



New York City Police Pension Fund, Subchapter Two Performance Overview as of March 31, 2018

# **Total Fund Overview**



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

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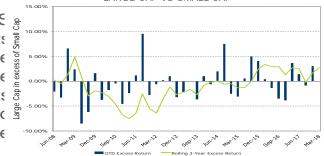
Through March 31, 2018





## 1Q18 Capital Markets Commentary

- **US Equity** Equity markets in the United States initially started 2018 with a bang as optimism about the economy boosted capital markets. However, investors witnessed the return of a number of long-absent market forces during the rest of the quarter which caused most US indices to finish the quarter at a loss. Volatility was chief among them, resurfacing in February after a long sabbatical as fears emerged about the pace of US Federal Reserve (Fed) policy tightening. Such fears were based largely on rising inflation. Another concern is the pace of global growth which might be impacted by the politics of global trade. One positive spot for the market continues to be the technology sector which returned 4.3% over the past quarter as large cap stocks maintained their market leadership. As seen in the chart below, large caps have significantly outperformed small caps over the past year.
- International Equity Equity markets outside of the US produced mixed results during the quarter with emerging markets up but developed markets down. Emerging markets, more typically the loser from rising global risk and volatility, was the strongest-performing segment. Headlines for developed markets were dominated with global trade conflicts. However, it is yet to be seen if the future holds a series of escalating tariffs or trade deals like the one announced between the US and South Korea.



• With the economy in a healthy state, investors honed in on expectations for inflationary pressures and grew concerned over the potential for a faster pace of interest rate hikes from the Fed. In a widely anticipated move, the Fed raised its benchmark rate at its March meeting by 0.25%, citing a strengthening economy and low unemployment as drivers that should eventually contribute to higher inflation. More Fed officials also indicated that a total of four hikes could be warranted in 2018.

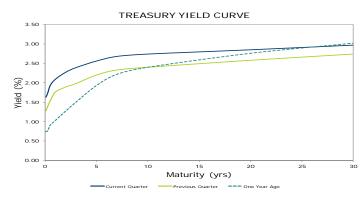
Through March 31, 2018

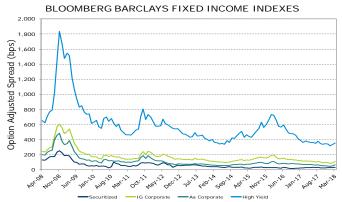




## 1Q18 Capital Markets Commentary

- **Fixed Income** The US investment-grade fixed income market, as represented by the Bloomberg Barclays U.S. Aggregate Bond Index, produced negative total returns in the quarter. US Treasury yields rose across the curve, which broadly weighed on fixed income sector returns. Rising inflation expectations, easing of fiscal stimulus, and a less-supportive technical backdrop contributed to sharply higher Treasury yields. A surprise increase in average hourly earnings and inflation data caused the yield to reach nearly 3%, which was the highest level since early 2014.
- Opportunistic Fixed Income With worries about inflation, rising rates, and higher levels of volatility weighing on the market, corporate spreads widened and yields rose this quarter. Even though the average yield on corporate bonds is close to its highest levels since December 2011 there was significant issuance. Investors withdraw funds at an accelerating rate from non-investment grade issues, perhaps signaling investor's concerns about their fundamentals. High Yield Bonds, Convertible Bonds, and Bank Loans returns were mixed, and were -1.0%, 2.8%, and 1.6%, respectively.





Through March 31, 2018





## 1Q18 Capital Markets Commentary

- Real Estate Global real estate stocks opened the year lower as U.S. REITs displayed a high sensitivity to interest rates. Mergers in the retail sector and continued weakness in retail landlords were also a key factor in REIT returns. The adverse effects of e-commerce on traditional retail channels are increasingly being felt by mall tenants, forcing property owners to spend large sums to revitalize the properties to entice tenants.
- Infrastructure Global infrastructure stocks declined and underperformed the broader equity market, hindered by weakness in the utilities and midstream energy components. Even the more cyclical sectors within infrastructure had mostly negative returns, despite synchronized global economic growth. Purchasing Manager Indexes (PMIs) released worldwide overwhelmingly pointed to economic expansion, although Europe saw some softening in these leading indicators.
- **Private Equity** In 2017 secondary buyouts were the primary exit route for PE-backed companies, but that trend was short-lived. This quarter secondary buyouts slightly trail corporate acquisitions as corporations have record level of cash on-hand. However, the long-term trend towards more secondary buyouts remains intact. Current market dynamics should continue to encourage these deals, especially as valuations appear stretched and funds are having a hard time deploying capital. On the deal making front, 13% of US buyouts in early 2018 were secondary buyouts, down from the 15%-17% seen in recent years.
- Hedge Funds Hedge funds advanced by 0.4%, topping the returns of the US equity market and
  most European and Asian regional equity market indices. The fixed-income based relative value
  arbitrage sector led all hedge fund sectors for the quarter with a 0.8% return. One area that
  suffered steep declines is the volatile Blockchain sector. Global cryptocurrencies fell sharply after
  their record setting rise over the past couple of years. The HFR Blockchain index declined 52.6%
  for the quarter, but follows a 2,774% gain in 2017.

Through March 31, 2018





## 1Q18 Performance Commentary

- Total Plan Over the first quarter of 2018 (1Q18), the Total Fund returned 0.2%, outperforming the policy benchmark return of -0.2% on a net-of-fee basis. In the trailing 12 months, Total Fund returned 11.6%, outperforming the policy benchmark return of 11.0%. According to the Wilshire TUCS Universe of public plans over \$5 billion, the median return over the same period was 10.5%, placing the Total Fund above the median public plan.
  - Over the trailing three-, five- and ten-year periods, the Total Fund returned 7.6%, 8.9%, and 7.0%, respectively, closely matching the policy benchmark returns of 7.4%, 8.7%, and 7.2%, respectively.
- Total Domestic Equity Composite The Total Fund has \$12.3 billion, or 31.3% invested in domestic equity. The composite remains predominately passively invested with approximately 80% of the composite invested passively across market cap segments. Currently, active management is utilized in small-cap and mid-cap stocks, and 0.5% invested in Emerging Managers Fund of Funds mandates.
  - For 1Q18, the Domestic Equity Composite returned -0.6% equaling the Russell 3000 index. The Small-Cap Active and Large-Cap Active components underperformed the Russell 2000 and Russell 1000 indexes respectively, while the Mid-Cap Active outperformed the Russell Mid-Cap Index. The Fundamental Large-Cap segment also underperformed versus its benchmark as its value biases went unrewarded.
  - Brown Capital continues to produce strong returns and is the best performing active manager over the past three years. During this time-frame it has a produced a return of 16.5% versus its index return of 8.8%. Brown invests in companies with operating revenue of \$250 million or less at the time of purchase, and identifies these firms with its fundamental bottom-up research.

Through March 31, 2018





## 1Q18 Performance Commentary

- Total World ex-USA Composite (changed from International Equity in March 2018) The Total Fund has \$6.5 billion, or 16.7% invested in international equities. The composite allocation is 26.5% in passive versus 73.5% in active. When broken down by strategy, the allocations are: 48.0% in Developed Large-Cap, 8.7% in Developed Small-Cap, 40.7% in Emerging Markets, 0.1% in Active Environmental, and 2.5% in Emerging Managers Fund of Funds.
  - For 1Q18, the Total International Equity Composite outperformed the MSCI ACWI Ex-US (Net) Index. The Composite returned 0.5% versus the index return of -1.1% as the composite's overweight in emerging markets was rewarded. The Active Growth Segment outperformed its benchmark, and the Active Value Segment underperformed its benchmark.
- Total Fixed Income Composite The Total Fund has \$13.9 billion, or 35.4% invested in fixed income securities. The structure of the composite is: 48.3% in Structured Fixed Income (the allocation of the Structured Fixed Income is: 25.8% in Investment Grade Credit, 17.8% in Mortgages, 36.1% in Government Bonds, and 20.3% in Long Duration Treasuries), 8.2% in Opportunistic Fixed Income (OFI), 12.4% in TIPS, 12.9% in Enhanced Yield, 4.6% in Bank Loans, 5.3% in Convertible Bonds, 0.5% in Fund of Funds, 0.6% in Core Plus Fixed Income, 2.9% in Targeted Investments, and 4.4% in Short-Term Cash.
  - For 1Q18, the Total Fixed Income Composite returned -1.0%. The Bank Loans, Convertible Bonds, and OFI segments were able to produce absolute positive returns. Enhanced yield declined inline with the market. Relative to their respective benchmarks, OFI outperformed while Bank Loans and Convertible Bonds underperformed.

Through March 31, 2018



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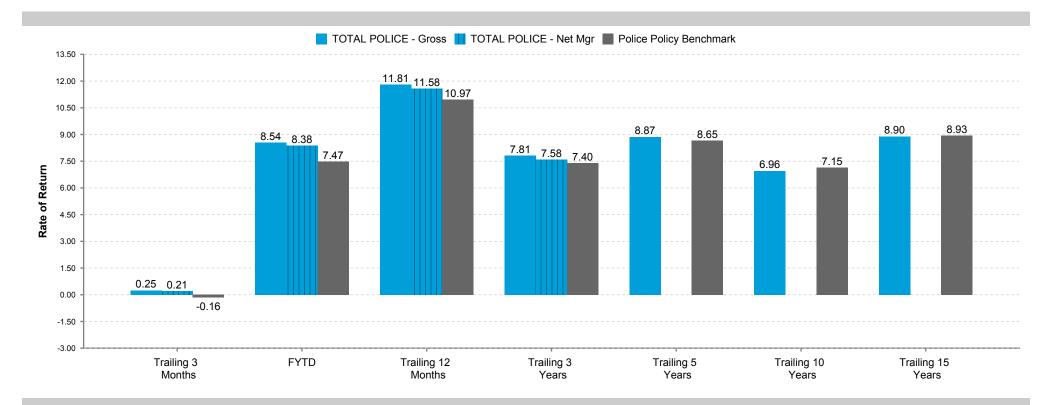
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#### Market Value (Billions)

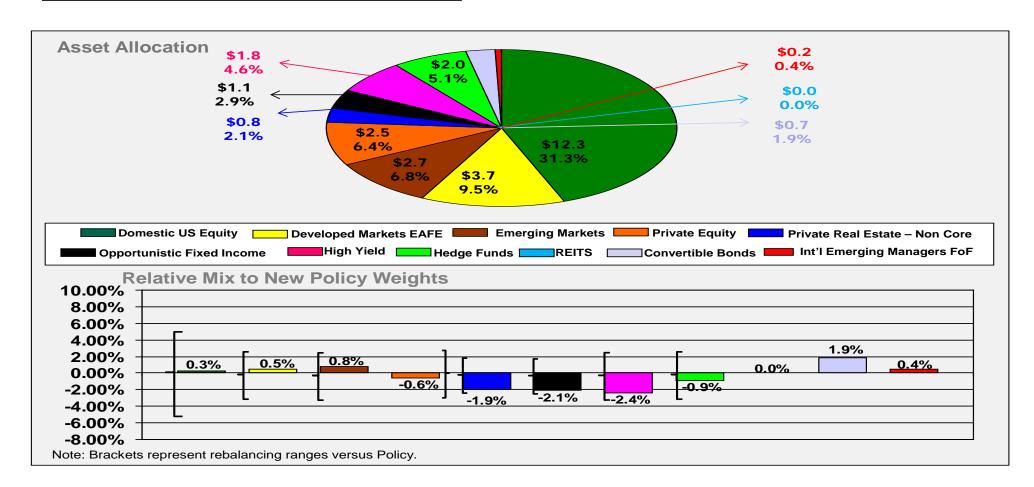
TOTAL POLICE \$39.2



	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 10 Years	Benchmark 10 Years
<b>Standard Deviation</b>						
TOTAL POLICE	5.9	5.8	8.9	5.6	9.9	10.8

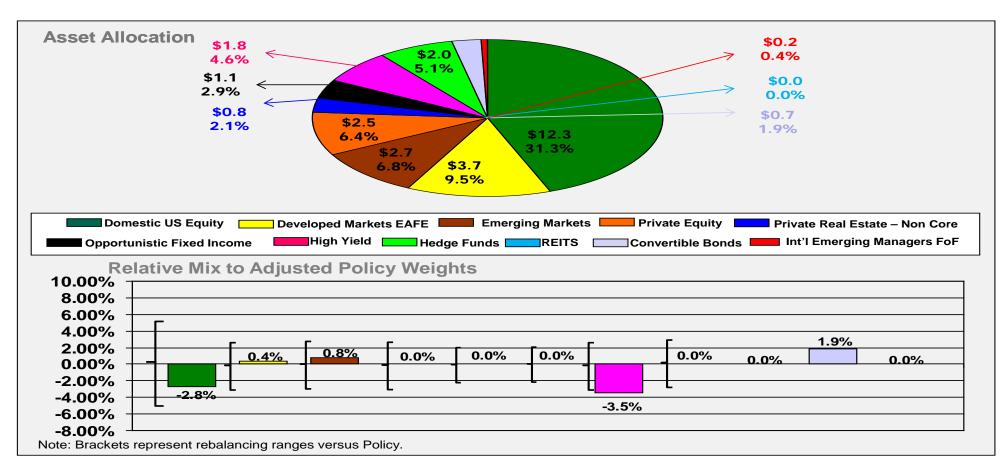


#### **Portfolio Asset Allocation – Growth**





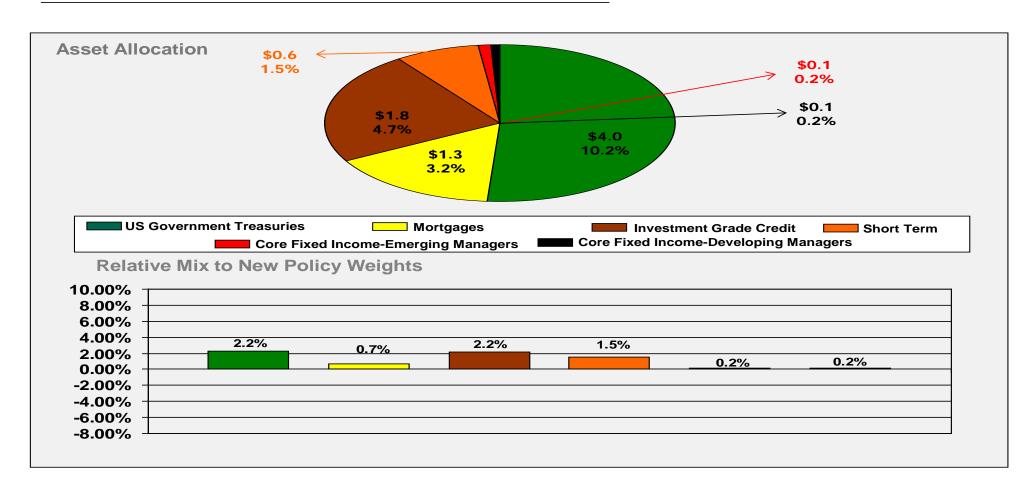
#### **Portfolio Asset Allocation – Growth**



Note: On March 29, 2018 Police's combined Fixed Income and Cash portfolios have a duration of 6.9 years. The duration of the Barclays US Aggregate Index was 6.1 years on that date.

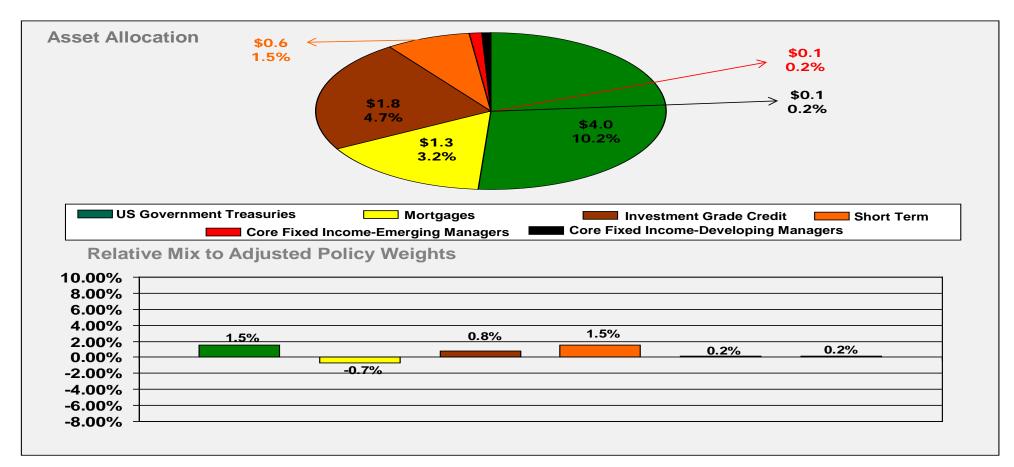


#### **Portfolio Asset Allocation – Deflation Protection**





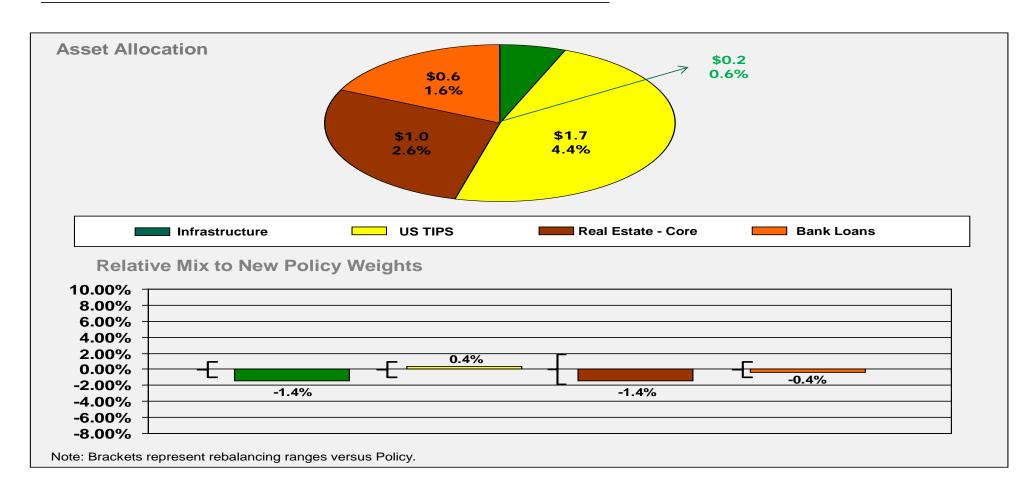
#### **Portfolio Asset Allocation – Deflation Protection**



Note: On March 29, 2018 Police's combined Fixed Income and Cash portfolios have a duration of 6.9 years. The duration of the Barclays US Aggregate Index was 6.1 years on that date.

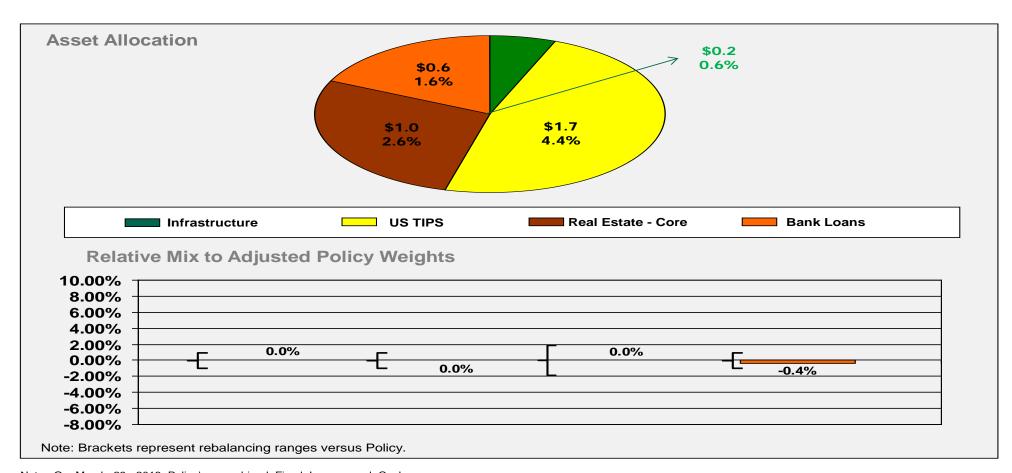


## Portfolio Asset Allocation – Inflation Protection



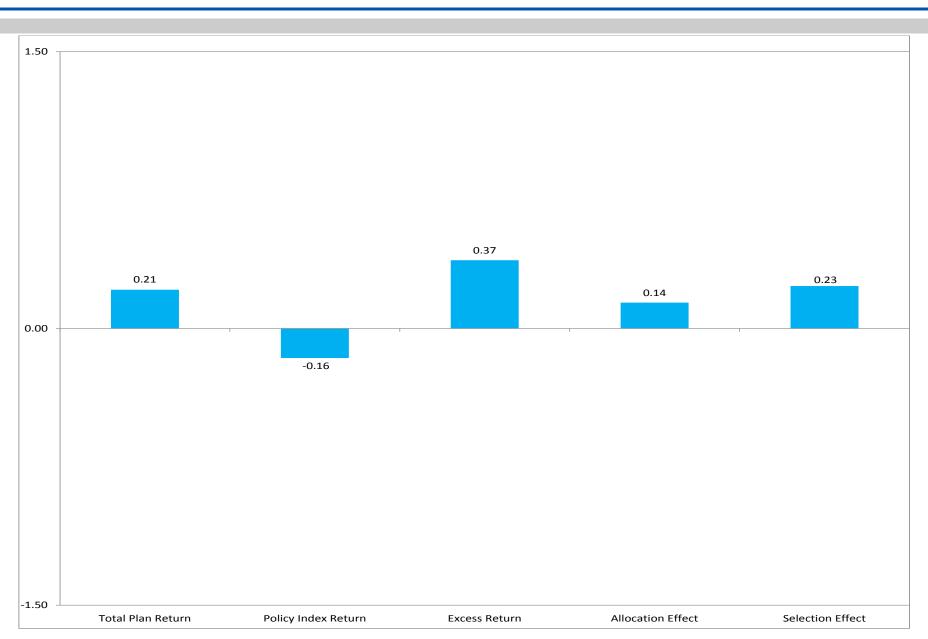


#### **Portfolio Asset Allocation – Inflation Protection**

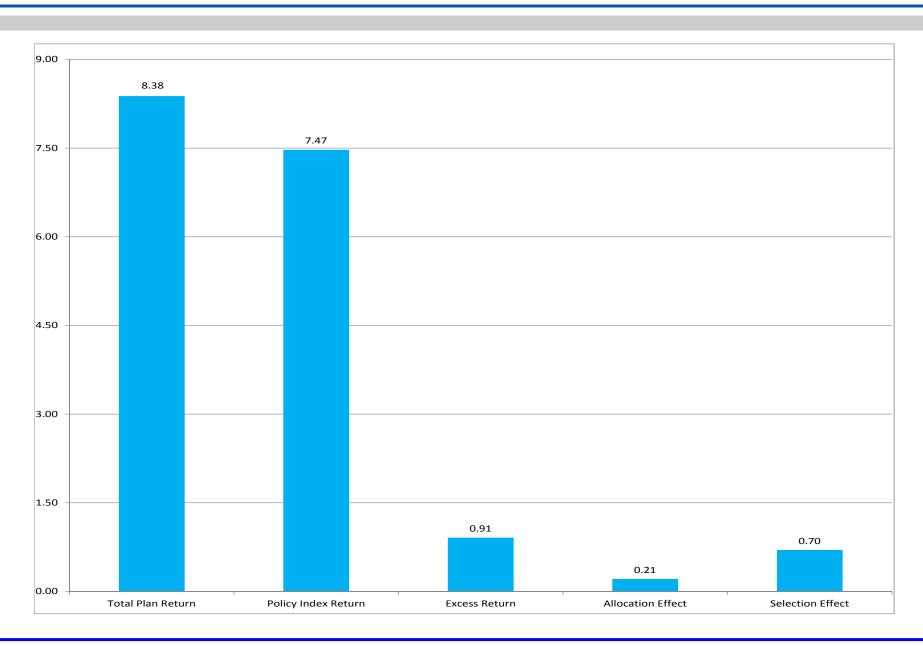


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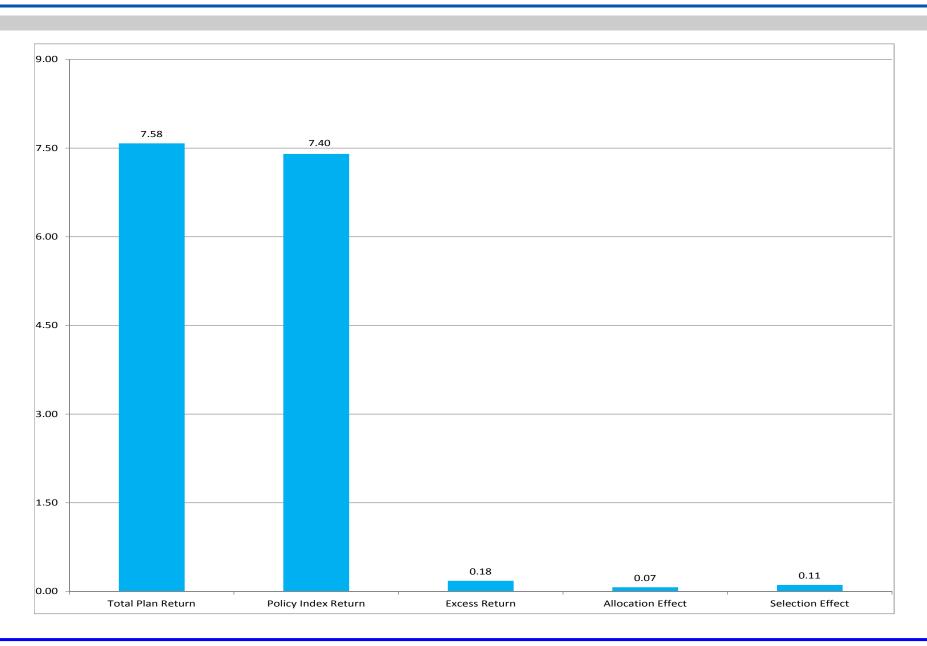












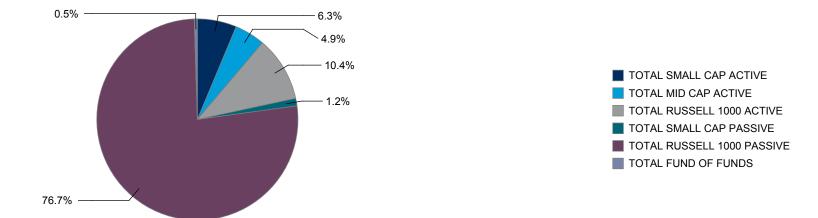


Allocation Effect - Asset Class Breakdown					
	Quarter	FYTD	3 Years	<u>Benchmark</u>	
OTAL POLICE	0.13	0.21	0.07	Police Policy Benchmark	
TOTAL DOMESTIC EQUITY	0.01	0.04	0.03	RUSSELL 3000	
TOTAL DEVELOPED EQUITY	-0.01	-0.01	0.00	MSCI World Ex USA IMI Net	
TOTAL EMERGING MARKETS	0.00	0.05	0.01	MSCI Emerging Markets	
TOTAL INTERNATIONAL FOF	0.00	0.00	0.00	MSCI ACWI Ex US IMI Net	
TOTAL HEDGE FUNDS	0.00	0.00	0.00	HFRI Fund of Funds Composite Index plus 1%	
TOTAL REAL ESTATE SECURITIES	0.00	-0.01	-0.01	Dow Jones US Select Securities Index	
TOTAL PRIVATE EQUITY	0.00	0.00	-0.01	Russell 3K + 300bps	
TOTAL PRIVATE REAL ESTATE - CORE	0.00	0.00	-0.01	NCREIF ODCE net	
TOTAL PRIVATE REAL ESTATE - NON CORE	0.00	0.00	0.01	NCREIF ODCE net + 200bps	
TOTAL INFRASTRUCTURE	0.00	0.00	0.00	CPI + 4%	
TOTAL US TREASURY SHORT TERM	0.03	-0.02	-0.07	Citigroup USBIG Treasury 1-3 Y Index	
TOTAL US TREASURY INTERMEDIATE	0.00	-0.03	-0.02	Citigroup USBIG Treasury/Agency 1-10 y	
TOTAL ACTIVE GOVERNMENT	-0.09	-0.37	-0.18	NYC - Treasury Agency Plus Five	
TOTAL US TREASURY LONG DURATION	0.15	0.41	0.26	Citigroup Treasury 10+	
TOTAL INVESTMENT GRADE CREDIT	-0.02	-0.07	-0.06	NYC - Investment Grade Credit	
TOTAL MORTGAGES	0.00	0.04	0.03	CITIGROUP MORTGAGE INDEX	
TOTAL ETI	0.00	0.00	0.00	ETI Custom Benchmark	
TOTAL CORE FI- DEVELOPING MGRS	0.00	-0.02	-0.01	BBG BARC Agg	
TOTAL CORE FI- EMERGING MGRS	0.00	-0.02	-0.01	BBG BARC Agg	
TOTAL HIGH YIELD	0.03	0.21	0.11	CITIGROUP BB&B	
TOTAL BANK LOANS	-0.01	0.01	0.01	Credit Suisse Lev Loan Index	
TOTAL TIPS MANAGERS	0.00	0.01	0.00	BBG BARC Gbl Inf-Lk: US TIPS (Dly)	
TOTAL CONVERTIBLE BONDS	0.05	0.03	0.01	Merrill All US Converts	
TOTAL OPPORTUNISTIC FIXED	0.00	0.00	0.00	OFI - JPMGHY / CSFB 50/50 Blend Plus 300	
TOTAL CASH	0.00	-0.04	-0.04		

Selection Effect - Asset Class Breakdown					
	Quarter	FYTD	3 Years	Benchmark	
TOTAL POLICE	0.23	0.70	0.11	Police Policy Benchmark	
TOTAL DOMESTIC EQUITY	0.00	0.01	-0.18	RUSSELL 3000	
TOTAL DEVELOPED EQUITY	0.13	0.37	0.30	MSCI World Ex USA IMI Net	
TOTAL EMERGING MARKETS	0.01	0.01	0.04	MSCI Emerging Markets	
TOTAL INTERNATIONAL FOF	0.01	0.01	0.00	MSCI ACWI Ex US IMI Net	
TOTAL HEDGE FUNDS	0.13	0.15	-0.07	HFRI Fund of Funds Composite Index plus 1%	
TOTAL REAL ESTATE SECURITIES	0.00	0.01	-0.01	Dow Jones US Select Securities Index	
TOTAL PRIVATE EQUITY	-0.11	-0.04	0.01	Russell 3K + 300bps	
TOTAL PRIVATE REAL ESTATE - CORE	0.01	0.02	0.01	NCREIF ODCE net	
TOTAL PRIVATE REAL ESTATE - NON CORE	0.05	0.13	0.05	NCREIF ODCE net + 200bps	
TOTAL INFRASTRUCTURE	0.02	0.04	0.03	CPI + 4%	
TOTAL US TREASURY SHORT TERM	0.00	0.02	0.01	Citigroup USBIG Treasury 1-3 Y Index	
TOTAL US TREASURY INTERMEDIATE	0.00	0.02	0.01	Citigroup USBIG Treasury/Agency 1-10 y	
TOTAL ACTIVE GOVERNMENT	0.00	0.00	0.00	NYC - Treasury Agency Plus Five	
TOTAL US TREASURY LONG DURATION	0.00	0.00	0.00	Citigroup Treasury 10+	
TOTAL INVESTMENT GRADE CREDIT	-0.01	0.01	0.01	NYC - Investment Grade Credit	
TOTAL MORTGAGES	0.00	0.00	0.00	CITIGROUP MORTGAGE INDEX	
TOTAL ETI	0.00	-0.01	0.00	ETI Custom Benchmark	
TOTAL CORE FI- DEVELOPING MGRS	0.00	0.00	0.00	BBG BARC Agg	
TOTAL CORE FI- EMERGING MGRS	0.00	0.00	0.00	BBG BARC Agg	
TOTAL HIGH YIELD	-0.01	-0.03	-0.02	CITIGROUP BB&B	
TOTAL BANK LOANS	0.00	0.00	0.00	Credit Suisse Lev Loan Index	
TOTAL TIPS MANAGERS	0.00	0.00	0.00	BBG BARC Gbl Inf-Lk: US TIPS (Dly)	
TOTAL CONVERTIBLE BONDS	-0.02	-0.02	-0.01	Merrill All US Converts	
TOTAL OPPORTUNISTIC FIXED	0.03	-0.01	-0.13	OFI - JPMGHY / CSFB 50/50 Blend Plus 300	
TOTAL CASH	0.00	0.00	0.01		



	Market Value (Billions)	<u>% of plan</u>
TOTAL DOMESTIC EQUITY	\$12.3	31.3



					Quarterly Returns	
	Policy Weight	Actual Weight	Under/Over Weight	Fund	Benchmark	Excess
TOTAL ACTIVE SMALL CAP	5.7	6.3	0.6	(0.6)	(0.1)	(0.5)
TOTAL ACTIVE MID CAP	5.0	4.9	(0.1)	0.9	(0.5)	1.3
TOTAL RUSSELL 1000 ACTIVE	18.0	10.4	(7.6)	(1.5)	(0.7)	(0.8)
TOTAL SMALL CAP PASSIVE	1.4	1.2	(0.2)	2.1	(0.1)	2.2
TOTAL RUSSELL 1000 PASSIVE	56.6	76.6	20.0			
TOTAL RUSSELL TOP 200 PASSIVE	12.7	0.0	(12.7)			
TOTAL EMERGING MANAGERS	0.6	0.5	(0.1)	(0.9)	(0.1)	(0.8)



	Market Value (Billions)	% of plan
TOTAL WORLD ex-USA	\$3.7	9.5

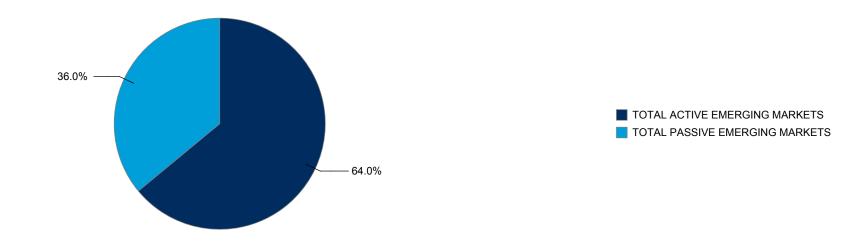




		Quarterly Returns		
	Asset Weight	Fund	Benchmark	Excess
TOTAL WORLD ex-USA LARGE & MID ACTIVE	66.86	(0.27)	(2.04)	1.77
TOTAL WORLD ex-USA SMALL CAP ACTIVE	11.95	1.23	(0.30)	1.53
TOTAL WORLD ex-USA LARGE & MID CAP PASSIVE	17.67	(2.13)	(2.04)	(0.09)
TOTAL WORLD ex-USA SMALL CAP PASSIVE	3.28	(0.74)	(0.50)	(0.24)
TOTAL WORLD ex-USA	100.00	(0.45)	(1.81)	1.36



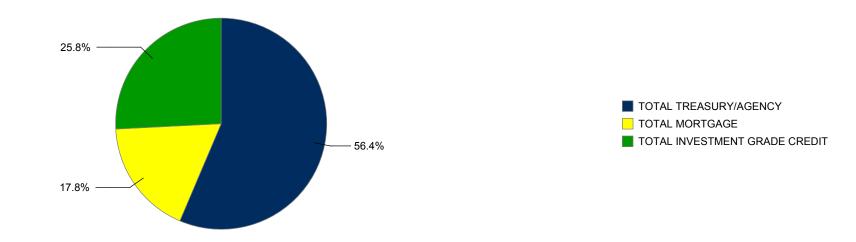
	Market value (Billions)	% or plan
TOTAL EMERGING MARKETS	\$2.7	6.8



	Asset Weight	<u>Fund</u>	Benchmark	Excess
TOTAL ACTIVE EMERGING MARKETS	64.05	1.52	1.42	0.10
TOTAL PASSIVE EMERGING MARKETS	35.95	1.48	1.42	0.07
TOTAL EMERGING MARKETS	100.00	1.51	1.42	0.09



	Market Value (Billions)	% of plan
TOTAL STRUCTURED + ETI	\$7.1	18.1



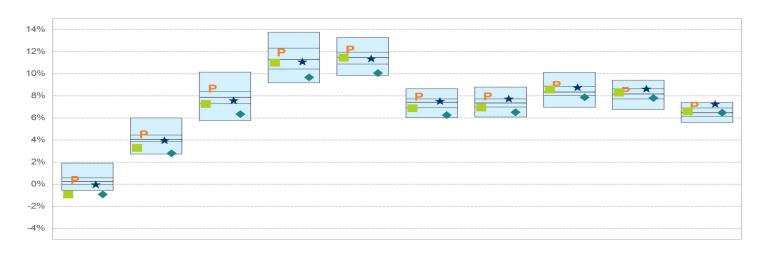
					Quarterly Returns		
	Policy Weight	Actual Weight	Under/Over Weight	Fund	Benchmark	Excess	
TOTAL TREASURY/AGENCY	61.54	56.41	(5.13)	(2.87)	(3.32)	0.45	
TOTAL MORTGAGE	19.23	17.82	(1.41)	(1.32)	(1.23)	(0.09)	
TOTAL INVESTMENT GRADE CREDIT	19.23	25.77	6.54	(2.23)	(2.06)	(0.17)	





## City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion Cumulative Periods Ending : March 31, 2018



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	1.90	6.01	10.16	13.77	13.29	8.65	8.80	10.14	9.43	7.39
25th	0.58	4.46	8.39	12.33	11.96	7.72	7.73	8.87	8.65	6.90
50th	0.25	4.07	7.88	11.29	11.47	7.42	7.35	8.35	8.17	6.48
75th	-0.02	3.86	7.30	10.44	10.89	6.92	6.99	8.05	7.73	6.16
95th	-0.57	2.72	5.77	9.19	9.85	6.02	6.09	6.96	6.76	5.59
No. Of Obs	38	38	38	38	38	38	38	38	38	35
Total System - Police	0.25 (50)	4.39 (27)	8.54 (22)	11.81 (36)	12.07 (15)	7.81 (20)	7.84 (22)	8.87 (25)	8.33 (41)	6.96 (16)
Police Policy Benchmar	-0.15 (88)	3.85 (75)	7.47 (69)	10.97 (61)	11.25 (58)	7.39 (52)	7.61 (33)	8.65 (33)	8.53 (25)	7.15 (5)
Public Mkt Equiv 25	-1.05 (96)	3.15 (93)	7.15 (80)	10.89 (63)	11.33 (58)	6.76 (85)	6.81 (83)	8.46 (47)	8.17 (50)	6.48 (50)
Public Mkt Equiv 35	-1.06 (96)	2.67 (96)	6.21 (93)	9.55 (88)	9.95 (93)	6.14 (93)	6.39 (88)	7.74 (80)	7.67 (77)	6.34 (59)

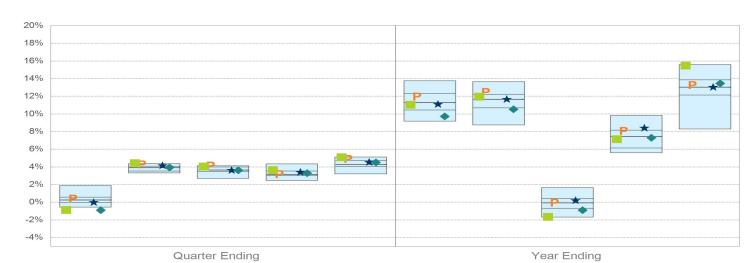
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#### City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion Consecutive Time Periods: March 31, 2018



Percentile Rankings	Mar 18	Dec 17	Sep 17	Jun 17	Mar 17	Mar 18	Mar 17	Mar 16	Mar 15	Mar 14
5th	1.90	4.36	4.13	4.35	5.13	13.77	13.66	1.65	9.84	15.59
25th	0.58	4.06	3.98	3.53	4.71	12.33	12.22	0.40	8.15	13.87
50th	0.25	3.90	3.65	3.16	4.28	11.29	11.67	-0.08	7.43	13.02
75th	-0.02	3.52	3.48	3.01	4.04	10.44	10.69	-0.69	6.13	12.14
95th	-0.57	3.31	2.70	2.46	3.21	9.19	8.74	-1.68	5.59	8.29
No. Of Obs	38	38	38	38	38	38	38	38	38	38
Total System - Police	0.25 (50)	4.13 (15)	3.98 (25)	3.01 (75)	4.73 (22)	11.81 (36)	12.33 (20)	-0.22 (55)	7.91 (36)	13.10 (44)
Police Policy Benchmar	-0.15 (88)	4.01 (38)	3.49 (72)	3.26 (41)	4.40 (41)	10.97 (61)	11.53 (50)	0.07 (41)	8.26 (20)	12.90 (52)
Public Mkt Equiv 25	-1.05 (96)	4.25 (8)	3.87 (33)	3.49 (25)	4.92 (13)	10.89 (63)	11.78 (44)	-1.83 (99)	6.98 (61)	15.32 (10)
Public Mkt Equiv 35	-1.06 (96)	3.77 (50)	3.45 (75)	3.14 (50)	4.34 (44)	9.55 (88)	10.36 (80)	-1.08 (80)	7.14 (58)	13.29 (36)

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#### ACTUAL FEES FOR FISCAL YEAR ENDED JUNE 30, 2017 AND ESTIMATED FEES FOR FY 2018 UPDATED THROUGH DECEMBER 2017

				Actual					Estimates	
				2017					2018	
	Avg. MV FY 2017 (\$MM)	Mgmt. Fees w/ Partnership Expenses (\$M)	Mgmt. Fees w/ Partnership Expenses in BPS	Incentive Fees in (\$M)	Incentive Fees in BPS	Total Fees in (\$M)	Total Fees in BPS	Avg. MV FYTD 12-31-17 (\$MM)	Mgmt. Fees w/ Partnership Expenses (\$M)	Mgmt. Fees w/ Partnership Expenses in BPS
INVESTMENT STYLE (EQUITIES)										
Total US Equities	13,093.28	9,387.87	7.17	138.53	-	9,526.40	7.28	13,748.77	8,891.93	6.47
Small Cap Active										
	672.19	3,625.47	53.94	-	-	3,625.47	53.94	748.73	3,999.91	53.42
Small Cap Growth	141.01	1,414.33	100.30	=	=	1,414.33	100.30	168.70	1,654.95	98.10
Small Cap Value	264.20	1,472.87	55.75	-	-	1,472.87	55.75	283.96	1,527.93	53.81
Small Cap Core	135.08	472.72	35.00	-	-	472.72	35.00	150.79	516.15	34.23
Small Cap Fundamental Index	131.91	265.56	20.13	-	-	265.56	20.13	145.27	300.88	20.71
Mid Cap Active										
	530.52	2,464.49	46.45	138.53	-	2,603.02	49.07	570.38	2,390.17	41.90
Mid Cap Growth	-	-	-	-	-	-	-	-	-	-
Mid Cap Value	288.62	1,624.90	56.30	-	=	1,624.90	56.30	288.00	1,565.86	54.37
Mid Cap Core	241.90	839.58	34.71	138.53	5.73	978.11	40.43	282.38	824.31	29.19
Russell 1000 Fundamental	1,247.59	1,496.53	12.00	-	-	1,496.53	12.00	1,385.59	1,613.27	11.64
Active Emerging Managers (U.S. Equities)	218.89	1,274.31	58.22	-	-	1,274.31	58.22	64.62	315.54	48.83
U.S. Environmental Managers	-	=	=	-	=	=	=	=	=	=
Total US Active Equities	2,669.19	8,860.80	33.20	138.53	0.52	8,999.33	33.72	2,769.33	8,318.88	30.04
0 110 5 :										
Small Cap Passive										
Small Cap Passive	286.89	12.32	0.43	-	-	12.32	0.43	224.08	10.20	0.46
Mid Cap Passive										
Mid Cap Passive	131.19	8.34	0.64	_	_	8.34	0.64	0.08	=	_
Russell 1000 Passive										
Russell 1000 Passive Russell 1000 Growth Passive	2 207 22	440.00	0.40		_			3,377.36	148.24	
Russell 1000 Value Passive	3,007.80	119.23		-	-	119.23	0.40			0.44
Russell 1000 Value Fassive	3,093.07	122.78	0.40	-	=	122.78	0.40	3,245.39	141.76	0.44
Deserve Dures II 2000										
Passive Russell 3000	3,905.14	264.41	0.68	-	-	264.41	0.68	4,132.53	272.86	0.66
<b>Total US Passive Equities</b>	10,424.10	527.07	0.51	-	-	527.07	0.51	10,979.44	573.06	0.52



#### ACTUAL FEES FOR FISCAL YEAR ENDED JUNE 30, 2017 AND ESTIMATED FEES FOR FY 2018 UPDATED THROUGH DECEMBER 2017

				Actual					Estimates	
				2017					2018	
	Avg. MV FY 2017 (\$MM)	Mgmt. Fees w/ Partnership Expenses (\$M)	Mgmt. Fees w/ Partnership Expenses in BPS	Incentive Fees in (\$M)	Incentive Fees in BPS	Total Fees in (\$M)	Total Fees in BPS	Avg. MV FYTD 12-31-17 (\$MM)	Mgmt. Fees w/ Partnership Expenses (\$M)	Mgmt. Fees w/ Partnership Expenses in BPS
Total International Equities	5,940.53	15,678.68	26.39	2,276.87	3.83	17,955.55	30.23	6,484.54	17,555.75	27.07
Active EAFE Equities										
Active EALE Equities	2,739.47	8,379.32	30.59	-	-	8,379.32	30.59	2,857.95	8,828.39	30.89
Developed Growth	1,150.11	3,130.62	27.22	-	-	3,130.62	27.22	1,232.16	3,419.69	27.75
Developed Value	1,078.27	2,836.71	26.31	-	-	2,836.71	26.31	1,192.11	3,304.92	27.72
Developed Small Cap	510.75	2,411.99	47.22	-	-	2,411.99	47.22	433.45	2,103.79	48.54
Developed Core	0.32	-	-	-	-			0.23	-	-
Total Progress Intl.	0.01	-	-					-	-	-
NON-U.S. Environmental Managers	142.31	771.07	54.18	2,276.87	160.00	3,047.94	214.18	109.91	368.68	33.54
Active Emerging Markets	1,300.09	5,772.82	44.40	-	-	5,772.82	44.40	1,599.12	7,004.82	43.80
Total Active Int'l Fund of Funds	144.48	140.83	9.75	-	-	140.83	9.75	151.29	742.89	49.10
Total Active International Equities	4,326.34	15,064.03	34.82	2,276.87	160.00	17,340.91	40.08	4,718.26	16,944.77	35.91
Int'l Passive Equities										
Developed Passive	655.25	121.44	1.85	-	-	121.44	1.85	762.99	89.87	1.18
Passive Global	=	-	-	-	-	-	-	-	-	-
Passive Emerging Markets	958.94	493.20	5.14	-	-	493.20	5.14	1,003.29	521.11	5.19
Total Int'l Passive Equities	1,614.18	614.64	3.81	-	-	614.64	3.81	1,766.28	610.98	3.46
REITS Active Equities	181.95	186.07	10.23	-	-	186.07	10.23	92.31	112.63	12.20



#### ACTUAL FEES FOR FISCAL YEAR ENDED JUNE 30, 2017 AND ESTIMATED FEES FOR FY 2018 UPDATED THROUGH DECEMBER 2017

			Estimates							
INVESTMENT STYLE (FIXED INCOME)	Avg. MV FY 2017 (\$MM)	Mgmt. Fees w/ Partnership Expenses (\$M)	Mgmt. Fees w/ Partnership Expenses in BPS	2017 Incentive Fees in (\$M)	Incentive Fees in BPS	Total Fees in (\$M)	Total Fees in BPS	Avg. MV FYTD 12-31-17 (\$MM)	2018 Mgmt. Fees w/ Partnership Expenses (\$M)	Mgmt. Fees w/ Partnership Expenses in BPS
Fixed Income Structured Program	10,798.02	12,668.97	11.73	84.19	0.08	12,753.15		11,609.74	14,590.09	12.57
-	6,068.22	3,455.60	5.69	84.19	0.14	3,539.79		6,038.50		5.46
Government Treas/Agency Sector	2,238.02	683.35	3.05	23.00	0.10	706.35		1,925.61	922.30	4.79
Long Duration Treasury Mortgage Sector	269.91	12.42	0.46	-	=	12.42		1,259.04		0.94
	1,235.50	720.76	5.83	61.19	0.50	781.95		938.81	429.77	4.58
Investment Grade Credit Sector	2,324.80	2,039.07	8.77	-	-	2,039.07	8.77	1,915.05	1,824.54	9.53
Global Fixed Income	72.55	144.28	19.89	-	-	144.28	19.89	74.04	147.01	19.85
Progress Fixed Emerging Managers	77.66	263.32	33.91	-	-	263.32	33.91	79.13	268.88	33.98
TIPS	1,510.04	264.46	1.75	-	-	264.46	1.75	1,646.06	286.16	1.74
Active TIPS Managers	377.62	208.85	5.53	-	-	208.85	5.53	411.53	225.56	5.48
Passive TIPS Managers	1,132.42	55.61	0.49	-	-	55.61	0.49	1,234.53	60.60	0.49
High Yield	1,557.05	5,053.58	32.46	-	-	5,053.58	32.46	1,810.53	5,889.80	32.53
Bank Loans	604.57	1,821.19	30.12	-	-	1,821.19	30.12	627.06	1,873.26	29.87
Convertible Bonds	233.63	916.02	39.21	-	-	916.02	39.21	630.11	2,078.81	32.99
ETI - Access - RBC	54.85	128.35	23.40	-	-	128.35	23.40	72.10	137.37	19.05
ETI - AFL-CIO HIT	156.05	622.17	39.87	=	-	622.17	39.87	158.09	613.35	38.80
Total Public Markets (Externally managed)	29,550.38	37,921.58	12.83	2,499.59	0.85	40,421.18	13.68	31,461.23	41,150.41	13.08
Other ETI Programs	156.87	-	-		-	-	-	160.84	-	-
In-House Short Term	306.53	-	-	-	-	-	-	313.28	-	-
Total Public Markets	30,013.78	37,921.58	12.63	2,499.59	0.83	40,421.18	13.47	31,935.35	41,150.41	12.89



#### ACTUAL FEES FOR FISCAL YEAR ENDED JUNE 30, 2017 AND ESTIMATED FEES FOR FY 2018 UPDATED THROUGH DECEMBER 2017

					Estimates 2018					
INVESTMENT STYLE (PRIVATE MARKETS)	Avg. MV FY 2017 (\$MM)	Mgmt. Fees w/ Partnership Expenses (\$M)	Mgmt. Fees w/ Partnership Expenses in BPS	2017 Incentive Fees in (\$M)	Incentive Fees in BPS	Total Fees in (\$M)	Total Fees in BPS	Avg. MV FYTD 12-31-17 (\$MM)	Mgmt. Fees w/ Partnership Expenses (\$M)	Mgmt. Fees w/ Partnership Expenses in BPS
Hedge Funds	1,992.16	20,493.41	102.87	16,223.84	81.44	36,717.25	184.31	2,047.33	27,349.42	133.59
Private Equity	2,343.63	45,189.29	192.82	34,201.19	145.93	79,390.48	338.75	2,415.10	45,347.19	187.77
Private Real Estate	1,668.44	23,777.79	142.52	24,151.74	144.76	47,929.53	287.27	1,778.36	19,533.29	109.84
Infrastructure	150.19	4,310.96	105.79	-	-	4,310.96	105.79	178.57	4,729.60	84.35
Opportunistic Fixed Income	992.73	10,716.70	107.95	3,824.91	38.53	14,541.61	146.48	1,094.53	9,573.14	87.46
Total Private Markets	7,147.14	104,488.15	146.20	78,401.68	109.70	182,889.82	255.89	7,513.90	106,532.63	141.78
Total Overall	37,160.91	142,409.73	38.32	80,901.27	21.77	223,311.00	60.09	39,449.25	147,683.03	37.44

The overall carried interest and incentive fees paid by POLICE in Fiscal Year 2017: 21.77 BPS

#### **General Footnotes:**

<sup>1)</sup> Private Markets data reflect: carried interest realized and/or Incentive fees as stated by its corresponding partnership. Management fees reported are inclusive of partnership expenses associated with the partnership for the stated fiscal year.

<sup>2)</sup> Infrastructure's expense data is based off the total committed amounts rather than current market value due to its early fund life juncture.

<sup>3)</sup> Estimated Fees for the Public Markets data does not take into account major rebalancing shifts and is calculated at a fixed NAV. Estimates fees for the Private Markets data is based solely off gross management fee data and is not inclusive of any offsets. Both estimates are considered to be equitably conservative and should be construed as such. Estimates for FY 2018 for Private Equity is provided by the consultant.



#### NYC POLICE DEPARTMENT PENSION FUND SECURITIES LENDING INCOME March 31, 2018

	U. S. FIXED INCOME	U. S. EQUITY	INTERNATIONAL EQUITY	TOTAL
1989	254,000	_	_	254,000
1990	288,000	_	_	288,000
1991	464,000	_	_	464,000
1992	996,000	138,000	126,000	1,260,000
1993	1,852,000	434,000	203,000	2,489,000
1994	1,846,000	815,000	317,000	2,978,000
1995	1,465,000	888,000	224,000	2,577,000
1996	1,465,000	1,051,000	379,000	2,895,000
1997	1,632,000	1,793,000	599,000	4,024,000
1998	2,770,000	2,517,000	1,006,000	6,293,000
1999	2,681,000	2,713,000	1,184,000	6,578,000
2000	2,697,000	2,899,000	1,520,000	7,116,000
2001	3,947,000	3,595,000	1,980,000	9,522,000
2002	2,646,000	3,401,000	1,725,000	7,772,000
2003	1,238,000	2,257,000	1,859,000	5,354,000
2004	1,515,000	2,306,000	2,097,000	5,918,000
2005	2,333,000	3,172,000	2,503,000	8,008,000
2006	2,104,000	5,043,000	2,243,000	9,390,000
2007	4,582,000	8,425,000	2,727,000	15,734,000
2008	13,856,000	16,383,000	3,872,000	34,111,000
2009	5,163,000	9,110,000	2,695,000	16,968,000
2010	2,405,000	5,813,000	1,979,000	10,197,000
2011	3,060,000	8,287,000	3,253,000	14,600,000
2012	4,213,000	10,047,000	2,545,000	16,805,000
2013	2,980,000	11,363,000	2,255,000	16,598,000
2014	3,478,000	6,803,000	5,786,000	16,067,000
2015	3,692,000	7,281,000	7,489,000	18,462,000
2016	4,070,000	11,406,000	6,506,000	21,982,000
2017	5,912,000	8,631,000	4,480,000	19,023,000
2018 (3 months)	1,925,307	1,212,128	911,541	4,048,976
Since Inception	87,529,307	137,783,128	62,463,541	287,775,976



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

# **Appendix A**

# Consolidated Performance Report

## Through March 31, 2018



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014	2013	3 Year	5 Year	10 Year	ITD	Inception Date
	SYSTEM RETURN SUMMARY															
5	POLICE-TOTAL PORTFOLIO - GROSS POLICE - ESTIMATED INVESTMENT FEES	39,188	100.00	0.25 (0.04)	8.54 (0.16)	0.25 (0.04)	16.80 (0.24)	9.09 (0.23)	0.47 (0.23)	7.60 (0.26)	16.66	7.81 (0.23)	8.87	6.96	8.70	07/01/1987
	EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL) EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH) EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS			(0.02) (0.02)	(0.08) (0.08)	(0.02) (0.02)	(0.10) (0.14)	(0.11) (0.12)	(0.13) (0.10)	(0.14) (0.12)		(0.11) (0.12)				
	POLICE-TOTAL PORTFOLIO - NET MGR			0.21	8.38	0.21	16.56	8.86	0.23	7.34		7.58				
	POLICE POLICY BENCHMARK			(0.16)	7.47	(0.16)	16.04	9.23	0.41	8.16	16.04	7.40	8.65	7.15		
	EXCESS RETURN			0.36	0.91	0.36	0.52	(0.37)	(0.18)	(0.81)	0.62	0.19	0.22	(0.18)		
	EQUITY RETURN DETAIL															
18	POLICE-TOTAL EQUITY (INCLUDES PE & RA) - GROSS ESTIMATED INVESTMENT FEES	25,306	64.58	0.82 (0.05)	12.05 (0.19)	0.82 (0.05)	22.30 (0.30)	10.57 (0.27)	0.67	8.27 (0.30)	24.57	10.16 (0.28)	11.46	7.65	8.31	04/01/2004
	EST MANAGEMENT FEES  EST MANAGEMENT FEES			(0.05)	(0.19)	(0.05)	(0.30)	(0.27)	(0.29)	(0.30)		(0.28)				
	EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS			(0.00)	(0.10)	(0.00)	(0.50)	(0.21)	(0.23)	(0.50)		(0.20)				
	POLICE-TOTAL EQUITY (INCL PE & RA) - NET MGR			0.77	11.86	0.77	22.00	10.30	0.38	7.96		9.88				
26	POLICE-TOTAL DOMESTIC EQUITY - GROSS	12,252	31.27	(0.62)	10.58	(0.62)	20.57	13.13	0.03	11.42	34.93	9.82	12.80	9.67	11.15	12/01/1984
	ESTIMATED INVESTMENT FEES			(0.02)	(0.05)	(0.02)	(0.08)	(0.10)	(0.12)	(0.13)		(0.10)				
	POLICE-TOTAL DOMESTIC EQUITY - NET MGR RUSSELL 3000 (DAILY)			(0.64) (0.64)	10.53 10.48	(0.64) (0.64)	20.49 21.13	13.03 12.74	(0.10) 0.48	11.29 12.56	33.55	9.72 10.22	13.03	9.62	11.23	
	EXCESS RETURN			0.01	0.05	0.01	(0.64)	0.29	(0.57)	(1.26)	1.38	(0.50)	(0.23)	0.04	(0.07)	<del></del>
36	POLICE-TOTAL SMALL CAP ACTIVE - GROSS	778	1.98	(0.45)	9.62	(0.45)	14.39	23.82	(2.65)	3.34	43.40	10.09	12.44	10.85	. ,	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.13)	(0.45)	(0.13)	(0.62)	(0.70)	(0.60)	(0.63)		(0.63)				
	POLICE-TOTAL SMALL CAP ACTIVE - NET MGR			(0.58)	9.17	(0.58)	13.76	23.12	(3.25)	2.71		9.46				
	RUSSELL 2000 (DAILY)			(0.08)	9.11	(80.0)	14.65	21.31	(4.41)	4.89	38.82	8.39	11.47	9.84	8.48	
	EXCESS RETURN			(0.50)	0.07	(0.50)	(88.0)	1.81	1.17	(2.18)	4.58	1.07	0.97	1.01	0.57	
46	POLICE-TOTAL SMALL CAP PASSIVE - GROSS	147	0.37	2.10	12.55	2.10	16.88	18.57	(3.56)	5.01		9.17			10.42	10/01/2013
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)		(0.00)				
	POLICE-TOTAL SMALL CAP PASSIVE - NET MGR			2.10	12.55	2.10	16.87	18.57	(3.57)	5.01		9.16				
	RUSSELL 2000 (DAILY)			(0.08)	9.11	(80.0)	14.65	21.31	(4.41)	4.89		8.39			9.67	
	EXCESS RETURN			2.18	3.44	2.18	2.22	(2.74)	0.85	0.11		0.78			0.75	
56	POLICE-TOTAL MID CAP ACTIVE - GROSS	598	1.53	0.96	11.19	0.96	24.83	10.82	(0.20)	10.58	38.07	9.87	13.49	10.69	9.22	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.10)	(0.35)	(0.10)	(0.49)	(0.57)	(0.50)	(0.55)		(0.51)				
	POLICE-TOTAL MID CAP ACTIVE - NET MGR			0.86	10.83	0.86	24.33	10.25	(0.70)	10.03		9.36				
	RUSSELL MIDCAP (DAILY)			(0.46)	9.25	(0.46)	18.52	13.80	(2.44)	13.22	34.76	8.01	12.09	10.21	9.86	
	EXCESS RETURN			1.32	1.59	1.32	5.82	(3.55)	1.74	(3.19)	3.31	1.35	1.40	0.48	(0.65)	





		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014	2013	3 Year	5 Year	10 Year	ITD	Inception Date
	EQUITY RETURN DETAIL															
78	POLICE-TOTAL RUSSELL 1000 ACTIVE - GROSS ESTIMATED INVESTMENT FEES POLICE-TOTAL RUSSELL 1000 ACTIVE - NET MGR RUSSELL 1000 (DAILY) EXCESS RETURN	1,274	3.25	(1.48) (0.03) (1.51) (0.69) (0.82)	10.46 (0.10) 10.37 10.59 (0.23)	(1.48) (0.03) (1.51) (0.69) (0.82)	17.41 (0.18) 17.23 21.69 (4.46)	14.77 (0.10) 14.66 12.05 2.61	(1.87) (0.15) (2.01) 0.92 (2.93)	10.98 (0.25) 10.73 13.24 (2.51)	33.11 8.31	8.87 (0.13) 8.73 10.39 (1.66)	12.94 13.17 (0.23)	9.49 9.61 <b>(0.11)</b>	8.61 8.70 (0.09)	04/01/2004
88	POLICE-TOTAL RUSSELL 1000 PASSIVE - GROSS ESTIMATED INVESTMENT FEES POLICE-TOTAL RUSSELL 1000 PASSIVE - NET MGR RUSSELL 1000 (DAILY) EXCESS RETURN	9,385	23.95													10/01/2013
98	POLICE-TOTAL RUSSELL 3000 - GROSS ESTIMATED INVESTMENT FEES POLICE-TOTAL RUSSELL 3000 - NET MGR RUSSELL 3000 (DAILY) EXCESS RETURN	5	0.01													12/01/1984
108	POLICE-TOTAL FUND OF FUNDS - GROSS ESTIMATED INVESTMENT FEES POLICE-TOTAL FUND OF FUNDS - NET MGR RUSSELL 2000 (DAILY) EXCESS RETURN	66	0.17	(0.80) (0.12) (0.92) (0.08) (0.84)	6.50 (0.39) 6.11 9.11 (3.00)	(0.80) (0.12) (0.92) (0.08) (0.84)									7.20 (0.53) 6.67 10.58 (3.91)	05/01/2017

## Through March 31, 2018



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014	2013	3 Year	5 Year	10 Year	ITD	Inception Date
	EQUITY RETURN DETAIL															
120	POLICE-TOTAL WORLD ex-USA - GROSS ESTIMATED INVESTMENT FEES EST MANAGEMENT FEES	3,712	9.47	(0.39) (0.06) (0.06)	12.63 (0.21) (0.21)	(0.39) (0.06) (0.06)	31.18 (0.36) (0.36)	4.17 (0.28) (0.28)	(0.56) (0.28) (0.28)	(4.25) (0.28) (0.28)	23.26	9.12 (0.30) (0.30)	8.69	3.86	6.76	04/01/2004
	EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS															
	POLICE-TOTAL WORLD ex-USA - NET MGR			(0.45)	12.42	(0.45)	30.82	3.88	(0.84)	(4.52)	00.54	8.82	7.00	0.40	0.40	
	WORLD EX USA CUSTOM BM EXCESS RETURN			(1.81) 1.36	8.67 3.75	(1.81) 1.36	26.40 4.42	1.15 2.73	(1.34)	(4.90) 0.38	(0.28)	6.32 2.50	7.03 1.66	3.18 0.69	6.12 0.64	<del></del>
	EXOLOG REPORT			1.50	0.70	1.00	7.72	2.70	(1.04)	0.00	(0.20)	2.50	1.00	0.00	0.04	
130	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID ACTIVE - GROSS	2,482	6.33	(0.20)	13.58	(0.20)	31.96	4.83	(3.67)	(4.50)		8.63				11/01/2013
	ESTIMATED INVESTMENT FEES			(0.07)	(0.23)	(0.07)	(0.35)	(0.30)	(0.27)	(0.27)		(0.30)			(0.29)	
	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID ACTIVE - NET MGR NYC CUSTOM WORLD EX-USA LG & MID ACT INDEX			(0.27) (2.04)	13.34 7.75	(0.27) (2.04)	31.61 25.18	4.54 1.00	(3.94) (0.81)	(4.77) (4.90)		8.33 5.41			5.89 4.12	
	EXCESS RETURN			1.77	5.59	1.77	6.42	3.54	(3.13)	0.14		2.91			1.78	
	EXOLOG NETONIX				0.00		02	0.0 .	(0)	• • • • • • • • • • • • • • • • • • • •						
140	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP ACTIVE - GROSS	443	1.13	1.35	15.77	1.35	35.53	3.16	10.89	(4.79)		14.25			11.82	05/01/2013
	ESTIMATED INVESTMENT FEES			(0.12)	(0.41)	(0.12)	(0.62)	(0.51)	(0.55)	(0.48)		(0.55)				
	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP ACTIVE - NET MGR			1.23	15.36	1.23	34.90	2.65	10.34	(5.26)		13.70			40.00	
	S&P EPAC SMALL CAP USD NET EXCESS RETURN			(0.30) 1.53	13.36 2.00	(0.30) 1.53	33.47	1.34 1.32	8.58 1.76	(3.43) (1.83)		11.55 2.15			10.36 <b>1.46</b>	
	EXCESSIVE FORM			1.55	2.00	1.55	1.44	1.32	1.70	(1.03)		2.13			1.40	
150	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP PASSIVE - GROSS	122	0.31	(0.74)	13.45	(0.74)	33.51	2.79	9.88			12.29			9.37	02/01/2014
	ESTIMATED INVESTMENT FEES			(0.00)	(0.03)	(0.00)	(80.0)	(0.02)	(0.02)			(0.04)			(0.03)	
	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP PASSIVE - NET MGR			(0.74)	13.42	(0.74)	33.44	2.77	9.86			12.25			9.34	
	WORLD EX USA SC PASSIVE CUSTOM BM			(0.50)	13.64	(0.50)	33.31	2.18	9.59			12.06			9.05	
	EXCESS RETURN			(0.24)	(0.22)	(0.24)	0.12	0.59	0.27			0.19			0.29	
160	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID CAP PASSIVE - GROSS	656	1.67	(2.13)	7.86	(2.13)	24.59	1.31	(0.53)	(4.73)	23.10	5.39	6.49		5.43	02/01/2011
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.00)	(0.00)	(0.02)	(0.02)	(0.02)		(0.01)				
	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID CAP PASSIVE - NET MGR			(2.13)	7.85	(2.13)	24.58	1.30	(0.54)	(4.75)		5.37				
	NYC CUSTOM WORLD EX US INDEX			(2.04)	7.85	(2.04)	24.12	1.00	(0.81)	(4.90)	22.78	5.11	6.23		5.14	
	EXCESS RETURN			(0.09)	0.01	(0.09)	0.47	0.30	0.27	0.15	0.32	0.26	0.26		0.29	
170	POLICE-TOTAL NON-U.S. ENVIRONMENTAL - GROSS ESTIMATED INVESTMENT FEES POLICE-TOTAL NON-U.S. ENVIRONMENTAL - NET MGR	9	0.02													09/01/2008
	MSCI WORLD INDEX EXCESS RETURN															





		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014	2013	3 Year	5 Year	10 Year	ITD	Inception Date
	EQUITY RETURN DETAIL															
182	POLICE-EMERGING MARKETS ACTIVE - GROSS ESTIMATED INVESTMENT FEES	1,705	4.35	1.61	18.25	1.61 (0.09)	39.79	12.03 (0.52)	(14.20) (0.42)	(0.62) (0.49)	1.04	10.53 (0.50)	6.47	3.16	9.91	04/01/2004
	POLICE-EMERGING MARKETS ACTIVE - NET MGR			(0.09) 1.52	(0.37) 17.88	1.52	(0.61) 39.18	11.51	(14.62)	(1.11)		10.02				
	MSCI EMERGING MARKETS EXCESS RETURN			1.42 0.10	17.56 0.32	1.42 0.10	37.28 1.89	11.19 0.32	(14.92) 0.30	(2.19) 1.08	(2.60) <b>3.64</b>	8.81 1.22	4.99 <b>1.48</b>	3.02 <b>0.14</b>	9.11 <b>0.80</b>	
192	POLICE-EMERGING MARKETS PASSIVE - GROSS ESTIMATED INVESTMENT FEES	957	2.44	1.45 0.03	17.36 (0.05)	1.45 0.03	37.41 (0.15)	11.23 (0.06)	(14.86) (0.05)	(2.23) (0.06)	(1.97)	8.88 (0.06)	5.16		2.51	04/01/2011
	POLICE-EMERGING MARKETS PASSIVE - NET MGR MSCI EMERGING MARKETS			1.48 1.42	17.31 17.56	1.48 1.42	37.26 37.28	11.17 11.19	(14.91) (14.92)	(2.29)	(2.60)	8.82 8.81	4.99		2.47	
	EXCESS RETURN			0.07	(0.25)	0.07	(0.02)	(0.02)	0.00	(0.10)	0.63	0.01	0.17		0.04	
202	POLICE-TOTAL INTERNATIONAL FUND OF FUND - GROSS	165	0.42	0.70	13.36	0.70									17.29	05/01/2017
	ESTIMATED INVESTMENT FEES POLICE-TOTAL INTERNATIONAL FUND OF FUND - NET MGR			0.12)	(0.40) 12.95	(0.12) 0.58									(0.52) 16.77	
	MSCI ACWI EX USA IMI NET EXCESS RETURN			(1.06)	10.63	(1.06) 1.64									14.51 2.26	





		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014	2013	3 Year	5 Year	10 Year	ITD	Inception Date
	EQUITY RETURN DETAIL															
220	*POLICE-TOTAL HEDGE FUNDS - NET MGR HFRI FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN	1,984	5.06	3.13 0.50 2.63	8.58 5.46 3.13	3.13 0.50 2.63	9.66 8.84 0.82	3.00 1.52 1.48	(1.65) 0.73 (2.39)	5.31 4.40 0.91	4.92 10.04 (5.12)	3.51 2.87 0.64	4.14 4.41 (0.27)		4.18 3.87 0.31	07/01/2011
230	*POLICE-TOTAL DIRECT HEDGE FUNDS - NET MGR HFRI FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN	1,841	4.70	3.20 0.50 2.70	8.94 5.46 3.48	3.20 0.50 <b>2.70</b>	10.38 8.84 1.54	2.79 1.52 1.28	(1.34) 0.73 (2.07)	5.71 4.40 1.31	4.20 10.04 (5.84)	3.73 2.87 <b>0.86</b>	4.25 4.41 (0.16)		5.37 5.04 <b>0.33</b>	01/01/2012
240	*POLICE-TOTAL PERMAL HEDGE FUNDS - NET MGR HFRI FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN	143	0.37	2.27 0.50 1.77	4.35 5.46 (1.10)	2.27 0.50 1.77	2.18 8.84 (6.66)	4.58 1.52 3.07	(3.52) 0.73 (4.25)	3.12 4.40 (1.28)	7.74 10.04 (2.30)	1.11 2.87 (1.76)	2.56 4.41 (1.85)		2.59 3.87 (1.28)	07/01/2011

<sup>\*</sup>Information provided by Alpha Frontier. Above data is not final and subject to change.

# **Consolidated Performance Report**





		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014	2013	3 Year	5 Year	10 Year	ITD	Inception Date
	EQUITY RETURN DETAIL															
248	POLICE-TOTAL REAL ESTATE SECURITIES - GROSS ESTIMATED INVESTMENT FEES	2	-													06/01/2012
	POLICE-TOTAL REAL ESTATE SECURITIES - NET MGR FTSE EPRA/NAREIT DEVEL. LIQUID EXCESS RETURN															
258	POLICE-TOTAL PRIVATE EQUITY (TIME WEIGHTED)  NYC R3000 +3% LAGGED  EXCESS RETURN	2,494	6.36	5.32 7.11 (1.79)	17.13 17.08 0.05	5.32 7.11 (1.79)	21.49 22.22 (0.73)	10.07 18.37 (8.30)	11.70 2.49 9.21	14.94 21.24 (6.31)	9.65 24.53 (14.88)	15.73 14.43 1.31	14.50 18.84 (4.34)	10.21 12.82 (2.60)	13.51 13.34 0.17	04/01/2004
268		1,812	4.62	3.62 2.22 1.40	10.30 6.35 3.95	3.62 2.22 1.40	12.77 7.72 5.05	11.80 8.86 2.94	16.65 15.08 1.57	18.00 12.56 5.44	14.02 14.02 (0.01)	13.39 10.08 3.30	14.75 11.51 3.24	4.94	8.53	04/01/2004
278	POLICE-TOTAL INFRASTRUCTURE (TIME WEIGHTED) CPI + 4% EXCESS RETURN	221	0.56	6.30 1.62 4.68	16.52 5.28 11.25	6.30 1.62 4.68	20.56 6.20 14.37	10.51 6.17 4.35	15.14 4.69 10.46	20.26 4.69 15.57		14.60 5.95 8.65			16.83 5.54 11.29	12/01/2013

# **Consolidated Performance Report**

#### Through March 31, 2018



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014	2013	3 Year	5 Year	10 Year	ITD	Inception Date
	FIXED INCOME RETURN DETAIL															
290	POLICE-TOTAL FIXED INCOME - GROSS ESTIMATED INVESTMENT FEES EST MANAGEMENT FEES	13,882	35.42	(1.01) (0.03) (0.03)	1.44 (0.10) (0.10)	(1.01) (0.03) (0.03)	5.56 (0.13) (0.13)	5.66 (0.14) (0.14)	(0.17) (0.12) (0.12)	6.20 (0.14) (0.14)	0.85	2.65 (0.13) (0.13)	3.17	5.12	8.14	02/01/1980
	EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS															
	POLICE-TOTAL FIXED INCOME - NET MGR			(1.05)	1.34	(1.05)	5.43	5.52	(0.29)	6.06		2.52				
298	POLICE-TOTAL STRUCTURED FIXED INCOME - GROSS	6,712	17.13	(2.35)	(0.13)	(2.35)	5.16	3.50	0.56	7.69	(1.99)	1.57	2.44	4.63	7.51	01/01/1985
	ESTIMATED INVESTMENT FEES			(0.01)	(0.04)	(0.01)	(0.06)	(0.07)	(0.07)	(0.09)		(0.07)				
	POLICE-TOTAL STRUCTURED FIXED INCOME - NET MGR			(2.36)	(0.17)	(2.36)	5.10	3.42	0.48	7.60	/a ==:	1.51				
	NYC - CORE PLUS FIVE EXCESS RETURN			(1.81) (0.55)	(0.20) 0.03	(1.81) (0.55)	4.51 0.60	3.20 0.23	0.41	7.66	(2.79) <b>0.80</b>	1.43 0.07	2.23 <b>0.22</b>	4.29 <b>0.34</b>		
										• •				0.0		
308	POLICE-TOTAL CORE FI- DEVELOPING MGRS - GROSS	73	0.19	(1.54)	(0.21)	(1.54)	4.18	3.88	1.28	5.74	(1.20)	1.99	2.33		4.75	05/01/2009
	ESTIMATED INVESTMENT FEES POLICE-TOTAL CORE FI- DEVELOPING MGRS - NET MGR			(0.05)	(0.15)	(0.05)	(0.20)	(0.22)	(0.20)	(0.17) 5.57		(0.21)				
	BBG BARC AGG (DLY)			(1.46)	(0.24)	(1.46)	3.54	2.65	0.55	5.97	(2.02)	1.70	1.82		3.67	
	EXCESS RETURN			(0.12)	(0.12)	(0.12)	0.43	1.02	0.53	(0.39)	0.82	0.58	0.51		1.09	
318	POLICE-TOTAL CORE FI- EMERGING MGRS - GROSS	78	0.20	(1.27)	0.48	(1.27)	4.51	3.19	1.00	6.21	(1.58)	1.85	2.34		2.44	06/01/2012
318	ESTIMATED INVESTMENT FEES	76	0.20	(0.08)	(0.26)	(0.08)	(0.48)	(0.22)	(0.35)	(0.36)	(1.56)	(0.35)	2.34		2.44	06/01/2012
	POLICE-TOTAL CORE FI- EMERGING MGRS - NET MGR			(1.35)	0.22	(1.35)	4.02	2.97	0.65	5.85		1.50				
	BBG BARC AGG (DLY)			(1.46)	(0.24)	(1.46)	3.54	2.65	0.55	5.97	(2.02)	1.20	1.82		1.86	
	EXCESS RETURN			0.11	0.46	0.11	0.48	0.32	0.10	(0.12)	0.45	0.30	0.52		0.58	
328	POLICE-TOTAL TIPS - GROSS	1,715	4.38	(0.75)	1.41	(0.75)	3.10	4.70	(1.29)	3.52	(8.47)	1.35	0.08	3.03	3.77	06/01/2005
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.00)	(0.02)	(0.02)	(0.03)	(0.07)	` ,	(0.02)				
	POLICE-TOTAL TIPS - NET MGR			(0.76)	1.39	(0.76)	3.09	4.68	(1.32)	3.45		1.33				
	BBG BARC GBL INF-LK: US TIPS (DLY)			(0.79)	1.33	(0.79)	3.01	4.68	(1.44)	3.64	(8.61)	1.30	0.05	2.93	3.64	
	EXCESS RETURN			0.03	0.06	0.03	0.08	(0.01)	0.12	(0.19)	0.14	0.03	0.03	0.10	0.13	
338	POLICE-TOTAL HIGH YIELD - GROSS	1,797	4.58	(1.19)	1.08	(1.19)	6.93	15.25	(3.94)	2.80	8.14	4.38	4.75	7.74	7.72	10/01/1994
	ESTIMATED INVESTMENT FEES			(0.08)	(0.25)	(0.08)	(0.34)	(0.39)	(0.33)	(0.35)		(0.35)				
	POLICE-TOTAL HIGH YIELD - NET MGR			(1.27) (1.01)	0.83 1.48	(1.27)	6.59	14.86	(4.26)	2.45	6.17	4.04	4.55	0.05	0.00	
	CITIGROUP BB & B EXCESS RETURN			(0.26)	(0.65)	(1.01) (0.26)	7.03	15.48 (0.61)	(4.21) (0.05)	2.78 (0.34)	1.97	4.57 (0.54)	4.55 <b>0.20</b>	6.65 1.09	6.92 <b>0.80</b>	<del></del>
	DOLLOS TOTAL BANKA ONDO															
348	POLICE- TOTAL BANK LOANS - GROSS ESTIMATED INVESTMENT FEES	641	1.64	1.41 (0.07)	4.07 (0.23)	1.41 (0.07)	4.72 (0.31)	8.86 (0.34)	1.80 (0.32)	2.76 (0.32)	6.54	4.76 (0.32)	4.74		4.99	12/01/2012
	POLICE-TOTAL BANK LOANS - NET MGR			1.34	3.84	1.34	4.41	8.52	1.49	2.44		4.44				
	CSFB LEVERAGED LOAN INDEX			1.58	3.86	1.58	4.25	9.88	(0.38)	2.06	6.15	4.33	4.17		4.51	
	EXCESS RETURN			(0.24)	(0.02)	(0.24)	0.17	(1.35)	1.87	0.38	0.39	0.11	0.57		0.48	
358	POLICE-TOTAL CONVERTIBLE BONDS - GROSS	730	1.86	1.80	8.39	1.80	14.74	7.23	(0.41)	9.44	16.96	6.87	8.54		7.43	07/01/2008
330	ESTIMATED INVESTMENT FEES	. 30		(0.09)	(0.30)	(0.09)	(0.43)	(0.43)	(0.41)	(0.45)	. 0.00	(0.42)	0.04			o.,,2000
	POLICE-TOTAL CONVERTIBLE BONDS - NET MGR			1.71	8.08	1.71	14.31	6.80	(0.81)	8.99		6.46				
	BOFAML ALL CONVERTIBLE EX M AI (DAILY)			2.81	9.37	2.81	15.70	11.71	(2.75)	9.33	25.00	7.87	10.37		8.99	
	EXCESS RETURN			(1.10)	(1.29)	(1.10)	(1.39)	(4.90)	1.94	(0.34)	(8.04)	(1.41)	(1.83)		(1.56)	

# **Consolidated Performance Report**





		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014	2013	3 Year	5 Year	10 Year	ITD	Inception Date
	FIXED INCOME RETURN DETAIL															
370	POLICE-TOTAL OPPORTUNISTIC FIXED INCOME OPPORTUNISTIC FIXED INCOME JPMGHY / CSFB 50/50 BLEND PLUS 300 EXCESS RETURN	1,133	2.89	2.26 1.18 1.08	5.36 5.44 (0.08)	2.26 1.18 <b>1.08</b>	7.93 9.42 (1.49)	8.62 17.40 (8.78)	(1.34) 0.63 (1.97)	8.86 4.93 <b>3.93</b>	17.15 9.99 <b>7.16</b>	5.18 8.29 (3.10)	7.56 7.85 (0.29)	9.67 10.12 <b>(0.45)</b>	8.24 9.26 (1.02)	10/01/2007
380	POLICE-TOTAL TARGETED INVESTMENTS (NO CASH) - GROSS ESTIMATED INVESTMENT FEES POLICE-TOTAL TARGETED INVESTMENTS - NET MGR POLICE CUSTOM BENCHMARK (NO CASH) EXCESS RETURN	399	1.02	(1.53) (0.05) (1.58) (1.19) (0.40)	(0.55) (0.15) (0.70) 0.03 (0.73)	(1.53) (0.05) (1.58) (1.19) (0.40)	3.83 (0.21) 3.62 3.08 <b>0.54</b>	2.73 (0.22) 2.51 2.38 <b>0.13</b>	4.04 (0.22) 3.82 1.40 2.43	8.06 (0.23) 7.83 6.11 1.72	2.22 (0.22) 1.99 (1.66) 3.65	2.34 (0.21) 2.12 1.45 <b>0.68</b>	3.72 (0.22) 3.50 2.00 1.50	5.16 (0.22) 4.94 3.72 1.22	8.02 (0.09) 7.93	12/01/1984
	CASH SUMMARY															
392	POLICE SHORT TERM - GROSS ESTIMATED INVESTMENT FEES POLICE SHORT TERM - NET MGR	604	1.54	0.41 0.00 0.41	1.07 0.00 1.07	0.41 0.00 0.41	1.13 0.00 1.13	0.89 0.00 0.89	0.47 0.00 0.47	0.23 0.00 0.23	0.21 0.00 0.21	0.87 0.00 0.87	0.65 0.00 0.65	0.87 0.00 0.87		04/01/1982
396	CASH ACCOUNTS	-	0.00													
398	SECURITY LENDING	_	0.00													



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

# **Appendix B**

Public Markets Manager Performance Detail



	Market Value (CMAN)	% of Total	2 Manth	EVED	CVTD	2047	2046	2015	2014
	Market Value (\$MM)	Iotai	3 Month	FYTD	CYTD	2017	2016	2015	2014
EQUITY SUMMARY									
US EQUITY									
State Street Global Adv R3000	5	0.01							
RUSSELL 3000 (DAILY)									
Excess									
NYC POLICE BLACKROCK R2000 GROWTH	138	0.35	2.40	13.82	2.40	22.26	11.29	(1.30)	5.50
RUSSELL 2000 GROWTH DAILY			2.30	13.64	2.30	22.17	11.32	(1.38)	5.60
Excess			0.10	0.18	0.10	0.09	(0.02)	0.08	(0.11)
NYC POLICE BLACKROCK R2000 VALUE	9	0.02							
RUSSELL 2000 VALUE DAILY									
Excess									
Brown AM - SCG	187	0.48	7.17	17.59	7.17	28.92	10.23	8.62	2.93
RUSSELL 2000 GROWTH DAILY			2.30	13.64	2.30	22.17	11.32	(1.38)	5.60
Excess			4.87	3.94	4.87	6.75	(1.09)	10.00	(2.68)
Ceredex SCV	140	0.36	(3.71)	7.34	(3.71)	10.61	29.38	(4.74)	2.55
RUSSELL 2000 VALUE DAILY			(2.64)	4.43	(2.64)	7.84	31.74	(7.47)	4.22
Excess			(1.07)	2.91	(1.07)	2.77	(2.36)	2.73	(1.66)
Dalton Greiner (Value) - Small Cap	148	0.38	(4.09)	4.26	(4.09)	8.38	25.01	(3.32)	4.47
RUSSELL 2000 VALUE DAILY			(2.64)	4.43	(2.64)	7.84	31.74	(7.47)	4.22
Excess			(1.45)	(0.16)	(1.45)	0.55	(6.73)	4.15	0.25
DFA Small Cap	155	0.39	(1.40)	7.87	(1.40)	11.53	25.08	(3.86)	4.48
RUSSELL 2000 (DAILY)			(0.08)	9.11	(0.08)	14.65	21.31	(4.41)	4.89
Excess			(1.32)	(1.23)	(1.32)	(3.12)	3.77	0.56	(0.42)



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
RAFI - SC Fundamental	149	0.38	(2.08)	7.61	(2.08)	9.74	27.83	(6.65)	4.72
RUSSELL 2000 (DAILY)			(80.0)	9.11	(80.0)	14.65	21.31	(4.41)	4.89
Excess			(2.00)	(1.50)	(2.00)	(4.91)	6.52	(2.23)	(0.17)
Iridian Asset Mgmt. MCV	291	0.74	(1.60)	6.96	(1.60)	23.36	4.19	(3.71)	14.04
RUSSELL MIDCAP (DAILY)			(0.46)	9.25	(0.46)	18.52	13.80	(2.44)	13.22
Excess			(1.14)	(2.28)	(1.14)	4.84	(9.60)	(1.27)	0.82
Wellington Mgmt. MCC	307	0.78	3.30	14.76	3.30	25.05	12.30	1.76	10.93
S&P 400 MIDCAP INDEX (DAILY)			(0.77)	8.83	(0.77)	16.24	20.74	(2.18)	9.77
Excess			4.08	5.93	4.08	8.80	(8.44)	3.93	1.16
NYC POLICE BLACKROCK R1000 GROWTH	3	0.01							
RUSSELL 1000 GROWTH - DAILY									
Excess									
NYC POLICE BLACKROCK R1000 VALUE	5	0.01							
RUSSELL 1000 VALUE (DAILY)									
Excess									
NYC POLICE BLACKROCK R1000 CORE	9,378	23.93							
RUSSELL 1000 (DAILY)									
Excess									
RAFI - LC Fundamental	1,273	3.25	(1.47)	10.42	(1.47)	16.84	15.73	(3.09)	12.04
RUSSELL 1000 (DAILY)			(0.69)	10.59	(0.69)	21.69	12.05	0.92	13.24
Excess			(0.78)	(0.18)	(0.78)	(4.84)	3.68	(4.01)	(1.20)
VTL S&P 500 Fundamental	1	0.00							
S&P 500 INDEX (DAILY)									
Excess									



PATRICUP (PATRICUP)										
Police FUNDS   18		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
RUSSELLZON/DAILY)	FUND OF FUNDS									
Policy   Company   Compa	POLICE-FUND OF FUNDS	66	0.17	(0.92)	6.11	(0.92)				
Pulcie-ToTALLEGATO   68   0.17   0.85   0.22   0.85   0.	RUSSELL 2000 (DAILY)			(0.08)	9.11	(0.08)				
RUSSELL 2000 (DAILY)	Excess			(0.84)	(3.00)	(0.84)				
RUSSELL 2000 (DAILY)	BOLICE TOTAL LEGATO	66	0.17	(0.85)	6.22	(0.95)				
Paris   Pari			0.17							
Ballie Gifford         664         1,70         5,27         2,39         5,27         4,417         0,70         (3,81)         6,71           NYC Developed Growth Benchmark         (2,04)         7,27         (2,04)         27,77         (3,04)         4,09         (4,43)           Excess         7,31         16,12         7,31         16,12         7,31         16,00         28,04         27,7         3,04         4,09         (4,43)           Walter Scott         619         1,58         (0,67)         10,20         (0,67)         28,04         2,77         3,04         4,09         (4,43)           NYC Developed Growth Benchmark         2         (2,04)         7,27         (2,04)         2,77         3,04         4,09         (4,43)           Excess         574         1,47         (3,75)         8,79         (3,75)         2,92         0,22         2,99         (5,78)         0,72         1,71         3,04         4,09         1,89         0,10         3,75         2,92         0,22         0,29         0,29         0,21         0,21         2,77         5,02         0,58         0,58         0,50         0,17         5,04         0,53         0,22         1,77	·									
Ballie Gifford         664         1,70         5,27         2,39         5,27         4,417         0,70         (3,81)         6,71           NYC Developed Growth Benchmark         (2,04)         7,27         (2,04)         27,77         (3,04)         4,09         (4,43)           Excess         7,31         16,12         7,31         16,12         7,31         16,00         28,04         27,7         3,04         4,09         (4,43)           Walter Scott         619         1,58         (0,67)         10,20         (0,67)         28,04         2,77         3,04         4,09         (4,43)           NYC Developed Growth Benchmark         2         (2,04)         7,27         (2,04)         2,77         3,04         4,09         (4,43)           Excess         574         1,47         (3,75)         8,79         (3,75)         2,92         0,22         2,99         (5,78)         0,72         1,71         3,04         4,09         1,89         0,10         3,75         2,92         0,22         0,29         0,29         0,21         0,21         2,77         5,02         0,58         0,58         0,50         0,17         5,04         0,53         0,22         1,77	NON - LIS FOLIITY									
Principal Periode   Prin		664	1.70	5.27	22.39	5.27	44.17	0.70	(3.81)	(6.77)
Walter Scott 619 1.58 (0.67) 10.20 (0.67) 28.04 5.03 0.28 (3.58) NYC Developed Growth Benchmark (2.04) 7.27 (2.04) 27.77 (3.04) 4.03) (4.43) (2.05) (2.05) (2.05) (3.05) (	NYC Developed Growth Benchmark			(2.04)	7.27	(2.04)	27.77	(3.04)	4.09	(4.43)
NYC Developed Growth Benchmark  1.37 2.94 1.37 2.94 1.37 2.94 1.37 2.94 2.77 3.04 3.87 3.87 3.87 3.87 3.87 3.87 3.87 3.87	Excess			7.31	15.12	7.31	16.40	3.74	(7.90)	(2.34)
NYC Developed Growth Benchmark  1.37 2.94 1.37 2.94 1.37 2.94 1.37 2.94 2.77 3.04 3.87 3.87 3.87 3.87 3.87 3.87 3.87 3.87										
Excess   1.37   2.94   1.37   0.27   8.07   (3.81)   0.87   0.87     0.87   0.87     0.87     0.87     0.87     0.87     0.87     0.87   0.87   0.87     0.87   0.87     0.87     0.87     0.87     0.87     0.87     0.87     0.87     0.87     0.87     0.87     0.87     0.87     0.87     0.8		619	1.58							
Causeway         574         1.47         (3.75)         8.79         (3.75)         28.22         0.52         (2.39)         (6.18)           NYC Developed Value Benchmark         (2.04)         8.23         (2.04)         22.77         5.02         (5.68)         (5.39)           Excess         (1.71)         0.55         (1,71)         5.45         (4.51)         3.29         0.21           Sprucegrove         624         1.59         (2.10)         11.90         (2.10)         27.15         11.10         (9.44)         (3.32)           NYC Developed Value Benchmark         (2.04)         8.23         (2.04)         22.77         5.02         (5.68)         (5.39)           Excess         (0.06)         3.66         (0.06)         4.38         6.08         (3.75)         2.07           Acadian         228         0.58         1.53         17.66         1.53         38.38         6.41         8.68         (4.92)           S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)           Excess         216         0.55         0.92         12.97         0.92         31.34         (0.91)         1	<u> </u>									
NYC Developed Value Benchmark   (2.04)   8.23   (2.04)   22.77   5.02   (5.68)   (5.39)	Excess			1.37	2.94	1.37	0.27	8.07	(3.81)	0.87
Excess (1.71) 0.55 (1.71) 5.45 (4.51) 3.29 0.21  Sprucegrove 624 1.59 (2.10) 11.90 (2.10) 27.15 11.10 (9.44) (3.32)  NYC Developed Value Benchmark (2.04) 8.23 (2.04) 22.77 5.02 (5.68) (5.39)  Excess (0.06) 3.66 (0.06) 4.38 6.08 (3.75) 2.07  Acadian 228 0.58 1.53 17.66 1.53 38.38 6.41 8.68 (4.92)  S&P EPAC Small Cap USD NET (0.30) 13.36 (0.30) 33.47 1.34 8.58 (3.43)  Excess 1.83 4.30 1.83 4.91 5.07 0.09 (1.49)  Pyramis 216 0.55 0.92 12.97 0.92 31.34 (0.91) 11.97 (5.60)  S&P EPAC Small Cap USD NET (0.30) 13.36 (0.30) 33.47 1.34 8.58 (3.43)	Causeway	574	1.47	(3.75)	8.79	(3.75)	28.22	0.52	(2.39)	(5.18)
Sprucegrove         624         1.59         (2.10)         11.90         (2.10)         27.15         11.10         (9.44)         (3.32)           NYC Developed Value Benchmark         (2.04)         8.23         (2.04)         22.77         5.02         (5.68)         (5.39)           Excess         (0.06)         3.66         (0.06)         4.38         6.08         (3.75)         2.07           Acadian         228         0.58         1.53         17.66         1.53         38.38         6.41         8.68         (4.92)           S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)           Excess         1.83         4.30         1.83         4.91         5.07         0.09         (1.49)           Pyramis         216         0.55         0.92         12.97         0.92         31.34         (0.91)         11.97         (5.60)           S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)	NYC Developed Value Benchmark			(2.04)	8.23	(2.04)	22.77	5.02	(5.68)	(5.39)
NYC Developed Value Benchmark  (2.04) 8.23 (2.04) 22.77 5.02 (5.68) (5.39)  Excess  (0.06) 3.66 (0.06) 4.38 6.08 (3.75) 2.07  Acadian  Acadian  228 0.58 1.53 17.66 1.53 38.38 6.41 8.68 (4.92)  S&P EPAC Small Cap USD NET  (0.30) 13.36 (0.30) 33.47 1.34 8.58 (3.43)  Excess  216 0.55 0.92 12.97 0.92 31.34 (0.91) 11.97 (5.60)  S&P EPAC Small Cap USD NET  (0.30) 13.36 (0.30) 33.47 1.34 8.58 (3.43)	Excess			(1.71)	0.55	(1.71)	5.45	(4.51)	3.29	0.21
NYC Developed Value Benchmark  (2.04) 8.23 (2.04) 22.77 5.02 (5.68) (5.39)  Excess  (0.06) 3.66 (0.06) 4.38 6.08 (3.75) 2.07  Acadian  Acadian  228 0.58 1.53 17.66 1.53 38.38 6.41 8.68 (4.92)  S&P EPAC Small Cap USD NET  (0.30) 13.36 (0.30) 33.47 1.34 8.58 (3.43)  Excess  216 0.55 0.92 12.97 0.92 31.34 (0.91) 11.97 (5.60)  S&P EPAC Small Cap USD NET  (0.30) 13.36 (0.30) 33.47 1.34 8.58 (3.43)	Springerrove	624	1 59	(2.10)	11 90	(2.10)	27 15	11 10	(9.44)	(3.32)
Excess (0.06) 3.66 (0.06) 4.38 6.08 (3.75) 2.07  Acadian 228 0.58 1.53 17.66 1.53 38.38 6.41 8.68 (4.92)  S&P EPAC Small Cap USD NET (0.30) 13.36 (0.30) 33.47 1.34 8.58 (3.43)  Excess 1.83 4.30 1.83 4.91 5.07 0.09 (1.49)  Pyramis 216 0.55 0.92 12.97 0.92 31.34 (0.91) 11.97 (5.60)  S&P EPAC Small Cap USD NET (0.30) 13.36 (0.30) 33.47 1.34 8.58 (3.43)		02.								
S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)           Excess         1.83         4.30         1.83         4.91         5.07         0.09         (1.49)           Pyramis         216         0.55         0.92         12.97         0.92         31.34         (0.91)         11.97         (5.60)           S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)										
S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)           Excess         1.83         4.30         1.83         4.91         5.07         0.09         (1.49)           Pyramis         216         0.55         0.92         12.97         0.92         31.34         (0.91)         11.97         (5.60)           S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)										
Excess         1.83         4.30         1.83         4.91         5.07         0.09         (1.49)           Pyramis         216         0.55         0.92         12.97         0.92         31.34         (0.91)         11.97         (5.60)           S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)	Acadian	228	0.58	1.53	17.66	1.53	38.38	6.41	8.68	(4.92)
Pyramis         216         0.55         0.92         12.97         0.92         31.34         (0.91)         11.97         (5.60)           S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)	S&P EPAC Small Cap USD NET			(0.30)	13.36	(0.30)	33.47	1.34	8.58	(3.43)
S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)	Excess			1.83	4.30	1.83	4.91	5.07	0.09	(1.49)
S&P EPAC Small Cap USD NET         (0.30)         13.36         (0.30)         33.47         1.34         8.58         (3.43)	Pyramis	216	0.55	0.92	12.97	0.92	31.34	(0.91)	11.97	(5.60)
Excess 1.23 (0.39) 1.23 (2.13) (2.24) 3.38 (2.17)	S&P EPAC Small Cap USD NET			(0.30)	13.36	(0.30)	33.47	1.34	8.58	(3.43)
	Excess			1.23	(0.39)	1.23	(2.13)	(2.24)	3.38	(2.17)



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
SSGA	656	1.67	(2.13)	7.85	(2.13)	24.58	1.30	(0.54)	(4.75)
NYC Custom World ex US Index			(2.04)	7.85	(2.04)	24.12	1.00	(0.81)	(4.90)
Excess			(0.09)	0.01	(0.09)	0.47	0.30	0.27	0.15
SSGA World ex USA Small Cap <sup>1</sup>	122	0.31	(0.74)	13.41	(0.74)	33.43	2.77	9.86	
World ex USA SC PASSIVE CUSTOM BM			(0.50)	13.64	(0.50)	33.31	2.18	9.59	
Excess			(0.24)	(0.23)	(0.24)	0.12	0.59	0.27	
Generation GE	9	0.02							
MSCI World Index									
Excess									
EMERGING MARKETS									
DFA	402	1.03	1.81	16.45	1.81	33.64	17.39	(19.39)	(4.50)
MSCI EMERGING MARKETS			1.42	17.56	1.42	37.28	11.19	(14.92)	(2.19)
Excess			0.39	(1.11)	0.39	(3.64)	6.20	(4.48)	(2.31)
Baillie Gifford	444	1.13	0.24	21.69	0.24	54.14	2.78	(8.00)	0.10
MSCI EMERGING MARKETS			1.42	17.56	1.42	37.28	11.19	(14.92)	(2.19)
Excess			(1.18)	4.13	(1.18)	16.86	(8.41)	6.92	2.29
PARAMETRIC EM	415	1.06	1.51	14.60	1.51	29.65	13.87	(15.72)	(3.92)
MSCI EMERGING MARKETS			1.42	17.56	1.42	37.28	11.19	(14.92)	(2.19)
Excess			0.09	(2.96)	0.09	(7.63)	2.68	(0.80)	(1.73)
ACADIAN	444	1.13	2.57	18.68	2.57	40.45	12.65	(15.05)	3.79
MSCI EMERGING MARKETS			1.42	17.56	1.42	37.28	11.19	(14.92)	(2.19)
Excess			1.15	1.12	1.15	3.16	1.46	(0.13)	5.98
Blackrock EM	957	2.44	1.50	17.33	1.50	37.26	11.17	(14.91)	(2.29)
MSCI EMERGING MARKETS			1.42	17.56	1.42	37.28	11.19	(14.92)	(2.19)
Excess			0.08	(0.23)	0.08	(0.02)	(0.02)	0.01	(0.10)

#### Net Returns Through March 31, 2018



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
	,,								
INTERNATIONAL FOF									
POLICE-TOTAL INTERNATIONAL FOF	165	0.42	0.58	12.95	0.58				
MSCI ACWI ex USA IMI Net			(1.06)	10.63	(1.06)				
Excess			1.64	2.32	1.64				
POLICE-TOTAL INTERNATIONAL FIS	80	0.20	(0.28)	11.49	(0.28)				
MSCI ACWI ex USA IMI Net			(1.06)	10.63	(1.06)				
Excess			0.78	0.86	0.78				
POLICE-TOTAL INTERNATIONAL LEADING EDGE	85	0.22	1.41	14.37	1.41				
MSCI ACWI ex USA IMI Net			(1.06)	10.63	(1.06)				
Excess			2.48	3.74	2.48				
REAL ESTATE SECURITIES									
CONY GT SSGA REIT	2	0.00							
FTSE EPRA/NAREIT Devel. Liquid									
Excess									
FIXED INCOME SUMMARY									
STRUCTURED FIXED INCOME									
Blackrock - Mortgage	778	1.99	(1.19)	(0.18)	(1.19)	2.56	2.29	1.81	6.48
CITIGROUP MORTGAGE INDEX			(1.23)	(0.15)	(1.23)	2.47	1.59	1.56	6.12
Excess			0.04	(0.03)	0.04	0.10	0.71	0.25	0.35
Neuberger Berman - Mortgage	90	0.23	(1.26)	(0.27)	(1.26)	2.39	1.52	1.42	6.68
CITIGROUP MORTGAGE INDEX			(1.23)	(0.15)	(1.23)	2.47	1.59	1.56	6.12
Excess			(0.03)	(0.12)	(0.03)	(0.07)	(0.07)	(0.15)	0.55
T. Rowe Price - Credit	729	1.86	(2.54)	(0.01)	(2.54)	6.89	6.04	0.02	7.91
NYC - Investment Grade Credit			(2.06)	0.16	(2.06)	6.04	5.56	(0.65)	7.04
Excess			(0.48)	(0.17)	(0.48)	0.85	0.48	0.67	0.86

New York City Police Pension Fund, Subchapter Two Performance Overview as of March 31, 2018 1 Name changed from SSGA MSCI EAFE Small Cap Index to SSGA World ex USA Small Cap 12.2017 2 Assets were in transition from 9/29/17 to 11/30/17 3 Assets were in transition as of 9/29/17



		% of							
	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
Blackrock - Credit	345	0.88	(1.99)	0.27	(1.99)	6.44	5.48	(0.57)	7.55
NYC - Investment Grade Credit			(2.06)	0.16	(2.06)	6.04	5.56	(0.65)	7.04
Excess			0.07	0.10	0.07	0.40	(0.07)	0.07	0.51
Taplin Canida Habacht Credit	149	0.38	(2.01)	1.03	(2.01)	7.61	9.54	(3.98)	7.92
NYC - Investment Grade Credit			(2.06)	0.16	(2.06)	6.04	5.56	(0.65)	7.04
Excess			0.05	0.86	0.05	1.58	3.98	(3.34)	0.88
Prudential - Credit	418	1.07	(2.04)	0.53	(2.04)	6.35	6.05	(0.32)	7.19
NYC - Investment Grade Credit			(2.06)	0.16	(2.06)	6.04	5.56	(0.65)	7.04
Excess			0.02	0.37	0.02	0.32	0.50	0.33	0.14
Pyramis - Credit	192	0.49	(2.08)	0.29	(2.08)	6.28	5.80	(0.09)	7.38
NYC - Investment Grade Credit			(2.06)	0.16	(2.06)	6.04	5.56	(0.65)	7.04
Excess			(0.02)	0.13	(0.02)	0.25	0.24	0.56	0.34
State Street - Gov't	829	2.11	(2.18)	(0.89)	(2.18)	5.01	1.62	0.49	12.13
NYC - Treasury Agency Plus Five			(2.22)	(1.05)	(2.22)	4.66	1.21	0.72	12.38
Excess			0.04	0.15	0.04	0.36	0.41	(0.24)	(0.25)
Blackrock - Gov't	538	1.37	(2.22)	(1.06)	(2.22)	4.79	1.21	0.66	11.93
NYC - Treasury Agency Plus Five			(2.22)	(1.05)	(2.22)	4.66	1.21	0.72	12.38
Excess			(0.01)	(0.01)	(0.01)	0.14	(0.00)	(0.06)	(0.44)
Fischer Francis - Govt	313	0.80	(2.17)	(0.98)	(2.17)	4.67	1.34	0.51	11.36
NYC - Treasury Agency Plus Five			(2.22)	(1.05)	(2.22)	4.66	1.21	0.72	12.38
Excess			0.04	0.06	0.04	0.01	0.12	(0.21)	(1.02)
SSGA 1-3 Treasury Index <sup>2</sup>	966	2.47	(0.20)	2.43	(0.20)	3.08			
Citigroup USBIG Treasury 1-3 Y Index			(0.14)	(0.16)	(0.14)	0.42			
Excess			(0.06)	2.59	(0.06)	2.66			
91 DAY TREASURY BILL (DAILY)			0.35	0.91	0.35	0.86			
Excess			(0.55)	1.52	(0.55)	2.22			



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
			<u> </u>		<u> </u>				
SSGA Int Gov Bond Index <sup>3</sup>	1	0.00	0.40	3.78	0.40				
Citigroup USBIG Treasury/Agency 1-10 y			(0.71)	(0.77)	(0.71)				
Excess			1.11	4.55	1.11				
91 DAY TREASURY BILL (DAILY)			0.35	0.91	0.35				
Excess			0.04	2.87	0.04				
SSGA Long Duration Treasury	1,365	3.48	(3.30)	(0.42)	(3.30)	8.54			
Citigroup Treasury 10+			(3.32)	(0.45)	(3.32)	8.60			
Excess			0.02	0.03	0.02	(0.07)			
CORE FI-EMERGING MANAGERS									
Hillswick	8	0.02	(1.43)	(0.74)	(1.43)	2.64	2.61	0.61	7.09
BBG BARC Agg (Dly)			(1.46)	(0.24)	(1.46)	3.54	2.65	0.55	5.97
Excess			0.03	(0.50)	0.03	(0.90)	(0.03)	0.06	1.13
Integrity	7	0.02	(1.28)	0.27	(1.28)	3.93			
BBG BARC Agg (Dly)			(1.46)	(0.24)	(1.46)	3.54			
Excess			0.18	0.51	0.18	0.39			
Ramirez Asset	20	0.05	(1.13)	0.94	(1.13)	4.47	3.64	1.12	
BBG BARC Agg (Dly)			(1.46)	(0.24)	(1.46)	3.54	2.65	0.55	
Excess			0.33	1.18	0.33	0.93	0.99	0.57	
NEW CENTURY	21	0.05	(1.21)	0.29	(1.21)	4.04	2.37	(0.30)	6.53
BBG BARC Agg (Dly)			(1.46)	(0.24)	(1.46)	3.54	2.65	0.55	5.97
Excess			0.25	0.53	0.25	0.50	(0.28)	(0.85)	0.56
PUGH CAP	24	0.06	(1.64)	(0.14)	(1.64)	4.12	3.48	0.79	5.88
BBG BARC Agg (Dly)			(1.46)	(0.24)	(1.46)	3.54	2.65	0.55	5.97
Excess			(0.18)	0.10	(0.18)	0.58	0.83	0.24	(0.09



		% of							
	Market Value (\$MM)	Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
HIGH YIELD									
Loomis Sayles - High Yield	272	0.69	(1.19)	0.69	(1.19)	7.23	22.23	(8.58)	4.73
NYC-Loomis (BoA MLMSTII 7-03/BB&B PRIOR)			(0.91)	1.52	(0.91)	7.48	17.49	(4.64)	2.50
Excess			(0.28)	(0.82)	(0.28)	(0.25)	4.74	(3.94)	2.22
Oaktree - High Yield	209	0.53	(1.37)	0.18	(1.37)	5.87	14.91	(4.75)	1.41
BofAML HYM CONSTRAINED (DAILY)			(0.91)	1.52	(0.91)	7.48	17.49	(4.61)	2.51
Excess			(0.46)	(1.34)	(0.46)	(1.61)	(2.58)	(0.14)	(1.10)
Neuberger Berman - High Yield	288	0.73	(1.08)	0.73	(1.08)	5.77	14.72	(4.00)	2.05
BofAML HIGH YIELD MASTER II (DAILY)			(0.91)	1.52	(0.91)	7.48	17.49	(4.64)	2.50
Excess			(0.17)	(0.79)	(0.17)	(1.72)	(2.77)	0.65	(0.45)
Stone Harbor - High Yield	188	0.48	(1.40)	0.53	(1.40)	5.86	13.01	(4.47)	0.31
BofAML HIGH YIELD MASTER II (DAILY)			(0.91)	1.52	(0.91)	7.48	17.49	(4.64)	2.50
Excess			(0.49)	(0.99)	(0.49)	(1.62)	(4.47)	0.17	(2.19)
T. Rowe Price - High Yield	582	1.48	(1.48)	0.95	(1.48)	6.79	12.36	(1.13)	2.92
CITIGROUP BB & B			(1.01)	1.48	(1.01)	7.03	15.48	(4.21)	2.78
Excess			(0.47)	(0.53)	(0.47)	(0.24)	(3.11)	3.08	0.13
Fort Washington - High Yield	146	0.37	(1.02)	1.34	(1.02)	7.53	12.86	(4.13)	2.41
CITIGROUP BB & B			(1.01)	1.48	(1.01)	7.03	15.48	(4.21)	2.78
Excess			(0.00)	(0.15)	(0.00)	0.50	(2.62)	0.08	(0.37)
Shenkman - High Yield	112	0.29	(0.72)	1.89	(0.72)	6.86	11.72	(2.65)	2.64
CITIGROUP BB & B			(1.01)	1.48	(1.01)	7.03	15.48	(4.21)	2.78
Excess			0.29	0.40	0.29	(0.17)	(3.75)	1.56	(0.15)
BANK LOANS									
Babson BL	251	0.64	1.32	4.04	1.32	4.47	8.44	0.12	1.99
CSFB LEVERAGED LOAN INDEX			1.58	3.86	1.58	4.25	9.88	(0.38)	2.06
Excess			(0.26)	0.19	(0.26)	0.22	(1.43)	0.50	(0.07)

#### Net Returns Through March 31, 2018



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
Credit Suisse BL	261	0.67	1.36	3.77	1.36	4.66	8.94	2.57	2.67
CSFB LEVERAGED LOAN INDEX			1.58	3.86	1.58	4.25	9.88	(0.38)	2.06
Excess			(0.22)	(0.09)	(0.22)	0.41	(0.93)	2.96	0.61
Guggenheim BL	129	0.33	1.33	3.59	1.33	3.82	7.84	2.07	2.88
CSFB LEVERAGED LOAN INDEX			1.58	3.86	1.58	4.25	9.88	(0.38)	2.06
Excess			(0.26)	(0.27)	(0.26)	(0.43)	(2.03)	2.45	0.83
TIPS									
State Street TIPS Passive	1,286	3.28	(0.78)	1.37	(0.78)	3.06	4.68	(1.35)	3.57
BBG BARC Gbl Inf-Lk: US TIPS (Dly)			(0.79)	1.33	(0.79)	3.01	4.68	(1.44)	3.64
Excess			0.01	0.04	0.01	0.05	(0.00)	0.09	(0.07)
Blackrock TIPS	429	1.09	(0.67)	1.42	(0.67)	2.98	4.66	(1.24)	3.74
BBG BARC Gbl Inf-Lk: US TIPS (Dly)			(0.79)	1.33	(0.79)	3.01	4.68	(1.44)	3.64
Excess			0.12	0.09	0.12	(0.02)	(0.02)	0.20	0.10
CONVERTIBLE BONDS									
Advent Conv Bonds	334	0.85	(0.30)	2.42	(0.30)	7.93	7.15	(1.38)	4.65
BofA ML U.S. Convertible Yield Alternative			0.89	3.88	0.89	9.45	9.96	(8.77)	2.75
Excess			(1.19)	(1.46)	(1.19)	(1.52)	(2.81)	7.40	1.91
Victory Conv Bonds	396	1.01	3.48	13.39	3.48	20.63	6.46	(0.24)	13.76
BofA Merrill Lynch US Investment Grade Convertible Bond Index			4.58	15.28	4.58	20.99	14.23	1.68	15.69
Excess			(1.10)	(1.89)	(1.10)	(0.36)	(7.77)	(1.92)	(1.94)
CORE FI-DEVELOPING MANAGERS									
LM Capital	36	0.09	(1.83)	(0.56)	(1.83)	3.92	3.38	1.02	5.57
BBG BARC Agg (Dly)			(1.46)	(0.24)	(1.46)	3.54	2.65	0.55	5.97
Excess			(0.37)	(0.32)	(0.37)	0.38	0.74	0.47	(0.39)

New York City Police Pension Fund, Subchapter Two Performance Overview as of March 31, 2018 1 Name changed from SSGA MSCI EAFE Small Cap Index to SSGA World ex USA Small Cap 12.2017 2 Assets were in transition from 9/29/17 to 11/30/17 3 Assets were in transition as of 9/29/17



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
CIA	37	0.09	(4.25)	(0.47)	(4.25)	4.03	3.93		
GIA	37	0.09	(1.35)	(0.17)	(1.35)		2.65		
BBG BARC Agg (Dly)			(1.46)	(0.24)	(1.46)	3.54			
Excess			0.11	0.07	0.11	0.49	1.29		
ECONOMICALLY TARGETED INVESTMENTS									
AFL-CIO HOUSING INV TRUST	156	0.40	(1.29)	(0.30)	(1.29)	3.17	1.94	1.13	6.10
BBG BARC Agg (Dly)			(1.46)	(0.24)	(1.46)	3.54	2.65	0.55	5.97
Excess			0.17	(0.06)	0.17	(0.38)	(0.71)	0.58	0.14
ACCESS RBC	87	0.22	(1.47)	(0.48)	(1.47)	2.64	1.61	1.83	6.66
Access RBC Benchmark		0.22	(1.02)	(0.35)	(1.02)	1.96	1.52	1.40	5.08
Excess			(0.45)	(0.13)	(0.45)	0.69	0.09	0.43	1.58
CPC CONST FACILITY	5	0.01	1.29	4.65	1.29	6.07	(3.95)	12.90	
CPC CONST BENCHMARK			0.92	2.66	0.92	3.34	3.03	2.90	
Excess			0.38	1.99	0.38	2.73	(6.99)	10.01	
BOA-PPAR (FNMA)	6	0.01	(2.37)	(1.95)	(2.37)	5.21	4.07	42.03	13.31
FNMA Plus 85bps			(1.00)	0.57	(1.00)	3.61	2.38	2.50	7.13
Excess			(1.37)	(2.52)	(1.37)	1.60	1.69	39.53	6.19
BOA-PPAR (GNMA)	6	0.02	(2.07)	(1.96)	(2.07)	4.08	3.13	8.04	15.61
GNMA Plus 65bps			(1.13)	0.17	(1.13)	2.53	2.28	2.02	6.65
Excess			(0.94)	(2.13)	(0.94)	1.56	0.85	6.03	8.96
CCD-PPAR (FNMA)	3	0.01	(2.14)	(0.78)	(2.14)	5.26	3.71	6.69	25.71
FNMA Plus 85bps			(1.00)	0.57	(1.00)	3.61	2.38	2.50	7.13
Excess			(1.14)	(1.35)	(1.14)	1.65	1.33	4.20	18.58
CCD-PPAR (GNMA)	3	0.01	(1.81)	(1.48)	(1.81)	3.10	2.78	5.08	15.37
GNMA Plus 65bps			(1.13)	0.17	(1.13)	2.53	2.28	2.02	6.65
Excess			(0.68)	(1.65)	(0.68)	0.57	0.50	3.06	8.72



		% of							
	Market Value (\$MM)	Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
CFSB-PPAR (GNMA)	1	0.00	(2.14)	(1.88)	(2.14)	3.83	3.21	5.90	15.34
GNMA Plus 65bps			(1.13)	0.17	(1.13)	2.53	2.28	2.02	6.65
Excess			(1.01)	(2.05)	(1.01)	1.30	0.93	3.88	8.69
CPC-PPAR (FNMA)	47	0.12	(2.24)	(0.58)	(2.24)	5.06	6.15	8.96	13.91
FNMA Plus 85bps			(1.00)	0.57	(1.00)	3.61	2.38	2.50	7.13
Excess			(1.24)	(1.15)	(1.24)	1.45	3.77	6.46	6.78
CPC - PPAR (GNMA)	57	0.15	(1.76)	(1.88)	(1.76)	2.29	2.21	5.24	9.23
GNMA Plus 65bps			(1.13)	0.17	(1.13)	2.53	2.28	2.02	6.65
Excess			(0.63)	(2.05)	(0.63)	(0.24)	(0.07)	3.23	2.58
JPMC - PPAR (FNMA)	19	0.05	(2.26)	(1.13)	(2.26)	9.96	7.94	6.18	12.08
FNMA Plus 85bps			(1.00)	0.57	(1.00)	3.61	2.38	2.50	7.13
Excess			(1.25)	(1.70)	(1.25)	6.35	5.56	3.68	4.96
LIIF-PPAR (FNMA)	6	0.02	(2.23)	(1.26)	(2.23)	9.55	5.03	6.29	38.12
FNMA Plus 85bps			(1.00)	0.57	(1.00)	3.61	2.38	2.50	7.13
Excess			(1.23)	(1.82)	(1.23)	5.94	2.65	3.79	30.99
LIIF-PPAR (GNMA)	1	0.00	(1.11)	(0.80)	(1.11)	2.52	3.88	3.92	9.74
GNMA Plus 65bps			(1.13)	0.17	(1.13)	2.53	2.28	2.02	6.65
Excess			0.03	(0.97)	0.03	(0.01)	1.61	1.91	3.09
NCBCI-PPAR (FNMA)	0	0.00	(1.64)	(0.18)	(1.64)	1.75	3.46	4.97	14.93
FNMA Plus 85bps			(1.00)	0.57	(1.00)	3.61	2.38	2.50	7.13
Excess			(0.64)	(0.75)	(0.64)	(1.86)	1.07	2.47	7.81
NCBCI-PPAR (GNMA)	1	0.00	(1.82)	(1.40)	(1.82)	3.01	3.51	5.53	16.66
GNMA Plus 65bps			(1.13)	0.17	(1.13)	2.53	2.28	2.02	6.65
Excess			(0.69)	(1.57)	(0.69)	0.48	1.23	3.52	10.01



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2017	2016	2015	2014
NHS-PPAR (GNMA)	0	0.00	(1.82)	(1.42)	(1.82)	(2.93)	3.58	4.90	13.73
GNMA Plus 65bps			(1.13)	0.17	(1.13)	2.53	2.28	2.02	6.65
Excess			(0.69)	(1.59)	(0.69)	(5.46)	1.30	2.89	7.08
CASH									
POLICE SHORT TERM	604	1.54	0.41	1.07	0.41	1.13	0.89	0.47	0.23
91 DAY T-BILL			0.35	0.91	0.35	0.86	0.33	0.05	0.02
Excess			0.05	0.16	0.05	0.27	0.56	0.42	0.21
Cash Accounts	0	0.00							
SECURITY LENDING	-0	-0.00							



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

# **Appendix C**

Alternative Assets Manager Performance Detail





	Vintage Year					Investment	
	(Cash Flow)	Commitments	Contributions	Distributions	Market Value		ITD IRR%
TOTAL PRIVATE EQUITY		5,489,318,917	4,716,208,208	4,358,032,552	2,491,580,984	1.45	10.8%
TOTAL LIQUIDATED		256,190,539	277,103,017	343,214,468	-	1.24	6.7%
TOTAL ACTIVE		5,233,128,379	4,439,105,190	4,014,818,084	2,491,580,984	1.47	11.1%
TOTAL ACTIVE							
Cypress Merchant Banking Partners II, L.P.	1999	45,172,972	53,944,269	50,584,154	28,517	0.94	-1.2%
FdG Capital Partners LLC	1999	50,000,000	57,908,408	99,918,697	6,387,508	1.84	15.3%
Lincolnshire Equity Fund II, L.P.	1999	11,038,409	11,556,880	22,403,217	433,763	1.98	24.6%
Solera Partners, L.P.	2000	9,999,888	13,269,534	20,817,577	654,211	1.62	7.8%
SCP Private Equity Partners II, L.P.	2000	25,000,000	28,057,160	10,857,159	3,278,625	0.50	-8.0%
Apollo Investment Fund V, L.P.	2001	35,000,000	54,551,027	107,577,160	544,080	1.98	38.8%
CVC European Equity Partners III, L.P.	2001	25,000,000	29,700,915	74,439,614	1,830,156	2.57	41.1%
Coller International Partners IV, L.P.	2002	26,100,000	26,761,761	36,107,219	55,914	1.35	11.5%
Landmark Equity Partners XI, L.P.	2002	30,000,000	28,518,970	43,143,998	674,079	1.54	23.3%
FS Equity Partners V, L.P.	2003	15,000,000	12,851,976	25,116,883	957,548	2.03	15.4%
Blackstone Capital Partners IV, L.P.	2003	46,253,267	57,182,807	134,292,370	5,498,845	2.44	36.4%
Ares Corporate Opportunities Fund, L.P.	2003	35,000,000	41,988,154	62,593,160	1,690,144	1.53	13.4%
Markstone Capital Partners, LP	2004	10,000,000	11,724,772	4,955,651	68,054	0.43	-52.8%
Euro Choice II (Delaware) L.P.	2004	20,263,217	20,142,503	28,160,988	1,222,721	1.46	7.1%
FdG Capital Partners II LP	2004	25,000,000	26,874,461	30,356,466	1,714,586	1.19	3.5%
Paladin Homeland Security Fund (NY City), L.P.	2004	30,000,000	32,917,117	12,041,510	732,812	0.39	-13.8%
Lincolnshire Equity Fund III, L.P.	2004	15,000,000	14,896,994	21,142,312	5,896,837	1.82	29.1%
Yucaipa American Alliance Fund I, LP	2004	20,000,000	29,967,488	25,975,350	7,039,294	1.10	2.7%
Aurora Equity Partners III L.P.	2004	15,000,000	16,238,039	26,230,763	479,299	1.64	13.7%
Trilantic Capital Partners III L.P.	2004	20,000,000	18,079,250	29,208,586	432,577	1.64	14.6%
Medica III Investments (International) L.P.	2004	10,000,000	10,000,000	4,237,089	3,117,000	0.74	-6.4%
Celtic Pharmaceutical Holdings L.P.	2004	10,000,000	10,160,838	160,838	1,590,407	0.17	-16.2%
Palladium Equity Partners III, L.P.	2005	25,000,000	26,897,101	38,095,808	14,009,321	1.94	15.3%
New Mountain Partners II, L.P.	2005	7,741,935	7,011,896	13,507,602	284,417	1.97	13.8%
VSS Communications Partners IV, L.P.	2005	12,345,176	14,219,840	10,441,592	89,752	0.74	-5.1%
Carlyle Partners IV, L.P.	2005	50,000,000	51,531,593	100,780,768	969,346	1.97	13.0%
Levine Leichtman Capital Partners Deep Value Fund, L.P.	2005	20,000,000	24,978,381	25,665,635	-	1.03	0.7%
Prism Venture Partners V-A, L.P.	2005	20,000,000	20,508,481	12,538,041	482,565	0.63	-8.8%
Arlington Capital Partners II, L.P.	2005	20,000,000	20,224,665	31,178,301	3,804,936	1.73	11.1%
Snow Phipps Group, L.P.	2005	10,000,000	11,913,742	10,424,826	4,143,205	1.22	5.0%
GI Partners Fund II L.P.	2005	12,500,000	12,661,967	20,350,728	19,343	1.61	7.7%
Blackstone Mezzanine Partners II, L.P.	2005	11,954,147	13,356,475	17,778,894	139,209	1.34	7.8%
Psilos Group Partners III, L.P.	2005	12,500,000	13,287,792	6,410,270	8,080,942	1.09	1.5%
FirstMark Capital I, L.P. (fka FirstMark IV)	2005	10,000,000	10,927,097	26,478,465	42,381,271	6.30	35.5%

#### Through December 31, 2017



	Vintage Year					Investment	
	(Cash Flow)	Commitments	Contributions	Distributions	Market Value	Multiple	ITD IRR%
USPF II Institutional Fund, L.P.	2005	20,000,000	26,379,750	20,690,762	13,043,775	1.28	4.4%
JP Morgan Fleming (Tranche A)	2005	40,000,000	39,480,809	35,507,032	16,042,253	1.31	5.3%
Aisling Capital II, LP	2006	2,500,000	2,944,691	2,495,605	483,944	1.01	0.2%
InterMedia Partners VII, L.P.	2006	12,500,000	14,599,097	14,795,867	963,710	1.08	1.2%
Falconhead Capital Partners II, L.P.	2006	15,000,000	16,827,121	16,672,482	3,338,875	1.19	3.5%
Terra Firma Capital Partners III, L.P.	2006	15,532,535	15,728,940	3,698,208	3,177,331	0.44	-10.8%
Fenway Partners Capital Fund III, L.P.	2006	15,000,000	17,230,534	14,080,833	6,714,833	1.21	3.5%
Blackstone Capital Partners V, L.P.	2006	42,087,697	44,749,099	68,601,918	4,440,851	1.63	8.1%
Avista Capital Partners, L.P.	2006	20,000,000	26,286,768	30,920,690	2,382,938	1.27	5.0%
GSC Recovery III, L.P.	2006	5,000,000	5,645,685	6,641,597	27,448	1.18	4.2%
Apollo Investment Fund VI, L.P.	2006	45,000,000	57,919,123	75,726,931	12,243,524	1.52	8.9%
Landmark Equity Partners XIII, L.P.	2006	10,000,000	9,599,442	9,713,941	2,559,671	1.28	5.1%
Ares Corporate Opportunities Fund II, L.P.	2006	15,000,000	16,428,261	26,480,331	1,240,919	1.69	13.3%
Atlantic Equity Partners IV, L.P.	2006	25,124,928	23,058,118	2,874,347	11,046,900	0.60	-6.6%
CCMP Capital Investors II, L.P.	2006	20,000,000	21,941,207	37,576,079	274,442	1.73	13.5%
Capital Partners Private Equity Income Fund, L.P.	2006	15,000,000	14,464,385	29,632,526	2,947,422	2.25	20.9%
CLP 2014 (fka Perseus Partners VII)	2006	15,000,000	17,549,750	6,900,265	(14,449)	0.39	-20.8%
NB Co-Investment Partners LP	2006	60,000,000	60,616,170	85,745,060	2,435,922	1.45	8.7%
Euro Choice III L.P.	2006	26,699,629	26,875,176	26,280,230	5,466,985	1.18	3.4%
Thomas, McNerney & Partners II, L.P.	2006	10,000,000	10,139,667	19,577,607	2,580,745	2.19	16.6%
Catterton Partners VI, L.P.	2006	20,000,000	22,775,054	28,752,702	12,646,663	1.82	11.8%
First Reserve Fund XI, L.P.	2006	20,000,000	21,253,053	13,273,524	1,136,971	0.68	-9.1%
Permira IV, L.P.	2006	16,053,637	17,323,598	23,498,752	3,554,560	1.56	8.7%
Arsenal Capital Partners II, LP	2006	10,000,000	12,123,099	16,130,270	4,674,079	1.72	10.8%
RRE Ventures IV, L.P.	2006	15,000,000	18,884,309	10,512,350	17,937,796	1.51	6.7%
Coller International Partners V, L.P.	2006	10,000,000	8,705,993	10,885,364	1,388,558	1.41	8.2%
MidOcean Partners III, L.P.	2006	38,823,185	46,156,186	65,026,726	23,040,780	1.91	12.2%
GF Capital Private Equity Fund, L.P.	2006	10,000,000	10,482,415	13,284,185	6,086,186	1.85	13.6%
The Fourth Cinven Fund	2006	13,577,953	14,218,057	20,339,254	167,506	1.44	7.3%
Pegasus Partners IV, L.P.	2007	15,000,000	18,066,310	11,927,259	5,315,598	0.95	-1.0%
Olympus Capital Asia III, L.P.	2007	20,000,000	23,404,664	11,861,251	13,043,874	1.06	1.4%
FTVentures III, LP	2007	7,500,000	8,231,525	14,334,565	3,473,617	2.16	16.0%
Highland Consumer Fund I LP	2007	10,000,000	10,016,060	4,393,990	3,802,336	0.82	-3.0%
Montreux Equity Partners IV, L.P.	2007	10,000,000	10,000,000	5,522,350	8,810,283	1.43	6.2%
Gleacher Mezzanine Fund II, L.P.	2007	10,000,000	9,197,768	12,187,028	85,268	1.33	10.6%
Quaker BioVentures II, L.P.	2007	15,000,000	14,144,055	11,248,454	5,448,003	1.18	4.0%
SCP Vitalife Partners II Fund	2007	15,000,000	15,074,774	1,184	8,738,727	0.58	-7.9%
Comvest Investment Partners III, L.P.	2007	15,000,000	19,460,023	21,705,092	2,818,252	1.26	5.9%
Constellation Venture Capital III, L.P.	2007	15,000,000	16,957,599	8,397,431	4,666,984	0.77	-4.6%

#### Through December 31, 2017



	Vintage Year					Investment	
	(Cash Flow)	Commitments	Contributions	Distributions	Market Value	Multiple	ITD IRR%
United States Power Fund III, L.P.	2007	15,000,000	17,746,993	14,075,885	8,873,100	1.29	4.9%
Carlyle Partners V, L.P.	2007	50,000,000	51,530,149	79,120,213	11,239,447	1.75	13.8%
PCG Clean Energy & Technology Fund (East), LLC	2007	40,000,000	35,775,087	6,228,040	9,908,764	0.45	-12.2%
GSO Capital Opportunities Fund LP	2007	17,500,000	26,199,764	37,166,690	489,487	1.44	17.5%
New Mountain Partners III, L.P.	2007	35,000,000	35,467,211	44,290,626	24,146,522	1.93	13.6%
Vista Equity Partners Fund III, L.P.	2007	20,000,000	21,329,310	48,932,948	5,867,240	2.57	27.6%
Trilantic Capital Partners IV L.P.	2007	45,856,523	47,686,839	66,124,027	10,615,733	1.61	14.2%
Pine Brook Capital Partners, L.P.	2007	15,000,000	16,847,112	17,186,703	5,108,614	1.32	7.8%
Paladin III (NY City), L.P.	2008	30,000,000	39,223,849	18,909,567	34,294,127	1.36	7.3%
Relativity Fund, L.P.	2008	8,158,371	8,080,212	3,954,319	106,457	0.50	-10.7%
Apollo Investment Fund VII, L.P.	2008	50,000,000	60,181,221	93,070,500	11,947,557	1.75	23.5%
NGN BioMed Opportunity II, L.P.	2008	10,000,000	9,575,911	3,973,105	5,833,787	1.02	0.4%
Carpenter Community BancFund-A, L.P.	2008	15,000,000	14,677,124	22,200,744	2,975,235	1.72	8.6%
Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	2008	15,000,000	16,818,127	12,360,190	7,661,030	1.19	4.9%
Yucaipa American Alliance Fund II, LP	2008	50,000,000	68,226,790	40,539,046	57,365,779	1.43	8.0%
Milestone Partners III, L.P.	2008	15,000,000	16,271,250	13,857,360	2,283,639	0.99	-0.2%
Levine Leichtman Capital Partners IV, L.P.	2008	10,000,000	10,656,877	15,029,366	3,792,818	1.77	20.0%
Lee Equity Partners Fund, L.P.	2008	17,308,189	23,773,661	28,901,301	99,431	1.22	6.3%
Coral's 2007 Institutional Momentum Fund, L.P.	2008	10,000,000	9,492,863	3,442,898	1,092,046	0.48	-11.1%
Yucaipa Corporate Initiatives Fund II, LP	2008	14,030,930	13,698,081	4,223,223	8,321,338	0.92	-1.6%
CVC European Equity Partners V, L.P.	2008	34,074,374	36,978,045	52,942,631	11,883,652	1.75	15.3%
GI Partners Fund III L.P.	2008	17,500,000	18,886,401	24,845,264	4,809,874	1.57	13.2%
Ares Corporate Opportunities Fund III, L.P.	2008	25,000,000	30,067,807	39,477,926	25,837,192	2.17	22.5%
GCM Grosvenor NYCPPF Emerging Manager Fund, L.P.	2008	59,909,091	70,671,541	56,649,969	41,349,675	1.39	10.7%
First Reserve Fund XII, L.P.	2008	20,000,000	21,798,416	10,129,543	5,227,595	0.70	-8.4%
Landmark Equity Partners XIV, L.P.	2008	27,250,000	26,308,231	25,618,233	8,923,719	1.31	10.3%
Crestview Partners II, L.P.	2008	22,500,000	25,295,541	29,447,126	18,980,721	1.91	16.8%
NB New York City Growth Fund IA	2008	4,835,960	4,835,960	1,670,495	1,549,781	0.67	-5.9%
Euro Choice IV L.P.	2008	19,461,487	17,913,130	10,752,343	14,838,562	1.43	8.4%
Avista Capital Partners II, L.P.	2008	35,000,000	44,691,564	67,243,136	11,036,486	1.75	16.0%
Blue Wolf Capital Fund II, L.P.	2008	15,000,000	16,300,742	16,745,870	5,515,754	1.37	7.8%
Bridgepoint Europe IV	2008	13,332,671	13,383,049	13,525,456	7,628,633	1.58	11.7%
Aisling Capital III, LP	2008	7,000,000	7,869,607	10,002,316	4,891,177	1.89	23.0%
Onex Partners III LP	2008	15,000,000	16,315,755	20,028,279	9,211,052	1.79	15.0%
NorthBound Emerging Manager Custom Fund LP	2009	20,000,000	17,165,404	20,298,067	10,193,234	1.78	15.4%
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	22,500,000	22,500,000	24,356,240	12,114,970	1.62	13.0%
Scale Venture Partners III, LP	2009	10,000,000	9,894,906	15,952,963	6,566,995	2.28	20.7%
FS Equity Partners VI, L.P.	2009	20,000,000	19,592,652	29,157,435	30,895,457	3.07	26.4%
Lincolnshire Equity Fund IV, L.P.	2009	7,500,000	7,877,965	5,090,409	5,926,669	1.40	9.4%

#### Through December 31, 2017



Lexington Capital Partners VII, L.P.         2009         Commitments         Contributions         Obstributions         Market Value         Multo         ITD R8W           Snow Phipps II, L.P.         2010         17,500,000         18,825,441         13,859,003         11,213,761         1.33         10.1%           Trident V, L.P.         2010         40,000,000         45,473,490         27,710,059         39,541,061         1.48         10.3%           Comvest Investment Partners IV, L.P.         2010         45,000,000         35,575,238         18,213,129         33,349,421         1.45         13,35           Blackstone Capital Partners VI, L.P.         2011         25,000,000         12,500,000         13,013,330         16,091,993         2.33         20.4%           AMA Secondary Fund VB L.P.         2011         20,000,000         64,749,729         88,182,94         17,278,615         1.63         1.67%           Wellspring Capital Partners V, L.P.         2011         22,500,000         22,390,441         24,666,433         9,943,538         1.55         16,9%           EQT VI, L.P.         2011         14,552,900         16,085,362         4,606,838         22,811,303         1.70         16,3%           EC Luropean Capital IX         2011         14,552,9
Snow Phipps II, L.P.   2010
Trident V, L.P.         2010         40,000,000         45,473,490         27,710,059         39,541,061         1.48         10.5%           Comvest Investment Partners IV, L.P.         2010         45,000,000         43,46,825         56,6458,064         24,145,049         1.82         32.0%           Blackstone Capital Partners VI, L.P.         2011         35,000,000         12,500,000         13,013,330         16,091,993         2.33         20.4%           BDCM Opportunity Fund III, L.P.         2011         20,000,000         26,358,326         9,212,561         25,131,093         1.30         9.0%           AXA Secondary Fund V B L.P.         2011         80,000,000         64,749,729         88,148,294         17,278,615         1.63         16,7%           Wellspring Capital Partners V, L.P.         2011         48,581,853         48,583,550         38,396,886         42,670,605         1.67         15.3%           FQT VI, L.P.         2011         45,552,940         16,085,362         4,606,838         22,818,039         1.70         16.4%           EC European Capital IX         2011         65,519,124         70,289,844         44,002,068         60,112,649         1.48         14.4%           Warburg Pincus Private Equity XI, L.P.         2011         70,000
Commest Investment Partners IV, L.P.   2010   45,000,000   4,336,825   56,458,064   24,145,049   1.82   32,0%
Blackstone Capital Partners VI, L.P.   2011   35,000,000   35,575,238   18,213,129   33,349,421   1.45   13.18     Ampersand 2011   12,500,000   12,500,000   13,013,330   16,091,993   2.33   20.48     BDCM Opportunity Fund III, L.P.   2011   20,000,000   26,358,326   9,212,561   25,131,039   1.30   9.0%     AXA Secondary Fund V B L.P.   2011   80,000,000   64,749,729   88,148,294   17,278,615   1.63   16.78     Wellspring Capital Partners V, L.P.   2011   48,581,853   48,583,550   38,396,886   42,670,605   1.67   16.3%     EQT VI, L.P.   2011   48,581,853   48,583,550   38,396,886   42,670,605   1.67   16.3%     Pegasus Partners V, L.P.   2011   14,552,940   16,085,362   4,606,838   22,818,039   1.70   16.4%     American Securities Partners VI, L.P.   2011   50,000,000   53,476,042   68,666,121   30,898,373   1.86   22.6%     Vista Equity Partners Fund IV, L.P.   2011   70,000,000   70,549,911   78,952,344   54,954,029   1.90   19.4%     Summit Partners Growth Equity Fund VIII-A, L.P.   2012   80,000,000   82,795,264   46,012,245   73,464,955   1.44   13.9%     Summit Partners Fund IV, L.P.   2012   50,000,000   47,217,281   26,651,477   40,458,034   1.42   18.6%     Palladium Equity Partners VI, L.P.   2012   50,000,000   47,217,281   26,651,477   40,458,034   1.42   15.6%     Palladium Equity Partners IV, L.P.   2012   50,000,000   47,217,281   26,651,477   40,458,034   1.42   15.6%     Palladium Equity Capital Partners III, L.P.   2012   50,000,000   47,217,281   26,651,477   40,458,034   1.42   15.6%     Palladium Equity Capital Partners III, L.P.   2012   50,000,000   47,217,281   26,651,477   40,458,034   1.42   15.6%     Palladium Equity Capital Partners III, L.P.   2012   50,000,000   47,217,341   26,651,477   40,458,034   1.42   15.6%     Palladium Equity Capital Partners III, L.P.   2012   50,000,000   57,754,939   12,696,677   59,400,594   1.55   13.6%     Palladium Equity Partners VI, L.P.   2012   50,000,000   57,754,939   12,696,677   59,400,594   1.55   13.6%     Carlyle Partners VI, L.P. (Side
Ampersand 2011 1, 2,500,000 12,500,000 13,013,330 16,091,993 2.33 20.4% BDCM Opportunity Fund III, L.P. 2011 20,000,000 (26,358,326 9,212,561 25,131,039 1.30 9.0% AXA Secondary Fund V B L.P. 2011 80,000,000 (47,49,729 88,148,294 17,278,615 1.63 9.0% Wellspring Capital Partners V, L.P. 2011 22,500,000 22,390,441 24,666,433 9,943,538 1.55 16.9% EQT VI, L.P. 2011 48,581,853 48,583,550 38,396,886 42,670,605 1.67 15.3% Pegasus Partners V, L.P. 2011 14,552,940 16,085,362 4,606,838 22,818,039 1.70 16.4% BC European Capital IX American Securities Partners VI, L.P. 2011 50,000,000 53,476,042 68,666,121 30,898,373 1.86 20,840 1.40 1.40 1.40 1.40 1.40 1.40 1.40 1.
BDCM Opportunity Fund III, L.P.   2011   20,000,000   26,358,326   9,212,561   25,131,039   1.30   9.0%   AXA Secondary Fund V B L.P.   2011   80,000,000   64,749,729   88,148,294   17,278,615   1.63   16.7%   1.67%   1.
AXA Secondary Fund V B L.P.  Wellspring Capital Partners V, L.P.  2011 22,500,000 22,390,441 24,666,433 9,943,538 1.55 16.9%  REQT VI, L.P.  Pegasus Partners V, L.P.  2011 48,581,853 48,583,555 38,396,886 42,670,605 1.67 15.3%  Pegasus Partners V, L.P.  2011 14,552,940 16,085,362 4,606,838 22,818,039 1.70 16.4%  BC European Capital IX  American Securities Partners VI, L.P.  2011 50,000,000 53,476,042 68,666,121 30,898,373 1.86 22.6%  Vista Equity Partners Fund IV, L.P.  2011 70,000,000 70,549,911 78,952,344 54,954,029 1.90 1.90 1.94%  Warburg Pincus Private Equity XI, L.P.  2012 80,000,000 82,795,264 46,091,245 73,464,955 1.44 13.9%  NYCPPF - 2012 Emeraing Manager Program  2012 47,000,000 47,217,281 26,651,477 40,458,034 1.42 18.6%  Palladium Equity Partners IV, L.P.  2012 35,000,000 47,217,281 26,651,477 40,458,034 1.42 18.6%  Palladium Equity Partners III, L.P.  2012 50,000,000 47,669,766 26,342,478 43,322,222 1.48 15.8%  Green Equity Investors VI, L.P.  2012 50,000,000 47,669,766 26,342,478 43,320,187 1.46 15.7%  Green Equity Investors VI, L.P.  2012 50,000,000 57,754,939 12,696,677 59,400,594 1.25 13.6%  Palladium Equity Capital Partners III, L.P.  2012 50,000,000 47,052,050 42,636,047 39,889,372 2.01 47.3%  Reverge Berman Strategic Co-Investment II LP  2012 50,000,000 57,754,939 12,696,677 59,400,594 1.25 13.6%  Carlyle Partners VI, L.P.  2013 60,000,000 37,232,151 20,760,785 25,557,519 1.24 13.5%  Landmark Equity Partners XV, L.P. (516 Car)  Landmark Equity Partners XV, L.P. (516 Car)  Landmark Equity Partners XV, L.P. (516 Car)  Landmark Equity Partners XV, L.P.  2013 67,000,000 37,232,151 20,760,785 25,557,519 1.24 13.5%
Wellspring Capital Partners V, L.P.         2011         22,500,000         22,390,441         24,666,433         9,943,538         1.55         16.9%           PC TV, I.P.         2011         48,581,853         48,583,550         38,396,886         42,670,605         1.67         15.3%           Pegasus Partners V, L.P.         2011         14,552,940         16,085,362         4,606,838         22,818,039         1.70         16.4%           BC European Capital IX         2011         65,519,124         70,289,844         44,002,068         60,112,649         1.48         14.1%           American Securities Partners VI, L.P.         2011         50,000,000         53,476,042         68,666,121         30,898,373         1.86         22.6%           Vista Equity Partners Fund IV, L.P.         2011         70,000,000         82,795,264         46,091,245         73,464,955         1.44         13.9%           Summit Partners Growth Equity Fund VIII-A, L.P.         2012         75,000,000         81,794,819         69,568,753         69,469,966         1.70         23.1%           NYCPPE - 2012 Emerging Manager Program         2012         47,000,000         40,090,458         8,757,494         43,122,222         1.29         12.9%           Trillantic Capital Partners VI, L.P.
EQT VI, L.P.  Pegasus Partners V, L.P.  2011 14,552,940 16,085,362 4,606,838 22,818,039 1.70 16.4%  Pegasus Partners V, L.P.  2011 14,552,940 16,085,362 4,606,838 22,818,039 1.70 16.4%  American Securities Partners VI, L.P.  2011 50,000,000 53,476,042 68,666,121 30,898,373 1.86 22.66%  Vista Equity Partners Fund IV, L.P.  2011 70,000,000 70,549,911 78,952,344 54,954,029 1.90 19.4%  Warburg Princus Private Equity XI, L.P.  2012 80,000,000 82,795,264 46,091,245 73,464,955 1.44 13.9%  NYCPPF - 2012 Emerging Manager Program  2012 75,000,000 41,090,458 8,757,494 43,122,222 1.29 12.9%  Trilantic Capital Partners V L.P.  2012 35,000,000 47,217,281 26,651,477 40,458,034 1.42 18.6%  Ares Corporate Opportunities Fund IV, L.P.  2012 35,000,000 47,669,766 26,342,478 43,320,187 1.46 15.7%  Green Equity Investors VI, L.P.  Platinum Equity Capital Partners III, L.P.  2012 50,000,000 41,052,050 42,636,047 39,889,372 2.01 47.3%  Reuberger Berman Strategic Co-Investment II LP  2013 60,000,000 57,754,939 12,696,677 59,400,594 1.25 13.6%  Carlyle Partners VI, L.P. 62013 67,000,000 37,232,151 20,760,785 25,557,519 1.24 13.5%  Landmark Equity Partners XV, L.P.  2013 67,000,000 18,195,767 7,109,475 16,854,002 1.32 17.5%
Pegasus Partners V, L.P.         2011         14,552,940         16,085,362         4,606,838         22,818,039         1.70         16.4%           BC European Capital IX         2011         65,519,124         70,289,844         44,002,068         60,112,649         1.48         14.1%           American Securities Partners VI, L.P.         2011         50,000,000         53,476,042         68,666,121         30,898,373         1.86         22.6%           Vista Equity Partners Fund IV, L.P.         2011         70,000,000         70,549,911         78,952,344         54,954,029         1.90         19.4%           Warburg Pincus Private Equity XI, L.P.         2012         80,000,000         82,795,264         46,091,245         73,464,955         1.44         13.9%           Summit Partners Growth Equity Fund VIII-A, L.P.         2012         75,000,000         81,794,819         69,568,753         69,469,966         1.70         23.1%           NYCPPF - 2012 Emeraing Manager Program         2012         50,000,000         47,217,281         26,651,477         40,458,034         1.42         18.6%           Palladium Equity Partners IV, L.P.         2012         50,000,000         47,217,281         26,651,477         40,458,034         1.46         15.7%           Green Equity Investor
BC European Capital IX American Securities Partners VI, L.P. 2011 50,000,000 53,476,042 68,666,121 30,898,373 1.86 22.6% Warburg Pincus Private Equity XI, L.P. 2011 70,000,000 70,549,911 78,952,344 54,954,029 1.90 19.4% Warburg Pincus Private Equity XI, L.P. 2012 80,000,000 82,795,264 46,091,245 73,464,955 1.44 13.9% Summit Partners Growth Equity Fund VIII-A, L.P. 2012 75,000,000 81,794,819 69,568,753 69,469,966 1.70 23.1%  NYCPPF - 2012 Emerging Manager Program 2012 75,000,000 47,090,458 8,757,494 43,122,222 1.29 12.9%  Palladium Equity Partners VI, L.P. 2012 50,000,000 47,217,281 26,651,477 40,458,034 1.42 18.6% Palladium Equity Partners IV, L.P. 2012 50,000,000 47,669,766 26,342,478 43,320,187 1.46 15.7%  Green Equity Investors VI, L.P. 2012 55,000,000 47,669,766 26,342,478 43,320,187 1.46 15.7% Green Equity Capital Partners III, L.P. 2012 50,000,000 47,669,766 26,342,478 43,320,187 1.46 15.7%  Green Equity Capital Partners III, L.P. 2012 50,000,000 47,669,766 26,342,478 43,320,187 1.46 15.7%  Reuberger Berman Strategic Co-Investment II LP 2012 50,000,000 41,052,050 42,636,047 39,889,372 2.01 47.3%  Neuberger Berman Strategic Co-Investment II LP 2013 60,000,000 57,754,939 12,696,677 59,400,594 1.25 13.6%  Carlyle Partners VI, L.P. 2014 6,600,000 41,48,162 - 4,398,240 1.06 2.6%  Carlyle Partners VI, L.P. 2015 67,000,000 41,816,600,000 47,217,211 20,760,785 25,557,519 1.24 13.5%  Landmark - NYC Fund I, L.P. 2013 23,000,000 18,195,767 7,109,475 16,854,002 1.32 17.5%
American Securities Partners VI, L.P.  2011 50,000,000 53,476,042 66,666,121 30,898,373 1.86 22.6% Vista Equity Partners Fund IV, L.P. 2011 70,000,000 70,549,911 78,952,344 54,954,029 1.90 19.4% Warburg Pincus Private Equity XI, L.P. 2012 80,000,000 82,795,264 46,091,245 73,464,955 1.44 13.9% Summit Partners Growth Equity Fund VIII-A, L.P. 2012 75,000,000 81,794,819 69,568,753 69,469,966 1.70 23.1%  NYCPPF - 2012 Emerging Manager Program 2012 47,000,000 40,090,458 8,757,494 43,122,222 1.29 12.9% Trilantic Capital Partners V L.P. 2012 50,000,000 47,217,281 26,651,477 40,458,034 1.42 18.6% Palladium Equity Partners IV, L.P. 2012 35,000,000 25,303,772 11,722,612 25,604,292 1.48 15.8% Ares Corporate Opportunities Fund IV, L.P. 2012 50,000,000 47,669,766 26,342,478 43,320,187 1.46 15.7% Green Equity Investors VI, L.P. 2012 50,000,000 47,669,766 26,342,478 43,320,187 1.46 15.7% Platinum Equity Capital Partners III, L.P. 2012 50,000,000 41,052,050 42,636,047 39,889,372 2.01 47.3% Neuberger Berman Strategic Co-Investment II LP 2012 60,000,000 55,725,935 38,847,125 50,351,827 1.60 19.8% Carlyle Partners VI, L.P. 2013 60,000,000 4,148,162 - 4,398,240 1.06 2.896 Carlyle Partners VI, L.P. (Side Car) Landmark Equity Partners XV, L.P. 2013 67,000,000 37,232,151 20,760,785 25,557,519 1.24 13.5% Landmark - NYC Fund I, L.P.
Vista Equity Partners Fund IV, L.P.         2011         70,000,000         70,549,911         78,952,344         54,954,029         1.90         19.4%           Warburg Pincus Private Equity XI, L.P.         2012         80,000,000         82,795,264         46,091,245         73,464,955         1.44         13.9%           Summit Partners Growth Equity Fund VIII-A, L.P.         2012         75,000,000         81,794,819         69,568,753         69,469,966         1.70         23.1%           NYCPPF - 2012 Emerging Manager Program         2012         47,000,000         40,090,458         8,757,494         43,122,222         1.29         12.9%           Trilantic Capital Partners V L.P.         2012         50,000,000         47,217,281         26,651,477         40,458,034         1.42         18.6%           Palladium Equity Partners IV, L.P.         2012         35,000,000         25,303,772         11,722,612         25,604,292         1.48         15.8%           Ares Corporate Opportunities Fund IV, L.P.         2012         50,000,000         47,669,766         26,342,478         43,320,187         1.46         15.7%           Green Equity Investors VI, L.P.         2012         50,000,000         47,669,766         26,342,478         43,320,187         1.44         15.4% <t< td=""></t<>
Warburg Pincus Private Equity XI, L.P.201280,000,00082,795,26446,091,24573,464,9551.4413.9%Summit Partners Growth Equity Fund VIII-A, L.P.201275,000,00081,794,81969,568,75369,469,9661.7023.1%NYCPPF - 2012 Emerging Manager Program201247,000,00040,090,4588,757,49443,122,2221.2912.9%Trilantic Capital Partners V L.P.201250,000,00047,217,28126,651,47740,458,0341.4218.6%Palladium Equity Partners IV, L.P.201235,000,00025,303,77211,722,61225,604,2921.4815.7%Ares Corporate Opportunities Fund IV, L.P.201250,000,00047,669,76626,342,47843,320,1871.4615.7%Green Equity Investors VI, L.P.201255,000,00058,614,30128,500,90055,917,5821.4415.4%Platinum Equity Capital Partners III, L.P.201250,000,00041,052,05042,636,04739,889,3722.0147.3%Neuberger Berman Strategic Co-Investment II LP201260,000,00055,725,93538,847,12550,351,8271.6019.8%Carlyle Partners VI, L.P.201360,000,00057,754,93912,696,67759,400,5941.2513.6%Carlyle Partners VI, L.P. (Side Car)20146,600,00037,232,15120,760,78525,557,5191.2413.5%Landmark - NYC Fund I, L.P.201367,000,00037,232,15120,760,78525,557,5191.2413.5%
Summit Partners Growth Equity Fund VIII-A, L.P.         2012         75,000,000         81,794,819         69,568,753         69,469,966         1.70         23.1%           NYCPPF - 2012 Emerging Manager Program         2012         47,000,000         40,090,458         8,757,494         43,122,222         1.29         12.9%           Trilantic Capital Partners V L.P.         2012         50,000,000         47,217,281         26,651,477         40,458,034         1.42         18.6%           Palladium Equity Partners IV, L.P.         2012         35,000,000         25,303,772         11,722,612         25,604,292         1.48         15.8%           Ares Corporate Opportunities Fund IV, L.P.         2012         50,000,000         47,669,766         26,342,478         43,320,187         1.46         15.7%           Green Equity Investors VI, L.P.         2012         55,000,000         58,614,301         28,500,900         55,917,582         1.44         15.4%           Platinum Equity Capital Partners III, L.P.         2012         50,000,000         41,052,050         42,636,047         39,889,372         2.01         47.3%           Neuberger Berman Strategic Co-Investment II LP         2012         60,000,000         55,725,935         38,847,125         50,351,827         1.60         19.8%
NYCPPF - 2012 Emerging Manager Program         2012         47,000,000         40,090,458         8,757,494         43,122,222         1.29         12.9%           Trilantic Capital Partners V L.P.         2012         50,000,000         47,217,281         26,651,477         40,458,034         1.42         18.6%           Palladium Equity Partners IV, L.P.         2012         35,000,000         25,303,772         11,722,612         25,604,292         1.48         15.8%           Ares Corporate Opportunities Fund IV, L.P.         2012         50,000,000         47,669,766         26,342,478         43,320,187         1.46         15.7%           Green Equity Investors VI, L.P.         2012         55,000,000         58,614,301         28,500,900         55,917,582         1.44         15.4%           Platinum Equity Capital Partners III, L.P.         2012         50,000,000         41,052,050         42,636,047         39,889,372         2.01         47.3%           Neuberger Berman Strategic Co-Investment II LP         2012         60,000,000         55,725,935         38,847,125         50,351,827         1.60         19.8%           Carlyle Partners VI, L.P. (Side Car)         2013         60,000,000         57,754,939         12,696,677         59,400,594         1.25         13.6%
Trilantic Capital Partners V L.P.       2012       50,000,000       47,217,281       26,651,477       40,458,034       1.42       18.6%         Palladium Equity Partners IV, L.P.       2012       35,000,000       25,303,772       11,722,612       25,604,292       1.48       15.8%         Ares Corporate Opportunities Fund IV, L.P.       2012       50,000,000       47,669,766       26,342,478       43,320,187       1.46       15.7%         Green Equity Investors VI, L.P.       2012       55,000,000       58,614,301       28,500,900       55,917,582       1.44       15.4%         Platinum Equity Capital Partners III, L.P.       2012       50,000,000       41,052,050       42,636,047       39,889,372       2.01       47.3%         Neuberger Berman Strategic Co-Investment II LP       2012       60,000,000       55,725,935       38,847,125       50,351,827       1.60       19.8%         Carlyle Partners VI, L.P.       2013       60,000,000       57,754,939       12,696,677       59,400,594       1.25       13.6%         Carlyle Partners VI, L.P. (Side Car)       2014       6,600,000       4,148,162       -       4,398,240       1.06       2.6%         Landmark Equity Partners XV, L.P.       2013       67,000,000       37,232,151       20,760,785
Palladium Equity Partners IV, L.P.       2012       35,000,000       25,303,772       11,722,612       25,604,292       1.48       15.8%         Ares Corporate Opportunities Fund IV, L.P.       2012       50,000,000       47,669,766       26,342,478       43,320,187       1.46       15.7%         Green Equity Investors VI, L.P.       2012       55,000,000       58,614,301       28,500,900       55,917,582       1.44       15.4%         Platinum Equity Capital Partners III, L.P.       2012       50,000,000       41,052,050       42,636,047       39,889,372       2.01       47.3%         Neuberger Berman Strategic Co-Investment II LP       2012       60,000,000       55,725,935       38,847,125       50,351,827       1.60       19.8%         Carlyle Partners VI, L.P.       2013       60,000,000       57,754,939       12,696,677       59,400,594       1.25       13.6%         Carlyle Partners VI, L.P. (Side Car)       2014       6,600,000       4,148,162       -       4,398,240       1.06       2.6%         Landmark Equity Partners XV, L.P.       2013       67,000,000       37,232,151       20,760,785       25,557,519       1.24       13.5%         Landmark - NYC Fund I, L.P.       2013       2013       23,000,000       18,195,767       7,10
Ares Corporate Opportunities Fund IV, L.P.  Green Equity Investors VI, L.P.  Platinum Equity Capital Partners III, L.P.  Neuberger Berman Strategic Co-Investment II LP  Carlyle Partners VI, L.P.  Carlyle Partners VI, L.P.  Carlyle Partners VI, L.P.  Landmark Equity Partners XV, L.P.  2012  50,000,000  47,669,766  26,342,478  43,320,187  1.46  15.7%  47,689,766  26,342,478  43,320,187  1.46  15.7%  47,389  47,699,766  28,500,900  55,917,582  1.44  15.4%  47,389,372  2.01  47,389  47,389  47,389  47,399  47,696,677  59,400,594  1.25  13.6%
Green Equity Investors VI, L.P.       2012       55,000,000       58,614,301       28,500,900       55,917,582       1.44       15.4%         Platinum Equity Capital Partners III, L.P.       2012       50,000,000       41,052,050       42,636,047       39,889,372       2.01       47.3%         Neuberger Berman Strategic Co-Investment II LP       2012       60,000,000       55,725,935       38,847,125       50,351,827       1.60       19.8%         Carlyle Partners VI, L.P.       2013       60,000,000       57,754,939       12,696,677       59,400,594       1.25       13.6%         Carlyle Partners VI, L.P. (Side Car)       2014       6,600,000       4,148,162       -       4,398,240       1.06       2.6%         Landmark Equity Partners XV, L.P.       2013       67,000,000       37,232,151       20,760,785       25,557,519       1.24       13.5%         Landmark - NYC Fund I, L.P.       2013       2013       23,000,000       18,195,767       7,109,475       16,854,002       1.32       17.5%
Platinum Equity Capital Partners III, L.P.       2012       50,000,000       41,052,050       42,636,047       39,889,372       2.01       47.3%         Neuberger Berman Strategic Co-Investment II LP       2012       60,000,000       55,725,935       38,847,125       50,351,827       1.60       19.8%         Carlyle Partners VI, L.P.       2013       60,000,000       57,754,939       12,696,677       59,400,594       1.25       13.6%         Carlyle Partners VI, L.P. (Side Car)       2014       6,600,000       4,148,162       -       4,398,240       1.06       2.6%         Landmark Equity Partners XV, L.P.       2013       67,000,000       37,232,151       20,760,785       25,557,519       1.24       13.5%         Landmark - NYC Fund I, L.P.       2013       2013       23,000,000       18,195,767       7,109,475       16,854,002       1.32       17.5%
Neuberger Berman Strategic Co-Investment II LP     2012     60,000,000     55,725,935     38,847,125     50,351,827     1.60     19.8%       Carlyle Partners VI, L.P.     2013     60,000,000     57,754,939     12,696,677     59,400,594     1.25     13.6%       Carlyle Partners VI, L.P. (Side Car)     2014     6,600,000     4,148,162     -     4,398,240     1.06     2.6%       Landmark Equity Partners XV, L.P.     2013     67,000,000     37,232,151     20,760,785     25,557,519     1.24     13.5%       Landmark - NYC Fund I, L.P.     2013     23,000,000     18,195,767     7,109,475     16,854,002     1.32     17.5%
Carlyle Partners VI, L.P.     2013     60,000,000     57,754,939     12,696,677     59,400,594     1.25     13.6%       Carlyle Partners VI, L.P. (Side Car)     2014     6,600,000     4,148,162     -     4,398,240     1.06     2.6%       Landmark Equity Partners XV, L.P.     2013     67,000,000     37,232,151     20,760,785     25,557,519     1.24     13.5%       Landmark - NYC Fund I, L.P.     2013     23,000,000     18,195,767     7,109,475     16,854,002     1.32     17.5%
Carlyle Partners VI, L.P. (Side Car)     2014     6,600,000     4,148,162     -     4,398,240     1.06     2.6%       Landmark Equity Partners XV, L.P.     2013     67,000,000     37,232,151     20,760,785     25,557,519     1.24     13.5%       Landmark - NYC Fund I, L.P.     2013     23,000,000     18,195,767     7,109,475     16,854,002     1.32     17.5%
Landmark Equity Partners XV, L.P.       2013       67,000,000       37,232,151       20,760,785       25,557,519       1.24       13.5%         Landmark - NYC Fund I, L.P.       2013       23,000,000       18,195,767       7,109,475       16,854,002       1.32       17.5%
Landmark - NYC Fund I, L.P. 2013 23,000,000 18,195,767 7,109,475 16,854,002 1.32 17.5%
Apollo Investment Fund VIII. L.P. 2013 100 000 000 76 770 593 17 626 154 88 803 820 1 39 20 7%
7.50.0 2013 100,000,000 70,770,000 17,020,104 00,000,020 1.00
CVC Capital Partners VI, L.P. 2014 88,786,673 77,417,954 8,684,113 83,323,681 1.19 14.1%
Crestview Partners III, L.P. 2013 45,000,000 17,220,351 288,330 19,518,592 1.15 8.3%
Crestview Partners III (Co-Investment B), L.P. 2013 15,000,000 9,189,510 205,453 10,886,710 1.21 12.7%
Olympus Growth Fund VI, L.P. 2014 35,000,000 24,551,642 6,323,476 25,911,052 1.31 19.8%
ASF VI B L.P. 2014 60,000,000 38,095,104 11,911,982 40,232,558 1.37 15.1%
ASF VI B NYC Co-Invest L.P. 2014 20,000,000 14,425,565 8,082,396 12,501,404 1.43 16.7%
Vista Equity Partners Fund V, L.P. 2014 85,000,000 85,578,225 19,019,633 96,341,899 1.35 14.8%
Lexington Capital Partners VIII, L.P. 2014 80,000,000 41,314,175 14,646,874 39,581,001 1.31 28.0%
Siris Partners III, L.P. 2015 15,000,000 9,613,799 649,864 10,217,140 1.13 10.7%
Centerbridge Capital Partners III, L.P. 2015 11,100,000 5,344,055 676,243 5,776,761 1.21 14.1%
Welsh, Carson, Anderson & Stowe XII, L.P.       2015       37,000,000       15,399,473       873,548       19,642,192       1.33       19.1%





	Vintage Year					Investment	
	(Cash Flow)	Commitments	Contributions	Distributions	Market Value	Multiple	ITD IRR%
Warburg Pincus Private Equity XII, L.P.	2015	97,000,000	46,794,262	746,900	48,576,032	1.05	6.7%
ASF VII B L.P.	2015	44,500,000	9,384,802	217,835	11,706,203	1.27	29.1%
ASF VII B NYC Co-Invest L.P.	2015	22,000,000	9,863,350	-	13,700,443	1.39	656.9%
EQT VII, L.P.	2015	78,169,011	50,307,806	3,826,291	56,854,708	1.21	N/M
American Securities Partners VII, L.P.	2015	37,000,000	18,277,538	388,880	20,558,188	1.15	N/M
Bridgepoint Europe V L.P.	2015	29,944,220	17,012,751	2,856,214	18,498,507	1.26	N/M
Bridgepoint Europe V Co-Invest	2015	8,153,215	3,996,421	-	5,004,910	1.25	N/M
NYCPPF - 2015 Emerging Manager Program	<u>2015</u>	63,000,000	4,953,661	<i>574,988</i>	5,482,839	<u>1.22</u>	<u>N/M</u>
Vista Equity Partners Fund VI, L.P.	2016	75,000,000	54,163,088	179,746	56,529,066	1.05	N/M
Platinum Equity Capital Partners IV, L.P.	2016	52,500,000	13,110,773	2,278,314	11,995,145	1.09	N/M
Apax IX USD, L.P.	2016	60,000,000	27,720,000	-	29,627,649	1.07	N/M
Green Equity Investors VII, L.P.	2017	44,000,000	11,759,935	-	11,051,238	0.94	N/M
Ares Corporate Opportunities Fund V, L.P.	2017	44,000,000	6,130,796	-	5,855,147	0.96	N/M
KKR Americas Fund XII, L.P.	2017	75,000,000	1,137,343	-	645,466	0.57	N/M
BC European Capital X	2017	44,236,318	10,502,992	-	9,808,657	0.93	N/M
BCEC X Co-Investment	2017	17,535,715	3,234,409	-	3,224,003	1.00	N/M
Warburg Pincus Financial Sector, L.P.	2017	62,000,000	-	-	-	-	N/A
Apollo Investment Fund IX, L.P.	2018	154,000,000	-	-	-	-	N/A
CVC Capital Partners VII, L.P.	2018	98,463,140	-	-	-	-	N/A

Through December 31, 2017



	V:	Stude Seeten	Original	Total	Total	84	Total Value	Not IDD0/
TOTAL PRIVATE REAL ESTATE	Vintage Year	Style Sector	2,794,441,571	2,280,835,981	Distrubutions 1,420,312,987	Market Value 1,781,851,989	Multiple 1.40	Net IRR% 8.9%
TOTAL PRIVATE REAL ESTATE			2,794,441,371	2,260,633,961	1,420,312,367	1,761,631,363	1.40	0.5%
TOTAL PRIVATE REAL ESTATE								
PRISA SA	2006	Core Portfolio	21,000,000	22,590,656	7,297,645	28,459,252	1.58	4.6%
Prologis Targeted U.S. Logistics Fund	2006	Core Portfolio	10,000,000	13,594,865	3,833,125	16,246,250	1.48	4.6%
RREEF America REIT II	2006	Core Portfolio	21,000,000	27,724,347	13,366,037	28,840,755	1.52	5.1%
UBS Trumbull Property Fund	2006	Core Portfolio	61,000,000	89,451,815	23,109,161	111,361,089	1.50	6.9%
Colony Realty Partners II	2007	Core Portfolio	20,000,000	21,420,211	5,540,084	· · ·	0.26	-13.4%
Heitman HART	2007	Core Portfolio	28,000,000	41,990,499	13,990,499	57,720,682	1.71	8.1%
JP Morgan Special Situation Property Fund	2007	Core Portfolio	15,000,000	17,613,742	5,521,954	20,238,632	1.46	4.3%
JP Morgan Strategic Property Fund	2007	Core Portfolio	56,000,000	62,422,616	-	119,426,905	1.91	8.2%
PRISA II	2007	Core Portfolio	60,278,867	63,729,327	16,838,521	86,044,263	1.61	5.7%
RREEF America REIT III - 1410	2007	Core Portfolio	15,000,000	15,000,000	8,526,095	-	0.57	-7.6%
LaSalle Property Fund	2010	Core Portfolio	50,000,000	50,000,000	14,873,726	70,383,739	1.71	11.1%
Almanac Realty Securities VI	2012	Core Portfolio	50,000,000	33,444,956	27,231,057	18,367,505	1.36	14.3%
Almanac Realty Securities VI (Sidecar II)	2012	Core Portfolio	15,000,000	5,829,583	3,069,973	5,987,670	1.55	21.7%
NYC Asset Investor #2 LLC	2012	Core Portfolio	60,000,000	57,585,676	8,113,236	79,864,586	1.53	17.1%
MetLife Core Property Fund	2013	Core Portfolio	40,000,000	40,000,000	5,650,234	48,316,315	1.35	11.7%
Almanac Realty Securities VII	2015	Core Portfolio	50,000,000	31,321,719	6,698,452	29,789,293	1.16	14.1%
·	2015	Core Portfolio	, ,	, ,			1.13	17.8%
Almanac Realty Securities VII (Sidecar II)			20,000,000	6,873,443	391,793	8,059,833		
Exeter Industrial Core Club Fund II	2016	Core Portfolio	19,000,000	7,657,000	617,100	8,196,907	1.15	14.2%
Jamestown Premier Property Fund	2016	Core Portfolio	26,000,000	28,025,544	4,130,762	28,281,332	1.16	10.8%
NYCRS Artemis Co-Investment (SEM)	2016	Core Portfolio	35,000,000	19,339,350	10,707,683	13,543,866	1.25	33.7%
USAA Eagle Real Estate Fund	2016	Core Portfolio	40,000,000	33,604,025	-	39,008,317	1.16	8.8%
Brookfield Premier Real Estate Partners	2017	Core Portfolio	61,000,000	62,341,745	2,023,694	67,513,431	1.12	
Carlyle Property Investors	2017	Core Portfolio	61,000,000	55,084,404	664,729	55,118,964	1.01	5.1%
Lion Industrial Trust - 2007	2017	Core Portfolio	40,000,000	41,233,024	1,363,949	44,595,874	1.11	12.7%
OCM Real Estate Opportunities Fund III	2003	Non-Core Portfolio	15,000,000	15,000,000	25,442,105	(199,121)	1.68	11.3%
Blackstone Fund IV	2004	Non-Core Portfolio	15,000,000	19,220,353	24,376,753	2,587,239	1.40	10.4%
The City Investment Fund I	2004	Non-Core Portfolio	70,000,000	69,030,360	69,808,600	115,085	1.01	0.3%
Canyon Johnson Urban Fund II	2005	Non-Core Portfolio	20,000,000	17,977,405	7,949,305	58,216	0.45	-10.5%
AREA Real Estate Investment Fund V, LP	2006	Non-Core Portfolio	5,000,000	5,000,004	3,150,820	1,707,404	0.97	-0.4%
Blackstone Real Estate Partners VI	2007	Non-Core Portfolio	40,000,000	44,633,702	81,594,375	6,713,190	1.98	13.3%
Carlyle Realty Partners V	2007	Non-Core Portfolio	20,000,000	25,195,165	28,867,212	6,714,567	1.41	8.6%
Colony Investors VIII	2007	Non-Core Portfolio	20,000,000	21,249,679	9,077,487	548,856	0.45	-11.4%
Metropolitan Workforce Housing Fund (SEM)	2007	Non-Core Portfolio	7,000,000	7,006,513	8,234,801	324,320	1.22	4.0%
AG Realty Fund VII	2008	Non-Core Portfolio	25,000,000	23,454,500	33,315,911	2,458,563	1.53	12.9%
American Value Partners Fund I (SEM)	2008	Non-Core Portfolio	15,000,000	11,355,858	9,354,431	2,489,387	1.04	0.8%
Ares European Real Estate Fund III, LP	2008	Non-Core Portfolio	30,000,000	30,487,500	32,477,500	2,443,326	1.15	3.4%
Fidelity Real Estate Growth Fund III	2008	Non-Core Portfolio	15,000,000	13,388,046	17,771,408	-	1.33	7.4%
PRISA III	2008	Non-Core Portfolio	30,000,000	35,657,776	-	87,734,134	2.46	12.6%
Silverpeak Legacy Partners III	2008	Non-Core Portfolio	30,000,000	13,301,089	1,928,299	3,114,120	0.38	-11.3%
Stockbridge Real Estate Fund III	2008	Non-Core Portfolio	27,000,000	26,998,145	16,829,753	14,872,006	1.17	2.6%
Westbrook Real Estate Fund VII	2008	Non-Core Portfolio	10,000,000	11,150,117	10,072,729	3,206,621	1.19	3.1%

Information provided by the New York City Retirement Systems Consultants. Interim returns are subject to change and may differ due to differences in accounting and performance methodologies.

Through December 31, 2017



			Original	Total	Total		<b>Total Value</b>	
	Vintage Year	Style Sector	Commitment	Contributions	Distrubutions	Market Value	Multiple	Net IRR%
Thor Urban Property Fund II	2009	Non-Core Portfolio	20,000,000	26,769,665	27,390,625	9,402,938	1.37	8.4%
Walton Street Real Estate Fund VI	2009	Non-Core Portfolio	30,000,000	26,594,360	27,940,834	12,556,258	1.52	9.3%
Blackstone Real Estate Partners Europe III (USD Vehicle)	2010	Non-Core Portfolio	35,000,000	36,211,552	41,753,279	14,452,115	1.55	12.6%
Canyon Johnson Urban Fund III	2010	Non-Core Portfolio	15,000,000	14,793,490	19,993,672	18,391	1.35	11.9%
Westbrook Real Estate Fund VIII	2010	Non-Core Portfolio	35,000,000	41,629,401	47,461,062	7,203,696	1.31	11.8%
Carlyle Realty Partners VI	2011	Non-Core Portfolio	40,000,000	38,075,507	56,601,612	9,297,667	1.73	26.2%
H/2 Special Opportunities Fund II	2011	Non-Core Portfolio	25,000,000	25,000,000	28,172,144	9,899,982	1.52	15.0%
Blackstone Real Estate Partners VII	2012	Non-Core Portfolio	100,000,000	121,337,670	111,800,483	84,996,276	1.62	19.3%
Brookfield Strategic Real Estate Partners	2012	Non-Core Portfolio	60,000,000	66,811,759	59,757,667	61,205,227	1.81	21.8%
Divco West Fund III	2012	Non-Core Portfolio	70,000,000	68,667,971	105,621,834	13,763,837	1.74	24.6%
Taconic New York City Investment Fund LP	2012	Non-Core Portfolio	40,000,000	16,545,454	26,792,073	1,883,219	1.73	15.7%
KTR Industrial Fund III	2013	Non-Core Portfolio	30,000,000	13,109,606	20,745,003	-	1.58	40.5%
NYC Asset Investor #1 LLC	2013	Non-Core Portfolio	30,000,000	32,555,007	4,858,147	36,988,533	1.29	9.5%
NYC Asset Investor #3 LLC	2013	Non-Core Portfolio	40,000,000	22,407,761	4,185,995	23,905,661	1.25	11.5%
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2014	Non-Core Portfolio	97,500,000	91,261,630	66,839,913	66,452,843	1.46	17.0%
Carlyle Realty Partners VII	2014	Non-Core Portfolio	60,000,000	46,252,089	8,809,581	47,665,491	1.22	13.7%
Divco West Fund IV	2014	Non-Core Portfolio	70,000,000	67,974,450	90,081,630	20,885,485	1.63	26.5%
Lone Star Real Estate Fund III	2014	Non-Core Portfolio	75,000,000	70,306,161	68,596,343	28,286,480	1.38	17.5%
Avanath Affordable Housing Fund II (SEM)	2015	Non-Core Portfolio	5,000,000	4,861,193	59,477	6,682,487	1.39	15.3%
Blackstone Real Estate Partners VIII	2015	Non-Core Portfolio	101,000,000	59,905,931	19,375,316	54,870,053	1.24	18.0%
H/2 Special Opportunities Fund III	2015	Non-Core Portfolio	40,000,000	40,000,000	11,278,492	37,783,998	1.23	14.2%
European Property Investors Special Opportunities IV (EPISO IV)	2016	Non-Core Portfolio	32,413,099	15,233,781	1,381,032	15,501,666	1.08	13.1%
PW Real Estate Fund III LP	2016	Non-Core Portfolio	30,811,730	11,106,992	1,888,468	15,677,448	1.58	58.4%
Westbrook Real Estate Fund X	2016	Non-Core Portfolio	24,000,000	6,544,770	884,209	6,176,402	1.08	10.4%
Basis Investment Group Fund I (SEM)	2017	Non-Core Portfolio	4,107,353	1,712,878	145,769	1,685,817	N/A	N/A
Divco West Fund V	2017	Non-Core Portfolio	40,000,000	11,746,556	-	11,848,360	1.01	1.6%
DRA Growth and Income Fund IX	2017	Non-Core Portfolio	27,000,000	9,806,028	1,228,251	9,369,641	1.18	17.1%
Exeter Industrial Value Fund IV	2017	Non-Core Portfolio	16,000,000	1,600,000	-	1,606,216	1.00	1.4%
H/2 Special Opportunities Fund IV	2017	Non-Core Portfolio	61,000,000	6,657,830	-	6,236,633	0.94	-6.8%
KKR CMBS B-Piece SMA	2017	Non-Core Portfolio	81,000,000	28,350,000	386,547	28,630,344	N/A	N/A
KKR Real Estate Partners Americas II	2017	Non-Core Portfolio	66,000,000	-	-	(207,520)	N/A	N/A
Lone Star Real Estate Fund V	2017	Non-Core Portfolio	92,700,000	8,185,125	222,345	6,055,122	N/A	N/A
Pramerica Real Estate Capital VI (PRECap VI)	2017	Non-Core Portfolio	32,630,522	10,836,606	2,250,187	10,817,852	1.21	47.3%

Information provided by the New York City Retirement Systems Consultants. Interim returns are subject to change and may differ due to differences in accounting and performance methodologies.

Through December 31, 2017



	Vintage Year	Original Commitment	Total Contributions	Total Distrubutions	Market Value	Total Value Multiple	Net IRR%
TOTAL INFRASTRUCTURE	Vilitage real	495,789,411	193,660,917	34,673,341	206,626,192	1.2	13.4%
		, ,	, ,	, ,	, ,		
TOTAL INFRASTRUCTURE INVESTMENTS							
Brookfield Infrastructure Fund II, L.P.	2013	60,000,000	46,858,590	9,118,299	54,528,548	1.4	13.3%
IFM Global Infrastructure Fund	2014	60,000,000	65,236,578	5,236,578	78,850,836	1.3	10.9%
Global Energy & Power Infrastructure Fund II	2014	40,000,000	24,658,706	16,955,377	19,615,027	1.5	55.1%
Global Infrastructure Partners III-A/B, L.P.	2016	71,000,000	18,545,620	1,012,198	15,969,301	NM	NM
Brookfield Infrastructure Fund III, L.P.	2016	61,000,000	11,477,328	909,006	12,169,560	NM	NM
Actis Energy 4	2016	39,600,000	11,735,688	2,061	10,861,000	NM	NM
NYCRS EIG Energy Partners, L.P.	2017	42,350,000	2,033,639	-	2,011,660	NM	NM
EQT Infrastructure III (No.2) SCSp	2017	35,529,111	10,079,612	1,439,760	8,902,879	NM	NM
Axium Infrastructure North America	2017	44,310,300	143,027	-	5,421	NM	NM
ASF VII Infrastructure L.P.	2017	42,000,000	2,892,130	61	3,711,960	NM	NM





		Commitment -	Contributions	Distributions	Final Market	3 Month	Inception
	Vintage Year	Closing (Base)	<b>Cumulative (Local)</b>	Cumulative	Value	Base%	IRR%
TOTAL OPPORTUNISTIC FIXED INCOME		1,592,365,342	1,429,754,885	672,310,199	1,124,590,399	1.09%	7.87%
Avenue Special Situations Fund V, L.P.	2007	20,209,326	20,520,314	26,826,898	-	0.00%	NM
Avenue Europe Special Sit. Fund, L.P.	2008	16,755,126	13,775,563	26,870,440	-		NM
PIMCO DiSCO Fund, L.P.	2008	63,000,000	63,179,655	85,872,192	368,027		11.23%
Alliance Bernstein PPIP Fund, L.P	2009	27,775,890	27,775,890	38,205,542	13,606		15.57%
Torchlight Debt Opportunity Fund III, LLC	2009	35,000,000	37,314,271	54,443,918	1,067,838	1.07%	13.38%
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 (A), L.P.	2011	45,000,000	46,135,636	43,401,476	6,080,904	0.00%	1.35%
GoldenTree Managed Account	2011	88,000,000	82,502,006	-	125,396,788	0.57%	7.68%
Marathon Centre Street Partnership, L.P Asset Clas	2011	140,625,000	169,875,000	33,750,000	197,127,611	1.16%	7.60%
AG Centre Street Partnership, L.P CC Asset Class	2012	105,000,000	82,950,000	27,781,909	78,162,236	1.05%	5.60%
Apollo Centre Street Partnership, L.P.	2012	162,500,000	194,920,730	80,721,545	141,046,192	1.48%	4.17%
FCO MA Centre Street L.P.	2012	90,000,000	136,558,247	85,127,049	86,847,095	0.00%	8.87%
OHA Centre Street Partnership, L.P.	2012	112,500,000	131,688,257	36,200,453	135,942,228	2.58%	8.16%
Contrarian Centre Street Partnership, L.P Asset Cla	2013	55,000,000	55,000,000	-	64,783,736	0.38%	5.45%
Lone Star Fund VIII (U.S.), L.P.	2013	70,000,000	68,907,286	61,487,280	24,708,253	0.00%	15.11%
Oaktree Opportunities Fund IX, L.P.	2013	70,000,000	70,000,000	23,026,801	54,176,456	-0.45%	2.69%
Ares Centre Street Partnership, L.P.	2014	90,000,000	82,360,975	-	104,527,169	1.29%	9.69%
Brightwood Capital Fund III, L.P.	2015	22,000,000	17,853,821	4,829,527	15,288,561	0.00%	4.31%
Torchlight Debt Opportunity Fund V, LP	2015	46,000,000	27,600,000	1,156,897	30,299,433	2.86%	13.31%
Brightwood Capital Fund IV, LP	2016	55,000,000	11,000,000	883,410	11,516,755	0.00%	10.25%
ICG Centre Street Partnership, L.P.	2017	80,000,000	47,822,604	-	29,999,188	0.00%	2.88%
KKR OFI SMA	2017	171,000,000	14,962,500	-	17,187,824	4.58%	56.67%

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





									ITD Cumulative
	Market Value	MTD Return%	3 Month Return%	FYTD Return%	YTD Return%	1 Year Return%	3 Year Return%	ITD Return%	Return%
TOTAL HEDGE FUNDS	1,984,046,705	0.08%	3.13%	8.58%	3.13%	9.80%	3.51%	4.23%	32.29%
TOTAL DIRECT HEDGE FUNDS	1,840,758,911	0.12%	3.20%	8.94%	3.20%	10.30%	3.73%	5.29%	38.64%
FUND OF FUNDS HEDGE FUNDS	143,287,794	-0.50%	2.27%	4.35%	2.27%	4.19%	1.11%	2.59%	18.88%
TOTAL DIRECT HEDGE FUNDS									
Brigade Leveraged Capital Structures Fund	-	0.00%		0.00%	0.00%		0.27%	4.64%	16.31%
Caspian Select Credit Fund, L.P.	85,960,725	-0.24%	0.64%	3.74%	0.64%	3.03%	1.62%	4.07%	26.65%
D.E. Shaw Composite Fund, L.L.C.	244,575,783	1.60%	4.94%	10.70%	4.94%	13.27%	9.98%	13.50%	120.72%
Relative Value	330,536,508	1.12%	3.79%	8.27%	3.79%	9.37%	7.23%	9.49%	76.21%
AlphaQuest Original LLC	110,037,163	-0.19%	15.03%	15.67%	15.03%			14.62%	14.62%
Brevan Howard AH Fund, L.P.	101,620,520	-2.44%	4.93%	2.74%	4.93%			-4.28%	-4.28%
Brevan Howard L.P.		0.00%		-0.18%	0.00%	-2.92%	-1.93%	0.58%	3.59%
CCP Quantitative Fund LP	-	0.00%		24.44%	0.00%	25.97%	-0.46%	2.83%	14.69%
GSA Trend Fund LP	114,614,790	-0.48%	-3.86%	4.91%	-3.86%			-2.04%	-2.04%
Key Square Partners LP	127,092,557	-0.92%	3.33%	1.12%	3.33%			-0.32%	-0.32%
Pharo Gaia Fund, LTD.	182,033,960	1.65%	5.21%	14.69%	5.21%	22.70%		20.24%	53.75%
Pharo Macro Fund, Ltd.	165,588,603	2.32%	6.88%	11.80%	6.88%	18.64%	9.73%	11.10%	64.86%
Systematica BlueTrend Fund L.P.	-	0.00%		0.00%	0.00%	1.12%	-5.80%	-0.93%	-4.42%
Tactical Trading	800,987,594	0.28%	5.02%	9.78%	5.02%	11.06%	2.45%	3.27%	22.63%
Fir Tree Value Fund, L.P.	130,553,833	0.10%	-1.13%	0.72%	-1.13%	1.02%	-2.83%	1.05%	5.56%
JMB Captial Partners L.P.	3,068,947	0.00%	0.00%	-4.42%	0.00%	-23.17%		-15.37%	-28.39%
Luxor Capital Partners, LP	184,001,032	0.78%	7.66%	18.44%	7.66%	21.18%	6.45%	1.91%	7.52%
Perry Partners L.P.	4,711,887	-5.32%	-10.02%	-1.10%	-10.02%	-5.29%	-5.07%	-2.89%	-13.20%
Standard General Fund II L.P.	43,525,316	-5.37%	-5.06%	0.09%	-5.06%	0.20%		0.84%	0.98%
Event Driven	365,861,015	-0.32%	2.45%	8.76%	2.45%	9.54%	1.61%	2.56%	13.95%
Altimeter Partners Fund LP	46,582,311	2.56%	5.46%	3.30%	5.46%	10.61%		10.22%	22.48%
Double Black Diamond, L.P.		0.00%		0.00%	0.00%		0.59%	6.53%	13.49%
Gotham Targeted Neutral, LP	39,361,739	-0.06%	1.35%	5.37%	1.35%	3.39%	1.23%	0.29%	0.93%
SRS Partners US, LP	135,667,914	1.19%	5.37%	15.47%	5.37%	16.32%	11.07%	8.87%	31.82%
Turiya Fund LP	121,761,830	-4.03%	-8.95%	3.47%	-8.95%	8.96%		1.78%	4.98%
Long/Short Equity	343,373,794	-0.69%	-0.61%	8.11%	-0.61%	11.28%	5.45%	5.31%	27.86%
FUND OF FUNDS HEDGE FUNDS									
Fund of Funds Hedge Funds	143,287,794	-0.50%	2.27%	4.35%	2.27%	4.19%	1.11%	2.59%	18.88%

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



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

# **Appendix D**

# **Footnotes**

#### **Footnotes**

#### Through March 31, 2018



- •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.

#### **Glossary of Terms**

Through March 31, 2018



#### **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 - 15 - Portfolio Asset Allocation

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

#### Pages 16 - 18 - Performance Attribution: Total Plan

- Plan Return at Policy Weights: the return of the Total Plan assuming actual Asset Class results were maintained at target (Adjusted Policy) weights. Figure = (Return of Asset Class 1\* Target Weight) plus (Return Of Asset Class 2\* Target Weight) plus (.....)
- Allocation Effect = Total Plan Return minus Plan Return At Adjusted Policy Weights. Allocation is the Contribution to Performance
  resulting from an overweight or underweight to an asset class. E.g. an underweight to an Asset Class that under-performs results in a
  positive Allocation Effect and vice versa.
- Selection Effect = Equal to the Custom Benchmark (Adjusted Policy Index) Return minus Plan Return at Adjusted Policy Weights. This illustrates how the Managers have added or removed value based on their Security Selection decisions, e.g., If the manager's Actual Returns are higher than the Implied Return there will be a positive Selection Effect.

#### Policy Index = Custom Benchmark

The "policy index" is a custom benchmark representing the weighted average return of the weighted benchmark indexes for each major investment program. Weights may reflect an adjustment of actual policy for outstanding commitments for new or revised programs, such as for private market programs, which are invested gradually, or for any new or updated program requiring the completion of RFPs and contracts. The policy index/custom benchmark is calculated monthly based on adjusted policy weights at the beginning of each month.

#### **Glossary of Terms**

Through March 31, 2018



The indexes and most recent policy weights are as follows:

U.S. Equity: Russell 3000 \* 34.21%

International Developed (EAFE) Markets: MSCI World Ex USA IMI Net \* 9.10%

Emerging Markets: MSCI Emerging Markets \* 6.02%

International Emerging Managers FOF: MSCI ACWI Ex US IMI Net \* 0.43%

REITs: Dow Jones Real Estate Securities \* 0.00%

Private Equity: Russell 3000 + 300 b.p. per annum \* 6.17%

Private Real Estate - Core: NFI - ODCE Net \* 2.55%

Private Real Estate - Non Core: NFI - ODCE Net + 200bps \* 2.07%

Infrastructure: CPI + 4% \* 0.56%

Hedge Funds: HFRI Fund of Funds Composite Index plus 1% \* 5.07%

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

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

Total Active Government: NYC Treasury Agency + 5 \* 0.00%

US Treasury Long Duration: Citigroup Treasury 10+ \* 8.70%

Core FI- Developing Mgrs: BBG Barc Agg \* 0.00%

Core FI-Emerging Mgrs: BBG Barc Agg \* 0.00%

Mortgage: Citigroup Mortgage Index \* 2.89%

ETI: ETI Custom Benchmark \* 1.02%

Investment Grade Credit: NYC - Investment Grade Credit \* 3.91%

#### **Glossary of Terms**

Through March 31, 2018



High Yield: Citigroup BB&B \* 8.05%

Bank Loans: Credit Suisse Leveraged Loan \* 2.00%

TIPS: BBG BARC Gbl Inf-Lk: US TIPS (Dly) \* 4.36%

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

Opportunistic Fixed: OFI - JPMGHY / CSFB 50/50 Blend Plus 300 b.p. per annum \* 2.91%

#### Page 19 - 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.