Funds

The allocation to hedge funds as of December 31, 2015 was \$338.2 million, 3.2% of the total fund. The fourth quarter return for the hedge fund portfolio was -1.30%, underperforming the HFRI FOF Composite Index +1% return of 1.0%, and underperforming the 1 Yr. T-bill yield + 4% return of 0.9%.

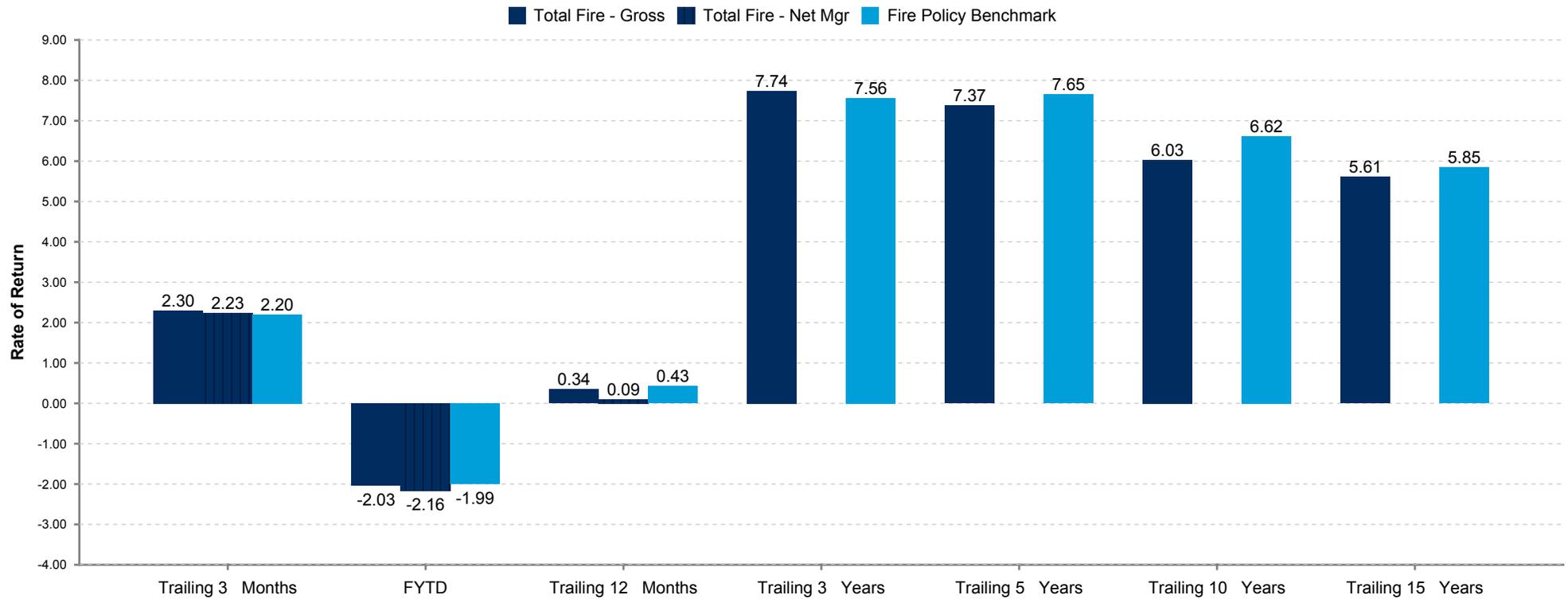
Total Portfolio Returns: December 31, 2015



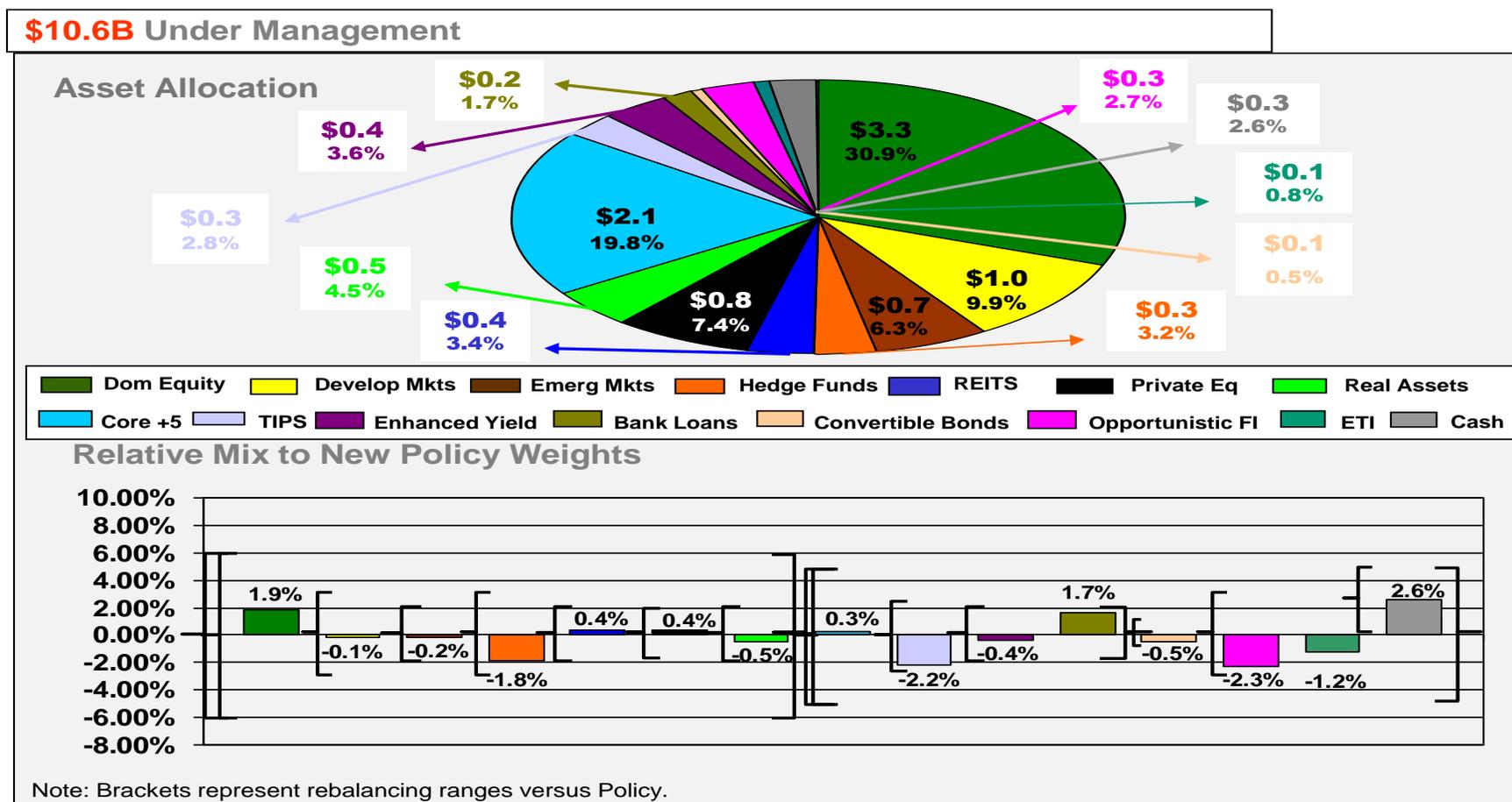
TOTAL FIRE

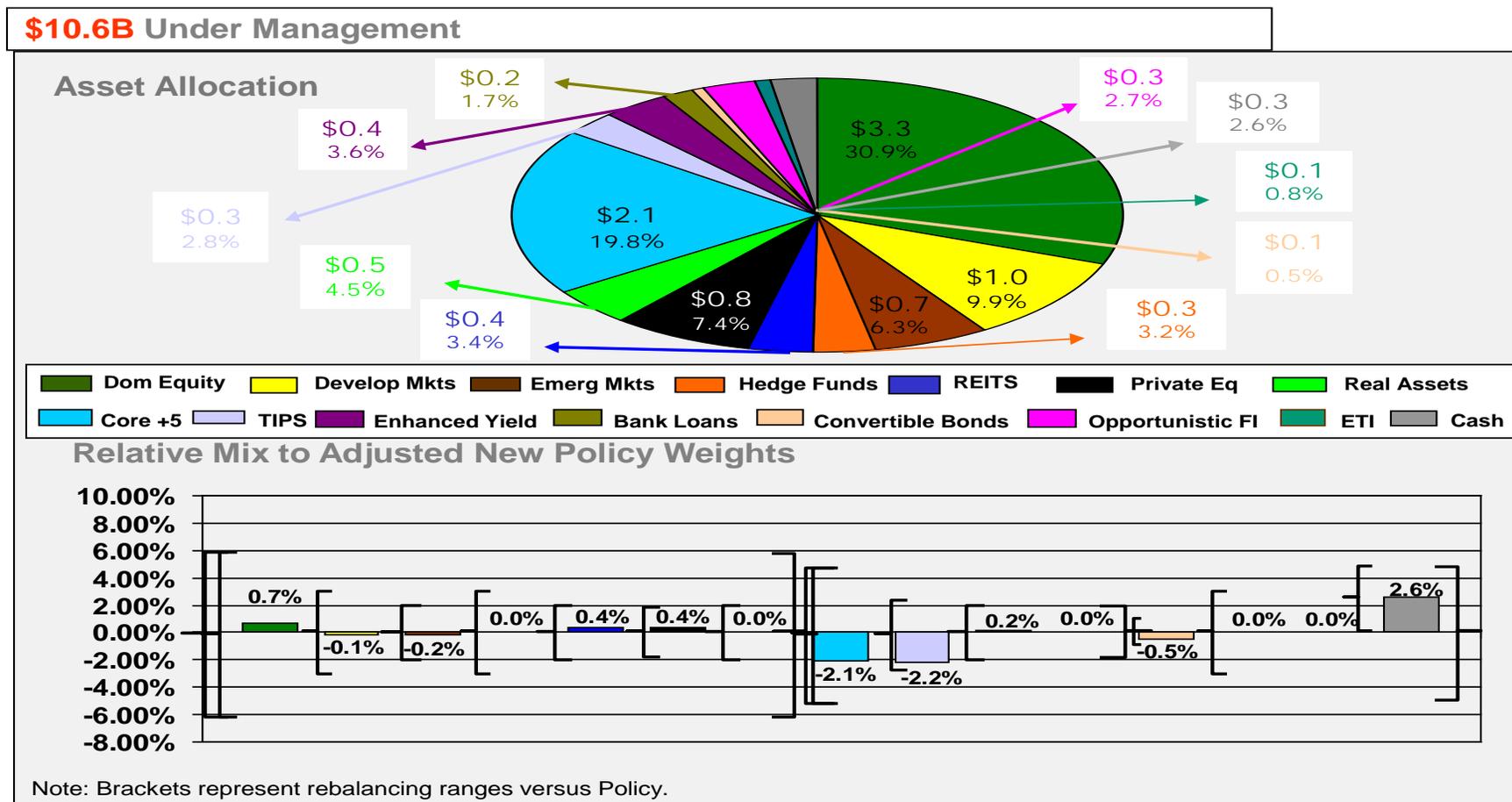
Market Value (Billions)

\$10.6



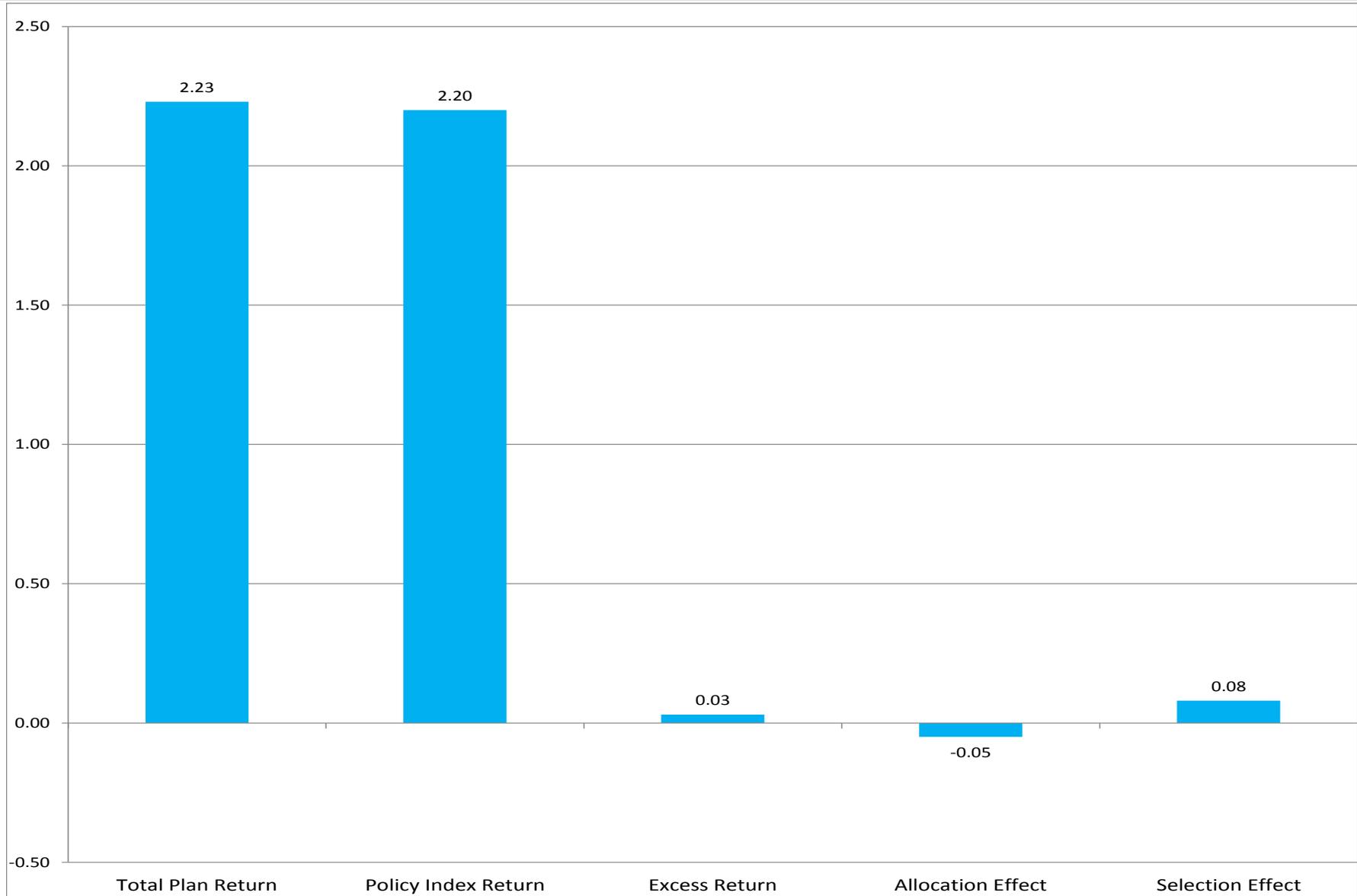
	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 10 Years	Benchmark 10 Years
Standard Deviation						
TOTAL FIRE	6.1	5.8	7.4	7.4	10.3	11.5



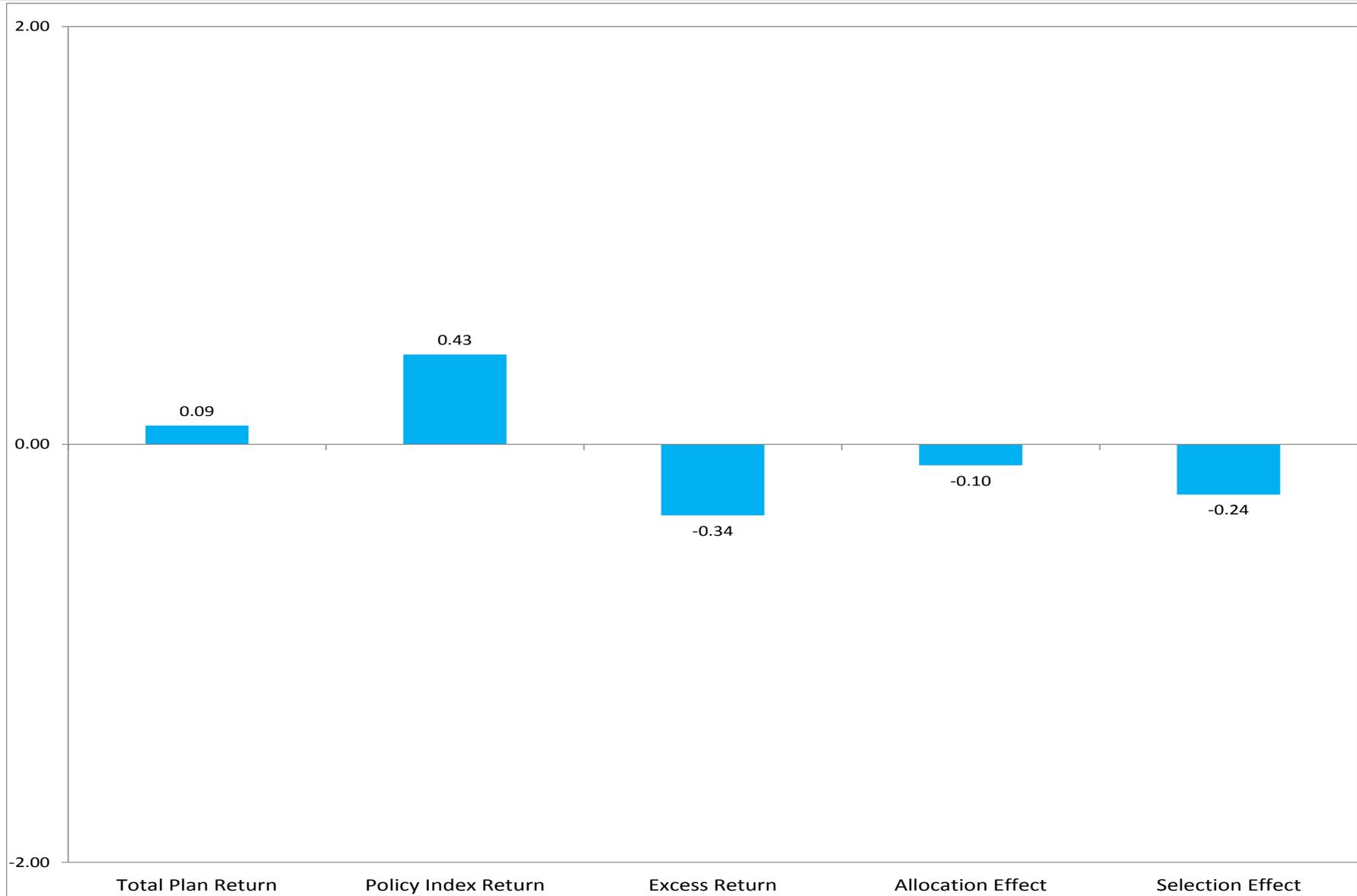


Note: On December 31, 2015 Fire's combined Fixed Income and Cash portfolios have a duration of 5.4 years. The duration of the Barclays US Aggregate Index was 5.7 years on that date.

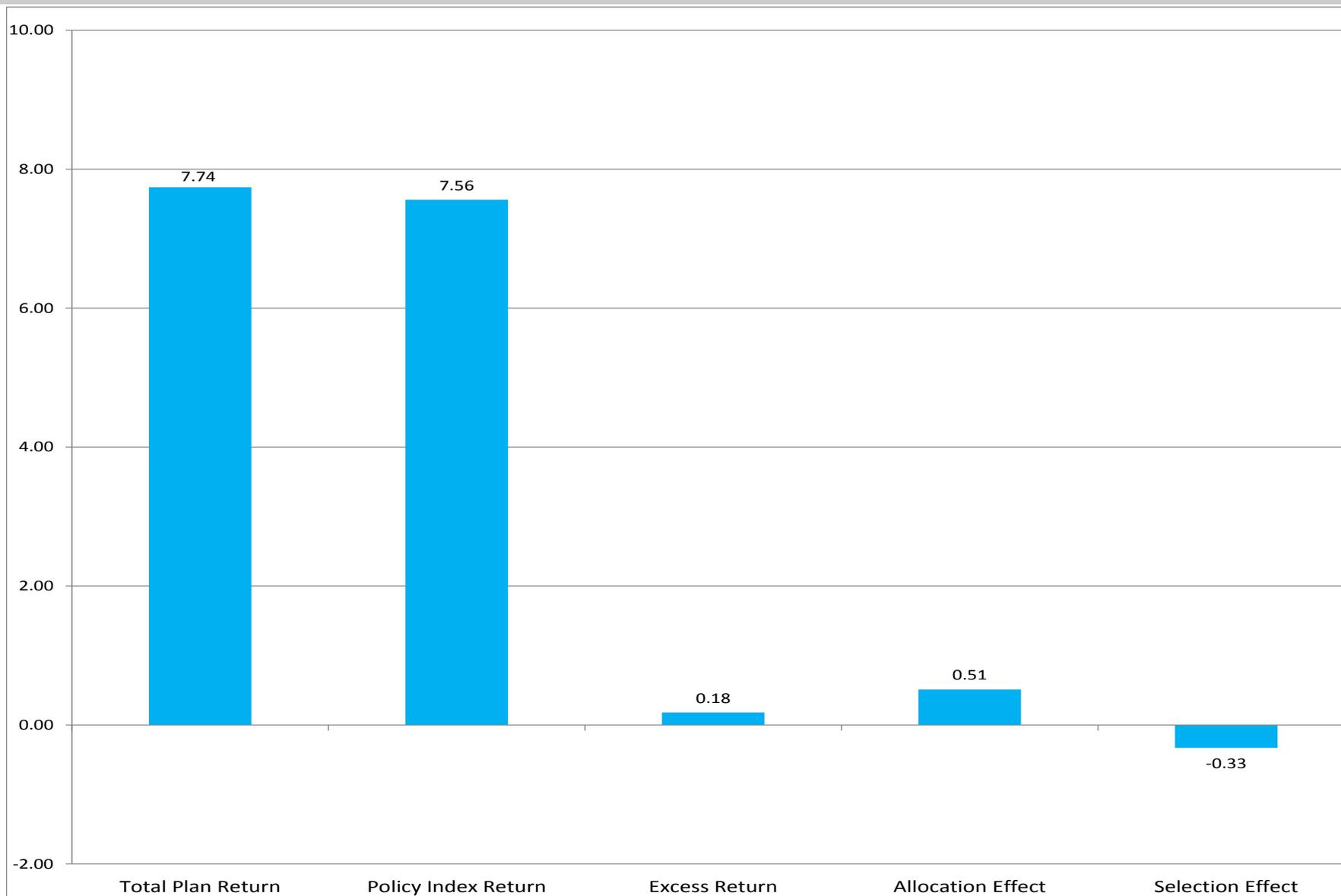
Performance Attribution: Total Plan - Quarter Ending: December 31, 2015



Performance Attribution: Total Plan - 12 Month Ending: December 31, 2015



Performance Attribution: Total Plan Gross of Investment Advisory Fees- 3 Years Ending: December 31, 2015





Allocation Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL FIRE	-0.05	-0.10	0.51	Fire Policy Benchmark
TOTAL DOMESTIC EQUITY	0.00	-0.07	0.27	RUSSELL 3000
TOTAL DEVELOPED EQUITY	-0.01	-0.01	-0.03	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.01	0.02	-0.02	MSCI EMERGING MARKETS
TOTAL PRIVATE EQUITY	-0.03	-0.01	0.01	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	0.02	-0.01	-0.02	DJ U.S. Select REIT
TOTAL STRUCTURED	0.04	-0.03	0.27	NYC - CORE PLUS FIVE
TOTAL ENHANCED YIELD	-0.01	-0.02	-0.03	CITIGROUP BB & B
TOTAL BANK LOANS	0.00	0.00	0.00	CSFB LEVERAGED LOAN INDEX
TOTAL TIPS MANAGERS	0.05	0.03	0.20	BARCLAYS U.S TIPS INDEX
TOTAL CONVERTIBLE BONDS	0.01	0.02	-0.01	BofAML ALL CONVERTIBLE - Ex Mandatory
TOTAL OPPORTUNISTIC FIXED	0.00	0.00	0.00	10% Annual Return
TOTAL CASH	-0.10	-0.04	-0.15	

Selection Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL FIRE	0.08	-0.24	-0.33	Fire Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.20	-0.13	0.02	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.05	-0.06	-0.05	MSCI EAFE NET
TOTAL EMERGING MARKETS	0.07	0.05	0.12	MSCI EMERGING MARKETS
TOTAL PRIVATE EQUITY	0.47	0.56	-0.15	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	-0.03	-0.03	0.01	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.01	0.00	CPI + 4%
TOTAL HEDGE FUNDS	-0.07	-0.20	-0.05	1 Year Treasury Bill Yield + 4%
TOTAL REAL ESTATE SECURITIES	-0.09	-0.11	-0.05	DJ U.S. Select REIT
TOTAL STRUCTURED	0.00	-0.06	0.04	NYC - CORE PLUS FIVE
TOTAL ENHANCED YIELD	0.00	0.03	0.03	CITIGROUP BB & B
TOTAL BANK LOANS	0.01	0.03	0.02	CSFB LEVERAGED LOAN INDEX
TOTAL TIPS MANAGERS	0.00	0.00	0.00	BARCLAYS U.S TIPS INDEX
TOTAL CONVERTIBLE BONDS	0.00	0.01	-0.02	BofAML ALL CONVERTIBLE - Ex Mandatory
TOTAL OPPORTUNISTIC FIXED	-0.12	-0.33	-0.12	10% Annual Return
TOTAL CASH	0.00	0.01	0.01	

*Returns are Gross of Investment Advisory Fees

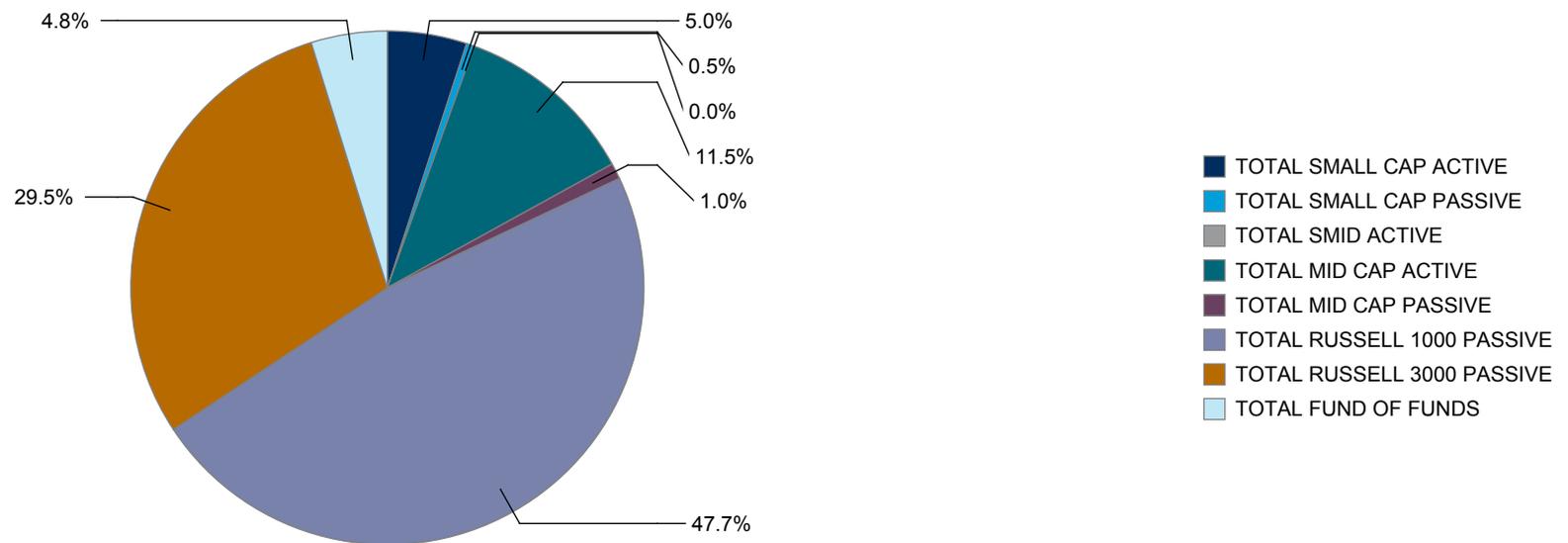
Total Domestic Equity Asset Allocations: December 31, 2015



Market Value (Billions)

TOTAL DOMESTIC EQUITY

\$3.3

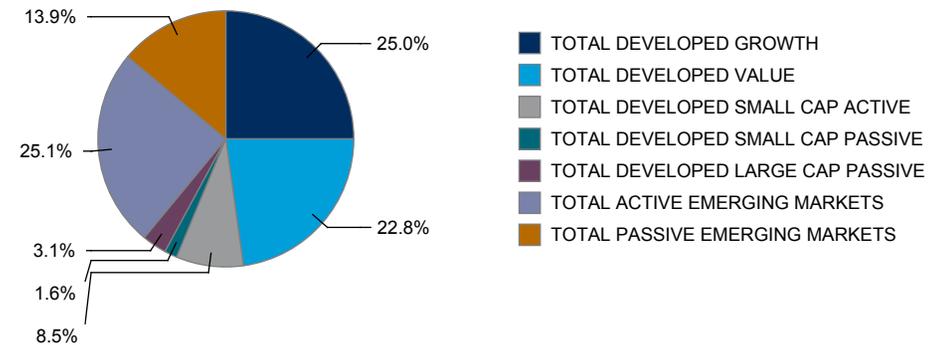
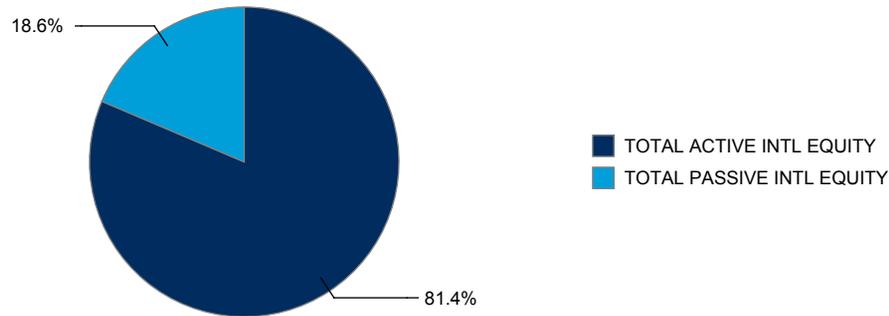


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL SMALL CAP ACTIVE	3.90	4.99	1.09	3.59	2.85	-0.75
TOTAL SMALL CAP PASSIVE	2.95	0.49	-2.46	3.59	4.18	0.58
TOTAL SMID ACTIVE	1.60	0.00	-1.60	2.78		-2.78
TOTAL MID CAP ACTIVE	6.65	11.53	4.88	3.62	3.23	-0.39
TOTAL MID CAP PASSIVE	7.53	0.96	-6.57	2.60	2.60	0.00
TOTAL RUSSELL 1000 ACTIVE	8.17	0.00	-8.17	6.50		-6.50
TOTAL RUSSELL 1000 PASSIVE	33.95	47.74	13.79	6.50	6.54	0.04
TOTAL RUSSELL 3000 PASSIVE	30.80	29.47	-1.33	6.27	6.29	0.02
TOTAL EMERGING MANAGERS	4.45	4.82	0.37	3.59	2.47	-1.12

International Equity Asset Allocation: December 31, 2015



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL INTERNATIONAL EQUITY	\$1.7	16.2

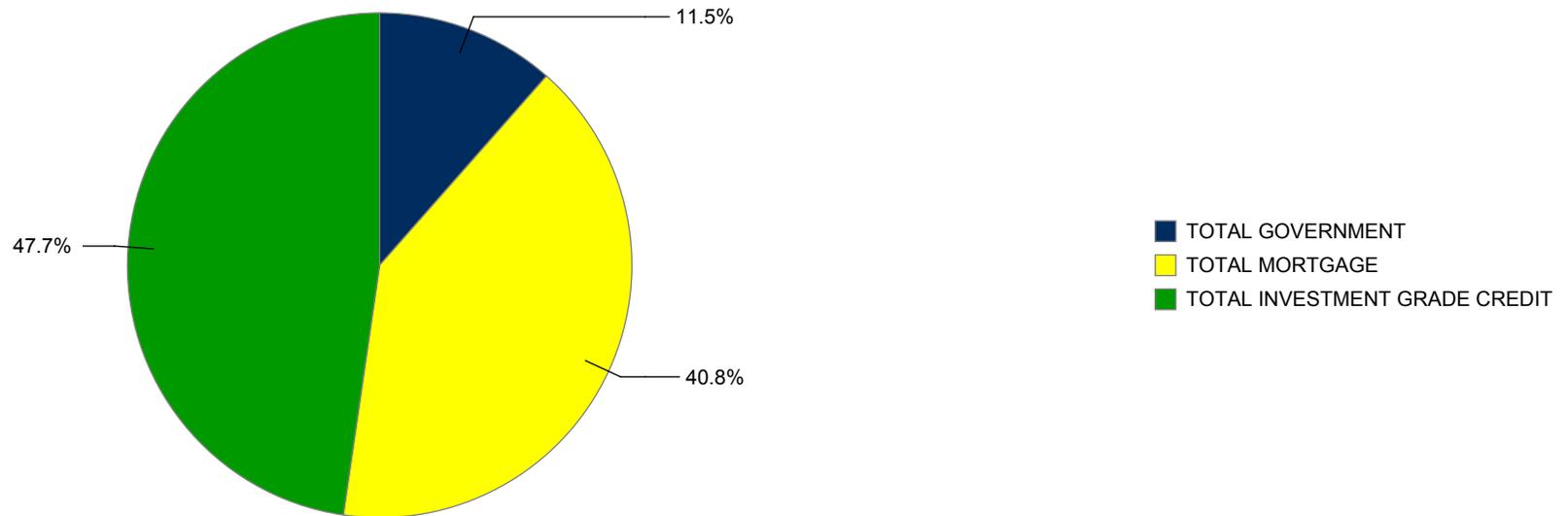


	<u>Asset Class Weight</u>	<u>Quarterly Returns - Fund and Benchmarks</u>		
		<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL DEVELOPED GROWTH	25.02	6.93	6.67	0.27
TOTAL DEVELOPED VALUE	22.83	3.06	2.68	0.38
TOTAL DEVELOPED SMALL CAP ACTIVE	8.49	6.82	5.86	0.95
TOTAL DEVELOPED SMALL CAP PASSIVE	1.58	6.93	6.79	0.14
TOTAL DEVELOPED LARGE CAP PASSIVE	3.09	4.83	4.71	0.12
TOTAL ACTIVE EMERGING MARKETS	25.06	2.72	0.66	2.06
TOTAL PASSIVE EMERGING MARKETS	13.90	0.51	0.66	(0.15)
TOTAL INTERNATIONAL EQUITY	100.00	3.98	3.24	0.73

Structured Fixed Income Asset Allocation: December 31, 2015



	<u>Market Value (Billions)</u>	<u>% of Plan</u>
TOTAL STRUCTURED	\$2.0	19.1

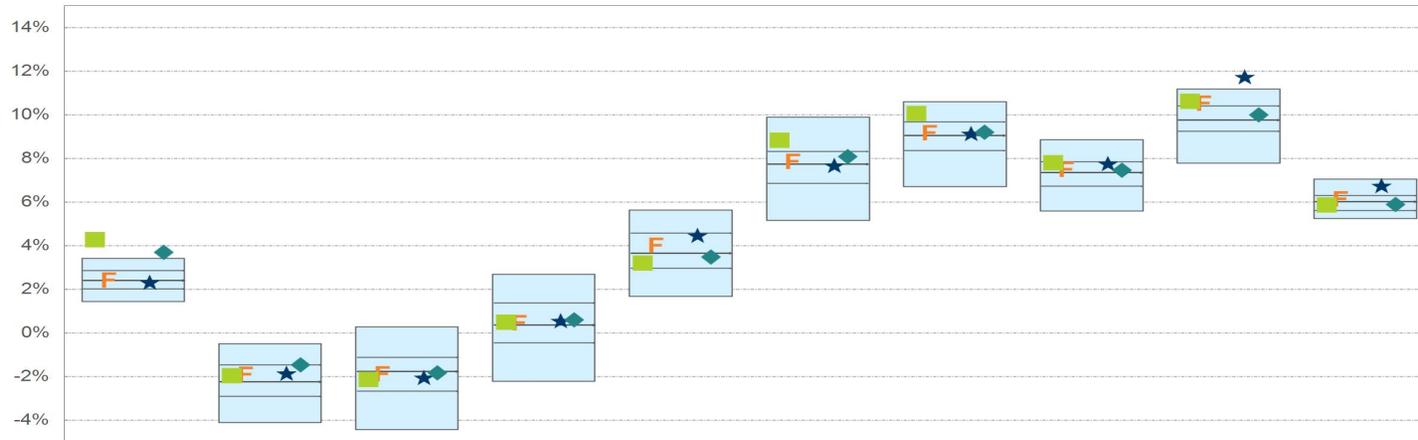


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
Total Treasury/Agency	20.81	11.48	-9.33	-1.29	-1.30	0.00
Total Mortgage	36.15	40.81	4.66	-0.07	-0.15	-0.07
Total Inv Grade Credit	43.04	47.71	4.67	-0.44	-0.51	-0.07



City of New York Performance Comparison

*Total Returns of Master Trusts - Public : Plans > \$1 Billion
Cumulative Periods Ending : December 31, 2015*

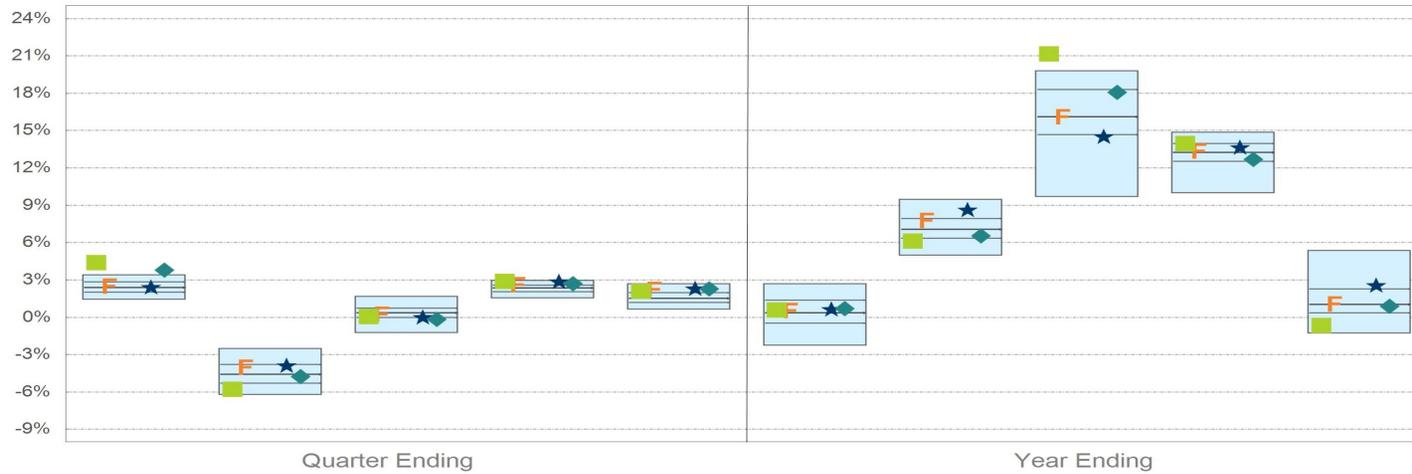


Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	3.42	-0.50	0.28	2.69	5.63	9.90	10.61	8.86	11.20	7.05
25th	2.85	-1.46	-1.13	1.38	4.57	8.32	9.68	7.85	10.41	6.30
50th	2.41	-2.24	-1.78	0.36	3.66	7.75	9.06	7.36	9.77	6.03
75th	2.02	-2.92	-2.67	-0.46	2.97	6.86	8.37	6.74	9.26	5.62
95th	1.44	-4.11	-4.45	-2.23	1.68	5.16	6.72	5.59	7.79	5.25
No. Of Obs	66	65	65	65	65	65	65	65	61	58
F Total System - Fire	2.30 (59)	-2.03 (40)	-2.00 (59)	0.34 (54)	3.89 (45)	7.74 (51)	9.06 (50)	7.37 (48)	10.41 (25)	6.03 (50)
★ Fire Policy Benchmark	2.20 (60)	-1.99 (39)	-2.19 (62)	0.43 (45)	4.35 (26)	7.56 (57)	9.01 (51)	7.64 (34)	11.63 (1)	6.62 (9)
■ Public Mkt Equiv 25	4.15 (1)	-2.10 (43)	-2.26 (64)	0.35 (54)	3.08 (70)	8.72 (14)	9.95 (14)	7.69 (32)	10.51 (23)	5.75 (60)
◆ Public Mkt Equiv 35	3.56 (2)	-1.59 (29)	-1.97 (57)	0.46 (43)	3.35 (57)	7.97 (40)	9.08 (48)	7.34 (50)	9.88 (46)	5.77 (58)

Wilshire Trust Universe Comparison Service® (TUCS®)



**City of New York
Performance Comparison**
*Total Returns of Master Trusts - Public : Plans > \$1 Billion
Consecutive Time Periods: December 31, 2015*



Percentile Rankings	Dec 15	Sep 15	Jun 15	Mar 15	Dec 14	Dec 15	Dec 14	Dec 13	Dec 12	Dec 11
5th	3.42	-2.49	1.69	2.95	2.71	2.69	9.47	19.80	14.88	5.39
25th	2.85	-3.78	0.74	2.59	1.97	1.38	7.92	18.28	13.98	2.30
50th	2.41	-4.57	0.37	2.36	1.51	0.36	7.08	16.10	13.25	1.04
75th	2.02	-5.29	-0.01	2.06	1.18	-0.46	6.34	14.66	12.53	0.36
95th	1.44	-6.20	-1.24	1.58	0.67	-2.23	5.00	9.72	9.99	-1.27
No. Of Obs	66	65	66	66	66	65	66	66	66	65
F Total System - Fire	2.30 (59)	-4.23 (34)	0.03 (73)	2.39 (48)	2.02 (23)	0.34 (54)	7.55 (42)	15.87 (54)	13.13 (56)	0.84 (56)
★ Fire Policy Benchmark	2.20 (60)	-4.09 (28)	-0.20 (81)	2.67 (22)	2.11 (20)	0.43 (45)	8.43 (17)	14.29 (76)	13.45 (40)	2.36 (22)
■ Public Mkt Equiv 25	4.15 (1)	-6.00 (89)	-0.17 (81)	2.67 (22)	1.87 (31)	0.35 (54)	5.88 (82)	20.94 (1)	13.75 (34)	-0.89 (89)
◆ Public Mkt Equiv 35	3.56 (2)	-4.98 (68)	-0.38 (85)	2.48 (32)	2.07 (22)	0.46 (43)	6.31 (76)	17.86 (29)	12.47 (76)	0.65 (62)

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
December 31, 2015**

	<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	
Since Inception	<u>\$22,574,000</u>	<u>\$39,370,000</u>	<u>\$15,235,000</u>	*Inception 4/89

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

Appendix A

Consolidated Performance Report

Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
SYSTEM RETURN SUMMARY															
5	FIRE-TOTAL PORTFOLIO - GROSS	10,597	100.00	2.30	(2.03)	0.34	7.55	15.87	13.13	0.84	14.42	7.37	6.03	8.45	07/01/1987
	FIRE - ESTIMATED INVESTMENT FEES			(0.07)	(0.13)	(0.25)	(0.29)								
	EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL)			(0.04)	(0.07)	(0.15)	(0.16)								
	EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH)			(0.03)	(0.06)	(0.10)	(0.13)								
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	FIRE-TOTAL PORTFOLIO - NET MGR			2.23	(2.16)	0.09	7.26								
	FIRE POLICY BENCHMARK			2.20	(1.99)	0.43	8.43	14.29	13.45	2.36	14.81	7.65	6.62		
	EXCESS RETURN			0.03	(0.17)	(0.33)	(1.17)	1.58	(0.32)	(1.52)	(0.39)	(0.28)	0.59		
EQUITY RETURN DETAIL															
26	FIRE-TOTAL EQUITY (INCL PE & RA) - GROSS	6,948	65.56	4.02	(2.63)	0.68	8.36	23.36	16.16	(2.14)	16.86	8.88	6.09	7.07	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.09)	(0.16)	(0.34)	(0.37)								
	EST MANAGEMENT FEES			(0.09)	(0.16)	(0.34)	(0.37)								
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	FIRE-TOTAL EQUITY (INCL PE & RA) - NET MGR			3.93	(2.79)	0.35	7.99								
34	FIRE-TOTAL DOMESTIC EQUITY - GROSS	3,272	30.87	5.61	(2.18)	0.19	11.05	35.79	16.67	(0.69)	17.54	11.85	7.11	12.15	08/01/1979
	ESTIMATED INVESTMENT FEES			(0.04)	(0.07)	(0.15)	(0.17)								
	FIRE-TOTAL DOMESTIC EQUITY - NET MGR			5.57	(2.25)	0.04	10.88								
	RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56	33.55	16.42	1.03	16.93	12.18	7.35	11.48	
	EXCESS RETURN			(0.70)	(0.81)	(0.44)	(1.67)	2.24	0.26	(1.72)	0.61	(0.33)	(0.25)	0.67	
44	FIRE-TOTAL SMALL CAP - GROSS	179	1.69	2.96	(5.23)	(0.80)	4.08	38.55	15.20	(5.25)	20.91	9.32	5.52	6.03	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.16)	(0.29)	(0.60)	(0.55)								
	FIRE-TOTAL SMALL CAP - NET MGR			2.80	(5.52)	(1.41)	3.52								
	RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89	38.82	16.35	(4.18)	26.85	9.19	6.80	7.14	
	EXCESS RETURN			(0.79)	3.24	3.01	(1.37)	(0.27)	(1.15)	(1.07)	(5.95)	0.13	(1.28)	(1.11)	
54	FIRE-TOTAL MID CAP - GROSS	409	3.86	3.18	(4.77)	0.19	9.81	37.17	19.96	(3.90)	24.84	11.71	7.14	7.78	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.14)	(0.26)	(0.52)	(0.46)								
	FIRE-TOTAL MID CAP - NET MGR			3.04	(5.03)	(0.33)	9.35								
	RUSSELL MIDCAP (DAILY)			3.62	(4.68)	(2.44)	13.22	34.76	17.28	(1.55)	25.48	11.44	8.00	9.09	
	EXCESS RETURN			(0.57)	(0.34)	2.11	(3.87)	2.40	2.68	(2.35)	(0.63)	0.27	(0.86)	(1.31)	
64	FIRE-TOTAL RUSSELL 1000 - GROSS	1,562	14.74	6.54	(0.81)	0.59	12.77	51.93	13.16	(3.66)	16.43	13.44	7.67	8.00	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.01)	(0.05)								
	FIRE-TOTAL RUSSELL 1000 - NET MGR			6.54	(0.81)	0.58	12.73								
	RUSSELL 1000 (DAILY)			6.50	(0.78)	0.92	13.24	33.11	16.42	1.50	16.10	12.44	7.40	7.63	
	EXCESS RETURN			0.04	(0.03)	(0.33)	(0.51)	18.82	(3.26)	(5.16)	0.34	1.00	0.27	0.37	

Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
EQUITY RETURN DETAIL															
76	FIRE-TOTAL RUSSELL 3000 PASSIVE - GROSS	964	9.10	6.29	(1.38)	0.54	11.97	33.69	16.42	1.06	16.95	12.11	7.36	9.41	08/01/1991
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)								
	FIRE-TOTAL RUSSELL 3000 PASSIVE - NET MGR			6.29	(1.38)	0.53	11.96								
	RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56	33.55	16.42	1.03	16.93	12.18	7.35	9.43	
	EXCESS RETURN			0.02	0.05	0.05	(0.60)	0.14	0.00	0.04	0.02	(0.07)	0.01	(0.02)	
86	FIRE-TOTAL FUND OF FUNDS - GROSS	158	1.49	2.47	(9.04)	(4.85)	3.11	40.14						12.81	06/01/2012
	ESTIMATED INVESTMENT FEES			(0.19)	(0.34)	(0.71)	(0.76)								
	FIRE-TOTAL FUND OF FUNDS - NET MGR			2.28	(9.39)	(5.56)	2.35								
	RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89	38.82						13.34	
	EXCESS RETURN			(1.31)	(0.63)	(1.14)	(2.55)	1.32						(0.53)	

Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
EQUITY RETURN DETAIL															
98	FIRE-TOTAL INTERNATIONAL EQUITY - GROSS	1,714	16.18	3.98	(9.93)	(6.16)	(3.45)	12.74	17.14	(14.05)	14.46	0.56	3.11	6.26	07/01/1991
	ESTIMATED INVESTMENT FEES			(0.08)	(0.15)	(0.30)	(0.31)								
	FIRE-TOTAL INTERNATIONAL EQUITY - NET MGR			3.90	(10.08)	(6.46)	(3.77)								
	MSCI AC WORLD EX US (NET)			3.24	(9.32)	(5.66)	(3.87)	15.29	16.83	(13.71)	11.15	1.06	2.92		
	EXCESS RETURN			0.65	(0.76)	(0.80)	0.10	(2.55)	0.31	(0.34)	3.31	(0.50)	0.19		
108	FIRE-TOTAL DEVELOPED GROWTH ACTIVE - GROSS	429	4.05	6.93	(6.05)	(1.24)	(5.48)	23.43	21.24	(11.43)	10.69	4.35		0.48	01/01/2008
	ESTIMATED INVESTMENT FEES			(0.08)	(0.14)	(0.28)	(0.27)								
	FIRE-TOTAL DEVELOPED GROWTH ACTIVE - NET MGR			6.86	(6.19)	(1.52)	(5.75)								
	MSCI EAFE GROWTH			6.67	(2.64)	4.09	(4.43)	22.55	16.86	(12.11)	12.25	4.60		0.51	
	EXCESS RETURN			0.19	(3.55)	(5.61)	(1.32)	0.88	4.38	0.69	(1.56)	(0.25)		(0.03)	
118	FIRE-TOTAL DEVELOPED VALUE ACTIVE - GROSS	391	3.69	3.06	(8.59)	(5.49)	(3.61)	22.38	17.83	(9.91)	16.94	3.43	3.28	5.49	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.07)	(0.14)	(0.28)	(0.26)								
	FIRE-TOTAL DEVELOPED VALUE ACTIVE - NET MGR			2.99	(8.73)	(5.76)	(3.87)								
	MSCI EAFE VALUE NET (DAILY)			2.68	(9.41)	(5.68)	(5.39)	22.95	17.69	(12.17)	3.25	2.55	1.96	4.30	
	EXCESS RETURN			0.31	0.68	(0.08)	1.52	(0.57)	0.15	2.26	13.69	0.88	1.32	1.19	
128	FIRE-TOTAL DEVELOPED SMALL CAP ACTIVE - GROSS	146	1.37	6.82	0.39	10.82	(4.78)							7.78	05/01/2013
	ESTIMATED INVESTMENT FEES			(0.13)	(0.25)	(0.54)	(0.47)								
	FIRE-TOTAL DEVELOPED SMALL CAP ACTIVE - NET MGR			6.69	0.14	10.28	(5.25)								
	S&P EPAC SMALL CAP INDEX			5.86	(1.46)	8.95	(3.10)							7.57	
	EXCESS RETURN			0.82	1.60	1.32	(2.15)							0.21	
138	FIRE-TOTAL DEVELOPED SMALL CAP PASSIVE - GROSS	27	0.26	6.93	(0.37)	9.88								3.37	02/01/2014
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.02)								(0.02)	
	FIRE-TOTAL DEVELOPED SMALL CAP PASSIVE - NET MGR			6.92	(0.38)	9.86								3.35	
	MSCI EAFE SMALL CAP NET (DAILY)			6.79	(0.51)	9.59								2.98	
	EXCESS RETURN			0.13	0.13	0.27								0.37	
148	FIRE-TOTAL DEVELOPED LARGE CAP PASSIVE - GROSS	53	0.50	4.83	(6.02)	(0.53)	(4.73)	23.13	17.54					3.47	02/01/2011
	ESTIMATED INVESTMENT FEES			0.00	0.00	0.00	(0.01)								
	FIRE-TOTAL DEVELOPED LARGE CAP PASSIVE - NET MGR			4.83	(6.02)	(0.53)	(4.75)								
	MSCI EAFE			4.71	(6.01)	(0.81)	(4.90)	22.78	17.32					3.18	
	EXCESS RETURN			0.12	(0.01)	0.29	0.16	0.35	0.22					0.29	

Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
EQUITY RETURN DETAIL															
160	FIRE-TOTAL ACTIVE EMERGING MARKETS - GROSS	430	4.05	2.72	(15.11)	(13.23)	(0.48)	1.87	16.13	(18.38)	19.49	(3.57)	4.53	7.94	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.13)	(0.22)	(0.44)	(0.50)								
	FIRE-TOTAL ACTIVE EMERGING MARKETS - NET MGR			2.59	(15.33)	(13.67)	(0.98)								
	MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)	(2.60)	18.22	(18.42)	18.88	(4.81)	3.61	6.89	
	EXCESS RETURN			1.93	2.02	1.24	1.21	4.47	(2.09)	0.05	0.61	1.24	0.91	1.04	
170	FIRE-TOTAL PASSIVE EMERGING MARKETS - GROSS	238	2.25	0.51	(17.50)	(14.86)	(2.23)	(1.97)	18.27				(5.43)	04/01/2011	
	ESTIMATED INVESTMENT FEES			(0.01)	(0.02)	(0.05)	(0.06)								
	FIRE-TOTAL PASSIVE EMERGING MARKETS - NET MGR			0.50	(17.53)	(14.91)	(2.29)								
	MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)	(2.60)	18.22				(5.45)		
	EXCESS RETURN			(0.16)	(0.17)	0.01	(0.10)	0.63	0.04				0.02		

Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL														
183 *FIRE-TOTAL HEDGE FUNDS	338	3.19	(1.12)	(2.96)	(1.11)	5.97	5.55	8.50					3.32	07/01/2011
HFRI FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN			0.98	(2.40)	0.74	4.40	10.04	5.82					3.43	
			(2.10)	(0.55)	(1.85)	1.57	(4.49)	2.67					(0.10)	
193 *FIRE-TOTAL DIRECT HEDGE FUNDS	288	2.72	(1.25)	(3.04)	(1.38)	5.76	4.20	8.96					4.31	01/01/2012
HFRI FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN			0.98	(2.40)	0.74	4.40	10.04	5.82					5.20	
			(2.24)	(0.64)	(2.12)	1.36	(5.84)	3.13					(0.88)	
203 *FIRE-TOTAL FUND OF FUNDS HEDGE FUNDS	49	0.46	(1.24)	(4.10)	(2.94)	3.73	8.38	5.68					2.41	07/01/2011
HFRI FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN			0.98	(2.40)	0.74	4.40	10.04	5.82					3.43	
			(2.23)	(1.70)	(3.68)	(0.66)	(1.66)	(0.15)					(1.02)	

*Information provided by Alpha Frontier

Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
EQUITY RETURN DETAIL															
215	FIRE-TOTAL REAL ESTATE SECURITIES - GROSS	360	3.40	4.80	6.03	1.39	28.21	2.72	20.17	8.14	32.08	11.65	7.32	12.37	01/01/2003
	ESTIMATED INVESTMENT FEES			(0.09)	(0.18)	(0.34)	(0.46)								
	FIRE-TOTAL REAL ESTATE SECURITIES - NET MGR			4.71	5.85	1.05	27.75								
	DJ US SELECT REAL ESTATE SECURITIES INDEX			7.55	10.77	4.46	31.85	1.31	17.09	8.87	28.47	12.21	7.08	11.61	
	EXCESS RETURN			(2.84)	(4.92)	(3.41)	(4.11)	1.41	3.08	(0.73)	3.61	(0.55)	0.25	0.76	
225	FIRE-TOTAL PRIVATE EQUITY (TIME WEIGHTED)	785	7.40	0.28	3.66	11.71	15.81	12.72	11.35	12.50	16.82	12.81	11.09	12.81	04/01/2004
	NYC R3000 +3% LAGGED			(6.54)	(5.72)	2.49	21.24	24.53	35.20	5.55	15.96	17.17	11.43	11.84	
	EXCESS RETURN			6.82	9.38	9.22	(5.43)	(11.81)	(23.86)	6.95	0.85	(4.36)	0.34	0.97	
235	FIRE-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED)	458	4.32	2.99	6.71	15.25	17.21	12.58	14.84	17.72	4.54	15.51	5.10	7.71	04/01/2004
	NCREIF NFI-ODCE NET + 100 BP			3.36	7.17	15.08	12.56	14.02	10.88	16.09		13.71			
	EXCESS RETURN			(0.37)	(0.46)	0.17	4.65	(1.44)	3.96	1.62		1.79			
245	FIRE-TOTAL INFRASTRUCTURE (TIME WEIGHTED)	21	0.20	3.59	5.61	15.95	20.21							17.26	12/01/2013
	CPI + 4%			1.10	2.01	4.69	4.70							4.81	
	EXCESS RETURN			2.49	3.61	11.26	15.51							12.46	

Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date	
FIXED INCOME RETURN DETAIL															
257	FIRE-TOTAL FIXED INCOME - GROSS	3,644	34.38	(0.74)	(1.02)	(0.43)	5.94	0.68	7.72	6.78	9.34	4.08	5.32	8.32	02/01/1980
	ESTIMATED INVESTMENT FEES			(0.03)	(0.06)	(0.09)	(0.15)								
	EST MANAGEMENT FEES			(0.03)	(0.06)	(0.09)	(0.15)								
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	FIRE-TOTAL FIXED INCOME - NET MGR			(0.77)	(1.09)	(0.52)	5.79								
265	FIRE-TOTAL STRUCTURED FIXED INCOME - GROSS	2,023	19.09	(0.45)	0.29	0.17	7.66	(1.86)	6.85	8.91	8.54	4.26	5.32	7.97	01/01/1985
	ESTIMATED INVESTMENT FEES			(0.02)	(0.04)	(0.07)	(0.08)								
	FIRE-TOTAL STRUCTURED FIXED INCOME - NET MGR			(0.47)	0.26	0.10	7.57								
	NYC - CORE PLUS FIVE			(0.49)	0.78	0.41	7.66	(2.79)	5.41	9.40	7.13	3.92	5.10		
	EXCESS RETURN			0.02	(0.52)	(0.31)	(0.09)	0.93	1.44	(0.50)	1.41	0.34	0.22		
275	FIRE-TOTAL CORE FIXED INCOME - GROSS	41	0.39	(0.14)	0.64	1.36	5.74	(1.20)	6.22	8.18	7.57	4.00		5.41	05/01/2009
	ESTIMATED INVESTMENT FEES			(0.05)	(0.10)	(0.19)	(0.17)								
	FIRE-TOTAL CORE FIXED INCOME - NET MGR			(0.20)	0.53	1.17	5.57								
	BARCLAYS AGGREGATE (DAILY)			(0.57)	0.65	0.55	5.97	(2.02)	4.21	7.84	6.54	3.25		4.21	
	EXCESS RETURN			0.37	(0.12)	0.62	(0.39)	0.82	2.01	0.34	1.03	0.76		1.20	
285	FIRE-TOTAL FIXED INCOME FUND OF FUNDS - GROSS	28	0.27	(0.38)	0.97	1.13	6.21	(1.58)						3.19	03/01/2012
	ESTIMATED INVESTMENT FEES			(0.09)	(0.17)	(0.35)	(0.36)								
	FIRE-TOTAL FIXED INCOME FUND OF FUNDS - NET MGR			(0.46)	0.79	0.78	5.85								
	BARCLAYS AGGREGATE (DAILY)			(0.57)	0.65	0.55	5.97	(2.02)						1.99	
	EXCESS RETURN			0.11	0.14	0.23	(0.12)	0.45						1.20	
295	FIRE-TOTAL TIPS - GROSS	295	2.78	(0.67)	(1.81)	(1.31)	3.59	(8.32)	6.99	13.59	6.42	2.64	4.08	3.92	06/01/2005
	ESTIMATED INVESTMENT FEES			(0.01)	(0.01)	(0.03)	(0.07)								
	FIRE-TOTAL TIPS - NET MGR			(0.67)	(1.82)	(1.34)	3.52								
	BARCLAYS GLOBAL INFLATION LINKED: US TIPS (DAILY)			(0.64)	(1.78)	(1.44)	3.64	(8.61)	6.98	13.56	6.31	2.55	3.93	3.76	
	EXCESS RETURN			(0.04)	(0.05)	0.09	(0.12)	0.28	0.01	0.03	0.11	0.09	0.15	0.16	
305	FIRE-TOTAL ENHANCED YIELD - GROSS	385	3.63	(1.69)	(5.86)	(3.07)	2.54	7.15	13.50	5.89	14.08	5.06	6.61	8.01	12/01/1994
	ESTIMATED INVESTMENT FEES			(0.09)	(0.17)	(0.34)	(0.35)								
	FIRE-TOTAL ENHANCED YIELD - NET MGR			(1.77)	(6.03)	(3.40)	2.19								
	CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78	6.17	14.45	6.58	13.35	4.98	5.60	6.75	
	EXCESS RETURN			(0.07)	0.74	0.81	(0.59)	0.98	(0.95)	(0.69)	0.73	0.08	1.01	1.26	

Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
FIXED INCOME RETURN DETAIL														
317	FIRE- TOTAL BANK LOANS - GROSS	179	1.68	(1.48)	(1.88)	1.47	2.82	7.00					3.83	12/01/2012
	ESTIMATED INVESTMENT FEES			(0.09)	(0.18)	(0.38)	(0.39)							
	FIRE-TOTAL BANK LOANS - NET MGR			(1.58)	(2.06)	1.09	2.43							
	CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06	6.15					2.74	
	EXCESS RETURN			0.39	1.10	1.48	0.38	0.85					1.09	
327	FIRE-TOTAL CONVERTIBLE BONDS - GROSS	52	0.49	0.67	(3.32)	(0.91)	5.16	14.14	12.20	(3.87)	15.93	5.11	5.99	07/01/2008
	ESTIMATED INVESTMENT FEES			(0.13)	(0.25)	(0.51)	(0.54)							
	FIRE-TOTAL CONVERTIBLE BONDS - NET MGR			0.54	(3.57)	(1.42)	4.62							
	BOFAML ALL CONVERTIBLE EX M AI (DAILY)			0.89	(6.37)	(2.89)	9.33	25.00	14.41	(3.42)	16.52	7.96	7.66	
	EXCESS RETURN			(0.35)	2.81	1.47	(4.71)	(10.87)	(2.21)	(0.45)	(0.59)	(2.85)	(1.66)	
337	FIRE-TOTAL OPPORTUNISTIC FIXED INCOME 10% ANNUAL RETURN	285	2.69	(2.13)	(4.05)	(3.02)	7.41	17.25	16.32	(2.69)	23.60	6.69	8.58	11/01/2007
	EXCESS RETURN			(4.54)	(8.93)	(13.02)	(2.59)	7.25	6.32	(12.69)	13.60	(3.31)	(1.42)	
347	FIRE-TOTAL TARGETED INVESTMENTS (NO CASH)	84	0.80	(0.50)	2.47	3.06	6.90	(1.71)	4.34	7.21	5.89	3.91	4.92	12/01/1984
	FIRE CUSTOM BENCHMARK (NO CASH)			(0.40)	0.87	1.05	5.75	(1.74)	3.79	7.17	6.10	3.15	4.43	
	EXCESS RETURN			(0.10)	1.60	2.01	1.16	0.03	0.55	0.04	(0.21)	0.76	(0.50)	
CASH SUMMARY														
359	FIRE SHORT TERM - GROSS	271	2.56	(0.10)	0.06	0.32	0.21	0.24	0.37	0.39	0.58	0.31	1.77	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			(0.10)	0.06	0.32	0.21	0.24	0.37	0.39	0.58	0.31	1.77	
363	C/D - FAIL FLOAT EARNINGS	1	0.01											
365	SECURITY LENDING	5	0.04											

New York City
Fire Department Pension Fund, Subchapter Two

Appendix B

Public Markets Manager Performance Detail

Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
EQUITY SUMMARY						
US EQUITY						
State Street Global Advisors R3000	964	9.09	6.27	(1.41)	0.50	11.96
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56
Excess			(0.00)	0.02	0.03	(0.60)
NYC FIRE BLACKROCK R2000 GROWTH	13	0.12	4.42	(9.20)	(1.29)	5.50
RUSSELL 2000 GROWTH DAILY			4.32	(9.31)	(1.38)	5.60
Excess			0.10	0.11	0.09	(0.11)
NYC FIRE BLACKROCK R2000 VALUE	3	0.03	3.04	(8.19)	(7.33)	3.80
RUSSELL 2000 VALUE DAILY			2.88	(8.17)	(7.47)	4.22
Excess			0.17	(0.02)	0.13	(0.41)
Brown AM - SCG	40	0.38	9.62	2.07	8.61	2.92
RUSSELL 2000 GROWTH DAILY			4.32	(9.31)	(1.38)	5.60
Excess			5.30	11.37	9.99	(2.68)
CEREDEX SCV	74	0.70	(0.52)	(8.19)	(4.73)	2.54
RUSSELL 2000 VALUE DAILY			2.88	(8.17)	(7.47)	4.22
Excess			(3.40)	(0.02)	2.74	(1.68)
Dalton Greiner Sm Cap-Value	49	0.46	2.28	(5.94)	(3.32)	4.47
RUSSELL 2000 VALUE DAILY			2.88	(8.17)	(7.47)	4.22
Excess			(0.59)	2.22	4.15	0.25
State St GA S&P 400	32	0.30	2.60	(6.09)	(1.19)	10.33
S&P 400 MIDCAP INDEX (DAILY)			2.60	(6.11)	(2.18)	9.77
Excess			(0.00)	0.02	0.99	0.56

Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
Times Square Capital MCG	170	1.60	2.68	(4.86)	0.68	5.21
RUSSELL MIDCAP GROWTH (DAILY)			4.12	(4.20)	(0.20)	11.90
Excess			(1.44)	(0.66)	0.88	(6.69)
Iridian Asset Mgmt. MCV	101	0.95	4.41	(6.31)	(3.71)	14.03
RUSSELL MIDCAP VALUE (DAILY)			3.12	(5.17)	(4.78)	14.75
Excess			1.29	(1.14)	1.07	(0.72)
Wellington Mgmt. MCC	107	1.01	2.48	(3.73)	1.78	10.93
S&P 400 MIDCAP INDEX (DAILY)			2.60	(6.11)	(2.18)	9.77
Excess			(0.12)	2.39	3.95	1.17
NYC FIRE BLACKROCK R1000 GROWTH	802	7.56	7.37	1.64	5.66	12.91
RUSSELL 1000 GROWTH - DAILY			7.32	1.64	5.67	13.05
Excess			0.06	(0.00)	(0.01)	(0.14)
NYC FIRE BLACKROCK R1000 VALUE	760	7.17	5.67	(3.31)	(3.90)	13.39
RUSSELL 1000 VALUE (DAILY)			5.64	(3.23)	(3.83)	13.45
Excess			0.03	(0.08)	(0.08)	(0.06)
FUND OF FUNDS						
FIRE-FUND OF FUNDS	158	1.49	2.28	(9.39)	(5.56)	2.35
RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89
Excess			(1.31)	(0.63)	(1.14)	(2.55)
FIRE-TOTAL ATTUCKS	25	0.24	1.91	(9.49)	(3.78)	3.16
RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89
Excess			(1.69)	(0.74)	0.64	(1.73)
FIRE-TOTAL CAP PROSPECTS	37	0.35	1.36	(10.13)	(6.51)	1.49
RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89
Excess			(2.24)	(1.37)	(2.09)	(3.41)

Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
FIRE-TOTAL PIM	95	0.90	2.74	(9.07)	(5.65)	2.48
RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89
Excess			(0.85)	(0.32)	(1.24)	(2.42)
NON - US EQUITY						
Baillie Gifford	185	1.74	6.88	(9.60)	(3.81)	(6.77)
MSCI EAFE GROWTH			6.67	(2.64)	4.09	(4.43)
Excess			0.22	(6.96)	(7.90)	(2.34)
Walter Scott	244	2.30	6.84	(3.44)	0.28	(3.76)
MSCI EAFE GROWTH			6.67	(2.64)	4.09	(4.43)
Excess			0.18	(0.80)	(3.81)	0.67
Causeway	213	2.01	3.74	(7.10)	(2.39)	(4.91)
MSCI EAFE VALUE NET (DAILY)			2.68	(9.41)	(5.68)	(5.39)
Excess			1.06	2.30	3.29	0.48
Sprucegrove	179	1.69	2.17	(10.55)	(9.44)	(3.32)
MSCI EAFE VALUE NET (DAILY)			2.68	(9.41)	(5.68)	(5.39)
Excess			(0.51)	(1.14)	(3.75)	2.07
Acadian	74	0.70	6.82	(0.46)	8.68	(4.92)
S&P EPAC Small Cap Index			5.86	(1.46)	8.95	(3.10)
Excess			0.96	1.00	(0.28)	(1.81)
Pyramis	72	0.68	6.55	0.76	11.96	(5.60)
S&P EPAC Small Cap Index			5.86	(1.46)	8.95	(3.10)
Excess			0.69	2.22	3.01	(2.50)
SSGA	53	0.50	4.83	(6.03)	(0.55)	(4.75)
MSCI EAFE			4.71	(6.01)	(0.81)	(4.90)
Excess			0.12	(0.02)	0.27	0.15

Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
SSGA MSCI EAFE Small Cap Index	27	0.26	6.92	(0.38)	9.86	
MSCI EAFE SMALL CAP NET (DAILY)			6.79	(0.51)	9.59	
Excess			0.13	0.13	0.27	
EMERGING MARKETS						
Baillie Gifford	155	1.46	7.84	(10.47)	(7.99)	0.10
MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)
Excess			7.18	6.88	6.92	2.28
ACADIAN	97	0.91	0.51	(17.75)	(15.05)	3.79
MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)
Excess			(0.15)	(0.40)	(0.13)	5.97
PARAMETRIC EM	94	0.89	(0.64)	(16.25)	(15.72)	(3.88)
MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)
Excess			(1.29)	1.10	(0.81)	(1.69)
DFA	84	0.79	(0.33)	(19.74)	(19.25)	(4.39)
MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)
Excess			(0.99)	(2.38)	(4.33)	(2.20)
CONY GT FIRE Blackrock-MSCI EM MK	238	2.25	0.50	(17.53)	(14.91)	(2.29)
MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)
Excess			(0.16)	(0.17)	0.01	(0.10)
REAL ESTATE SECURITIES						
MS REIT	204	1.92	3.84	3.46	(1.63)	30.72
Morgan Stanley Custom RESI Index			3.90	4.47	(1.53)	31.85
Excess			(0.06)	(1.01)	(0.11)	(1.13)
Adelante (Lend Lease Rosen) (REIT)	156	1.48	5.87	9.14	4.82	33.07
DJ US SELECT REAL ESTATE SECURITIES INDEX			7.55	10.77	4.46	31.85
Excess			(1.68)	(1.63)	0.36	1.21

Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
FIXED INCOME SUMMARY						
STRUCTURED FIXED INCOME						
Taplin Canida Habacht - Credit	269	2.54	(1.03)	(3.02)	(3.74)	7.73
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			(0.59)	(2.88)	(3.10)	0.69
T Rowe Price - Credit	278	2.63	(0.11)	(0.01)	0.16	7.74
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			0.32	0.13	0.80	0.70
Blackrock - Credit	187	1.76	(0.61)	(0.34)	(0.61)	7.43
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			(0.18)	(0.21)	0.04	0.39
Prudential - Credit	187	1.77	(0.39)	0.29	(0.18)	7.19
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			0.04	0.42	0.47	0.14
Prudential-Privest - Credit	44	0.41	(0.30)	0.84	1.63	7.20
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			0.13	0.98	2.28	0.16
Blackrock - Mortgage	333	3.14	(0.16)	1.03	1.72	6.77
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	6.12
Excess			(0.08)	(0.17)	0.16	0.64
Goldman Sachs - Mortgage	178	1.68	(0.10)	1.13	1.66	6.26
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	6.12
Excess			(0.03)	(0.07)	0.10	0.14

Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
Neuberger Berman - Mortgage	315	2.97	(0.19)	1.19	1.38	6.66
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	6.12
Excess			(0.12)	(0.00)	(0.18)	0.54
Fischer Francis - Govt	116	1.09	(1.35)	1.76	0.52	11.44
NYC - Treasury Agency Plus Five			(1.29)	2.06	0.72	12.38
Excess			(0.06)	(0.29)	(0.20)	(0.94)
State Street - Gov't	116	1.10	(1.28)	1.97	0.47	12.15
NYC - Treasury Agency Plus Five			(1.29)	2.06	0.72	12.38
Excess			0.01	(0.09)	(0.25)	(0.23)
FIXED INCOME FUND OF FUNDS						
Hillswick	3	0.03	(0.86)	0.87	0.61	7.09
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			(0.29)	0.22	0.06	1.13
NEW CENTURY	10	0.09	(0.83)	0.24	(0.30)	6.53
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			(0.26)	(0.41)	(0.85)	0.56
PUGH CAP	9	0.08	(0.40)	1.03	0.79	5.88
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			0.17	0.38	0.24	(0.09)
Ramirez Asset	7	0.07	0.14	1.26	1.12	
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	
Excess			0.71	0.60	0.57	
ENHANCED YIELD						
Loomis Sayles - High Yield	100	0.94	(4.85)	(10.78)	(8.98)	2.88
BofAML HIGH YIELD MASTER II (DAILY)			(2.17)	(6.96)	(4.64)	2.50
Excess			(2.68)	(3.81)	(4.33)	0.37

Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
Penn Capital Mgt	109	1.03	(1.09)	(4.07)	(1.31)	0.39
CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78
Excess			0.61	2.70	2.90	(2.39)
T ROWE EH	176	1.66	(0.37)	(4.36)	(1.28)	2.91
CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78
Excess			1.33	2.41	2.93	0.13
BANK LOANS						
Babson BL	88	0.83	(2.13)	(3.02)	0.12	1.99
CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06
Excess			(0.17)	0.14	0.50	(0.07)
Guggenheim BL	91	0.86	(1.03)	(1.11)	2.07	2.88
CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06
Excess			0.94	2.06	2.45	0.83
TIPS						
Blackrock TIPS	111	1.05	(0.68)	(1.80)	(1.24)	3.74
Barclays Global Inflation Linked: US TIPS (Daily)			(0.64)	(1.78)	(1.44)	3.64
Excess			(0.05)	(0.02)	0.20	0.10
State Street TIPS Passive	183	1.73	(0.67)	(1.84)	(1.35)	3.57
Barclays Global Inflation Linked: US TIPS (Daily)			(0.64)	(1.78)	(1.44)	3.64
Excess			(0.03)	(0.07)	0.09	(0.07)
CONVERTIBLE BONDS						
Advent Conv Bonds	52	0.49	0.54	(3.57)	(1.42)	4.62
BofA ML U.S. Convertible Yield Alternative			(3.79)	(9.44)	(9.05)	2.75
Excess			4.33	5.87	7.63	1.87

Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
CORE FIXED INCOME						
LM Capital	21	0.20	0.08	0.75	1.02	5.57
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			0.65	0.09	0.47	(0.39)
GIA						
GIA	20	0.19	(0.49)	0.31		
Barclays Aggregate (Daily)			(0.57)	0.65		
Excess			0.08	(0.35)		
ECONOMICALLY TARGETED INVESTMENTS						
AFL-CIO HOUSING INV TRUST						
AFL-CIO HOUSING INV TRUST	53	0.50	(0.69)	0.74	1.13	6.10
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			(0.12)	0.09	0.58	0.14
ACCESS RBC						
ACCESS RBC	19	0.17	(0.41)	0.99	1.82	6.66
Access RBC Benchmark			(0.34)	0.98	1.40	5.08
Excess			(0.07)	0.01	0.42	1.58
CPC CONST FACILITY						
CPC CONST FACILITY	2	0.02	2.89	11.45	12.90	
CPC CONST BENCHMARK			0.73	1.45	2.90	
Excess			2.16	10.00	10.01	
BOA-PPAR (FNMA)						
BOA-PPAR (FNMA)	3	0.02	(1.33)	10.68	42.03	13.31
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.34)	9.05	39.53	6.19
CCD-PPAR (FNMA)						
CCD-PPAR (FNMA)	1	0.01	(1.33)	11.41	6.69	25.71
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.34)	9.78	4.20	18.58
CCD-PPAR (GNMA)						
CCD-PPAR (GNMA)	1	0.01	(1.18)	8.39	5.08	15.37
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.56)	6.80	3.06	8.72

Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
CFSB-PPAR (GNMA)	0	0.00	(1.45)	9.58	5.90	15.34
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.82)	7.98	3.88	8.69
CPC-PPAR (FNMA)	2	0.01	(0.12)	12.66	8.96	13.91
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(0.12)	11.03	6.46	6.78
JPMC-PPAR (FNMA)	2	0.02	(1.11)	13.08	6.18	11.95
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.12)	11.45	3.68	4.82
LIIF-PPAR (FNMA)	1	0.01	(1.36)	10.62	6.29	38.12
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.37)	9.00	3.79	30.99
LIIF-PPAR (GNMA)	1	0.00	(1.08)	4.02	3.92	9.74
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.46)	2.42	1.91	3.09
NCBCI-PPAR (FNMA)	0	0.00	(1.09)	8.13	4.97	14.93
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.10)	6.51	2.47	7.81
NCBCI-PPAR (GNMA)	0	0.00	(1.23)	8.66	5.53	16.66
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.61)	7.06	3.52	10.01
CASH						
FIRE SHORT TERM	271	2.56	(0.10)	0.06	0.32	0.21
91 DAY T-BILL			0.03	0.05	0.05	0.02
Excess			(0.12)	0.01	0.27	0.19

Public Markets Manager Performance Detail

Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
C/D - Fail Float Earnings	1	0.01				
SECURITY LENDING	5	0.04				

New York City
Fire Department Pension Fund, Subchapter Two

Appendix C

Alternative Assets Manager Performance Detail

Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
TOTAL PRIVATE EQUITY		1,571,136,836	1,252,776,330	957,195,389	770,441,869	1.38	10.7%
TOTAL ACTIVE		1,489,161,464	1,160,512,448	843,083,788	770,441,869	1.39	11.1%
Cypress Merchant Banking Partners II, L.P.	1999	22,586,486	26,930,800	21,720,353	3,621,245	0.94	-1.1%
FdG Capital Partners LLC	1999	25,000,000	28,756,836	42,947,884	4,464,066	1.65	14.5%
Lincolnshire Equity Fund II, L.P.	1999	6,899,005	7,223,050	13,673,658	448,969	1.96	24.6%
SCP Private Equity Partners II, L.P.	2000	15,000,000	16,834,296	5,125,651	4,206,098	0.55	-7.4%
New Mountain Partners, L.P.	2001	9,070,967	8,558,234	12,215,748	220,743	1.45	12.4%
Apollo Investment Fund V, L.P.	2001	15,000,000	23,371,979	45,924,747	561,889	1.99	38.8%
CVC European Equity Partners III, L.P.	2001	10,000,000	11,579,021	29,775,858	266,871	2.59	41.1%
Yucaipa American Alliance Fund I, LP	2002	5,000,000	7,491,869	6,475,457	2,291,529	1.17	4.7%
Landmark Equity Partners XI, L.P.	2002	5,000,000	4,753,167	6,947,013	448,573	1.56	23.7%
FS Equity Partners V, L.P.	2003	10,000,000	9,165,934	15,963,872	2,241,711	1.99	15.8%
Blackstone Capital Partners IV, L.P.	2003	13,875,989	17,127,697	37,101,878	4,069,959	2.40	36.5%
Ares Corporate Opportunities Fund, L.P.	2003	5,000,000	6,000,993	8,592,476	641,903	1.54	13.6%
Markstone Capital Partners, LP	2004	5,000,000	5,862,384	2,446,015	276,301	0.46	-44.8%
Euro Choice II (Delaware) L.P.	2004	6,751,352	6,714,168	7,877,820	2,038,109	1.48	7.5%
FdG Capital Partners II LP	2004	5,000,000	5,342,679	6,071,286	298,574	1.19	3.5%
Paladin Homeland Security Fund (NY City), L.P.	2004	7,500,000	8,118,461	2,459,828	1,501,800	0.49	-10.1%
Lincolnshire Equity Fund III, L.P.	2004	5,000,000	4,842,915	6,306,704	2,575,548	1.83	31.1%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 1	2004	2,000,000	2,028,276	1,178,380	1,235,749	1.19	3.4%
Aurora Equity Partners III L.P.	2004	5,000,000	5,411,986	8,623,720	527,232	1.69	14.4%
Trilantic Capital Partners III L.P.	2004	5,000,000	4,509,325	7,254,182	160,297	1.64	14.7%
Celtic Pharmaceutical Holdings L.P.	2004	2,500,000	2,540,209	40,209	397,602	0.17	-20.3%
Medica III Investments (International) L.P.	2004	3,000,000	2,937,724	1,267,948	1,147,000	0.82	-4.9%
Palladium Equity Partners III, L.P.	2005	10,000,000	10,376,898	13,979,841	6,666,141	1.99	17.9%
New Mountain Partners II, L.P.	2005	2,580,650	2,320,910	4,316,039	239,014	1.96	13.8%
VSS Communications Partners IV, L.P.	2005	2,500,000	2,820,670	1,523,234	654,756	0.77	-4.6%
Carlyle Partners IV, L.P.	2005	5,000,000	5,153,158	9,582,852	640,485	1.98	13.2%
Prism Venture Partners V-A, L.P.	2005	7,500,000	7,690,681	3,671,461	2,349,498	0.78	-4.9%
Snow Phipps Group, L.P.	2005	5,000,000	5,747,760	4,456,499	3,129,056	1.32	7.8%
GI Partners Fund II L.P.	2005	2,500,000	2,527,512	2,933,972	945,877	1.54	7.3%
Blackstone Mezzanine Partners II, L.P.	2005	3,000,000	2,863,532	3,414,132	316,735	1.30	7.3%
Psilos Group Partners III, L.P.	2005	2,500,000	2,657,559	1,282,054	2,069,600	1.26	4.9%
FirstMark Capital I, L.P. (fka FirstMark IV)	2005	1,500,000	1,622,375	2,240,582	7,997,277	6.31	44.1%

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
USPF II Institutional Fund, L.P.	2005	5,000,000	6,594,940	4,440,544	4,187,897	1.31	5.6%
Bridgepoint Europe III	2005	5,398,017	4,993,430	2,929,136	2,820,503	1.15	2.2%
JP Morgan Fleming (Tranche A)	2005	3,000,000	2,884,548	2,042,097	1,899,213	1.37	7.1%
Arlington Capital Partners II, L.P.	2005	4,000,000	4,064,601	4,464,599	2,515,944	1.72	11.5%
Levine Leichtman Capital Partners Deep Value Fund, L.P.	2005	5,000,000	6,229,039	5,371,000	1,166,878	1.05	1.3%
Aisling Capital II, LP	2006	1,000,000	1,172,182	725,667	481,756	1.03	0.6%
InterMedia Partners VII, L.P.	2006	2,500,000	2,867,179	1,614,731	2,812,842	1.54	6.8%
Terra Firma Capital Partners III, L.P.	2006	5,222,663	5,246,995	260,574	2,648,931	0.55	-10.0%
Fenway Partners Capital Fund III, L.P.	2006	5,000,000	5,636,655	4,274,025	1,901,092	1.10	2.0%
Blackstone Capital Partners V, L.P.	2006	9,481,463	10,016,960	10,721,215	5,238,191	1.59	8.1%
Avista Capital Partners, L.P.	2006	5,000,000	6,490,042	5,369,129	2,985,683	1.29	5.8%
Apollo Investment Fund VI, L.P.	2006	20,000,000	25,741,832	31,714,418	7,671,606	1.53	9.7%
Ares Corporate Opportunities Fund II, L.P.	2006	5,000,000	5,475,968	8,274,212	1,045,610	1.70	13.8%
CCMP Capital Investors II, L.P.	2006	5,000,000	5,489,262	6,042,333	2,998,828	1.65	13.9%
CLP 2014 (fka Perseus Partners VII)	2006	5,000,000	5,829,005	1,669,494	65,539	0.30	-36.6%
Euro Choice III L.P.	2006	5,321,990	5,135,935	2,744,686	3,030,810	1.12	2.6%
Thomas, McNerney & Partners II, L.P.	2006	3,000,000	2,845,794	4,841,963	1,356,132	2.18	16.9%
Catterton Partners VI, L.P.	2006	5,000,000	5,480,013	6,617,280	3,707,710	1.88	13.5%
First Reserve Fund XI, L.P.	2006	5,000,000	5,313,265	3,065,224	804,897	0.73	-7.8%
Permira IV, L.P.	2006	5,515,183	5,817,661	5,651,188	2,554,466	1.41	7.4%
Arsenal Capital Partners II, LP	2006	4,000,000	4,888,657	4,459,731	3,095,939	1.55	10.1%
GF Capital Private Equity Fund, L.P.	2006	3,000,000	3,060,562	2,569,670	2,814,608	1.76	14.9%
RRE Ventures IV, L.P.	2006	2,500,000	3,063,159	747,422	3,973,426	1.54	8.9%
Coller International Partners V, L.P.	2006	5,000,000	4,303,737	4,466,796	1,896,690	1.48	9.9%
MidOcean Partners III, L.P.	2006	10,000,000	11,125,731	7,571,061	8,252,089	1.42	8.2%
The Fourth Cinven Fund	2006	2,813,467	2,803,310	2,971,622	943,974	1.40	7.0%
Falconhead Capital Partners II, L.P.	2006	4,000,000	4,444,937	3,707,916	1,537,641	1.18	3.7%
Atlantic Equity Partners IV, L.P.	2006	3,768,757	3,286,844	-	2,259,318	0.69	-6.3%
Capital Partners Private Equity Income Fund, L.P.	2006	2,000,000	1,910,800	2,705,853	1,280,108	2.09	20.7%
Pegasus Partners IV, L.P.	2007	7,500,000	8,701,260	3,969,234	5,049,340	1.04	0.9%
Olympus Capital Asia III, L.P.	2007	5,000,000	5,680,093	2,035,624	4,932,472	1.23	6.3%
FTVentures III, LP	2007	2,500,000	2,545,000	2,500,518	2,763,120	2.07	16.7%
Highland Consumer Fund I LP	2007	2,000,000	1,903,212	399,844	1,106,855	0.79	-4.2%
Montreux Equity Partners IV, L.P.	2007	5,000,000	5,000,000	1,710,911	5,270,393	1.40	7.6%
Gleacher Mezzanine Fund II, L.P.	2007	3,000,000	2,746,577	3,253,328	273,538	1.28	9.7%

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
SCP Vitalife Partners II Fund	2007	5,000,000	5,002,424	395	4,291,022	0.86	-3.3%
Constellation Venture Capital III, L.P.	2007	5,000,000	5,372,250	1,135,209	2,851,304	0.74	-6.6%
United States Power Fund III, L.P.	2007	5,000,000	4,997,389	2,432,702	4,213,105	1.33	5.9%
Carlyle Partners V, L.P.	2007	10,000,000	10,134,640	10,165,596	6,515,645	1.65	13.9%
PCG Clean Energy & Technology Fund (East), LLC	2007	10,000,000	8,820,014	1,038,409	4,702,575	0.65	-8.8%
GSO Capital Opportunities Fund LP	2007	7,500,000	11,189,363	15,139,105	1,083,781	1.45	18.1%
New Mountain Partners III, L.P.	2007	10,000,000	9,740,107	5,765,024	9,063,259	1.52	11.0%
Vista Equity Partners Fund III, L.P.	2007	7,500,000	7,965,052	16,952,865	3,410,242	2.56	28.8%
Trilantic Capital Partners IV L.P.	2007	7,236,332	7,244,739	8,349,375	3,147,338	1.59	14.5%
Pine Brook Capital Partners, L.P.	2007	7,500,000	7,572,682	4,458,953	5,033,701	1.25	8.0%
Capital Point Partners, L.P.	2007	3,000,000	3,339,064	2,182,562	1,912,935	1.23	5.3%
Post Capital Equity Partners II LP	2007	3,000,000	2,009,908	934,449	1,745,290	1.33	8.0%
Paladin III (NY City), L.P.	2008	7,500,000	8,208,054	4,130,878	6,100,245	1.25	6.5%
Relativity Fund, L.P.	2008	1,631,513	1,612,064	345,053	551,365	0.56	-11.2%
Apollo Investment Fund VII, L.P.	2008	25,000,000	28,911,685	42,639,342	8,556,394	1.77	25.1%
NGN BioMed Opportunity II, L.P.	2008	5,000,000	4,662,955	986,553	2,507,962	0.75	-7.1%
Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	2008	7,500,000	7,834,069	5,625,034	3,959,326	1.22	6.9%
Yucaipa American Alliance Fund II, LP	2008	15,000,000	20,183,641	11,939,866	16,872,034	1.43	10.5%
Levine Leichtman Capital Partners IV, L.P.	2008	5,000,000	5,004,549	5,761,896	2,626,354	1.68	20.2%
Lee Equity Partners Fund, L.P.	2008	7,500,000	8,887,916	4,178,956	7,443,883	1.31	9.0%
New York/Fairview Emerging Managers Fund, L.P.-Tranche 2	2008	5,000,000	4,314,500	2,051,046	4,317,778	1.48	14.3%
Yucaipa Corporate Initiatives Fund II, LP	2008	4,676,976	4,538,077	1,299,840	2,651,123	0.87	-3.4%
CVC European Equity Partners V, L.P.	2008	13,695,523	14,178,953	11,771,338	7,686,367	1.37	10.9%
GI Partners Fund III L.P.	2008	7,500,000	7,977,024	7,586,466	4,382,428	1.50	14.2%
Ares Corporate Opportunities Fund III, L.P.	2008	10,000,000	11,637,982	10,482,033	9,407,961	1.71	21.1%
GCM Grosvenor NYCFDPF Emerging Manager Co-Investment Fu	2008	990,607	1,251,931	1,519,547	419,125	1.55	11.4%
GCM Grosvenor NYCFDPF Emerging Manager Fund, L.P.	2008	8,979,798	9,017,915	4,673,671	6,564,185	1.25	9.5%
First Reserve Fund XII, L.P.	2008	5,000,000	5,191,313	2,305,273	2,116,827	0.85	-4.5%
Landmark Equity Partners XIV, L.P.	2008	13,630,000	12,442,713	9,404,758	7,865,020	1.39	15.4%
Crestview Partners II, L.P.	2008	7,500,000	7,870,065	5,291,259	6,386,257	1.48	13.7%
Erasmus New York City Growth Fund IA	2008	1,208,990	1,208,990	417,624	387,445	0.67	-7.1%
Milestone Partners III, L.P.	2008	3,000,000	3,131,854	1,399,940	1,696,481	0.99	-0.3%
Euro Choice IV L.P.	2008	6,467,598	5,452,241	850,649	5,394,063	1.15	4.6%
Avista Capital Partners II, L.P.	2008	10,000,000	11,832,217	11,942,497	9,856,757	1.84	18.9%
Bridgepoint Europe IV	2008	6,688,502	6,113,546	4,035,554	4,429,411	1.38	10.0%

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Carpenter Community BancFund-A, L.P.	2008	3,000,000	2,922,576	1,685,841	2,741,406	1.51	8.2%
Blue Wolf Capital Fund II, L.P.	2008	3,000,000	3,201,786	1,194,630	2,394,476	1.12	4.3%
Aisling Capital III, LP	2008	3,500,000	3,535,550	3,176,358	2,610,421	1.64	23.5%
Onex Partners III LP	2008	5,000,000	5,393,057	3,065,283	4,644,856	1.43	12.8%
NorthBound Emerging Manager Custom Fund LP	2009	5,000,000	4,053,148	2,432,843	4,176,123	1.63	17.1%
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	7,500,000	7,158,065	5,434,098	5,463,112	1.52	14.4%
Scale Venture Partners III, LP	2009	5,000,000	4,893,728	4,572,593	6,134,421	2.19	24.7%
FS Equity Partners VI, L.P.	2009	12,500,000	12,788,434	7,289,420	15,940,022	1.82	21.2%
Lincolnshire Equity Fund IV, L.P.	2009	2,500,000	2,416,781	876,260	2,042,863	1.21	8.0%
Lexington Capital Partners VII, L.P.	2009	10,000,000	8,169,595	6,423,980	5,912,959	1.51	17.2%
Snow Phipps II, L.P.	2010	7,500,000	5,922,515	3,375,910	5,211,907	1.45	16.4%
Trident V, L.P.	2010	15,000,000	15,607,243	3,042,147	16,049,718	1.22	8.6%
Comvest Investment Partners IV, L.P.	2010	20,000,000	18,069,512	15,981,792	16,038,343	1.77	39.8%
Blackstone Capital Partners VI, L.P.	2011	10,000,000	7,526,213	1,440,815	7,687,455	1.21	11.5%
Ampersand 2011	2011	5,000,000	4,825,000	282,185	7,649,537	1.64	17.9%
BDCM Opportunity Fund III, L.P.	2011	10,000,000	12,505,357	4,606,283	9,917,363	1.16	9.8%
AXA Secondary Fund V B L.P.	2011	40,000,000	30,191,024	16,864,593	29,299,234	1.53	20.2%
Wellspring Capital Partners V, L.P.	2011	7,500,000	5,707,483	575,541	6,417,396	1.23	11.7%
EQT VI, L.P.	2011	17,680,577	14,794,471	366,111	15,440,932	1.07	3.4%
Pegasus Partners V, L.P.	2011	6,236,975	4,390,071	1,110,265	4,654,235	1.31	10.7%
BC European Capital IX	2011	22,024,610	17,115,972	3,223,224	15,219,277	1.08	3.9%
American Securities Partners VI, L.P.	2011	20,000,000	18,474,924	5,879,164	19,814,662	1.39	22.3%
Vista Equity Partners Fund IV, L.P.	2011	30,000,000	27,912,901	12,193,647	32,897,957	1.62	22.3%
Warburg Pincus Private Equity XI, L.P.	2012	35,000,000	27,181,277	5,385,555	29,046,515	1.27	16.9%
Summit Partners Growth Equity Fund VIII-A, L.P.	2012	30,000,000	20,072,255	3,334,891	21,450,907	1.23	15.1%
Trilantic Capital Partners V L.P.	2012	10,000,000	3,250,729	39,734	2,901,318	0.90	-5.8%
Palladium Equity Partners IV, L.P.	2012	10,000,000	4,478,312	283,125	4,520,436	1.07	5.2%
Ares Corporate Opportunities Fund IV, L.P.	2012	20,000,000	14,254,364	1,393,247	14,599,409	1.12	9.9%
Green Equity Investors VI, L.P.	2012	25,000,000	16,439,249	628,928	18,775,507	1.18	13.3%
Platinum Equity Capital Partners III, L.P.	2012	25,000,000	12,143,489	8,426,555	9,690,001	1.49	45.4%
<u>NYCFDPF - 2012 Emerging Manager Program</u>	<u>2012</u>	<u>25,000,000</u>	<u>10,951,774</u>	<u>767,108</u>	<u>11,070,489</u>	<u>1.08</u>	<u>N/M</u>
Carlyle Partners VI, L.P.	2013	20,000,000	7,245,052	263,146	6,792,186	0.97	-2.3%
Carlyle Partners VI, L.P. (Side Car)	2013	2,200,000	486,043	-	449,330	0.92	N/M
Landmark Equity Partners XV, L.P.	2013	26,000,000	8,231,408	1,945,716	7,923,055	1.20	N/M
Landmark - NYC Fund I, L.P.	2013	9,000,000	3,773,738	350,340	4,092,402	1.18	N/M

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Apollo Investment Fund VIII, L.P.	2013	40,000,000	9,015,743	246,576	8,598,388	0.98	N/M
CVC Capital Partners VI, L.P.	2013	34,919,095	5,351,886	236,858	3,719,023	0.74	N/M
Crestview Partners III, L.P.	2013	24,000,000	3,256,257	66,068	3,031,067	0.95	N/M
Crestview Partners III (Co-Investment B), L.P.	2013	8,000,000	-	-	-	-	N/M
Olympus Growth Fund VI, L.P.	2014	15,000,000	3,112,190	1,082,636	2,702,272	1.22	N/M
ASF VI B L.P.	2014	30,000,000	11,068,890	292,105	13,468,207	1.24	N/M
ASF VI B NYC Co-Invest L.P.	2014	10,000,000	5,840,326	750,000	6,603,674	1.26	N/M
Vista Equity Partners Fund V, L.P.	2014	40,000,000	25,563,366	3,118	27,108,478	1.06	N/M
Lexington Capital Partners VIII, L.P.	2014	40,000,000	4,035,396	6,983	6,079,621	1.51	N/M
Centerbridge Capital Partners III, L.P.	2014	4,200,000	668,363	-	674,672	1.01	N/M
Siris Partners III, L.P.	2015	5,500,000	55,182	-	(13,202)	(0.24)	N/M
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	14,000,000	2,937,627	-	2,717,508	0.93	N/M
EQT VII, L.P.	2015	27,900,250	-	-	-	-	N/M
American Securities Partners VII, L.P.	2015	14,000,000	-	-	-	-	N/M
Bridgepoint Europe V L.P.	2015	11,160,100	-	-	(61,303)	-	N/M
Bridgepoint Europe V Co-Invest	2015	3,348,030	-	-	-	-	N/A
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 September 30, 2015



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
TOTAL REAL ASSETS		759,848,233	590,774,566	289,491,711	467,806,031	1.28	7.1%
TOTAL PRIVATE REAL ESTATE		712,848,233	572,475,573	288,663,173	448,747,839	1.29	7.1%
TOTAL LIQUIDATED PRIVATE REAL ESTATE		20,000,000	19,438,764	23,305,833	-	1.20	9.8%
TOTAL INFRASTRUCTURE		47,000,000	18,298,993	828,538	19,058,192	1.09	13.9%
TOTAL PRIVATE REAL ESTATE							
Blackstone Fund IV	2004	5,000,000	6,406,782	7,015,164	2,186,228	1.44	11.5%
The City Investment Fund I	2004	35,000,000	34,515,181	34,495,821	474,144	1.01	0.3%
Canyon Johnson Urban Fund II	2005	10,000,000	8,988,710	1,931,982	2,547,040	0.50	-9.2%
PRISA SA	2006	7,000,000	7,486,044	1,563,966	8,742,635	1.38	3.9%
Prologis Targeted U.S. Logistics Fund	2006	5,000,000	6,250,325	1,305,339	5,687,681	1.12	1.6%
RREEF America REIT II	2006	7,000,000	9,178,399	3,690,979	8,703,855	1.35	4.5%
UBS Trumbull Property Fund	2006	27,000,000	34,123,296	5,686,073	41,517,541	1.38	7.6%
Blackstone Real Estate Partners VI	2007	10,000,000	11,047,417	13,595,131	6,982,900	1.86	13.3%
Carlyle Realty Partners V	2007	5,000,000	6,225,338	6,512,487	1,891,164	1.35	8.3%
Colony Investors VIII	2007	20,000,000	21,249,679	5,553,373	4,377,150	0.47	-12.5%
Colony Realty Partners II	2007	5,000,000	5,355,052	166,526	2,031,200	0.41	-10.9%
Heitman HART	2007	9,000,000	12,010,445	3,010,445	15,324,467	1.53	7.9%
JP Morgan Special Situation Property Fund	2007	5,000,000	5,640,622	1,280,300	5,872,555	1.27	3.2%
JP Morgan Strategic Property Fund	2007	22,000,000	23,608,156	-	39,143,177	1.66	8.9%
Metropolitan Workforce Housing Fund	2007	3,500,000	3,503,257	1,546,203	2,341,254	1.11	2.4%
PRISA II	2007	20,228,233	21,356,287	3,409,456	25,426,458	1.35	4.6%
RREEF America REIT III - 1410	2007	5,000,000	5,000,000	2,438,542	452,872	0.58	-7.5%
AG Realty Fund VII	2008	15,000,000	14,100,000	17,438,211	4,277,130	1.54	13.8%
American Value Partners Fund I	2008	5,000,000	3,773,989	2,217,249	1,632,282	1.02	0.4%
ARA Asia Dragon Fund	2008	10,000,000	9,284,000	11,427,344	528,924	1.29	7.2%
AREA European Real Estate Fund III, LP	2008	15,000,000	15,243,750	14,077,500	4,013,035	1.19	4.6%
Silverpeak Legacy Partners III	2008	5,000,000	2,216,844	200,380	728,168	0.42	-12.6%
Stockbridge Real Estate Fund III	2008	13,500,000	13,142,674	-	18,138,418	1.38	6.7%
Thor Urban Property Fund II	2009	5,000,000	6,469,583	4,100,125	4,615,472	1.35	10.5%
Walton Street Real Estate Fund VI	2009	5,000,000	4,432,393	3,149,175	3,487,963	1.50	10.6%
Blackstone Real Estate Partners Europe III (USD Vehicle)	2010	5,000,000	5,085,956	3,141,441	4,192,518	1.44	14.7%
Canyon Johnson Urban Fund III	2010	5,000,000	4,931,163	6,331,307	437,364	1.37	12.7%
LaSalle Property Fund	2010	30,000,000	30,000,000	4,900,646	38,879,646	1.46	12.8%
Westbrook Real Estate Fund VIII	2010	5,000,000	5,915,605	6,231,140	1,495,203	1.31	12.9%

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
Carlyle Realty Partners VI	2011	20,000,000	18,081,912	14,919,773	13,844,428	1.59	29.8%
H/2 Special Opportunities Fund II	2011	10,000,000	10,000,001	5,480,243	7,982,989	1.35	16.2%
Blackstone Real Estate Partners VII	2012	30,000,000	33,532,846	18,134,111	31,630,229	1.48	25.6%
Brookfield Strategic Real Estate Partners	2012	15,000,000	15,101,054	3,731,133	15,372,227	1.27	17.8%
Divco West Fund III	2012	30,000,000	29,429,127	39,234,294	10,165,332	1.68	26.3%
Taconic New York City Investment Fund LP	2012	20,000,000	8,272,728	181,818	11,264,733	1.38	12.8%
KTR Industrial Fund III	2013	10,000,000	4,369,869	6,854,322	55,427	1.58	40.6%
NYC Asset Investor #1 LLC	2013	5,000,000	3,963,972	537,193	4,571,446	1.29	26.4%
NYC Asset Investor #2 LLC	2013	9,000,000	6,211,658	1,067,358	5,969,831	1.13	12.2%
NYC Asset Investor #3 LLC	2013	6,000,000	1,368,036	23,481	1,393,660	1.04	3.4%
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2014	26,000,000	15,264,616	1,573,040	15,193,498	1.10	N/A
Carlyle Realty Partners VII	2014	15,000,000	3,699,503	-	3,537,964	0.96	N/A
Divco West Fund IV	2014	30,000,000	27,281,372	3,688,144	30,744,721	1.26	N/A
Lone Star Real Estate Fund III	2014	25,000,000	17,949,712	2,989,012	17,544,646	1.14	N/A
MetLife Core Property Fund	2014	15,000,000	15,000,000	527,113	16,254,091	1.12	N/A
Avanath Affordable Housing Fund II	2015	2,220,000	1,809,963	-	1,702,017	0.94	N/A
Blackstone Real Estate Partners VIII	2015	31,500,000	1,361,582	-	1,490,064	1.09	N/A
H/2 Special Opportunities Fund III	2015	15,000,000	3,797,911	-	3,902,092	1.03	N/A
Jamestown Premier Property Fund	2015	8,000,000	-	-	-	N/A	N/A
NYC/Artemis Co-investment Program	2015	11,000,000	-	-	-	N/A	N/A
USAA Eagle Fund	2015	12,000,000	-	-	-	N/A	N/A
Tristan EPISO 4	2015	9,900,000	-	-	-	N/A	N/A
Westbrook Partners X	2015	8,000,000	-	-	-	N/A	N/A
PW Real Estate Fund III	2015	10,000,000	-	-	-	N/A	N/A
TOTAL LIQUIDATED PRIVATE REAL ESTATE							
Canyon Johnson Urban Fund LP	2003	10,000,000	9,060,242	10,582,954	-	1.17	10.2%
BlackRock Carbon Capital III Co-Investments, LLC	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	6,901,091	807,041	7,481,339	1.20	18.4%
IFM Global Infrastructure	2014	10,000,000	10,021,497	21,497	10,324,559	N/A	N/A
First Reserve Energy Infrastructure Fund II	2014	10,000,000	592,409	-	458,868	N/A	N/A
KKR Global Infrastructure Investors II L.P.	2014	12,000,000	783,996	-	793,426	N/A	N/A

Information provided by the New York City Fire Retirement System Consultants

Alternative Assets Manager Performance Detail

Through December 31, 2015



	Vintage Year	Commitment - Closing (Base)	Contributions Cumulative (Local)	Distributions Cumulative	Final Market Value	3 Month Base%	Inception IRR%
TOTAL OPPORTUNISTIC FIXED INCOME		361,769,954	319,608,277	78,900,157	276,732,170	-2.38%	5.13%
Avenue Special Situations Fund V, L.P.	2007	5,052,332	5,130,079	6,648,314	54,216	0.00%	N/M
Avenue Europe Special Sit. Fund, L.P.	2008	4,842,622	4,495,867	8,890,421	173,150	-2.69%	N/M
Torchlight Debt Oppy Fund III, LLC	2009	15,000,000	15,991,888	21,262,292	2,028,250	2.08%	13.42%
Avenue Special Situations Fund VI L.P.	2011	15,000,000	15,378,545	8,755,807	9,238,273	0.00%	4.44%
Golden Tree	2011	32,000,000	30,000,730	-	38,582,581	-0.85%	7.67%
Marathon Centre Street Partnership, L.P.	2011	46,875,000	45,000,000	3,750,000	48,571,466	-3.56%	5.34%
AG Centre Street Partnership, L.P.	2012	35,000,000	27,650,000	4,710,636	26,357,830	-3.79%	4.50%
Apollo Centre Street Partnership, L.P.	2012	50,000,000	40,886,179	8,821,141	31,025,233	-6.36%	-1.43%
FCO MA Centre Street L.P.	2012	30,000,000	32,534,635	10,186,288	24,810,701	0.00%	8.38%
OHA Centre Street Partnership, L.P.	2012	30,000,000	35,485,859	5,485,859	32,148,292	-3.27%	2.74%
Contrarian Partnership, L.P.	2013	15,000,000	9,000,000	-	8,142,986	-3.07%	-5.44%
Oaktree Opportunities Fund IX, L.P.	2013	30,000,000	30,000,000	-	28,078,328	-1.80%	-3.98%
Ares Centre Street LP	2014	30,000,000	19,712,196	-	20,813,166	1.25%	9.36%
Brightwood Capital Fund III, L.P.	2015	8,000,000	6,092,299	389,399	5,998,107	0.00%	4.80%
Torchlight Debt Opportunity Fund V, LP	2015	15,000,000	2,250,000	-	709,589	-0.10%	-5.61%

Information provided by Alpha Frontier

Alternative Assets Manager Performance Detail

Through December 31, 2015



	Market Value	MTD Return%	3 Month Return%	FYTD Return%	YTD Return%	1 Year Return%	3 Year Return%	ITD Return%	ITD Cumulative Return%
TOTAL HEDGE FUNDS	337,563,363	-1.54%	-1.27%	-3.25%	-1.68%	-1.68%	2.81%	2.86%	13.52%
TOTAL DIRECT HEDGE FUNDS	288,409,823	-1.62%	-1.24%	-3.04%	-1.36%	-1.36%	2.82%	4.23%	18.45%
TOTAL FUND OF FUNDS HEDGE FUNDS	49,153,539	-1.06%	-1.39%	-4.38%	-3.52%	-3.52%	2.34%	1.87%	8.68%
TOTAL DIRECT HEDGE FUNDS									
BlueTrend Fund L.P.	23,600,924	-2.94%	-1.92%	5.58%	3.91%	3.91%	1.30%	2.06%	7.41%
SRS Partners US, LP - Class B - 1	14,055,158	4.21%	7.57%	7.84%	14.74%	14.74%		14.74%	14.74%
Standard General Fund L.P.	6,051,810	-0.71%	-1.55%	-3.46%	-2.61%	-2.61%		0.54%	0.86%
Brevan Howard L.P. - Series B	20,099,466	-3.88%	-2.19%	-3.52%	-1.96%	-1.96%	-0.10%	0.81%	3.36%
Brevan Howard L.P. - Series L	20,905,631	-3.41%	-1.82%	-2.55%	-0.48%	-0.48%		-0.18%	-0.45%
Caspian Select Credit Fund, L.P.	20,185,658	-2.77%	-5.66%	-8.94%	-10.39%	-10.39%	0.45%	2.20%	8.30%
CCP Quantitative Fund LP	21,083,372	-3.20%	0.86%	-2.03%	-4.71%	-4.71%		-1.45%	-4.17%
D.E. Shaw Composite Fund, L.L.C.	45,422,793	2.52%	4.13%	5.75%	14.61%	14.61%	14.91%	15.55%	78.28%
Fir Tree Value Fund, L.P.	20,350,154	-3.32%	-2.77%	-11.01%	-8.58%	-8.58%		1.04%	3.07%
Gotham Targeted Neutral, LP	11,339,514	-1.18%	-0.64%	0.94%	-7.43%			-7.43%	-7.43%
Luxor Capital Partners, LP	20,245,230	-6.83%	-11.12%	-22.26%	-18.70%	-18.70%		-18.52%	-27.70%
Perry Partners L.P.	19,465,213	-3.45%	-5.30%	-11.35%	-13.32%	-13.32%		-4.63%	-11.52%
Pharo Gaia Fund, LTD.	12,661,930	1.30%		1.30%	1.30%			1.30%	1.30%
Pharo Macro Fund, Ltd.	19,708,237	-0.18%	-1.74%	4.71%	3.57%	3.57%		8.70%	23.18%
Turiya Fund LP - Class I Interests	13,234,733	0.23%	0.85%	2.76%	2.76%			2.76%	2.76%
TOTAL FUND OF FUNDS HEDGE FUNDS									
Fund of Funds Hedge Funds	49,153,539	-1.06%	-1.39%	-4.38%	-3.52%	-3.52%	2.34%	1.87%	8.68%

Information provided by Alpha Frontier

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

Appendix D

Footnotes

Through December 31, 2015



- The Barclays Capital Aggregate (then known as the Lehman Brothers Aggregate) was used prior to 1/1/89. Effective 1/1/89, in the Government Sector, maturities of less than 5 years were dropped from the Salomon and Lehman indices. From that date until 7/1/99 the benchmark was the NYC Core + 5, from Lehman.
- Effective 7/1/94, the NYC Core + 5 Index includes BBB rated securities.
- Effective 7/1/99, the basis of the NYC Index was changed from Lehman Brothers to Salomon. Also effective 7/1/99, only Salomon indices have been used to compare all fixed income managers.
- Effective 4/1/03, the name of the benchmark provider was changed from Salomon to Citigroup.
- Effective 7/1/09, 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 9 & 10 - Portfolio Asset Allocation

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

Pages 11 - 13 - 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 * 30.19%*

*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 * 4.19%*

*Infrastructure: CPI + 4% * 0.19%*

*Hedge Funds: 1yr T- Bill yield + 4% * 3.24%*

*Domestic Fixed Income: NYC Core +5 * 21.87%*

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

*Enhanced Yield: Citigroup BB&B * 3.50%*

*Bank Loans: Credit Suisse Leveraged Loan * 1.67%*

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

*Opportunistic Fixed: 10% Annualized Return * 2.65%*

Page 14 – 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.