



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

# Total Fund Overview

## **New York City Police Pension Fund, Subchapter Two**

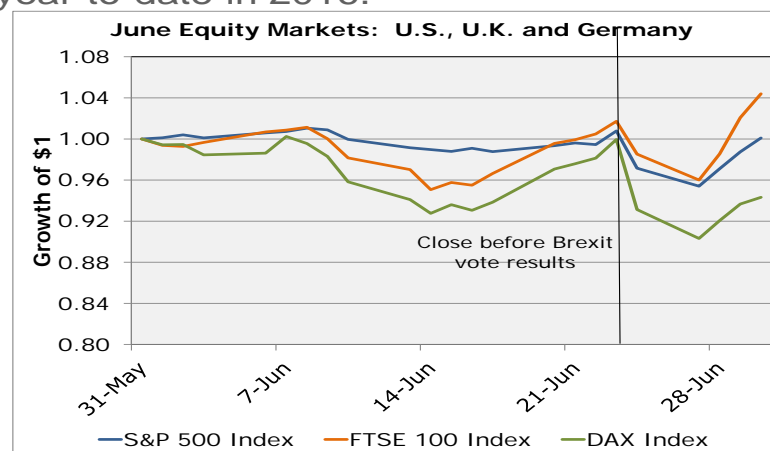
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## 2Q16 Capital Markets Commentary



- **US Equity** - The U.S. stock market (Russell 3000) was up for the second quarter of 2016 by 2.6%. Price swings during the quarter were not nearly as extreme as what investors experienced during the first quarter, except for the last week of trading. The market was up in both April and May and rebounded from the U.K.-driven sell-off to post three strong days to end the quarter. Large capitalization stocks underperformed smaller shares during the quarter while growth stocks trailed value. Sector performance was mostly positive with Energy, Telecom Services and Utilities leading with returns of 11.7%, 7.7% and 7.4%, respectively. Lower quality names outperformed higher quality in 2Q16, but results are mixed calendar-year-to-date in 2016.
- **International Equity** – The big news during the quarter, and perhaps since the Global Financial Crisis (GFC), was the ‘Brexit’ vote with the United Kingdom deciding to withdraw from the European Union. The initial reaction from the markets was not surprising; equity prices fell while bond prices rose. However, investors are quickly learning how to manage a post-Brexit world due, in part, to the fact that the entirety of the fallout will not be known for possibly years.
- Because the financial news cycle in the second quarter was dominated by the Brexit vote, it overshadowed striking downturns in Asia/Pacific regional markets. The economic slowdown in China, combined with a generally weaker forecast of corporate earnings throughout the region, put investors in a selling mood overall. Despite the Brexit turmoil, however, European stocks managed modest gains. Emerging market stocks presented a mixed picture with Asian shares underperforming other world region equities.



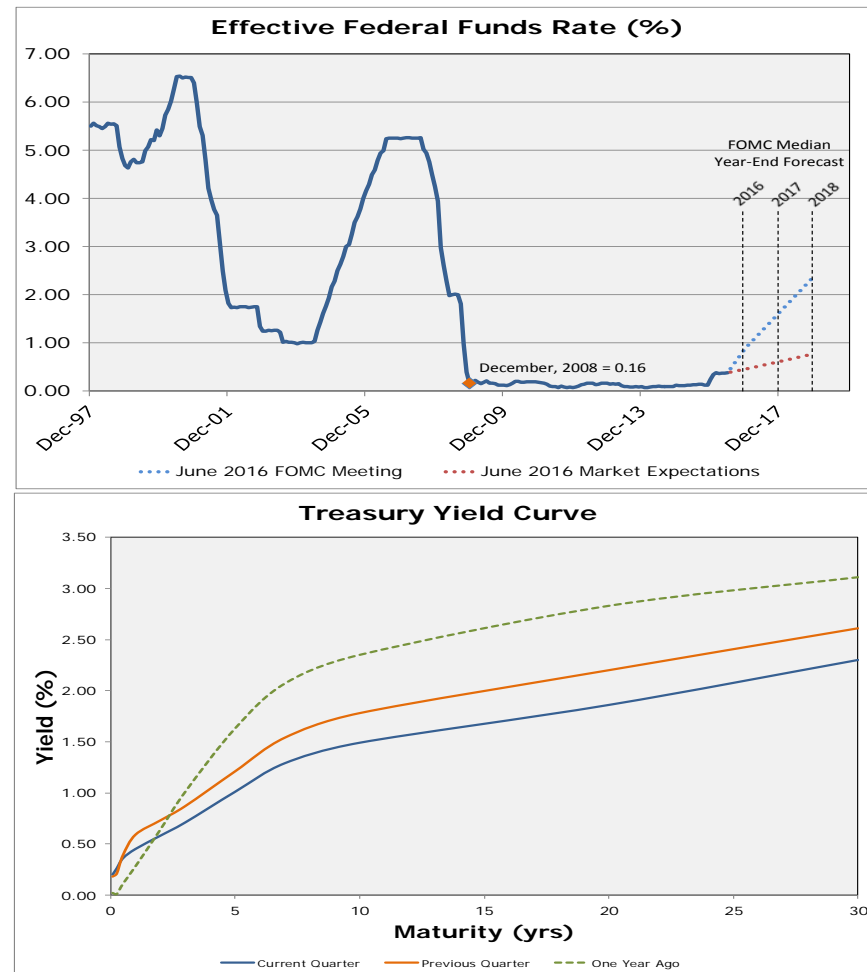
Through June 30, 2016



# 2Q16 Capital Markets Commentary



- **Fixed Income** - The Federal Open Market Committee decided in June to maintain the current Fed Funds rate although they cut their forecast for economic growth in the U.S., the second downward revision this year. U.S. Treasury securities extended their rally in the second quarter thanks to broad investor uncertainty, initially over the outcome of the Brexit vote, then over the details and timetable of the withdrawal of the U.K. from the European Union. Most of the rally unsurprisingly occurred as the Brexit referendum results were followed by broad flight-to-safety purchases in the two trading days after the vote. The bellwether 10-year U.S. Treasury yield fell from 1.78% as of March 31 to 1.49% as of June 30.
- **Opportunistic Fixed Income** – Credit yields tightened somewhat over the quarter as well, as investors continued to seek incremental yield wherever they could find it. High Yield Bonds, Converts, and Bank Loans returned 5.0%, 4.0%, and 2.9% for the quarter, respectively.



## 2Q16 Capital Markets Commentary



- **Real Assets** – Real estate securities continued their strong overall performance into the second quarter, although non-U.S. shares saw gains tempered by the strong U.S. dollar. Commodities in general experienced striking gains for the quarter, with crude oil extending its win streak with a 16.9% price increase, ending the quarter at \$48.33 per barrel. Natural gas prices leapt 32.2% over the second quarter, ending at \$2.924 per million BTUs. MLP performance benefited from the excellent performance of oil and gas. Gold rallied as well, partly due to Brexit jitters; the precious metal ended the quarter at \$1,320.60 per troy ounce, a 6.8% increase.
- **Private Equity** – Relative to 1Q16, fund raising increased in 2Q16, while the number of funds closing remained relatively unchanged. The aggregate buyout deal value, as well as the number of buyout deals increased in 2Q16. Smaller deals continue to dominate deal activity by count, while mega transaction (\$2.5B+) volume remains significant in the first half of 2016. Total private equity overhang grew to an estimated \$539 billion during the run-up to the financial crisis, and while the overhang slightly decreased across 2007 to 2010, the overhang has now increased back to 2007 peak levels. As debt has become more readily available, purchase price multiples have increased from the low point in 2009.
- **Hedge Funds** – Hedge funds, in line with other risk assets, experienced largely positive returns in 2Q16 versus the mixed results in 1Q16. The HFRI Fund Weighted Composite Index was up 1.99% in 2Q16, with all four main strategy indices posting positive results. The HFRI Event-Driven and Relative Value Indices performed the best, returning 2.82% and 2.85% respectively, largely driven by strong performance in the high yield credit market. The Equity Hedge and Macro Indices finished up 1.36% and 1.68%, driven by rising equity prices and a strong rally in commodity prices.

## ***2Q16 Performance Commentary***



- **Total Plan** – For the second quarter of 2016 (2Q16), the Total Fund returned +2.02%, essentially in line with the policy benchmark return of +2.09%. For the trailing 12-months (fiscal year), the Total Fund returned 1.44% versus a policy benchmark return of +2.06%. According to the Wilshire TUCS Universe of public plans over \$5 billion, the median return over the same period was +0.93%.
  - Over the trailing three-, five- and ten-year periods, the Fund returned +7.54%, +7.08%, and +6.15%, respectively, performing relatively in line with the policy benchmark over each period.
- **Total Domestic Equity Composite** – There is a total of \$12 Billion, or 35.7% of the Fund, invested in domestic equity, of which 80% is passively invested. The passive investments are predominately in Large-Cap and All-Cap stocks. The active management is primarily in Small- and Mid-Cap stocks. 2% of the Composite is invested with Emerging Managers.
  - For 2Q16, the Total Domestic Equity Composite returned +2.52% versus the Russell 3000 return of +2.63%. The Small-Cap Active component slightly outperformed the Russell 2000, while the Mid-Cap Active and the Russell 1000 Active managers underperformed their respective benchmarks. The Emerging Managers, predominately Small-Cap strategies, also underperformed.
  - A notable detractor for the quarter was Iridian, a deep value Mid-Cap strategy, which underperformed its benchmark by 7.36% for the quarter. Iridian is relatively concentrated strategy (~45 stocks), which lends itself to higher levels of tracking error, which was witnessed in 2Q16. Iridian has added value since its inception in 2010 and is a highly rated strategy by Wilshire.
  - 6.17% of the Domestic Equity Composite was in transition, as Mid-Cap strategies, Frontier, Systematic and TimeSquare were terminated during the quarter to reduce the structural overweight to Mid-Cap equity.

## 2Q16 Performance Commentary



- **Total International Equity Composite** – There is a total of \$5.2 Billion, or 15.4% of the Fund, invested in International Equities, of which 28% is passive and 72% is active. 49% of the Composite is in Developed Large-Cap, 11% in Developed Small-Cap, 38% in Emerging Markets, and 2% in Environmental strategies.
  - Despite the volatility caused from the Brexit decision during the quarter, for 2Q16, the Total International Equity Composite managed a relatively flat return, down only 10 basis points, and outperformed the MSCI ACWI Ex-US (Net) return of -0.64%. Emerging Markets actually finished 2Q16 in positive territory, but the active Emerging Market strategies underperformed the benchmark. All other active strategies performed well, most notably the Developed Value and Growth strategies.
- **Total Fixed Income Composite** – In aggregate, the Fund has \$11.0 Billion in total Fixed Income strategies, or 32.7% of the Fund. 16.6% of the Fund is in Structured Fixed Income (which is 51% Investment Grade Credit, 33% Mortgages, and 16% Government bonds), and the Fund also has exposure to TIPS (4.5%), Enhanced Yield (4.0%), Bank Loans (1.7%), Converts (0.65%), and Opportunistic Fixed Income (OFI) (2.8%).
  - The Total Fixed Income Composite returned 2.89% in 2Q16. With the drop in interest rates during the quarter, most fixed income components had solid absolute returns, most notably within Enhanced Yield and OFI. Relative to their respective benchmarks, the Enhanced Yield, Bank Loans, and Converts managers underperformed, while Structured Credit and OFI managers outperformed.

Through June 30, 2016



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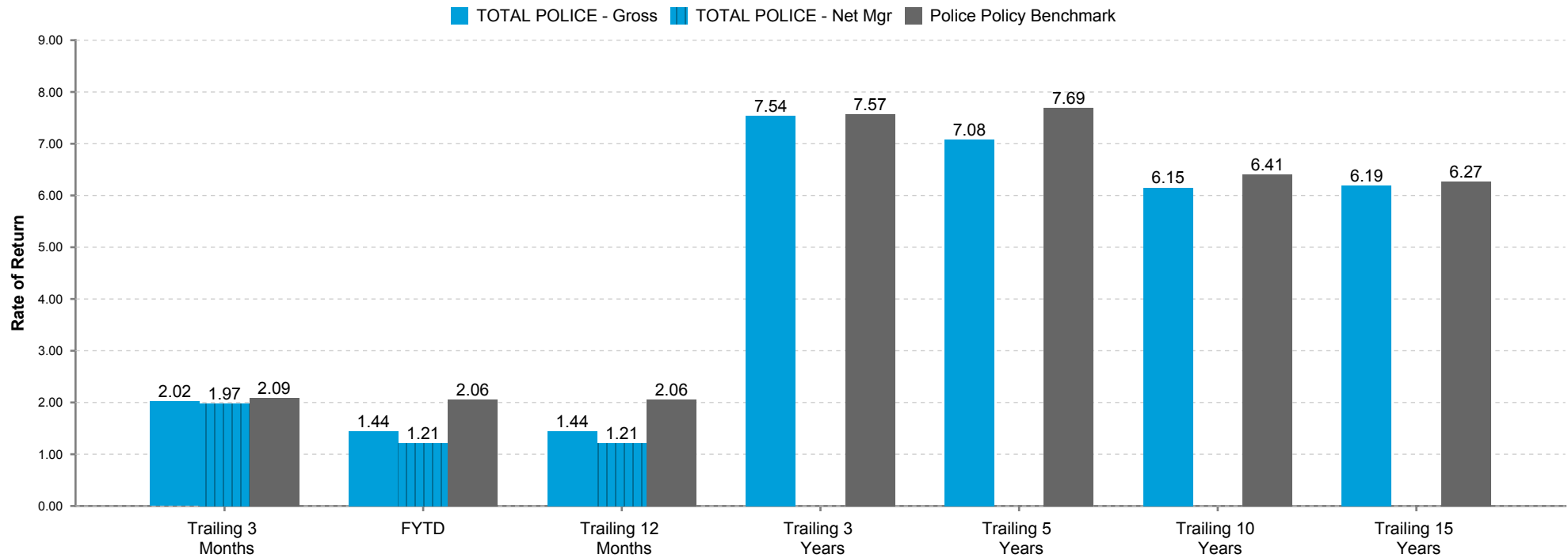
## Total Portfolio Returns: June 30, 2016



TOTAL POLICE

**Market Value (Billions)**

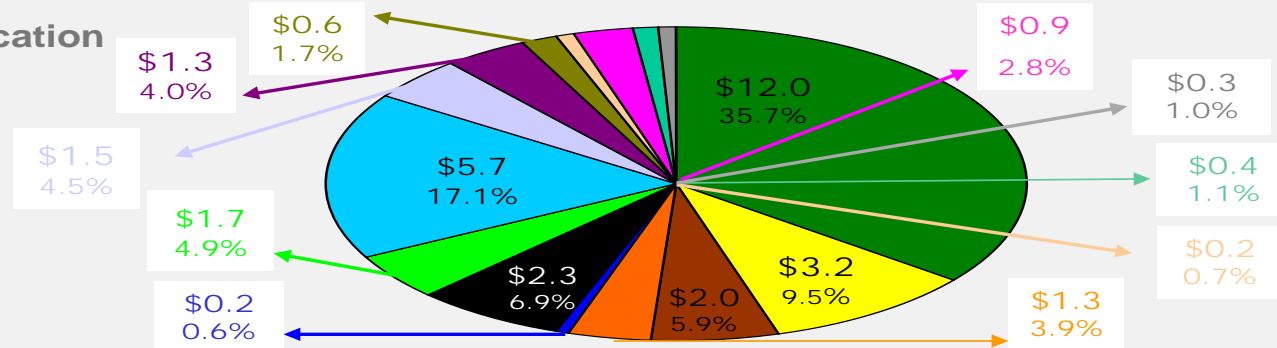
\$33.6



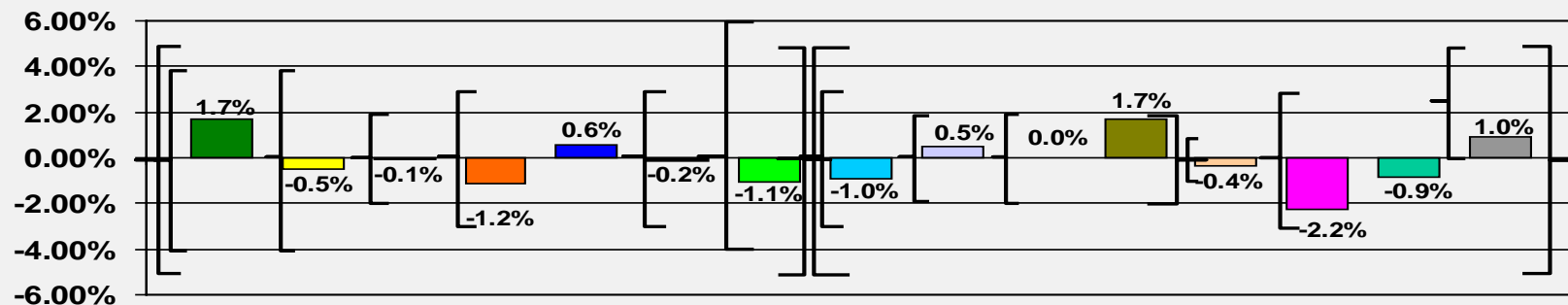
	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 10 Years	Benchmark 10 Years
<b>Standard Deviation</b>						
TOTAL POLICE	6.7	6.4	7.1	7.7	10.2	11.1

**\$33.6 B Under Management**

**Asset Allocation**



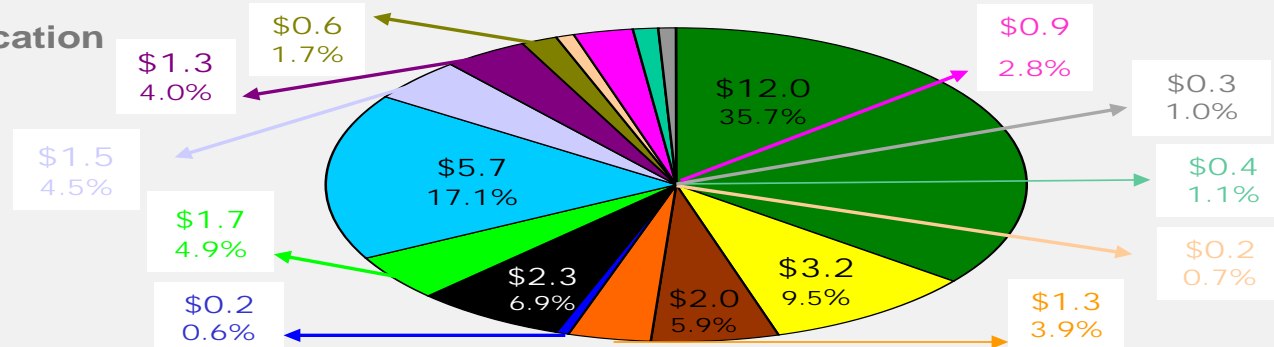
**Relative Mix to New Policy Weights**



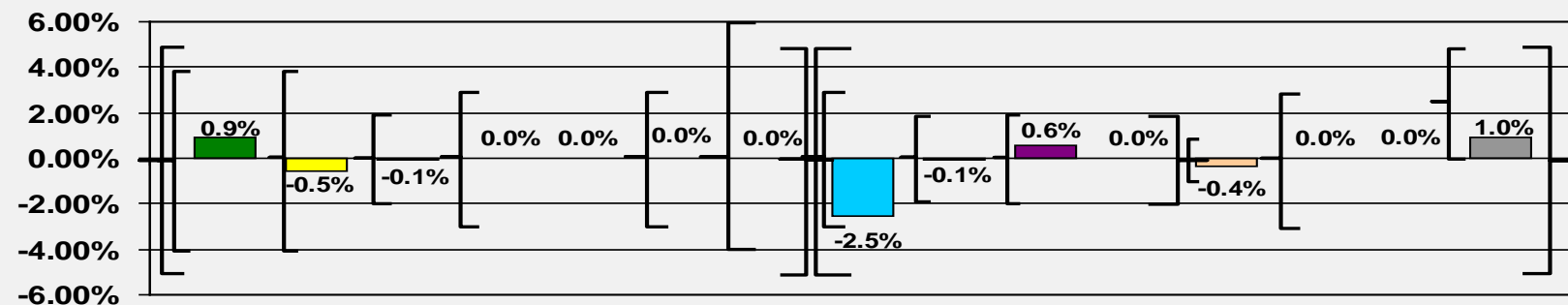
Note: Brackets represent rebalancing ranges versus Policy.

**\$33.6 B Under Management**

**Asset Allocation**

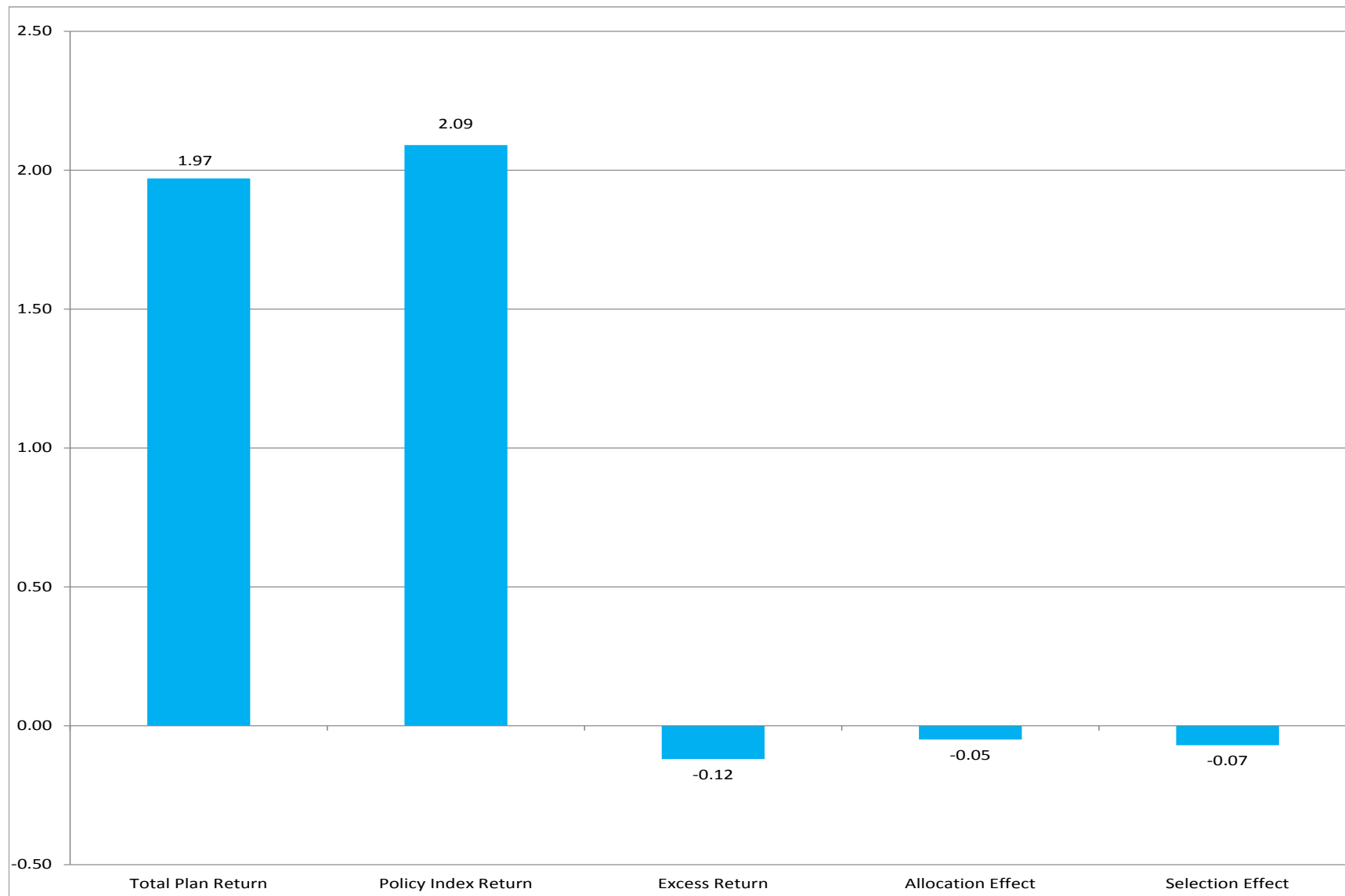


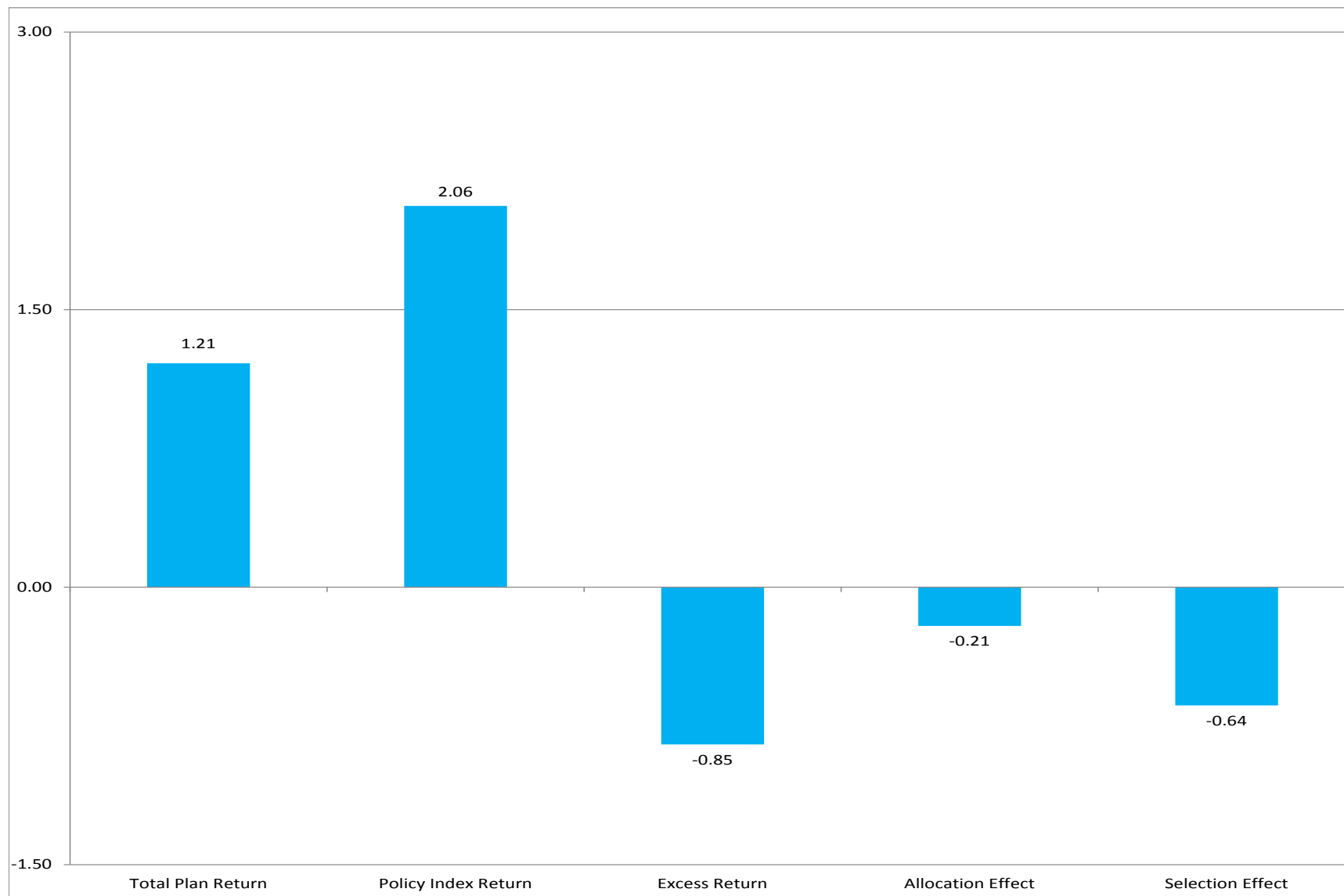
**Relative Mix to Adjusted New Policy Weights**

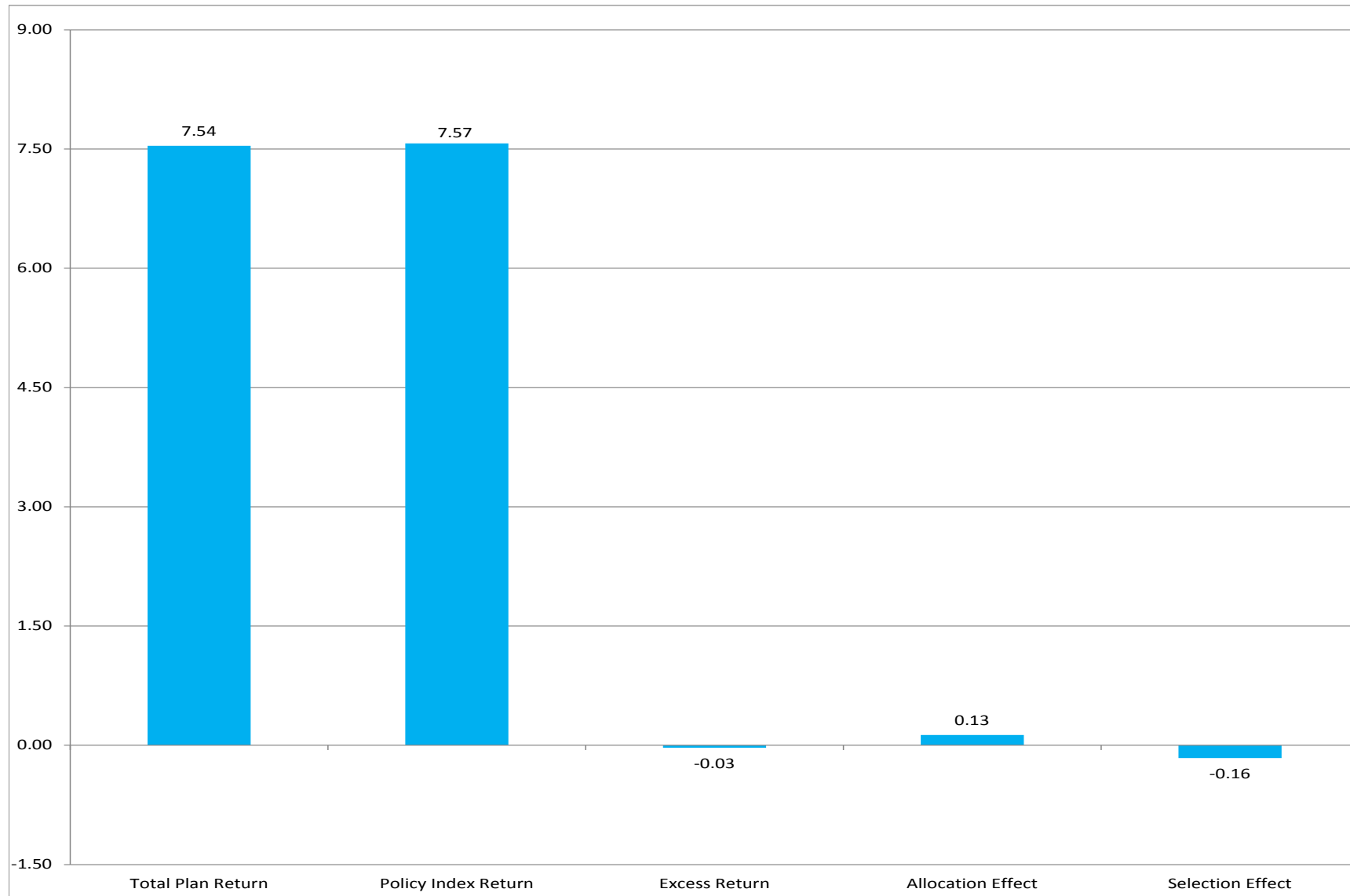


Note: Brackets represent rebalancing ranges versus Policy.

Note: On June 30, 2016 Police's combined Fixed Income and Cash portfolios have a duration of 5.4 years. The duration of the Barclays US Aggregate Index was 5.5 years on that date.







Allocation Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years *</u>	<u>Benchmark</u>
TOTAL POLICE	-0.05	-0.21	0.13	Police Policy Benchmark
TOTAL DOMESTIC EQUITY	0.00	-0.04	0.09	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.00	-0.01	-0.02	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.01	0.02	-0.01	MSCI EMERGING MARKETS
TOTAL PRIVATE EQUITY	0.00	-0.02	0.00	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	0.00	0.01	0.00	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	0.00	0.00	0.00	FTSE EPRA/NAREIT Developed
TOTAL STRUCTURED	-0.02	-0.16	0.06	NYC - CORE PLUS FIVE
TOTAL ENHANCED YIELD	0.01	-0.01	-0.02	CITIGROUP BB & B
TOTAL BANK LOANS	0.00	0.00	0.00	CSFB LEVERAGED LOAN INDEX
TOTAL TIPS MANAGERS	0.00	-0.06	0.10	BARCLAYS U.S TIPS INDEX
TOTAL CONVERTIBLE BONDS	-0.01	0.02	0.00	BofAML ALL CONVERTIBLE - ex Mandatory
TOTAL OPPORTUNISTIC FIXED	0.00	0.00	0.00	10% Annual Return
TOTAL CASH	-0.03	0.05	-0.10	

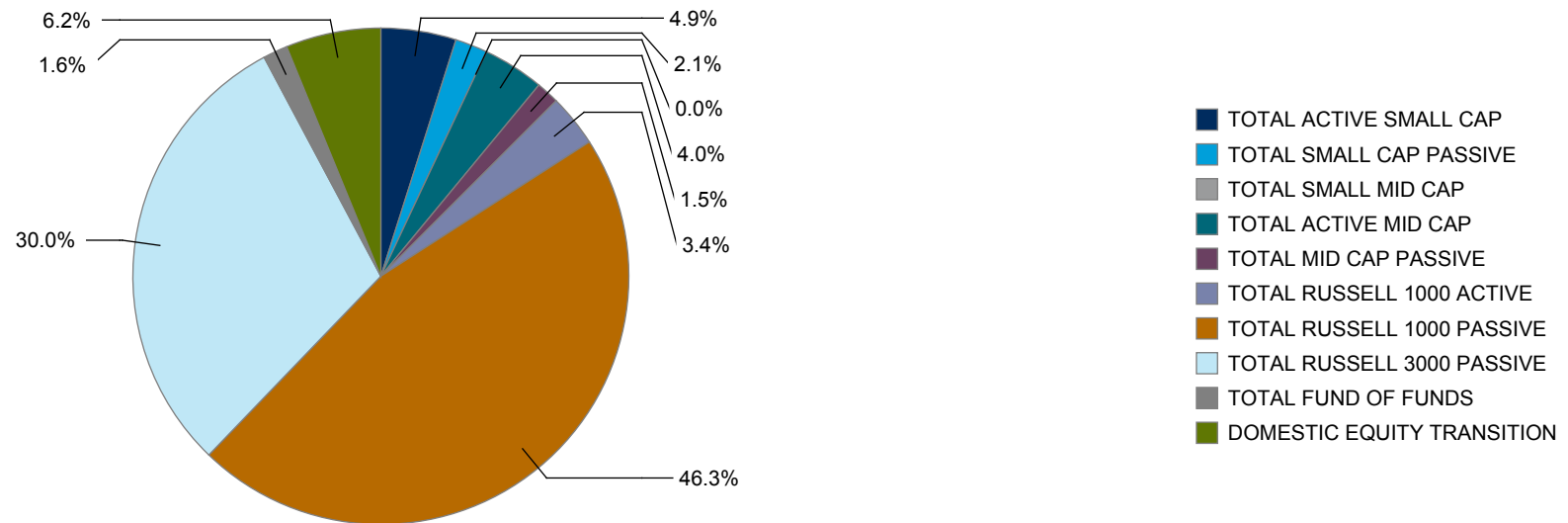
Selection Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years *</u>	<u>Benchmark</u>
TOTAL POLICE	-0.07	-0.64	-0.16	Police Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.05	-0.40	-0.11	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.10	0.30	0.15	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.02	-0.02	0.04	MSCI EMERGING MARKETS
TOTAL PRIVATE EQUITY	-0.09	0.14	-0.14	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	0.03	0.05	0.05	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.01	0.01	CPI + 4%
TOTAL HEDGE FUNDS	-0.07	-0.30	-0.08	1 Year Treasury Bill Yield + 4%
TOTAL REAL ESTATE SECURITIES	-0.01	-0.05	-0.03	FTSE EPRA/NAREIT Developed
TOTAL STRUCTURED	0.02	-0.06	0.03	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	0.03	0.00	BofAML ALL CONVERTIBLE - ex Mandatory
TOTAL OPPORTUNISTIC FIXED	0.05	-0.34	-0.13	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)	% of plan
TOTAL DOMESTIC EQUITY	\$12.0	35.7

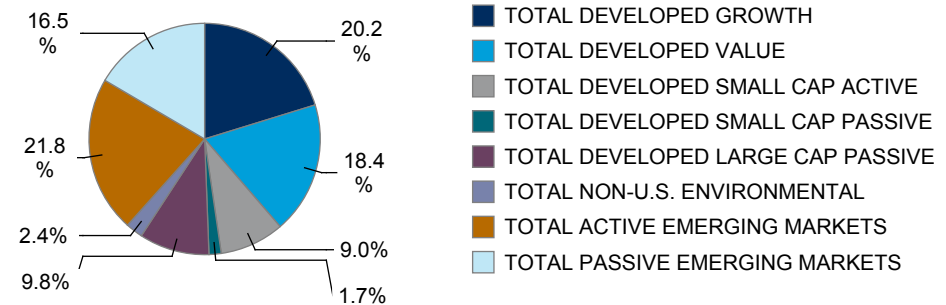


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL SMALL CAP ACTIVE	5.16	4.92	-0.24	3.79	4.05	0.26
TOTAL SMALL CAP PASSIVE	3.29	2.10	-1.19	3.79	3.65	-0.14
TOTAL SMALL/MID CAP ACTIVE	1.60	0.00	-1.60	3.57		-3.57
TOTAL MID CAP ACTIVE	6.58	4.04	-2.54	3.18	2.27	-0.91
TOTAL MID CAP PASSIVE	8.60	1.52	-7.08	3.99	3.20	-0.79
TOTAL RUSSELL 1000 ACTIVE	8.72	3.38	-5.34	2.54	2.35	-0.19
TOTAL RUSSELL 1000 PASSIVE	37.80	46.32	8.52	2.54	2.68	0.15
TOTAL RUSSELL 3000 PASSIVE	26.25	29.98	3.73	2.63	2.58	-0.06
TOTAL EMERGING MANAGERS	2.00	1.57	-0.43	3.79	1.74	-2.06
DOMESTIC EQUITY TRANSITION	0.00	6.17	6.17			

# International Equity Asset Allocation: June 30, 2016



	<u>Market Value (Billions)</u>	<u>% of plan</u>
TOTAL INTERNATIONAL EQUITY	\$5.2	15.4

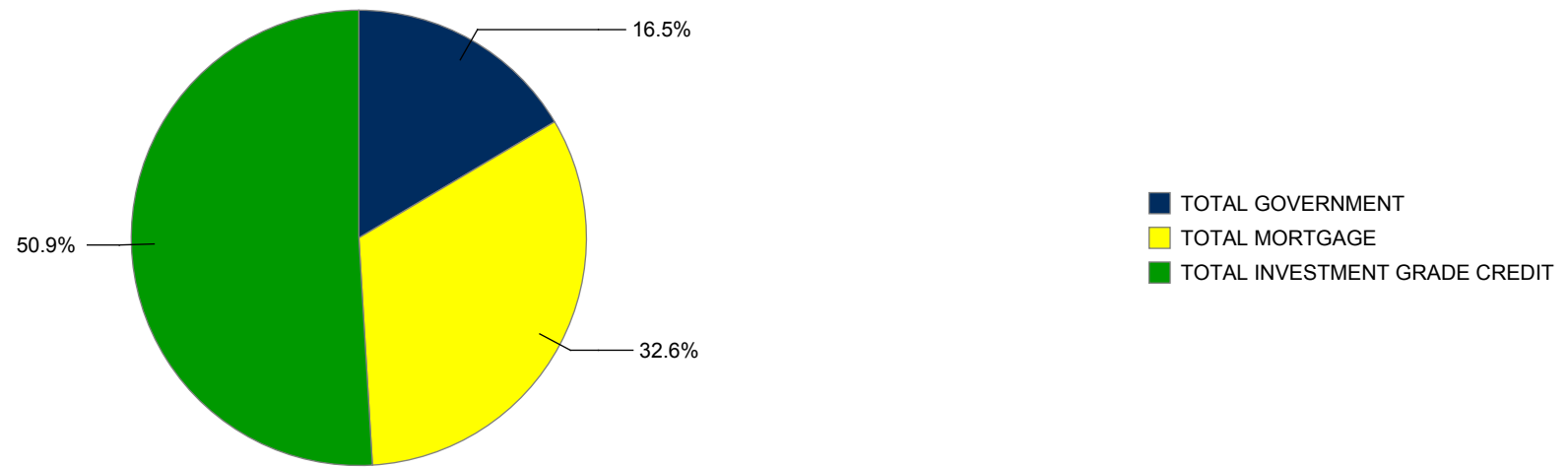


	<u>Asset Weight</u>	<u>Quarterly Returns - Funds and Benchmarks</u>		
		<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL DEVELOPED GROWTH	20.22	1.30	(0.15)	1.45
TOTAL DEVELOPED VALUE	18.43	(0.97)	(2.79)	1.82
TOTAL DEVELOPED SMALL CAP ACTIVE	9.03	(2.22)	(2.79)	0.57
TOTAL DEVELOPED SMALL CAP PASSIVE	1.68	(2.26)	(2.60)	0.34
TOTAL DEVELOPED LARGE CAP PASSIVE	9.85	(1.22)	(1.46)	0.24
TOTAL NON-U.S. ENVIRONMENTAL	2.41	1.65	1.01	0.64
TOTAL ACTIVE EMERGING MARKETS	21.84	0.13	0.66	(0.53)
TOTAL PASSIVE EMERGING MARKETS	16.53	0.72	0.66	0.06
TOTAL INTERNATIONAL EQUITY	100.00	(0.10)	(0.64)	0.54

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



	<u>Market Value (Billions)</u>	<u>% of plan</u>
TOTAL STRUCTURED	\$5.6	16.6



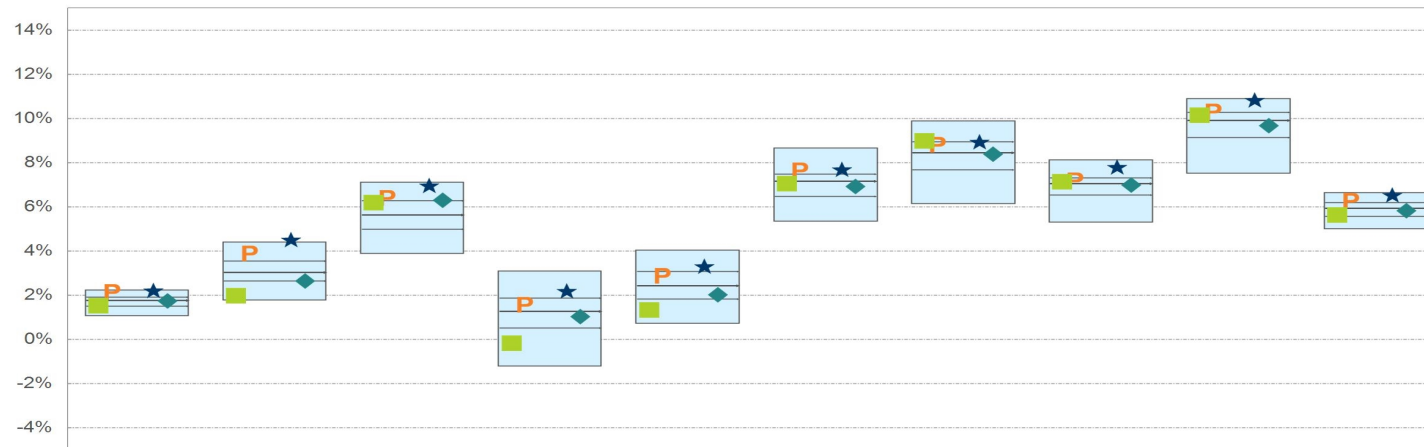
Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL TREASURY/AGENCY	22.18	16.48	-5.70	3.96	3.94	-0.02
TOTAL MORTGAGE	34.25	32.58	-1.67	1.07	1.20	0.13
TOTAL INV GRADE CREDIT	43.57	50.94	7.37	3.42	3.58	0.16

Through June 30, 2016



## City of New York Performance Comparison

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



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	2.23	4.40	7.11	3.09	4.04	8.66	9.90	8.14	10.90	6.64
25th	1.92	3.55	6.29	1.86	3.08	7.48	8.94	7.31	10.29	6.19
50th	1.77	3.03	5.64	1.27	2.42	7.16	8.45	7.06	9.91	5.93
75th	1.51	2.65	4.99	0.51	1.82	6.48	7.67	6.54	9.15	5.57
95th	1.07	1.79	3.89	-1.21	0.73	5.36	6.15	5.32	7.52	5.00
No. Of Obs	44	44	44	44	44	44	44	44	40	40
P Total System - Police	2.02 (20)	3.76 (18)	6.29 (25)	1.44 (43)	2.75 (31)	7.54 (22)	8.70 (36)	7.08 (45)	10.20 (32)	6.15 (30)
★ Police Policy Benchmark	2.09 (14)	4.38 (5)	6.83 (8)	2.06 (20)	3.19 (22)	7.57 (18)	8.83 (29)	7.69 (16)	10.72 (5)	6.41 (8)
■ Public Mkt Equiv 25	1.40 (89)	1.84 (94)	6.07 (31)	-0.30 (89)	1.21 (89)	6.93 (59)	8.87 (27)	7.02 (50)	10.02 (42)	5.51 (77)
◆ Public Mkt Equiv 35	1.60 (70)	2.52 (77)	6.17 (27)	0.89 (59)	1.89 (68)	6.80 (65)	8.26 (59)	6.86 (63)	9.56 (67)	5.69 (70)

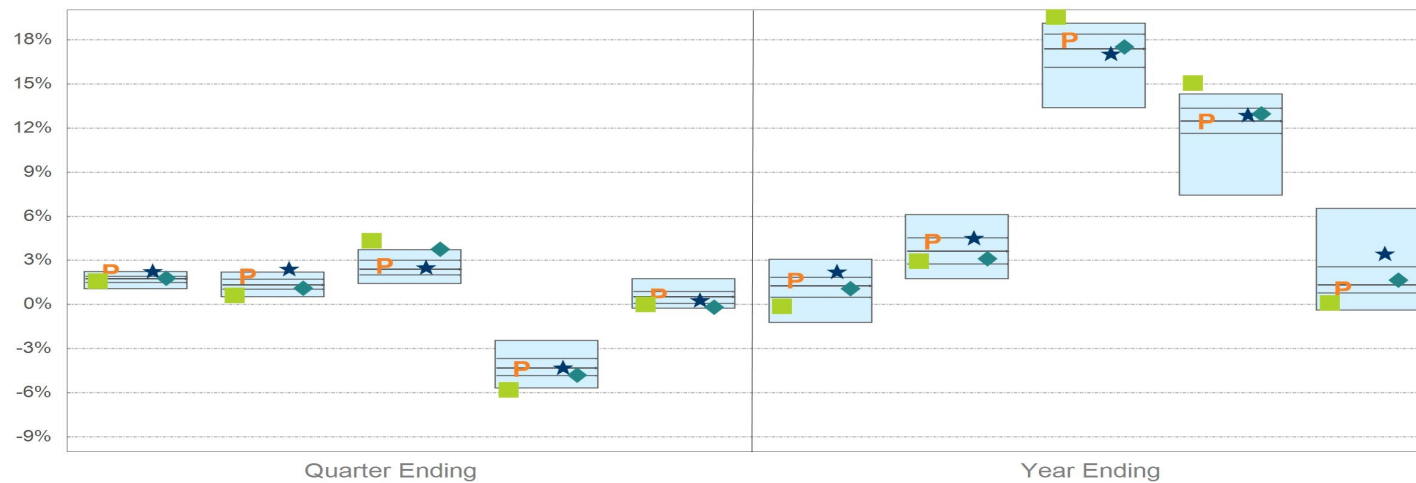
Wilshire Trust Universe Comparison Service® (TUCS®)

Through June 30, 2016



## City of New York Performance Comparison

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



Percentile Rankings	Jun 16	Mar 16	Dec 15	Sep 15	Jun 15	Jun 16	Jun 15	Jun 14	Jun 13	Jun 12
5th	2.23	2.20	3.72	-2.43	1.74	3.09	6.10	19.14	14.32	6.52
25th	1.92	1.71	3.02	-3.66	0.89	1.86	4.53	18.40	13.35	2.55
50th	1.77	1.35	2.40	-4.31	0.52	1.27	3.64	17.40	12.46	1.35
75th	1.51	1.03	2.02	-4.82	0.07	0.51	2.77	16.11	11.63	0.78
95th	1.07	0.52	1.44	-5.66	-0.25	-1.21	1.74	13.39	7.44	-0.38
No. Of Obs	44	44	44	44	44	44	44	44	44	44
P Total System - Police	2.02 (20)	1.71 (25)	2.44 (45)	-4.57 (65)	0.35 (63)	1.44 (43)	4.09 (38)	17.78 (34)	12.26 (56)	0.86 (70)
★ Police Policy Benchmark	2.09 (14)	2.24 (1)	2.35 (50)	-4.47 (56)	0.10 (72)	2.06 (20)	4.34 (27)	16.88 (61)	12.70 (40)	3.26 (10)
■ Public Mkt Equiv 25	1.40 (89)	0.44 (96)	4.15 (1)	-6.00 (99)	-0.17 (87)	-0.30 (89)	2.74 (77)	19.36 (1)	14.88 (1)	-0.08 (94)
◆ Public Mkt Equiv 35	1.60 (70)	0.91 (84)	3.56 (5)	-4.98 (82)	-0.38 (96)	0.89 (59)	2.91 (72)	17.33 (50)	12.76 (36)	1.46 (45)

Wilshire Trust Universe Comparison Service® (TUCS®)

POLICE RETIREMENT SYSTEM				
ACTUAL FEES FOR FISCAL YEAR ENDING JUNE 30, 2015 AND ESTIMATED FEES FOR FY 2016 UPDATED THROUGH SEPTEMBER 2015				
	Actual 2015		Estimates 2016	
INVESTMENT STYLE (EQUITIES)	MV 06-30-15 (\$MM)	Mgmt Fees in Basis Points	MV 09-30-15 (\$MM)	Mgmt in Basis Points
<b>US Equities</b>	<b>11,696</b>	<b>13.14</b>	<b>10,965</b>	<b>11.12</b>
Small Cap Active	724	68.42	539	54.99
Small Cap Growth	120	70.43	112	100.00
Small Cap Value	232	55.40	213	58.30
Small Cap core	253	44.53	109	35.00
Small Cap Fundamental Index	119	19.49	105	21.06
Small/Mid Cap Active	262	62.42	131	91.40
Small/Mid Cap Growth	148	65.83	131	91.40
Small/Mid Cap Value	114	57.97	-	0.00
Mid Cap Active	1,194	50.83	1,087	50.73
Mid Cap Growth	478	50.92	438	47.60
Mid Cap Value	496	49.23	443	51.05
Mid Cap core	220	54.24	207	56.66
Russell 1000 Active	395	13.10	366	13.53
Russell 1000 Fundamental Index	395	13.10	366	13.53
Active Emerging Managers (U.S. Equities)	207	73.45	184	76.86
Total US Active Equities	2,782	52.83	2,308	50.22
Total US Passive Equities	8,914	0.75	8,658	0.69
Opportunistic/ Environmental US E. Strategies	-	-	-	-
<b>International Equities</b>	<b>5,207</b>	<b>30.70</b>	<b>4,937</b>	<b>28.76</b>
Active EAFE Equities	2,673	32.06	2,380	32.66
Growth	1,117	28.31	978	28.83
Value	1,080	28.08	955	28.26
Core	0	0.00		
Small Cap	476	47.29	447	50.44
Non-US Environmental Strategies	118	43.99	109	54.63
Active Emerging Markets	1,239	52.38	1,060	49.17
Total Int'l Active Equities	4,029	38.66	3,549	38.26
Total Int'l Passive Equities	1,178	3.49	1,388	4.48
<b>REITS Passive Index</b>	<b>170</b>	<b>10.28</b>	<b>169</b>	<b>9.95</b>

Information provided by the New York City Comptroller

POLICE RETIREMENT SYSTEM				
ACTUAL FEES FOR FISCAL YEAR ENDING JUNE 30, 2015 AND ESTIMATED FEES FOR FY 2016 UPDATED THROUGH SEPTEMBER 2015				
	Actual 2015		Estimates 2016	
INVESTMENT STYLE (FIXED INCOME)	MV 06-30-15 (\$MM)	Mgmt Fees in Basis Points	MV 09-30-15 (\$MM)	Mgmt in Basis Points
<b>Fixed Income</b>	<b>10,417</b>	<b>12.14</b>	<b>9,914</b>	<b>12.54</b>
Structured Program	5,706	7.54	5,764	7.33
Government Sector	823	6.71	849	6.44
Mortgage Sector	2,229	6.17	2,256	5.82
Investment Grade Credit Sector	2,654	8.94	2,659	8.89
Global Fixed Income	69	9.45	69	21.07
Progress Fixed Emerging Managers	74	34.41	74	34.25
TIPS	954	2.26	942	1.87
Active TIPS	239	7.23	236	5.97
Passive TIPS	715	0.61	706	0.50
Enhanced Yield	1,336	33.99	1,268	34.38
Bank Loans	568	30.28	565	30.88
Convertible Bonds	221	40.37	210	41.46
ETI - Access - RBC	64	23.16	62	22.65
ETI - AFL-CIO HIT	121	42.51	123	42.64
<b>Total Public Markets (Externally managed)</b>	<b>26,185</b>	<b>16.87</b>	<b>25,149</b>	<b>15.50</b>
Other ETI Programs	133	-	145	-
In-House Short Term	1,172	-	691	0.00
<b>Total Public Markets</b>	<b>27,490</b>	<b>16.07</b>	<b>25,985</b>	<b>15.00</b>
<b>INVESTMENT STYLE (PRIVATE)</b>				
<b>Hedge Funds</b>	<b>1,219</b>	<b>167.79</b>	<b>962</b>	<b>148.98</b>
<b>Private Equities</b>	<b>2,118</b>	<b>123.78</b>	<b>2,301</b>	<b>129.17</b> <sup>1</sup>
<b>Real Assets</b>	<b>1,343</b>	<b>119.70</b>	<b>1,364</b>	<b>105.40</b> <sup>1</sup>
Private Real Estate	1,252	120.56	1,273	101.97
Infrastructure	90	70.77	91	88.74
<b>Opportunistic Fixed Income</b>	<b>851</b>	<b>57.38</b>	<b>869</b>	<b>61.16</b>
<b>Total Private Markets</b>	<b>5,531</b>	<b>122.27</b>	<b>5,498</b>	<b>115.98</b> <sup>3</sup>
<b>Total Overall</b>	<b>33,020</b>	<b>33.86</b>	<b>31,483</b>	<b>32.64</b> <sup>4</sup>
<b>Footnotes</b>				
1 - Private Equity & Real Assets Investments exclude GP CARRY & Incentive Fees .				
2- Infrastructure Fees are based on committed Amounts for each investment which are higher than the actual Market Values.				
3- Private Equity and Private Real Estate fees are based on Invested values and committed amounts depending on the age of the investment.				
4- The Incentive Fees paid for the Police Fund in 2015 are 16.84 BPS.				

Information provided by the New York City Comptroller

**NYC POLICE 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*	\$254,000	--	--	
1990	288,000	--	--	
1991	464,000	--	--	
1992	996,000	\$138,000	\$126,000	
1993	1,852,000	434,000	203,000	
1994	1,846,000	815,000	317,000	
1995	1,465,000	888,000	224,000	
1996	1,465,000	1,051,000	379,000	
1997	1,632,000	1,793,000	599,000	
1998	2,770,000	2,517,000	1,006,000	
1999	2,681,000	2,713,000	1,184,000	
2000	2,697,000	2,899,000	1,520,000	
2001	3,947,000	3,595,000	1,980,000	
2002	2,646,000	3,401,000	1,725,000	
2003	1,238,000	2,257,000	1,859,000	
2004	1,515,000	2,306,000	2,097,000	
2005	2,333,000	3,172,000	2,503,000	
2006	2,104,000	5,043,000	2,243,000	
2007	4,582,000	8,425,000	2,727,000	
2008	13,856,000	16,383,000	3,872,000	
2009	5,163,000	9,110,000	2,695,000	
2010	2,405,000	5,813,000	1,979,000	
2011	3,060,000	8,287,000	3,253,000	
2012	4,213,000	10,047,000	2,545,000	
2013	2,980,000	11,363,000	2,255,000	
2014	3,478,000	6,803,000	5,786,000	
2015	3,692,000	7,281,000	7,489,000	
2016 (6 Months)	1,785,000	3,293,000	6,070,000	
Since Inception	<u>\$77,407,000</u>	<u>\$119,827,000</u>	<u>\$56,636,000</u>	*Inception 4/89

**New York City  
Police 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
<b>SYSTEM RETURN SUMMARY</b>														
5 POLICE-TOTAL PORTFOLIO - GROSS	33,592	100.00	2.02	1.44	3.76	0.47	7.60	16.66	13.01	0.83	7.08	6.15	8.47	07/01/1987
POLICE - ESTIMATED INVESTMENT FEES			(0.05)	(0.23)	(0.11)	(0.23)	(0.26)							
EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL)			(0.03)	(0.12)	(0.06)	(0.13)	(0.14)							
EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH)			(0.02)	(0.11)	(0.05)	(0.10)	(0.12)							
EST INCENTIVE FEES														
EST OTHER FEES														
EST FEE OFFSETS														
POLICE-TOTAL PORTFOLIO - NET MGR			1.97	1.21	3.65	0.23	7.34							
POLICE POLICY BENCHMARK			2.09	2.06	4.38	0.41	8.16	16.04	13.64	2.08	7.69	6.41		
EXCESS RETURN			(0.12)	(0.85)	(0.73)	(0.18)	(0.81)	0.62	(0.63)	(1.25)	(0.61)	(0.26)		
<b>EQUITY RETURN DETAIL</b>														
18 POLICE-TOTAL EQUITY (INCLUDES PE & RA) - GROSS	22,601	67.28	1.58	(0.20)	2.88	0.67	8.27	24.57	15.84	(2.32)	8.16	6.00	7.07	04/01/2004
ESTIMATED INVESTMENT FEES			(0.05)	(0.27)	(0.13)	(0.29)	(0.31)							
EST MANAGEMENT FEES			(0.05)	(0.27)	(0.13)	(0.29)	(0.31)							
EST INCENTIVE FEES														
EST OTHER FEES														
EST FEE OFFSETS														
POLICE-TOTAL EQUITY (INCL PE & RA) - NET MGR			1.53	(0.47)	2.75	0.38	7.96							
26 POLICE-TOTAL DOMESTIC EQUITY - GROSS	11,986	35.68	2.52	1.08	3.59	0.03	11.42	34.93	16.78	(0.20)	11.18	7.36	10.86	12/01/1984
ESTIMATED INVESTMENT FEES			(0.02)	(0.11)	(0.05)	(0.12)	(0.13)							
POLICE-TOTAL DOMESTIC EQUITY - NET MGR			2.49	0.97	3.53	(0.10)	11.29							
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56	33.55	16.42	1.03	11.60	7.40	10.93	
EXCESS RETURN			(0.14)	(1.17)	(0.09)	(0.57)	(1.26)	1.38	0.37	(1.22)	(0.42)	(0.03)	(0.07)	
36 POLICE-TOTAL SMALL CAP ACTIVE - GROSS	590	1.75	4.05	(0.31)	5.89	(2.65)	3.34	43.40	16.99	(5.76)	9.21	7.86	7.86	04/01/2004
ESTIMATED INVESTMENT FEES			(0.16)	(0.62)	(0.32)	(0.60)	(0.63)							
POLICE-TOTAL SMALL CAP ACTIVE - NET MGR			3.89	(0.93)	5.57	(3.25)	2.71							
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			0.10	5.80	3.35	1.17	(2.18)	4.58	0.64	(1.58)	0.86	1.66	0.83	
46 POLICE-TOTAL SMALL CAP PASSIVE - GROSS	252	0.75	3.65	(7.80)	1.17	(3.56)	5.01						4.10	10/01/2013
ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)							
POLICE-TOTAL SMALL CAP PASSIVE - NET MGR			3.65	(7.81)	1.16	(3.57)	5.01							
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89						4.02	
EXCESS RETURN			(0.15)	(1.08)	(1.05)	0.85	0.11						0.09	

# Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>														
58 POLICE-TOTAL MID CAP ACTIVE - GROSS	484	1.44	2.27	(3.20)	2.36	(0.20)	10.58	38.07	20.86	(3.50)	10.94	7.41	7.83	04/01/2004
ESTIMATED INVESTMENT FEES			(0.11)	(0.47)	(0.24)	(0.50)	(0.55)							
POLICE-TOTAL MID CAP ACTIVE - NET MGR			2.16	(3.68)	2.12	(0.70)	10.03							
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			(1.02)	(4.23)	(3.38)	1.74	(3.19)	3.31	3.58	(1.95)	0.03	(0.65)	(1.35)	
68 POLICE-TOTAL MID CAP PASSIVE - GROSS	182	0.54	3.20	0.61	7.12	(1.64)	10.10	33.39	17.74		10.53		10.96	02/01/2011
ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.00)	(0.01)	(0.01)							
POLICE-TOTAL MID CAP PASSIVE - NET MGR			3.20	0.60	7.12	(1.65)	10.09							
S&P 400 MIDCAP INDEX (DAILY)			3.99	1.33	7.93	(2.18)	9.77	33.50	17.88		10.55		10.98	
EXCESS RETURN			(0.80)	(0.73)	(0.81)	0.52	0.32	(0.11)	(0.14)		(0.02)		(0.02)	
78 POLICE-TOTAL RUSSELL 1000 ACTIVE - GROSS	405	1.21	2.35	2.89	5.43	(1.87)	10.98	41.42	15.50	0.19	11.71	7.80	7.85	04/01/2004
ESTIMATED INVESTMENT FEES			(0.03)	(0.13)	(0.07)	(0.15)	(0.25)							
POLICE-TOTAL RUSSELL 1000 ACTIVE - NET MGR			2.31	2.75	5.36	(2.01)	10.73							
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			(0.22)	(0.18)	1.62	(2.93)	(2.51)	8.31	(0.93)	(1.31)	(0.18)	0.29	0.22	
88 POLICE-TOTAL RUSSELL 1000 PASSIVE - GROSS	5,551	16.53	2.68	2.96	3.90	0.73	13.13						10.15	10/01/2013
ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)							
POLICE-TOTAL RUSSELL 1000 PASSIVE - NET MGR			2.68	2.96	3.89	0.73	13.13							
RUSSELL 1000 (DAILY)			2.54	2.93	3.74	0.92	13.24						10.23	
EXCESS RETURN			0.14	0.02	0.15	(0.19)	(0.11)						(0.08)	
98 POLICE-TOTAL RUSSELL 3000 - GROSS	3,594	10.70	2.58	2.20	3.63	0.51	12.61	33.67	16.35	1.08	11.64	7.46	11.06	12/01/1984
ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)							
POLICE-TOTAL RUSSELL 3000 - NET MGR			2.57	2.19	3.62	0.50	12.60							
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56	33.55	16.42	1.03	11.60	7.40	10.93	
EXCESS RETURN			(0.06)	0.05	(0.00)	0.02	0.04	0.12	(0.06)	0.05	0.04	0.06	0.13	
108 POLICE-TOTAL FUND OF FUNDS - GROSS	188	0.56	1.74	(8.80)	0.25	(5.52)	2.39	40.31					11.23	06/01/2012
ESTIMATED INVESTMENT FEES			(0.19)	(0.70)	(0.38)	(0.72)	(0.78)							
POLICE-TOTAL FUND OF FUNDS - NET MGR			1.55	(9.50)	(0.13)	(6.24)	1.62							
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89	38.82					12.23	
EXCESS RETURN			(2.24)	(2.77)	(2.34)	(1.83)	(3.28)	1.49					(0.99)	

# Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>														
120 POLICE-TOTAL INTERNATIONAL - GROSS	5,177	15.41	(0.10)	(8.90)	0.94	(5.91)	(3.05)	14.06	16.48	(14.17)	0.23	2.02	5.97	11/01/1990
ESTIMATED INVESTMENT FEES			(0.07)	(0.26)	(0.14)	(0.28)	(0.31)							
EST MANAGEMENT FEES			(0.07)	(0.26)	(0.14)	(0.28)	(0.31)							
EST INCENTIVE FEES														
EST OTHER FEES														
EST FEE OFFSETS														
POLICE-TOTAL INTERNATIONAL - NET MGR			(0.17)	(9.16)	0.80	(6.19)	(3.36)							
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			0.48	1.08	1.82	(0.53)	0.51	(1.23)	(0.35)	(0.47)	0.13	0.15		
130 POLICE-TOTAL DEVELOPED GROWTH ACTIVE - GROSS	1,047	3.12	1.30	(6.14)	0.08	(1.35)	(5.21)	25.26	19.52	(11.67)	3.46	3.97	6.80	04/01/2004
ESTIMATED INVESTMENT FEES			(0.07)	(0.27)	(0.14)	(0.28)	(0.27)							
POLICE-TOTAL DEVELOPED GROWTH ACTIVE - NET MGR			1.23	(6.41)	(0.06)	(1.63)	(5.48)							
MSCI EAFE GROWTH			(0.15)	(4.80)	(2.22)	4.09	(4.43)	22.55	16.86	(12.11)	3.24	2.88	5.09	
EXCESS RETURN			1.37	(1.61)	2.16	(5.72)	(1.05)	2.71	2.66	0.44	0.21	1.09	1.71	
140 POLICE-TOTAL DEVELOPED VALUE ACTIVE - GROSS	954	2.84	(0.97)	(11.55)	(2.96)	(6.01)	(3.82)	28.90	9.46	(11.07)	0.88	0.90	4.30	04/01/2004
ESTIMATED INVESTMENT FEES			(0.07)	(0.25)	(0.14)	(0.26)	(0.26)							
POLICE-TOTAL DEVELOPED VALUE ACTIVE - NET MGR			(1.04)	(11.80)	(3.10)	(6.28)	(4.08)							
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			1.75	3.63	3.55	(0.59)	1.31	5.95	(8.23)	1.11	0.83	0.70	0.76	
150 POLICE-TOTAL DEVELOPED SMALL CAP ACTIVE - GROSS	467	1.39	(2.22)	(1.33)	(1.74)	10.89	(4.79)						5.96	05/01/2013
ESTIMATED INVESTMENT FEES			(0.12)	(0.49)	(0.24)	(0.55)	(0.48)							
POLICE-TOTAL DEVELOPED SMALL CAP ACTIVE - NET MGR			(2.34)	(1.83)	(1.99)	10.34	(5.26)							
S&P EPAC SMALL CAP USD NET			(2.79)	(4.76)	(3.26)	8.58	(3.43)						4.94	
EXCESS RETURN			0.45	2.94	1.28	1.76	(1.83)						1.02	
160 POLICE-TOTAL DEVELOPED SMALL CAP PASSIVE - GROSS	87	0.26	(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)	
POLICE-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	
170 POLICE-TOTAL DEVELOPED LARGE CAP PASSIVE - GROSS	510	1.52	(1.22)	(9.87)	(4.10)	(0.53)	(4.73)	23.10	17.54		1.98		2.35	02/01/2011
ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)							
POLICE-TOTAL DEVELOPED LARGE CAP PASSIVE - NET MGR			(1.23)	(9.89)	(4.11)	(0.54)	(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	0.28	0.31	0.27	0.15	0.32	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
<b>EQUITY RETURN DETAIL</b>														
182 POLICE-TOTAL NON-U.S. ENVIRONMENTAL - GROSS	125	0.37	1.65	5.89	4.16	7.63	11.99	28.87	19.40	(7.77)	11.29		6.56	09/01/2008
ESTIMATED INVESTMENT FEES			(0.14)	(0.57)	(0.28)	(0.58)	(0.61)							
POLICE-TOTAL NON-U.S. ENVIRONMENTAL - NET MGR			1.51	5.31	3.88	7.04	11.39							
MSCI WORLD INDEX			1.01	(2.78)	0.66	(0.87)	4.94	26.68	15.83	(5.54)	6.63		4.89	
EXCESS RETURN			0.50	8.09	3.22	7.91	6.45	2.19	3.58	(2.23)	4.66		1.68	
192 POLICE-EMERGING MARKETS ACTIVE - GROSS	1,130	3.37	0.13	(12.02)	4.70	(14.20)	(0.62)	1.04	15.90	(20.17)	(3.49)	3.42	7.66	04/01/2004
ESTIMATED INVESTMENT FEES			(0.12)	(0.42)	(0.24)	(0.42)	(0.49)							
POLICE-EMERGING MARKETS ACTIVE - NET MGR			0.01	(12.45)	4.46	(14.62)	(1.11)							
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			(0.65)	(0.39)	(1.95)	0.30	1.08	3.64	(2.32)	(1.75)	0.29	(0.12)	0.52	
202 POLICE-EMERGING MARKETS PASSIVE - GROSS	856	2.55	0.72	(12.02)	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)							
POLICE-EMERGING MARKETS PASSIVE - NET MGR			0.71	(12.07)	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	0.00	(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
<b>EQUITY RETURN DETAIL</b>														
220 *POLICE-TOTAL HEDGE FUNDS - NET MGR	1,208	3.60	0.79	(3.69)	(0.47)	(1.65)	5.31	4.92	7.85		2.41		2.41	07/01/2011
HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			0.81	(4.45)	(2.09)	0.73	4.40	10.04	5.82		2.65		2.65	
EXCESS RETURN			(0.02)	0.75	1.61	(2.39)	0.91	(5.12)	2.03		(0.23)		(0.23)	
230 *POLICE-TOTAL DIRECT HEDGE FUNDS - NET MGR	1,060	3.15	0.64	(3.63)	(0.62)	(1.34)	5.71	4.20	8.95				3.68	01/01/2012
HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			0.81	(4.45)	(2.09)	0.73	4.40	10.04	5.82				4.12	
EXCESS RETURN			(0.17)	0.82	1.47	(2.07)	1.31	(5.84)	3.12				(0.44)	
240 *POLICE-TOTAL PERMAL HEDGE FUNDS - NET MGR	148	0.44	1.88	(3.83)	0.58	(3.52)	3.12	7.74	5.05		1.81		1.81	07/01/2011
HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			0.81	(4.45)	(2.09)	0.73	4.40	10.04	5.82		2.65		2.65	
EXCESS RETURN			1.07	0.61	2.67	(4.25)	(1.28)	(2.30)	(0.77)		(0.83)		(0.83)	

\*Information provided by Alpha Frontier

# Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>														
246 POLICE-TOTAL REAL ESTATE SECURITIES - GROSS	190	0.57	3.27	12.05	8.48	0.28	15.89	3.29					10.87	06/01/2012
ESTIMATED INVESTMENT FEES			(0.03)	(0.11)	(0.05)	(0.10)	(0.11)							
POLICE-TOTAL REAL ESTATE SECURITIES - NET MGR			3.24	11.94	8.43	0.18	15.77							
FTSE EPRA/NAREIT DEVEL. LIQUID			3.09	11.15	8.01	(0.51)	14.98	2.53					10.43	
EXCESS RETURN			0.15	0.79	0.42	0.68	0.79	0.75					0.44	
256 POLICE-TOTAL PRIVATE EQUITY (TIME WEIGHTED)	2,302	6.85	0.70	5.99	2.86	11.70	14.94	9.65	11.60	14.23	10.41	10.39	12.66	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			(1.02)	3.34	(6.02)	9.21	(6.31)	(14.88)	(23.61)	8.68	(4.16)	(0.94)	0.55	
266 POLICE-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED)	1,535	4.57	2.87	13.89	6.17	16.65	18.00	14.02	14.67	20.18	14.98	4.99	7.96	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			0.72	1.99	1.76	1.57	5.44	(0.01)	3.78	4.09	2.22			
276 POLICE-TOTAL INFRASTRUCTURE (TIME WEIGHTED)	116	0.34	2.89	10.05	4.66	15.14	20.26						15.47	12/01/2013
CPI + 4%			1.84	5.10	2.79	4.72	4.70						4.99	
EXCESS RETURN			1.05	4.96	1.87	10.42	15.55						10.47	

# Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>FIXED INCOME RETURN DETAIL</b>														
288 POLICE-TOTAL FIXED INCOME - GROSS	10,985	32.70	2.89	4.48	5.49	(0.17)	6.20	0.85	7.97	7.05	4.70	6.10	8.41	02/01/1980
ESTIMATED INVESTMENT FEES			(0.03)	(0.14)	(0.07)	(0.12)	(0.14)							
EST MANAGEMENT FEES			(0.03)	(0.14)	(0.07)	(0.12)	(0.14)							
EST INCENTIVE FEES														
EST OTHER FEES														
EST FEE OFFSETS														
POLICE-TOTAL FIXED INCOME - NET MGR			2.86	4.34	5.42	(0.29)	6.06							
296 POLICE-TOTAL STRUCTURED FIXED INCOME - GROSS	5,578	16.61	2.85	6.89	6.24	0.56	7.69	(1.99)	6.57	8.88	4.87	6.13	7.94	01/01/1985
ESTIMATED INVESTMENT FEES			(0.02)	(0.08)	(0.04)	(0.07)	(0.09)							
POLICE-TOTAL STRUCTURED FIXED INCOME - NET MGR			2.83	6.81	6.20	0.48	7.60							
NYC - CORE PLUS FIVE			2.71	7.16	6.33	0.41	7.66	(2.79)	5.41	9.40	4.57	5.87		
EXCESS RETURN			0.13	(0.36)	(0.13)	0.07	(0.06)	0.80	1.16	(0.53)	0.30	0.26		
306 POLICE-TOTAL CORE FIXED INCOME - GROSS	73	0.22	2.20	5.98	5.40	1.28	5.74	(1.20)	6.22	8.18	4.34		5.78	05/01/2009
ESTIMATED INVESTMENT FEES			(0.05)	(0.22)	(0.11)	(0.20)	(0.17)							
POLICE-TOTAL CORE FIXED INCOME - NET MGR			2.15	5.75	5.29	1.08	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			(0.07)	(0.25)	(0.02)	0.53	(0.39)	0.82	2.01	0.34	0.58		1.12	
316 POLICE-TOTAL FIXED INCOME FUND OF FUND - GROSS	78	0.23	2.44	6.22	5.20	1.00	6.21	(1.58)					3.20	06/01/2012
ESTIMATED INVESTMENT FEES			(0.09)	(0.36)	(0.18)	(0.35)	(0.36)							
POLICE-TOTAL FIXED INCOME FUND OF FUND - NET MGR			2.35	5.86	5.02	0.65	5.85							
BARCLAYS AGGREGATE (DAILY)			2.21	6.00	5.31	0.55	5.97	(2.02)					2.81	
EXCESS RETURN			0.14	(0.15)	(0.29)	0.10	(0.12)	0.45					0.40	
326 POLICE-TOTAL TIPS - GROSS	1,503	4.48	1.74	4.35	6.29	(1.29)	3.52	(8.47)	7.17	13.52	2.79	4.86	4.31	06/01/2005
ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.03)	(0.07)							
POLICE-TOTAL TIPS - NET MGR			1.74	4.34	6.28	(1.32)	3.45							
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			0.03	(0.02)	0.04	0.12	(0.19)	0.14	0.19	(0.04)	0.16	0.11	0.15	
336 POLICE-TOTAL ENHANCED YIELD - GROSS	1,338	3.98	4.66	0.62	7.83	(3.94)	2.80	8.14	14.53	6.05	5.82	7.43	7.76	10/01/1994
ESTIMATED INVESTMENT FEES			(0.09)	(0.34)	(0.18)	(0.33)	(0.35)							
POLICE-TOTAL ENHANCED YIELD - NET MGR			4.57	0.28	7.64	(4.26)	2.45							
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78	6.17	14.45	6.58	5.63	6.18	6.89	
EXCESS RETURN			(0.39)	(0.55)	(0.51)	(0.05)	(0.34)	1.97	0.07	(0.53)	0.19	1.26	0.88	

# Consolidated Performance Report

Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014	2013	2012	2011	5 Year	10 Year	ITD	Inception Date
<b>FIXED INCOME RETURN DETAIL</b>														
348 POLICE- TOTAL BANK LOANS - GROSS	579	1.72	2.60	2.05	3.79	1.80	2.76	6.54					4.33	12/01/2012
ESTIMATED INVESTMENT FEES			(0.08)	(0.32)	(0.16)	(0.32)	(0.32)							
POLICE-TOTAL BANK LOANS - NET MGR			2.52	1.73	3.63	1.49	2.44							
CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06	6.15					3.55	
EXCESS RETURN			(0.34)	0.80	(0.59)	1.87	0.38	0.39					0.78	
358 POLICE-TOTAL CONVERTIBLE BONDS - GROSS	220	0.65	2.58	(0.27)	2.59	(0.41)	9.44	16.96	11.69	(3.62)	6.23		6.44	07/01/2008
ESTIMATED INVESTMENT FEES			(0.10)	(0.40)	(0.20)	(0.41)	(0.45)							
POLICE-TOTAL CONVERTIBLE BONDS - NET MGR			2.48	(0.68)	2.38	(0.81)	8.99							
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			(1.54)	4.43	1.02	2.08	(0.34)	(8.04)	(2.72)	(0.20)	(0.96)		(0.91)	
368 POLICE-TOTAL OPPORTUNISTIC FIXED INCOME	926	2.76	4.34	(2.36)	1.29	(1.34)	8.86	17.15	22.48	(4.67)	5.93		7.87	10/01/2007
10% ANNUAL RETURN			2.41	10.00	4.88	10.00	10.00	10.00	10.00	10.00	10.00		10.00	
EXCESS RETURN			1.93	(12.36)	(3.60)	(11.34)	(1.14)	7.15	12.48	(14.67)	(4.07)		(2.14)	
378 POLICE-TOTAL TARGETED INVESTMENTS (NO CASH)	377	1.12	2.38	11.18	6.29	4.04	8.06	2.22	6.32	6.47	6.12	6.74	8.53	12/01/1984
POLICE CUSTOM BENCHMARK (NO CASH)			1.61	5.25	4.10	1.40	6.11	(1.66)	3.41	7.74	3.55	5.24		
EXCESS RETURN			0.78	5.93	2.19	2.65	1.95	3.87	2.92	(1.27)	2.58	1.51		
<b>CASH SUMMARY</b>														
390 POLICE SHORT TERM - GROSS	313	0.93	0.26	0.70	0.63	0.47	0.23	0.21	0.40	0.43	0.44	1.63		04/01/1982
ESTIMATED INVESTMENT FEES			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
POLICE SHORT TERM - NET MGR			0.26	0.70	0.63	0.47	0.23	0.21	0.40	0.43	0.44	1.63		
394 C/D - FAIL FLOAT EARNINGS	1	0.00												
396 SECURITY LENDING	4	0.01												

**New York City  
Police 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 Adv R3000	3,594	10.70	2.57	2.16	3.62	0.47	12.59
RUSSELL 3000 (DAILY)			2.63	2.14	3.62	0.48	12.56
Excess			(0.06)	0.02	(0.01)	(0.01)	0.04
NYC POLICE BLACKROCK R2000 GROWTH	157	0.47	3.23	(10.64)	(1.58)	(1.30)	5.50
RUSSELL 2000 GROWTH DAILY			3.24	(10.75)	(1.59)	(1.38)	5.60
Excess			(0.01)	0.11	0.02	0.08	(0.11)
NYC POLICE BLACKROCK R2000 VALUE	94	0.28	4.35	(2.62)	6.13	(7.38)	4.11
RUSSELL 2000 VALUE DAILY			4.31	(2.58)	6.08	(7.47)	4.22
Excess			0.05	(0.04)	0.04	0.09	(0.11)
Brown AM - SCG	125	0.37	7.98	4.09	1.99	8.62	2.93
RUSSELL 2000 GROWTH DAILY			3.24	(10.75)	(1.59)	(1.38)	5.60
Excess			4.74	14.84	3.58	10.00	(2.68)
Ceredex SCV	116	0.35	6.23	5.42	14.82	(4.74)	2.55
RUSSELL 2000 VALUE DAILY			4.31	(2.58)	6.08	(7.47)	4.22
Excess			1.93	8.00	8.74	2.73	(1.66)
Dalton Greiner (Value) - Small Cap	117	0.35	0.68	(3.06)	3.10	(3.32)	4.47
RUSSELL 2000 VALUE DAILY			4.31	(2.58)	6.08	(7.47)	4.22
Excess			(3.62)	(0.47)	(2.98)	4.15	0.25
DFA Small Cap	117	0.35	1.94	(3.71)	3.90	(3.86)	4.48
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(1.85)	3.02	1.69	0.56	(0.42)

# Public Markets Manager Performance Detail

Net Returns Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
RAFI - SC Fundamental	114	0.34	2.69	(3.98)	5.30	(6.65)	4.72
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(1.10)	2.75	3.08	(2.23)	(0.17)
State St GA S&P 400	182	0.54	3.20	0.60	7.12	(1.65)	10.09
S&P 400 MIDCAP INDEX (DAILY)			3.99	1.33	7.93	(2.18)	9.77
Excess			(0.80)	(0.73)	(0.81)	0.52	0.32
Iridian Asset Mgmt. MCV	266	0.79	(2.59)	(8.65)	(2.51)	(3.71)	14.04
RUSSELL MIDCAP VALUE (DAILY)			4.77	3.25	8.87	(4.78)	14.75
Excess			(7.36)	(11.90)	(11.38)	1.07	(0.71)
Wellington Mgmt. MCC	217	0.65	2.59	(0.99)	2.84	1.76	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)	3.93	1.16
NYC POLICE BLACKROCK R1000 GROWTH	2,727	8.12	0.70	3.06	1.45	5.60	12.91
RUSSELL 1000 GROWTH - DAILY			0.61	3.02	1.36	5.67	13.05
Excess			0.09	0.03	0.09	(0.07)	(0.14)
NYC POLICE BLACKROCK R1000 VALUE	2,825	8.41	4.67	2.75	6.39	(4.02)	13.39
RUSSELL 1000 VALUE (DAILY)			4.58	2.86	6.30	(3.83)	13.45
Excess			0.09	(0.11)	0.09	(0.19)	(0.06)
RAFI - LC Fundamental	271	0.81	2.57	3.29	6.08	(3.09)	12.04
RUSSELL 1000 (DAILY)			2.54	2.93	3.74	0.92	13.24
Excess			0.04	0.36	2.34	(4.01)	(1.20)
VTL S&P 500 Fundamental	134	0.40	1.79	1.67	3.95	(1.26)	13.81
S&P 500 INDEX (DAILY)			2.46	3.99	3.84	1.38	13.69
Excess			(0.66)	(2.32)	0.11	(2.64)	0.12

# Public Markets Manager Performance Detail

Net Returns Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
<b>FUND OF FUNDS</b>							
POLICE-FUND OF FUNDS	188	0.56	1.55	(9.50)	(0.13)	(6.24)	1.62
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(2.24)	(2.77)	(2.34)	(1.83)	(3.28)
<b>POLICE-TOTAL ATTUCKS</b>							
POLICE-TOTAL ATTUCKS	38	0.11	0.85	(10.14)	(1.06)	(6.62)	2.12
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(2.94)	(3.41)	(3.28)	(2.21)	(2.77)
<b>POLICE-TOTAL CAPITAL PROSPECTS</b>							
POLICE-TOTAL CAPITAL PROSPECTS	45	0.13	1.75	(10.64)	(0.58)	(6.51)	1.54
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(2.04)	(3.91)	(2.80)	(2.09)	(3.35)
<b>POLICE-TOTAL PROGRESS EQUITY</b>							
POLICE-TOTAL PROGRESS EQUITY	55	0.16	1.16	(8.79)	0.76	(7.48)	1.43
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(2.63)	(2.06)	(1.45)	(3.07)	(3.46)
<b>POLICE-TOTAL FIS</b>							
POLICE-TOTAL FIS	49	0.15	2.43	(8.64)	0.11	(4.25)	1.49
RUSSELL 2000 (DAILY)			3.79	(6.73)	2.22	(4.41)	4.89
Excess			(1.36)	(1.91)	(2.10)	0.16	(3.40)
<b>NON - US EQUITY</b>							
Baillie Gifford	458	1.36	(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)
<b>Walter Scott</b>							
Walter Scott	588	1.75	2.55	(0.06)	3.49	0.28	(3.56)
MSCI EAFE GROWTH			(0.15)	(4.80)	(2.22)	4.09	(4.43)
Excess			2.70	4.74	5.71	(3.81)	0.87
<b>Causeway</b>							
Causeway	433	1.29	(1.91)	(13.17)	(6.53)	(2.39)	(5.18)
MSCI EAFE VALUE NET (DAILY)			(2.79)	(15.43)	(6.65)	(5.68)	(5.39)
Excess			0.88	2.26	0.12	3.29	0.21

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Sprucegrove	521	1.55	(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	232	0.69	(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	235	0.70	(4.04)	(3.23)	(3.96)	11.97	(5.60)
S&P EPAC Small Cap USD NET			(2.79)	(4.76)	(3.26)	8.58	(3.43)
Excess			(1.25)	1.54	(0.70)	3.38	(2.17)
SSGA	510	1.52	(1.23)	(9.89)	(4.11)	(0.54)	(4.75)
MSCI EAFE			(1.46)	(10.16)	(4.42)	(0.81)	(4.90)
Excess			0.24	0.28	0.31	0.27	0.15
SSGA MSCI EAFE Small Cap Index	87	0.26	(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	
Generation GE	125	0.37	1.51	5.31	3.88	7.04	11.39
MSCI World Index			1.01	(2.78)	0.66	(0.87)	4.94
Excess			0.50	8.09	3.22	7.91	6.45
EMERGING MARKETS							
DFA	274	0.82	0.72	(12.77)	8.87	(19.39)	(4.50)
MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)
Excess			0.06	(0.72)	2.45	(4.48)	(2.31)
Ballie Gifford	269	0.80	(1.63)	(13.92)	(3.85)	(8.00)	0.10
MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)
Excess			(2.29)	(1.87)	(10.26)	6.92	2.29

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
PARAMETRIC EM	302	0.90	0.56	(8.74)	8.97	(15.72)	(3.92)
MSCI EMERGING MARKETS			0.66	(12.05)	6.41	(14.92)	(2.19)
Excess			(0.10)	3.32	2.56	(0.80)	(1.73)
ACADIAN	286	0.85	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)	5.98
Blackrock EM	856	2.55	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							
CONY GT SSGA REIT	190	0.57	3.24	11.94	8.43	0.18	15.77
FTSE EPRA/NAREIT Devel. Liquid			3.09	11.15	8.01	(0.51)	14.98
Excess			0.15	0.79	0.42	0.68	0.79
FIXED INCOME SUMMARY							
STRUCTURED FIXED INCOME							
Blackrock - Mortgage	619	1.84	1.35	4.36	3.29	1.81	6.48
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			0.28	0.07	0.24	0.25	0.35
Neuberger Berman - Mortgage	543	1.62	1.10	4.16	3.06	1.42	6.68
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			0.03	(0.13)	0.00	(0.15)	0.55
Wellington - Mortgage	329	0.98	1.17	4.35	3.25	1.40	6.67
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			0.10	0.06	0.19	(0.16)	0.54

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Goldman Sachs - Mortgage	326	0.97	1.05	4.10	2.99	1.52	6.23
CITIGROUP MORTGAGE INDEX			1.07	4.29	3.06	1.56	6.12
Excess			(0.02)	(0.19)	(0.07)	(0.04)	0.11
T. Rowe Price - Credit	919	2.74	3.75	7.39	7.49	0.02	7.91
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			0.33	0.13	0.08	0.67	0.86
Blackrock - Credit	725	2.16	3.33	6.88	7.20	(0.57)	7.55
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			(0.09)	(0.38)	(0.20)	0.07	0.51
Prudential - Credit	671	2.00	3.44	7.82	7.57	(0.32)	7.19
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			0.02	0.55	0.16	0.33	0.14
Taplin Canida Habacht Credit	200	0.60	4.35	5.17	8.45	(3.98)	7.92
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			0.93	(2.09)	1.04	(3.34)	0.88
Pyramis - Credit	201	0.60	3.42	7.18	6.97	(0.09)	7.38
NYC - Investment Grade Credit			3.42	7.26	7.41	(0.65)	7.04
Excess			0.00	(0.08)	(0.43)	0.56	0.34
Prudential-Privest - Credit	127	0.38	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
State Street - Gov't	424	1.26	3.93	11.75	9.75	0.49	12.13
NYC - Treasury Agency Plus Five			3.96	11.98	9.72	0.72	12.38
Excess			(0.02)	(0.23)	0.02	(0.24)	(0.25)

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Blackrock - Gov't	248	0.74	3.89	11.53	9.58	0.66	11.93
NYC - Treasury Agency Plus Five			3.96	11.98	9.72	0.72	12.38
Excess			(0.07)	(0.45)	(0.15)	(0.06)	(0.44)
Fischer Francis - Govt	248	0.74	3.95	11.78	9.82	0.51	11.36
NYC - Treasury Agency Plus Five			3.96	11.98	9.72	0.72	12.38
Excess			(0.01)	(0.20)	0.10	(0.21)	(1.02)
FIXED INCOME FUND OF FUNDS							
Hillswick	8	0.02	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	7	0.02					
Barclays Aggregate (Daily)							
Excess							
Ramirez Asset	19	0.06	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	
NEW CENTURY	20	0.06	2.08	4.70	4.44	(0.30)	6.53
Barclays Aggregate (Daily)			2.21	6.00	5.31	0.55	5.97
Excess			(0.13)	(1.30)	(0.87)	(0.85)	0.56
PUGH CAP	24	0.07	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)
ENHANCED YIELD							
Loomis Sayles - High Yield	228	0.68	8.42	(1.76)	11.19	(8.58)	4.73
NYC-Loomis (BoA MLMSTII 7-03/BB&B PRIOR)			5.88	1.71	9.32	(4.64)	2.50
Excess			2.54	(3.47)	1.87	(3.94)	2.22

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Oaktree - High Yield	183	0.55	4.19	0.24	7.87	(4.75)	1.41
BofAML HYM CONSTRAINED (DAILY)			5.88	1.74	9.32	(4.61)	2.51
Excess			(1.69)	(1.50)	(1.45)	(0.14)	(1.10)
Neuberger Berman - High Yield	252	0.75	4.26	1.52	7.96	(4.00)	2.05
BofAML HIGH YIELD MASTER II (DAILY)			5.88	1.71	9.32	(4.64)	2.50
Excess			(1.63)	(0.18)	(1.36)	0.65	(0.45)
Stone Harbor - High Yield	166	0.49	3.68	(0.18)	6.41	(4.47)	0.31
BofAML HIGH YIELD MASTER II (DAILY)			5.88	1.71	9.32	(4.64)	2.50
Excess			(2.21)	(1.89)	(2.91)	0.17	(2.19)
T. Rowe Price - High Yield	285	0.85	3.39	1.76	6.24	(1.13)	2.92
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78
Excess			(1.57)	0.93	(1.91)	3.08	0.13
Fort Washington - High Yield	127	0.38	4.26	(0.37)	7.00	(4.13)	2.41
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78
Excess			(0.71)	(1.20)	(1.15)	0.08	(0.37)
Shenkman - High Yield	98	0.29	2.92	(0.58)	5.54	(2.65)	2.64
CITIGROUP BB & B			4.97	0.83	8.15	(4.21)	2.78
Excess			(2.05)	(1.41)	(2.62)	1.56	(0.15)
BANK LOANS							
Babson BL	226	0.67	2.82	0.16	3.28	0.12	1.99
CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06
Excess			(0.04)	(0.77)	(0.95)	0.50	(0.07)
Credit Suisse BL	235	0.70	2.49	3.01	4.06	2.57	2.67
CSFB LEVERAGED LOAN INDEX			2.86	0.93	4.23	(0.38)	2.06
Excess			(0.37)	2.08	(0.16)	2.96	0.61

# Public Markets Manager Performance Detail



Net Returns Through June 30, 2016

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
Guggenheim BL	117	0.35	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							
State Street TIPS Passive	1,127	3.36	1.74	4.34	6.29	(1.35)	3.57
Barclays Global Inflation Linked: US TIPS (Daily)			1.71	4.35	6.24	(1.44)	3.64
Excess			0.03	(0.02)	0.05	0.09	(0.07)
Blackrock TIPS	376	1.12	1.73	4.33	6.24	(1.24)	3.74
Barclays Global Inflation Linked: US TIPS (Daily)			1.71	4.35	6.24	(1.44)	3.64
Excess			0.02	(0.02)	(0.00)	0.20	0.10
CONVERTIBLE BONDS							
Advent Conv Bonds	110	0.33	2.82	(0.96)	2.79	(1.38)	4.65
BofA ML U.S. Convertible Yield Alternative			5.40	(5.68)	3.84	(8.77)	2.75
Excess			(2.58)	4.72	(1.04)	7.40	1.91
Victory Conv Bonds	110	0.33	2.15	(0.39)	1.97	(0.24)	13.76
BofA Merrill Lynch US Investment Grade Convertible Bond Index			2.78	3.34	4.14	1.68	15.69
Excess			(0.63)	(3.73)	(2.16)	(1.92)	(1.94)
CORE FIXED INCOME							
LM Capital	36	0.11	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)
GIA	37	0.11	2.35	5.61	5.46		
Barclays Aggregate (Daily)			2.21	6.00	5.31		
Excess			0.13	(0.39)	0.15		

# Public Markets Manager Performance Detail

Net Returns Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
ECONOMICALLY TARGETED INVESTMENTS							
AFL-CIO HOUSING INV TRUST	157	0.47	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	57	0.17	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	7	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)	8	0.02	4.24	23.54	11.62	42.03	13.31
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.90	18.23	7.99	39.53	6.19
BOA-PPAR (GNMA)	7	0.02	3.20	23.39	10.08	8.04	15.61
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.12	18.74	7.07	6.03	8.96
CCD-PPAR (FNMA)	2	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)	3	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)	1	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)	42	0.13	4.17	25.93	11.78	8.96	13.91
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.83	20.62	8.15	6.46	6.78
CPC - PPAR (GNMA)	75	0.22	3.17	15.99	7.70	5.24	9.23
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.09	11.34	4.69	3.23	2.58
JPMC - PPAR (FNMA)	11	0.03	3.75	25.63	11.10	6.18	12.08
FNMA Plus 85bps			1.34	5.31	3.63	2.50	7.13
Excess			2.41	20.32	7.48	3.68	4.96
LIIF-PPAR (FNMA)	3	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)	2	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)	1	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
NHS-PPAR (GNMA)	1	0.00	3.38	15.72	8.24	4.90	13.73
GNMA Plus 65bps			1.08	4.66	3.01	2.02	6.65
Excess			2.30	11.06	5.23	2.89	7.08

## Public Markets Manager Performance Detail

Net Returns Through June 30, 2016



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2015	2014
CASH							
POLICE SHORT TERM	313	0.93	0.26	0.70	0.63	0.47	0.23
91 DAY T-BILL			0.07	0.19	0.15	0.05	0.02
Excess			0.19	0.51	0.49	0.42	0.21
C/D - Fail Float Earnings	1	0.00					
SECURITY LENDING	4	0.01					

New York City  
Police 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%
<b>TOTAL PRIVATE EQUITY</b>		4,807,228,300	3,987,949,541	3,163,039,808	2,316,870,020	1.37	10.0%
<b>TOTAL ACTIVE</b>		4,606,253,089	3,766,938,093	2,890,748,637	2,316,870,020	1.38	10.2%
Cypress Merchant Banking Partners II, L.P.	1999	45,172,972	53,861,600	43,440,706	7,055,392	0.94	-1.2%
FdG Capital Partners LLC	1999	50,000,000	57,513,671	85,895,768	12,730,780	1.71	14.8%
Lincolnshire Equity Fund II, L.P.	1999	11,038,409	11,556,880	21,877,852	623,609	1.95	24.6%
Solera Partners, L.P.	2000	9,999,888	13,230,430	20,817,577	1,925,124	1.72	8.5%
SCP Private Equity Partners II, L.P.	2000	25,000,000	28,057,160	9,253,036	6,142,261	0.55	-7.3%
New Mountain Partners, L.P.	2001	13,606,449	12,837,351	18,323,621	325,258	1.45	12.3%
Apollo Investment Fund V, L.P.	2001	35,000,000	54,534,624	107,300,827	1,236,084	1.99	38.8%
CVC European Equity Partners III, L.P.	2001	25,000,000	28,947,553	74,439,614	676,768	2.59	41.1%
Yucaipa American Alliance Fund I, LP	2002	20,000,000	29,967,488	25,901,853	7,309,547	1.11	3.1%
Coller International Partners IV, L.P.	2002	26,100,000	26,761,761	35,281,296	1,179,725	1.36	11.7%
Landmark Equity Partners XI, L.P.	2002	30,000,000	28,518,970	41,817,511	2,246,403	1.55	23.5%
FS Equity Partners V, L.P.	2003	15,000,000	12,833,951	25,037,399	1,481,645	2.07	15.7%
Blackstone Capital Partners IV, L.P.	2003	46,253,267	57,111,074	125,224,353	12,626,727	2.41	36.5%
Ares Corporate Opportunities Fund, L.P.	2003	35,000,000	42,006,955	61,414,834	3,489,147	1.55	13.6%
Markstone Capital Partners, LP	2004	10,000,000	11,724,772	4,955,651	488,982	0.46	-37.6%
Euro Choice II (Delaware) L.P.	2004	20,256,528	20,142,503	27,122,817	2,232,436	1.46	7.2%
FdG Capital Partners II LP	2004	25,000,000	26,874,461	30,356,466	1,250,952	1.18	3.3%
Paladin Homeland Security Fund (NY City), L.P.	2004	30,000,000	32,696,065	10,498,856	4,591,852	0.46	-10.8%
Lincolnshire Equity Fund III, L.P.	2004	15,000,000	14,581,479	18,920,113	7,149,591	1.79	30.2%
Aurora Equity Partners III L.P.	2004	15,000,000	16,235,965	25,871,159	1,741,456	1.70	14.4%
Trilantic Capital Partners III L.P.	2004	20,000,000	18,079,250	29,208,586	433,102	1.64	14.6%
Medica III Investments (International) L.P.	2004	10,000,000	9,816,293	4,237,089	4,109,000	0.85	-3.8%
Celtic Pharmaceutical Holdings L.P.	2004	10,000,000	10,160,838	160,838	1,590,407	0.17	-19.2%
Palladium Equity Partners III, L.P.	2005	25,000,000	26,637,518	37,214,503	12,729,876	1.87	15.8%
New Mountain Partners II, L.P.	2005	7,741,935	6,963,466	13,477,943	134,544	1.95	13.7%
VSS Communications Partners IV, L.P.	2005	12,500,000	14,117,829	7,740,480	3,343,796	0.79	-4.1%
Carlyle Partners IV, L.P.	2005	50,000,000	51,531,593	96,629,182	5,648,685	1.98	13.1%
Levine Leichtman Capital Partners Deep Value Fund, L.P.	2005	20,000,000	24,978,381	22,993,086	3,157,971	1.05	1.2%
Prism Venture Partners V-A, L.P.	2005	20,000,000	20,508,481	10,189,474	4,170,091	0.70	-7.1%
Arlington Capital Partners II, L.P.	2005	20,000,000	20,224,665	30,996,771	3,665,387	1.71	11.3%
Quadrangle Capital Partners II LP	2005	22,663,116	22,970,373	22,144,388	6,022,330	1.23	4.2%
Snow Phipps Group, L.P.	2005	10,000,000	11,537,181	8,912,998	6,044,439	1.30	7.0%
GI Partners Fund II L.P.	2005	12,500,000	12,651,220	14,941,718	4,071,137	1.50	6.9%

Information provided by the New York City Police 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%
Blackstone Mezzanine Partners II, L.P.	2005	14,000,000	13,355,500	17,644,741	331,536	1.35	7.9%
Psilos Group Partners III, L.P.	2005	12,500,000	13,287,792	6,410,270	9,837,030	1.22	4.1%
FirstMark Capital I, L.P. (fka FirstMark IV)	2005	10,000,000	10,927,097	20,911,701	44,643,213	6.00	41.0%
USPF II Institutional Fund, L.P.	2005	20,000,000	26,379,750	18,085,094	18,307,434	1.38	6.3%
Bridgepoint Europe III	2005	15,678,304	14,480,947	9,262,145	7,492,465	1.16	2.2%
JP Morgan Fleming (Tranche A)	2005	40,000,000	38,670,714	27,614,604	24,363,611	1.34	6.5%
Aisling Capital II, LP	2006	2,500,000	2,943,662	1,958,242	808,804	0.94	-1.3%
InterMedia Partners VII, L.P.	2006	12,500,000	14,485,101	8,937,074	12,394,056	1.47	5.9%
Falconhead Capital Partners II, L.P.	2006	15,000,000	16,747,713	13,925,346	5,155,275	1.14	2.9%
Terra Firma Capital Partners III, L.P.	2006	15,529,754	15,656,769	1,117,085	7,210,794	0.53	-10.0%
Fenway Partners Capital Fund III, L.P.	2006	15,000,000	16,976,091	13,254,579	5,838,205	1.12	2.5%
Blackstone Capital Partners V, L.P.	2006	42,087,697	44,671,383	53,949,034	18,198,945	1.62	8.2%
Avista Capital Partners, L.P.	2006	20,000,000	26,124,594	22,574,622	10,026,998	1.25	5.0%
GSC Recovery III, L.P.	2006	5,000,000	5,625,136	5,918,491	584,364	1.16	3.8%
Apollo Investment Fund VI, L.P.	2006	45,000,000	57,919,123	72,616,368	15,019,609	1.51	9.3%
Landmark Equity Partners XIII, L.P.	2006	10,000,000	9,566,089	8,759,124	3,645,898	1.30	5.8%
Ares Corporate Opportunities Fund II, L.P.	2006	15,000,000	16,433,336	24,822,637	2,760,148	1.68	13.4%
Atlantic Equity Partners IV, L.P.	2006	25,124,928	21,894,132	-	14,622,327	0.67	-6.3%
CCMP Capital Investors II, L.P.	2006	20,000,000	21,949,685	24,937,422	12,035,462	1.68	13.9%
Capital Partners Private Equity Income Fund, L.P.	2006	15,000,000	14,401,421	23,888,431	7,498,154	2.18	21.1%
CLP 2014 (fka Perseus Partners VII)	2006	15,000,000	17,507,724	5,036,060	1,253,984	0.36	-25.0%
NB Co-Investment Partners LP	2006	60,000,000	60,384,956	77,466,276	9,728,946	1.44	8.8%
Euro Choice III L.P.	2006	26,753,239	26,386,304	19,714,993	10,378,283	1.14	2.9%
Thomas, McNerney & Partners II, L.P.	2006	10,000,000	9,707,667	16,146,663	5,733,602	2.25	17.4%
Catterton Partners VI, L.P.	2006	20,000,000	22,080,691	27,154,437	14,795,911	1.90	13.4%
First Reserve Fund XI, L.P.	2006	20,000,000	21,253,053	12,260,947	1,687,184	0.66	-10.9%
Permira IV, L.P.	2006	16,116,933	17,056,520	18,132,893	6,962,691	1.47	8.0%
Arsenal Capital Partners II, LP	2006	10,000,000	11,951,344	11,250,628	8,334,495	1.64	10.7%
RRE Ventures IV, L.P.	2006	15,000,000	18,661,640	9,019,243	19,980,901	1.55	8.6%
Coller International Partners V, L.P.	2006	10,000,000	8,642,760	9,492,976	2,878,447	1.43	8.9%
MidOcean Partners III, L.P.	2006	40,000,000	44,939,459	34,253,139	32,338,184	1.48	8.7%
GF Capital Private Equity Fund, L.P.	2006	10,000,000	10,437,343	8,793,694	9,499,140	1.75	14.3%
The Fourth Cinven Fund	2006	13,923,553	14,197,389	18,143,920	1,456,021	1.38	6.7%
Pegasus Partners IV, L.P.	2007	15,000,000	17,476,200	7,938,539	9,523,918	1.00	0.0%
Olympus Capital Asia III, L.P.	2007	20,000,000	22,720,567	8,142,661	18,232,691	1.16	4.2%
FTVentures III, LP	2007	7,500,000	7,635,000	9,104,509	7,207,139	2.14	16.7%

Information provided by the New York City Police 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%
Highland Consumer Fund I LP	2007	10,000,000	9,716,060	2,943,522	4,541,443	0.77	-4.5%
Montreux Equity Partners IV, L.P.	2007	10,000,000	10,000,000	3,421,889	8,525,035	1.19	3.9%
Gleacher Mezzanine Fund II, L.P.	2007	10,000,000	9,190,269	11,326,141	495,469	1.29	9.7%
Quaker BioVentures II, L.P.	2007	15,000,000	13,244,055	8,106,660	8,697,300	1.27	6.2%
SCP Vitalife Partners II Fund	2007	15,000,000	15,074,774	1,184	9,330,231	0.62	-9.4%
Comvest Investment Partners III, L.P.	2007	15,000,000	19,009,285	11,293,544	9,636,876	1.10	2.9%
Constellation Venture Capital III, L.P.	2007	15,000,000	16,296,009	3,405,627	9,335,547	0.78	-5.1%
United States Power Fund III, L.P.	2007	15,000,000	16,547,716	7,353,661	14,550,454	1.32	5.9%
Carlyle Partners V, L.P.	2007	50,000,000	50,735,501	56,426,907	27,288,215	1.65	13.4%
PCG Clean Energy & Technology Fund (East), LLC	2007	40,000,000	35,280,037	4,435,816	17,780,555	0.63	-8.7%
GSO Capital Opportunities Fund LP	2007	17,500,000	26,135,484	35,566,273	2,276,536	1.45	17.9%
New Mountain Partners III, L.P.	2007	35,000,000	34,436,087	22,060,294	33,523,644	1.61	11.7%
Vista Equity Partners Fund III, L.P.	2007	20,000,000	21,247,684	45,207,593	9,069,096	2.55	28.4%
Trilantic Capital Partners IV L.P.	2007	45,856,523	47,086,449	56,786,048	15,963,287	1.55	13.9%
Pine Brook Capital Partners, L.P.	2007	15,000,000	15,711,027	9,232,146	8,252,215	1.11	3.8%
Paladin III (NY City), L.P.	2008	30,000,000	35,198,854	17,413,900	29,102,052	1.32	8.0%
Relativity Fund, L.P.	2008	8,158,371	8,080,212	1,726,554	2,702,737	0.55	-10.8%
Apollo Investment Fund VII, L.P.	2008	50,000,000	59,013,843	87,592,778	14,944,369	1.74	24.4%
NGN BioMed Opportunity II, L.P.	2008	10,000,000	9,575,911	1,973,105	4,910,063	0.72	-7.7%
Carpenter Community BancFund-A, L.P.	2008	15,000,000	14,639,741	8,743,840	13,828,941	1.54	8.1%
Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	2008	15,000,000	16,355,997	11,260,230	7,183,200	1.13	4.2%
Yucaipa American Alliance Fund II, LP	2008	50,000,000	68,226,790	40,539,046	53,783,974	1.38	9.1%
Milestone Partners III, L.P.	2008	15,000,000	15,886,192	7,283,360	7,240,927	0.91	-2.0%
Levine Leichtman Capital Partners IV, L.P.	2008	10,000,000	10,040,438	12,625,489	4,868,013	1.74	20.6%
Lee Equity Partners Fund, L.P.	2008	17,534,865	23,538,841	26,810,127	1,773,786	1.21	6.2%
Coral's 2007 Institutional Momentum Fund, L.P.	2008	10,000,000	9,492,863	2,951,671	2,300,691	0.55	-9.7%
Yucaipa Corporate Initiatives Fund II, LP	2008	14,030,930	13,645,978	3,899,519	8,316,102	0.90	-2.5%
CVC European Equity Partners V, L.P.	2008	34,215,912	35,821,797	34,285,305	15,969,890	1.40	11.1%
GI Partners Fund III L.P.	2008	17,500,000	18,712,083	18,984,563	8,073,789	1.45	12.5%
Ares Corporate Opportunities Fund III, L.P.	2008	25,000,000	29,442,194	26,282,513	26,174,094	1.78	21.1%
GCM Grosvenor NYCPFF Emerging Manager Co-Investment Fund, L.P.	2008	4,457,094	5,176,684	6,882,039	2,269,701	1.77	14.0%
GCM Grosvenor NYCPFF Emerging Manager Fund, L.P.	2008	59,909,091	64,109,858	37,141,558	45,606,092	1.29	10.3%
First Reserve Fund XII, L.P.	2008	20,000,000	21,293,103	9,396,190	6,649,117	0.75	-7.9%
Landmark Equity Partners XIV, L.P.	2008	27,250,000	25,267,695	20,592,129	13,166,255	1.34	12.9%
Crestview Partners II, L.P.	2008	22,500,000	24,447,126	18,481,918	16,882,232	1.45	12.3%
NB New York City Growth Fund IA	2008	4,835,960	4,835,960	1,670,495	1,549,781	0.67	-6.8%

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# Alternative Assets Manager Performance Detail

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	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Euro Choice IV L.P.	2008	19,451,054	16,928,236	4,794,372	15,815,704	1.22	6.1%
Avista Capital Partners II, L.P.	2008	35,000,000	42,047,175	44,826,739	30,797,561	1.80	17.6%
Blue Wolf Capital Fund II, L.P.	2008	15,000,000	16,300,742	5,988,120	13,454,091	1.19	5.9%
Bridgepoint Europe IV	2008	13,400,579	12,227,092	9,580,962	8,222,523	1.46	10.7%
Aisling Capital III, LP	2008	7,000,000	7,304,896	6,620,261	4,838,337	1.57	20.4%
Onex Partners III LP	2008	15,000,000	16,205,396	9,619,220	14,689,875	1.50	13.1%
NorthBound Emerging Manager Custom Fund LP	2009	20,000,000	16,557,260	11,781,074	15,160,384	1.63	15.9%
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	22,500,000	21,696,118	18,104,365	14,422,036	1.50	13.1%
Scale Venture Partners III, LP	2009	10,000,000	9,787,455	10,913,188	10,321,404	2.17	22.9%
FS Equity Partners VI, L.P.	2009	20,000,000	19,232,649	14,990,562	19,463,128	1.79	18.2%
Lincolnshire Equity Fund IV, L.P.	2009	7,500,000	7,322,068	2,628,781	6,378,991	1.23	7.8%
Lexington Capital Partners VII, L.P.	2009	20,000,000	16,951,596	14,536,779	10,669,982	1.49	15.8%
Snow Phipps II, L.P.	2010	17,500,000	15,855,357	7,906,331	15,926,526	1.50	17.5%
Trident V, L.P.	2010	40,000,000	42,187,299	10,429,472	41,917,906	1.24	7.9%
Comvest Investment Partners IV, L.P.	2010	45,000,000	40,656,402	35,959,008	36,436,133	1.78	35.8%
Blackstone Capital Partners VI, L.P.	2011	35,000,000	31,007,760	5,362,236	31,861,818	1.20	10.0%
Ampersand 2011	2011	12,500,000	12,062,500	4,347,071	16,285,371	1.71	16.8%
BDCM Opportunity Fund III, L.P.	2011	20,000,000	25,513,911	9,212,561	20,519,218	1.17	8.4%
AXA Secondary Fund V B L.P.	2011	80,000,000	63,279,494	39,524,268	55,441,749	1.50	17.7%
Wellspring Capital Partners V, L.P.	2011	22,500,000	20,179,949	2,660,035	24,265,236	1.33	15.2%
EQT VI, L.P.	2011	48,726,576	41,464,301	1,188,396	46,495,824	1.15	5.8%
Pegasus Partners V, L.P.	2011	14,552,940	11,321,000	2,590,619	13,238,300	1.40	12.5%
BC European Capital IX	2011	66,221,710	55,738,001	19,316,778	47,880,049	1.21	8.7%
American Securities Partners VI, L.P.	2011	50,000,000	46,459,077	14,757,271	51,619,245	1.43	19.6%
Vista Equity Partners Fund IV, L.P.	2011	70,000,000	69,121,498	32,934,498	88,069,286	1.75	23.7%
Warburg Pincus Private Equity XI, L.P.	2012	80,000,000	73,315,264	13,460,880	76,343,568	1.22	12.8%
Summit Partners Growth Equity Fund VIII-A, L.P.	2012	75,000,000	63,186,514	15,343,105	63,267,155	1.24	14.6%
<u>NYCPPF - 2012 Emerging Manager Program</u>	<u>2012</u>	<u>50,000,000</u>	<u>26,702,612</u>	<u>1,804,393</u>	<u>27,287,349</u>	<u>1.09</u>	<u>7.5%</u>
Trilantic Capital Partners V L.P.	2012	50,000,000	22,948,989	302,973	20,702,550	0.92	-5.3%
Palladium Equity Partners IV, L.P.	2012	35,000,000	15,865,242	1,321,019	15,775,660	1.08	4.2%
Ares Corporate Opportunities Fund IV, L.P.	2012	50,000,000	39,002,082	3,483,118	40,130,576	1.12	7.5%
Green Equity Investors VI, L.P.	2012	55,000,000	38,246,036	1,822,958	43,500,964	1.19	10.4%
Platinum Equity Capital Partners III, L.P.	2012	50,000,000	31,389,418	18,072,064	30,650,371	1.55	47.6%
Neuberger Berman Strategic Co-Investment II LP	2012	60,000,000	51,295,034	18,947,517	50,071,081	1.35	21.3%
Carlyle Partners VI, L.P.	2013	60,000,000	28,325,948	998,674	27,184,386	0.99	-0.4%
Carlyle Partners VI, L.P. (Side Car)	2014	3,654,000	3,579,498	-	3,276,969	0.92	NM

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## Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Landmark Equity Partners XV, L.P.	2013	67,000,000	23,043,158	7,376,414	19,286,008	1.16	12.0%
Landmark - NYC Fund I, L.P.	2013	23,000,000	9,643,998	1,670,213	10,210,544	1.23	16.2%
Apollo Investment Fund VIII, L.P.	2013	100,000,000	32,072,562	971,079	32,515,025	1.04	4.5%
CVC Capital Partners VI, L.P.	2013	88,051,318	32,432,322	592,149	28,835,162	0.91	NM
Crestview Partners III, L.P.	2013	45,000,000	10,303,737	170,137	9,816,583	0.97	NM
Crestview Partners III (Co-Investment B), L.P.	2013	15,000,000	5,028,324	210,699	4,992,599	1.03	NM
Olympus Growth Fund VI, L.P.	2014	35,000,000	9,849,324	2,699,285	9,415,310	1.23	24.8%
ASF VI B L.P.	2014	60,000,000	24,727,136	1,060,697	28,963,293	1.21	NM
ASF VI B NYC Co-Invest L.P.	2014	20,000,000	12,175,736	1,892,000	13,623,996	1.27	NM
Vista Equity Partners Fund V, L.P.	2014	85,000,000	75,601,528	6,627	83,622,004	1.11	NM
Lexington Capital Partners VIII, L.P.	2014	80,000,000	17,703,544	2,619,229	19,507,364	1.25	NM
Centerbridge Capital Partners III, L.P.	2014	11,100,000	3,014,376	-	3,274,011	1.09	NM
Siris Partners III, L.P.	2015	15,000,000	2,450,453	-	2,222,036	0.91	NM
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	37,000,000	9,714,094	-	8,907,708	0.92	NM
Warburg Pincus Private Equity XII, L.P.	2015	97,000,000	3,556,512	-	3,033,840	0.85	NM
ASF VII B L.P.	2015	44,500,000	2,092,650	9,855	2,352,098	1.13	NM
ASF VII B NYC Co-Invest L.P.	2015	22,000,000	2,200	-	2,200	1.00	NM
EQT VII, L.P.	2015	76,807,296	1,155,760	-	353,810	0.31	NM
American Securities Partners VII, L.P.	2015	37,000,000	-	-	(180,190)	-	N/A
Bridgepoint Europe V L.P.	2015	29,519,667	3,356,300	-	3,446,299	1.03	NM
Bridgepoint Europe V Co-Invest	2015	7,972,230	-	-	-	-	N/A
<u>NYCPPF - 2015 Emerging Manager Program</u>	<u>2015</u>	<u>60,000,000</u>	<u>1,531,463</u>	<u>-</u>	<u>1,336,938</u>	<u>0.87</u>	<u>NM</u>
Ares Corporate Opportunities Fund V, L.P.	2016	44,000,000	-	-	-	-	N/A

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## Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
<b>TOTAL LIQUIDATED</b>		200,975,212	221,011,447	272,291,171	-	1.23	7.1%
AEA Investors 2006 Fund L.P.	2006	11,446,883	13,008,112	15,421,443	-	1.19	7.8%
Carlyle Partners III, L.P.	2000	22,989,887	28,296,807	60,015,870	-	2.12	23.3%
Clayton, Dubilier & Rice Fund VII, L.P.	2005	18,252,189	20,710,263	23,297,634	-	1.12	2.5%
Clayton, Dubilier & Rice Fund VIII, L.P.	2009	13,159,676	15,837,782	18,107,624	-	1.14	6.2%
DMR Mortgage Opportunity Companion Fund	2008	12,000,000	12,000,000	16,148,533	-	1.35	45.3%
Emerald Infrastructure Development Fund	2008	797,444	797,444	4,486	-	0.01	-99.4%
HM 2006 Sector Performance Fund	2007	13,911,005	15,884,647	11,180,373	-	0.70	-12.0%
NewSpring Growth Capital II, L.P.	2006	10,800,000	10,875,288	16,146,638	-	1.48	11.7%
Prism Venture Partners IV, L.P.	2001	25,000,000	25,037,757	18,392,887	-	0.73	-6.5%
Silver Lake Partners II, L.P.	2004	10,365,500	11,864,813	16,916,905	-	1.43	9.1%
Silver Lake Partners III, L.P.	2007	12,729,683	15,250,560	20,716,538	-	1.36	16.6%
Tailwind Capital Partners, L.P.	2007	13,028,645	14,826,999	15,061,359	-	1.02	0.7%
VS&A Communications Partners III, L.P.	1998	20,000,000	20,099,362	27,624,880	-	1.37	6.3%
Vitruvian Investment Partnership I	2007	16,494,300	16,521,613	13,256,001	-	0.80	-7.7%

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# Alternative Assets Manager Performance Detail

Through March 31, 2016



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
<b>TOTAL REAL ASSETS</b>							
		2,626,791,966	1,931,964,114	916,116,490	1,636,776,230	1.32	8.2%
<b>TOTAL PRIVATE REAL ESTATE</b>							
		2,395,791,966	1,829,168,341	911,195,421	1,527,395,371	1.33	8.2%
<b>TOTAL LIQUIDATED PRIVATE REAL ESTATE</b>							
		25,000,000	25,469,178	30,508,425	-	1.20	9.8%
<b>TOTAL INFRASTRUCTURE</b>							
		231,000,000	102,795,773	4,921,069	109,380,859	1.11	11.4%
<b>TOTAL PRIVATE REAL ESTATE</b>							
OCM Real Estate Opportunities Fund III	2003	15,000,000	15,000,000	24,887,239	556,883	1.70	11.4%
Blackstone Fund IV	2004	15,000,000	19,220,353	22,703,661	4,308,215	1.41	10.8%
The City Investment Fund I	2004	70,000,000	69,030,360	68,991,937	921,916	1.01	0.3%
Canyon Johnson Urban Fund II	2005	20,000,000	17,977,405	6,597,297	997,730	0.42	-11.4%
PRISA SA	2006	21,000,000	22,546,573	5,237,033	27,106,405	1.43	4.2%
Prologis Targeted U.S. Logistics Fund	2006	10,000,000	12,831,541	2,959,522	12,130,567	1.18	2.2%
RREEF America REIT II	2006	21,000,000	27,724,347	11,739,558	27,009,803	1.40	4.7%
UBS Trumbull Property Fund	2006	61,000,000	80,495,575	15,580,862	99,744,021	1.43	7.3%
AREA Real Estate Investment Fund V, LP	2006	5,000,000	5,000,004	1,996,572	2,758,816	0.95	-0.8%
Colony Realty Partners II	2007	20,000,000	21,420,211	666,108	5,517,900	0.29	-14.2%
Heitman HART	2007	28,000,000	38,446,100	10,446,100	50,643,452	1.59	8.2%
JP Morgan Special Situation Property Fund	2007	15,000,000	17,068,104	4,190,690	18,465,428	1.33	3.7%
JP Morgan Strategic Property Fund	2007	56,000,000	60,742,333	-	104,727,076	1.72	8.6%
PRISA II	2007	60,278,867	63,729,327	11,903,412	79,344,276	1.43	5.1%
RREEF America REIT III	2007	15,000,000	15,000,000	7,935,972	679,728	0.57	-7.5%
Blackstone Real Estate Partners VI	2007	40,000,000	44,291,580	58,809,611	24,013,599	1.87	13.0%
Carlyle Realty Partners V	2007	20,000,000	24,973,613	26,910,794	7,489,128	1.38	8.6%
Colony Investors VIII	2007	20,000,000	21,249,679	5,553,393	3,990,580	0.45	-12.7%
Metropolitan Workforce Housing Fund	2007	7,000,000	7,006,513	3,166,116	5,243,459	1.20	4.0%
AG Realty Fund VII	2008	25,000,000	23,500,000	31,754,572	4,591,348	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	30,000,000	30,487,500	30,487,500	5,877,998	1.19	4.6%
Fidelity Real Estate Growth Fund III	2008	15,000,000	13,388,046	15,407,890	2,511,675	1.34	7.8%
PRISA III	2008	30,000,000	34,536,488	-	71,798,297	2.08	13.0%
Silverpeak Legacy Partners III	2008	30,000,000	13,301,089	1,202,295	4,347,149	0.42	-11.9%
Stockbridge Real Estate Fund III	2008	27,000,000	26,998,145	-	35,577,917	1.32	5.3%
Westbrook Real Estate Fund VII	2008	10,000,000	11,085,842	9,618,184	3,430,769	1.18	3.2%
American Value Partners Fund I	2008	15,000,000	11,340,442	7,768,313	4,076,673	1.04	0.9%

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## Alternative Assets Manager Performance Detail

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	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
Thor Urban Property Fund II	2009	20,000,000	25,878,333	17,675,129	18,277,968	1.39	10.7%
Walton Street Real Estate Fund VI	2009	30,000,000	26,594,360	22,249,771	18,051,303	1.52	10.3%
LaSalle Property Fund	2010	50,000,000	50,000,000	9,584,907	67,076,217	1.53	12.7%
Blackstone Real Estate Partners Europe III (USD Vehicle)	2010	35,000,000	35,752,428	24,814,590	26,230,102	1.43	13.1%
Canyon Johnson Urban Fund III	2010	15,000,000	14,793,490	19,290,372	1,136,589	1.38	12.7%
Westbrook Real Estate Fund VIII	2010	35,000,000	41,474,376	47,461,062	6,857,866	1.31	12.6%
Carlyle Realty Partners VI	2011	40,000,000	36,681,619	37,114,537	23,962,815	1.67	29.4%
H/2 Special Opportunities Fund II	2011	25,000,000	25,000,000	14,603,176	19,481,253	1.36	14.8%
Almanac Realty Securities VI	2012	50,000,000	32,058,611	19,299,000	22,407,269	1.30	17.3%
Almanac Realty Securities VI (Sidecar II)	2012	15,000,000	5,248,792	2,583,571	5,013,142	1.45	31.4%
Blackstone Real Estate Partners VII	2012	100,000,000	116,888,271	69,215,689	104,161,419	1.48	22.4%
Brookfield Strategic Real Estate Partners	2012	60,000,000	62,227,575	17,118,723	66,960,221	1.35	18.1%
Divco West Fund III	2012	70,000,000	68,667,971	97,570,008	18,878,711	1.70	25.7%
Taconic New York City Investment Fund LP	2012	40,000,000	16,545,454	8,181,818	19,674,295	1.68	18.2%
NYC Asset Investor #2 LLC	2013	60,000,000	49,636,858	7,503,558	51,162,915	1.18	13.5%
KTR Industrial Fund III	2013	30,000,000	13,109,606	20,690,514	56,632	1.58	40.6%
NYC Asset Investor #1 LLC	2013	30,000,000	31,994,753	3,377,378	37,331,226	1.27	20.9%
NYC Asset Investor #3 LLC	2013	40,000,000	10,151,637	156,538	10,277,082	1.03	1.9%
MetLife Core Property Fund	2014	40,000,000	40,000,000	2,337,133	45,091,498	N/A	N/A
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2014	97,500,000	78,853,225	8,637,116	77,894,442	N/A	N/A
Carlyle Realty Partners VII	2014	60,000,000	21,208,348	78,215	22,923,549	N/A	N/A
Divco West Fund IV	2014	70,000,000	67,974,450	19,721,323	74,939,585	N/A	N/A
Lone Star Real Estate Fund III	2014	75,000,000	65,139,610	12,569,318	65,097,356	N/A	N/A
Almanac Realty Securities VII	2015	50,000,000	11,239,694	219,859	11,739,113	N/A	N/A
Blackstone Real Estate Partners VIII	2015	101,000,000	32,935,967	49,959	34,866,521	N/A	N/A
H/2 Special Opportunities Fund III	2015	40,000,000	19,660,212	-	19,886,599	N/A	N/A
Avanath Affordable Housing Fund II	2015	5,000,000	4,630,482	-	6,093,899	N/A	N/A
Almanac Realty Securities VII (Sidecar II)	2016	20,000,000	2,813,906	-	2,994,139	N/A	N/A
Jamestown Premier Property Fund	2016	26,000,000	7,156,686	182,757	7,034,969	N/A	N/A
NYCRS Artemis Co-Investment	2016	35,000,000	3,703,950	-	5,092,917	N/A	N/A
USAA Eagle Real Estate Fund	2016	40,000,000	25,078,299	-	25,857,278	N/A	N/A
European Property Investors Special Opportunities Fund IV (E	2016	32,413,099	2,925,030	-	3,014,677	N/A	N/A
PW Real Estate Fund III	2016	31,900,000	-	-	-	N/A	N/A
Westbrook Partners X	2016	24,000,000	-	-	-	N/A	N/A

Information provided by the New York City Police 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%
Westbrook Partners X - Co-Investment	2016	15,000,000	-	-	-	N/A	N/A
Exeter Core Industrial Club Fund II	2016	19,000,000	-	-	-	N/A	N/A
Divco West Fund V	2016	40,000,000	-	-	-	N/A	N/A
Lone Star Real Estate Fund V	2016	92,700,000	-	-	-	N/A	N/A
<b>TOTAL LIQUIDATED PRIVATE REAL ESTATE</b>							
Canyon Johnson Urban Fund	2003	10,000,000	9,060,242	10,582,954	-	1.17	10.2%
Carbon Capital III	2009	15,000,000	16,408,936	19,925,471	-	1.21	8.5%
<b>TOTAL INFRASTRUCTURE INVESTMENTS</b>							
Brookfield Infrastructure Fund II	2013	60,000,000	35,818,917	3,993,737	39,413,869	1.21	16.6%
IFM Global Infrastructure	2014	60,000,000	60,927,332	927,332	64,090,505	N/A	N/A
First Reserve Energy Infrastructure Fund II	2014	40,000,000	6,049,524	-	5,876,485	N/A	N/A
Global Infrastructure Partners III-A/B, L.P.	2015	71,000,000	-	-	-	N/A	N/A

Information provided by the New York City Police Retirement System Consultants

## Alternative Assets Manager Performance Detail

Through June 30, 2016



	Vintage Year	Commitment - Closing (Base)	Contributions Cumulative (Local)	Distributions Cumulative	Final Market Value	3 Month Base%	Inception IRR%
<b>TOTAL OPPORTUNISTIC FIXED INCOME</b>		1,193,969,592	1,090,049,571	340,262,312	931,740,047	3.48%	6.56%
Avenue Special Situations Fund V, L.P.	2007	20,209,326	20,520,314	26,593,239	221,155	0.26%	NM
Avenue Europe Special Sit. Fund, L.P.	2008	15,135,266	13,775,563	26,717,088	159,013	-10.77%	NM
Torchlight Debt Oppy Fund III, LLC	2009	35,000,000	37,314,271	49,611,743	4,751,071	0.28%	13.27%
AG GECC PPIP Fund, L.P.	2010	27,000,000	27,052,129	41,724,862	50,500		20.19%
Avenue Special Situations Fund VI L.P.	2011	45,000,000	46,135,636	27,355,721	21,612,056	-2.98%	1.59%
Golden Tree	2011	88,000,000	82,502,006	-	111,088,978	3.06%	7.92%
Marathon Centre Street Partnership, L.P.	2011	140,625,000	147,375,000	11,250,000	167,127,975	5.96%	6.29%
AG Centre Street Partnership, L.P.	2012	105,000,000	82,950,000	14,131,909	83,640,919	4.49%	5.48%
Apollo Centre Street Partnership, L.P.	2012	162,500,000	142,630,080	40,294,715	103,648,613	3.29%	0.44%
FCO MA Centre Street L.P.	2012	90,000,000	106,778,766	40,831,566	81,880,066	1.66%	8.78%
OHA Centre Street Partnership, L.P.	2012	112,500,000	109,750,261	16,457,578	106,284,957	6.05%	4.50%
Contrarian Partnership, L.P.	2013	55,000,000	38,500,000	-	38,510,942	10.48%	0.01%
Lone Star Fund VIII(U.S.), L.P.	2013	70,000,000	60,945,871	43,398,177	35,975,069	-3.59%	23.72%
Oaktree Opportunities Fund IX, L.P.	2013	70,000,000	70,000,000	-	67,016,736	0.09%	-2.02%
Ares Centre Street LP	2014	90,000,000	80,165,853	-	87,352,985	2.65%	10.55%
Brightwood Capital Fund III, L.P.	2015	22,000,000	16,753,821	1,895,713	15,557,873	2.35%	3.98%
Torchlight Debt Opportunity Fund V, LP	2015	46,000,000	6,900,000	-	6,861,139	3.67%	-0.82%

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

# Alternative Assets Manager Performance Detail

Through June 30, 2016



	Market Value	MTD Return%	3 Month Return%	FYTD Return%	YTD Return%	1 Year Return%	3 Year Return%	ITD Return%	ITD Cumulative Return%
<b>TOTAL HEDGE FUNDS</b>	1,208,229,246	0.88%	0.79%	-3.69%	-0.47%	-3.69%	2.12%	2.48%	13.03%
<b>TOTAL DIRECT HEDGE FUNDS</b>	1,059,738,658	0.98%	0.64%	-3.63%	-0.62%	-3.63%	2.30%	3.61%	17.67%
<b>TOTAL FUND OF FUNDS HEDGE FUNDS</b>	148,490,588	0.19%	1.88%	-3.82%	0.58%	-3.82%	1.17%	1.81%	9.40%
<b>TOTAL DIRECT HEDGE FUNDS</b>									
Altimeter Partners Fund LP	31,510,217	-6.14%	-17.00%	-17.15%	-17.15%			-17.15%	-17.15%
Gotham Targeted Neutral, LP	36,567,541	-0.53%	-1.85%	2.24%	1.29%	2.24%		-4.44%	-6.24%
SRS Partners US, LP	80,532,054	5.24%	6.39%	-3.35%	-10.37%	-3.35%		1.88%	2.83%
Turiya Fund LP	72,425,069	-1.32%	-1.22%	-7.32%	-9.81%	-7.32%		-7.32%	-7.32%
Total Long/Short Equity	221,034,881	0.35%	-1.43%	-5.52%	-9.06%	-5.52%	1.68%	1.68%	5.13%
Fir Tree Value Fund, L.P.	54,943,519	1.01%	7.73%	-14.39%	-3.79%	-14.39%	-1.88%	-0.25%	-0.84%
JMB Capital Partners, L.P.	76,753,932	0.78%	2.34%	2.34%	2.34%			2.34%	2.34%
Luxor Capital Partners, LP	58,009,887	-1.08%	-0.69%	-28.30%	-7.78%	-28.30%		-17.68%	-33.32%
Perry Partners L.P.	43,852,136	-2.63%	-0.22%	-13.85%	-2.82%	-13.85%	-4.00%	-4.78%	-14.02%
Standard General Fund L.P.	20,458,978	0.82%	8.16%	3.07%	6.76%	3.07%		3.61%	7.68%
Total Event Driven	254,018,452	-0.20%	2.73%	-17.19%	-3.83%	-17.19%	-4.30%	-2.72%	-9.00%
Brevan Howard L.P.	122,081,436	0.98%	-0.05%	-3.78%	-0.79%	-3.78%	-0.96%	0.93%	4.34%
CCP Quantitative Fund LP	69,606,941	6.13%	-0.68%	4.64%	6.81%	4.64%	8.51%	0.69%	2.36%
Pharo Gaia Fund, LTD.	41,615,074	5.39%	6.59%	9.51%	8.11%			9.51%	9.51%
Pharo Macro Fund, Ltd.	65,688,381	3.37%	5.25%	9.49%	4.57%	9.49%	8.80%	8.80%	28.80%
Systematica BlueTrend Fund L.P.	72,078,594	2.69%	-5.60%	5.88%	0.28%	5.88%	5.07%	1.87%	7.71%
Total Tactical Trading	371,070,426	3.16%	0.28%	3.57%	2.68%	3.57%	4.32%	1.94%	9.20%
Caspian Select Credit Fund, L.P.	64,729,543	-0.47%	2.71%	-8.79%	0.16%	-8.79%	-0.99%	1.97%	8.47%
D.E. Shaw Composite Fund, L.L.C.	148,885,356	-0.69%	0.32%	9.12%	3.18%	9.12%	12.63%	14.50%	83.95%
Total Relative Value	213,614,899	-0.62%	1.03%	2.99%	2.25%	2.99%	7.06%	9.12%	48.09%
<b>TOTAL FUND OF FUNDS HEDGE FUNDS</b>									
Fund of Funds Hedge Funds	148,490,588	0.19%	1.88%	-3.82%	0.58%	-3.82%	1.17%	1.81%	9.40%

Information provided by Alpha Frontier

**New York City  
Police 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 7/1/03, the “NYC-Loomis” benchmark index for the Loomis Sayles Enhanced Yield portfolio reflects a change from the Citigroup BB&B Index to the more appropriate Merrill Lynch High Yield Master II Index.
- Effective 7/1/09, the Core+5 program was restructured.
- The U.S. Gov’t sector benchmark Index was changed from the Citigroup Core+5 Treasury/Gov’t Sponsored Index to the Citigroup Core+5 Treasury/Agency Index.
- The Corporate and Yankee sectors were combined to form the new Investment Grade Credit sector. The benchmark for the new combined sector is the customized Citigroup Credit Index. For historical performance purposes, the old Corporate sector Index is linked to the new Credit sector Index.
- There were no changes to the Mortgage sector Index.

### 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 10 & 11 - Portfolio Asset Allocation

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

#### Pages 12 - 14 - 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.*

Through June 30, 2016



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

*U.S. Equity: Russell 3000 \* 34.92%*

*International Developed (EAFE) Markets: MSCI EAFE \* 10.02%*

*Emerging Markets: MSCI Emerging Markets \* 6.00%*

*REITs: Dow Jones Real Estate Securities \* 0.55%*

*Private Equity: Russell 3000 + 300 b.p. per annum \* 6.88%*

*Private Real Estate: NFI - ODCE Net+100BPS \* 4.62%*

*Infrastructure: CPI + 4% \* 0.34%*

*Hedge Funds: 1yr T- Bill yield + 4% \* 3.58%*

*Domestic Fixed Income: NYC Core +5 \* 19.69%*

*TIPS: Lehman U.S. TIPS \* 4.52%*

*Enhanced Yield: Citigroup BB&B \* 3.39%*

*Bank Loans: Credit Suisse Leveraged Loan \* 1.73%*

*Convertible Bonds: BofA ML All Convertibles Ex Mandatory \* 1.00%*

*Opportunistic Fixed: 10% Annualized Return \* 2.75%*

### **Page 15 – 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.