



New York City
Police Officers' Variable Supplements Fund
Performance Overview as of June 30, 2020

Total Fund Overview

**New York City
Police Officers' Variable Supplements Fund**

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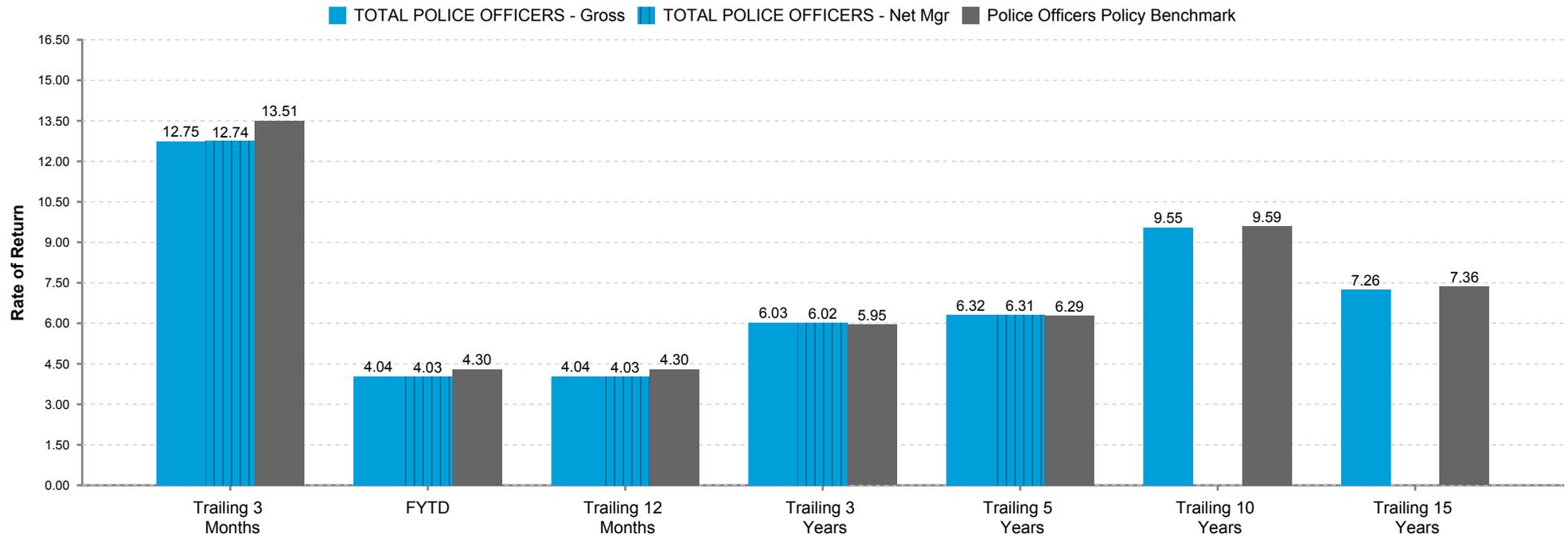
Total Portfolio Returns: June 30, 2020



Market Value (Billions)

TOTAL POLICE OFFICERS

\$1.8



	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 7 Years	Benchmark 7 Years	Plan 10 Years	Benchmark 10 Years
Standard Deviation								
TOTAL POLICE OFFICERS	10.6	10.8	6.3	10.0	9.0	9.2	9.3	9.6

Portfolio Asset Allocation: June 30, 2020

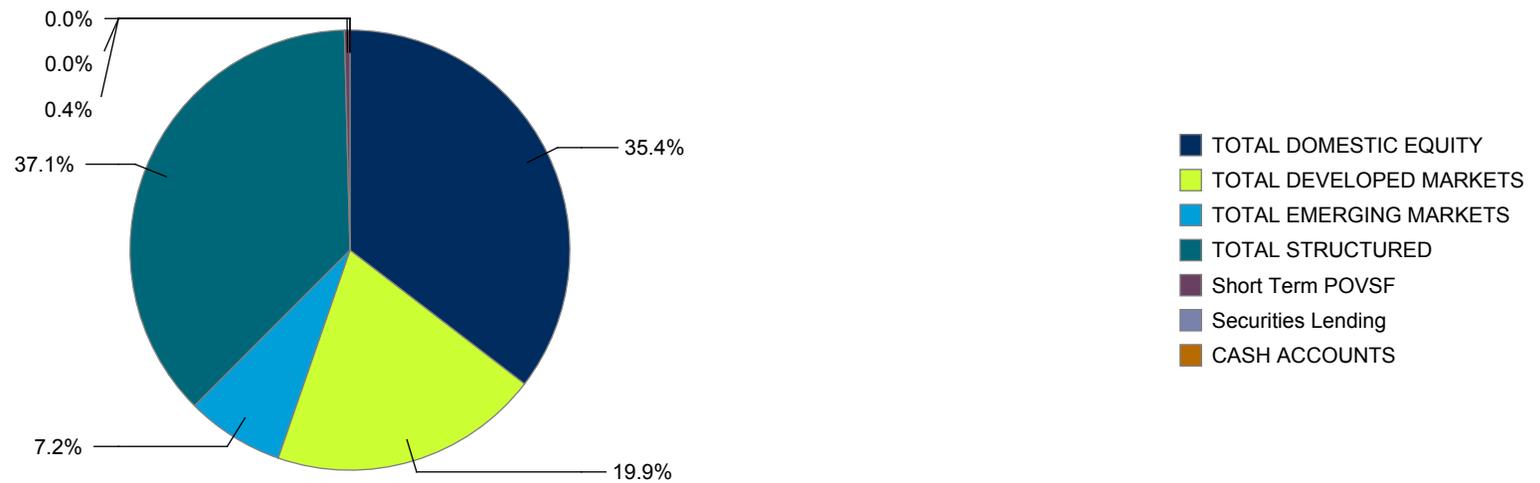


Market Value (Billions)

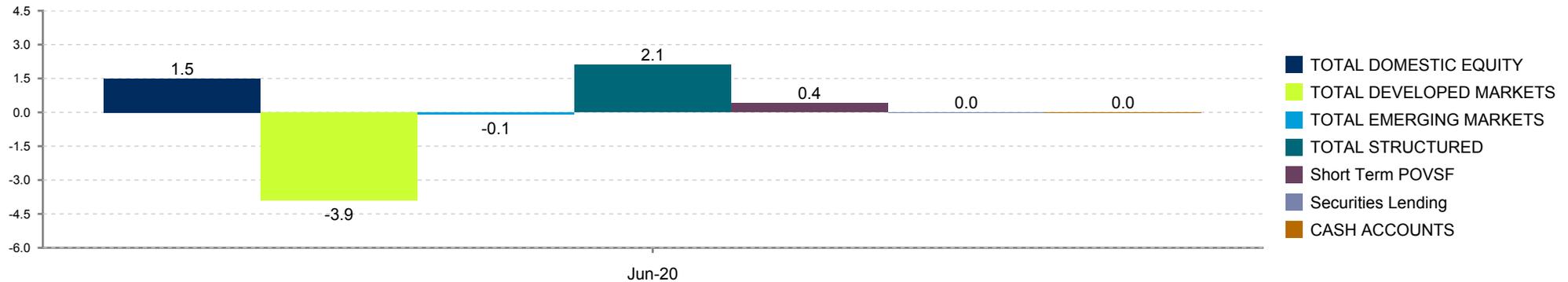
TOTAL POLICE OFFICERS

\$1.8

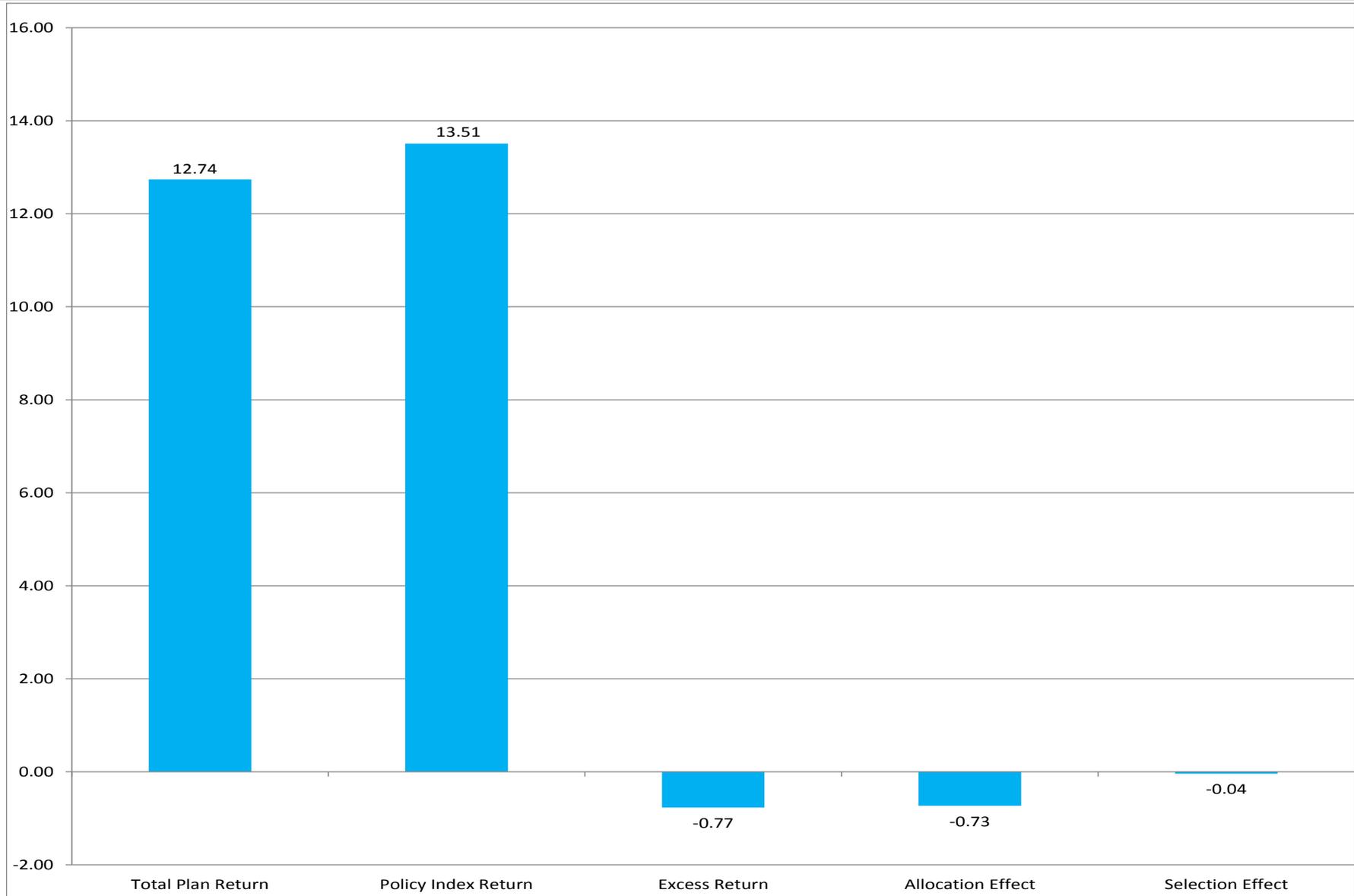
Asset Allocation



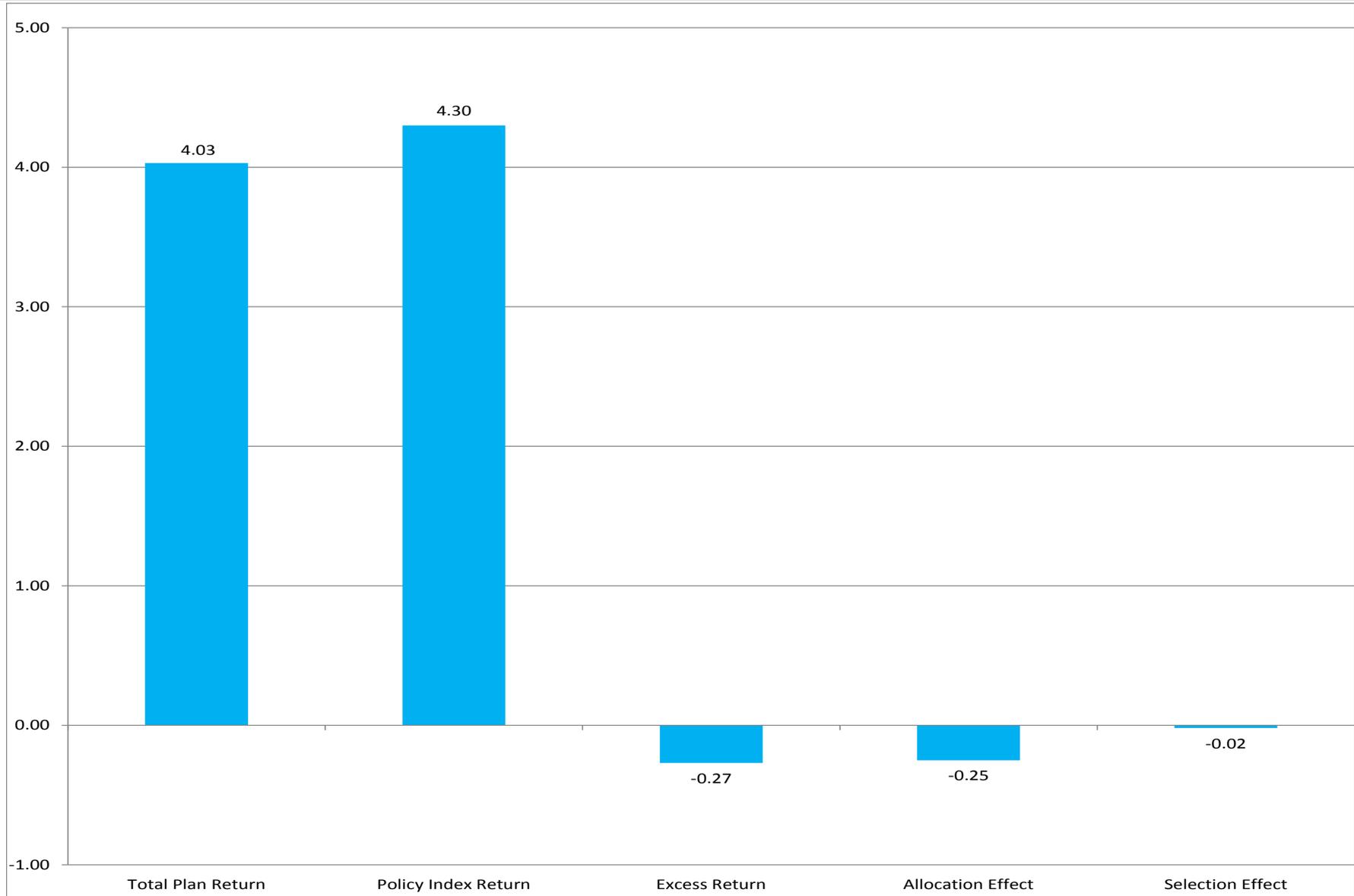
Relative Mix to Asset Weights



Performance Attribution: Total Plan - Quarter Ending: June 30, 2020



Performance Attribution: Total Plan - Fiscal Year to Date: June 30, 2020



Allocation Effect - Asset Class Breakdown			
	<u>Quarter</u>	<u>FYTD</u>	<u>Benchmark</u>
TOTAL POLICE OFFICERS	-0.73	-0.25	Police Officers Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.05	-0.08	RUSSELL 3000
TOTAL WORLD ex-USA	-0.12	0.21	MSCI World ex USA IMI Net
TOTAL EMERGING MARKETS	-0.03	-0.06	MSCI Emerging Markets
TOTAL STRUCTURED	-0.54	-0.31	Barclays Aggregate

Selection Effect - Asset Class Breakdown			
	<u>Quarter</u>	<u>FYTD</u>	<u>Benchmark</u>
TOTAL POLICE OFFICERS	-0.04	-0.02	Police Officers Policy Benchmark
TOTAL DOMESTIC EQUITY	0.00	-0.11	RUSSELL 3000
TOTAL WORLD ex-USA	0.02	0.06	MSCI World ex USA IMI Net
TOTAL EMERGING MARKETS	-0.03	-0.03	MSCI Emerging Markets
TOTAL STRUCTURED	-0.03	0.06	Barclays Aggregate

Securities Lending Income

Through June 30, 2020



**NYC POLICE OFFICERS' VARIABLE SUPPLEMENTS FUND
SECURITIES LENDING INCOME
June 30, 2020**

	<u>U. S. FIXED INCOME</u>	<u>U. S. EQUITY</u>	<u>INTERNATIONAL EQUITY</u>	<u>TOTAL</u>
2001	252,000	116,000	81,000	449,000
2002	139,000	72,000	82,000	293,000
2003	51,000	77,000	131,000	259,000
2004	91,000	115,000	126,000	332,000
2005	198,000	228,000	179,000	605,000
2006	169,000	305,000	180,000	654,000
2007	333,000	495,000	165,000	993,000
2008	873,000	881,000	201,000	1,955,000
2009	276,000	581,000	125,000	982,000
2010	85,000	243,000	80,000	408,000
2011	80,000	255,000	91,000	426,000
2012	38,000	271,000	47,000	356,000
2013	160,000	247,000	14,000	421,000
2014	20,000	33,000	140,000	193,000
2015	28,000	51,000	662,000	741,000
2016	40,000	422,000	527,000	989,000
2017	54,000	222,000	365,000	641,000
2018	31,184	159,754	513,412	704,349
2019	42,181	112,685	344,166	499,031
2020 (6 months)	26,900	47,248	159,743	233,891
Since Inception	<u>2,987,264</u>	<u>4,933,687</u>	<u>4,213,321</u>	<u>12,134,272</u>

**New York City
Police Officers' Variable Supplements Fund**

Appendix A

Consolidated Performance Report

Consolidated Performance Report

Through June 30, 2020



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
SYSTEM RETURN SUMMARY																
5	POVSF-TOTAL PORTFOLIO - GROSS	1,804	100.00	12.75	4.04	(2.44)	6.22	20.10	(5.75)	17.07	4.04	6.03	6.32	9.55	8.37	01/01/1988
	POVSF - ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST MANAGEMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POVSF-TOTAL PORTFOLIO - NET MGR			12.74	4.03	(2.44)	6.21	20.09	(5.75)	17.05	4.03	6.02	6.31			
	POLICE OFFICERS POLICY BENCHMARK			13.51	4.30	(2.26)	6.29	20.32	(6.22)	17.25	4.30	5.95	6.29	9.59		
	EXCESS RETURN			(0.77)	(0.26)	(0.18)	(0.08)	(0.24)	0.46	(0.20)	(0.26)	0.07	0.01	(0.04)		
EQUITY RETURN SUMMARY																
17	POVSF-TOTAL EQUITY - GROSS	1,127	62.50	19.64	1.31	(7.02)	5.15	26.82	(9.49)	23.16	1.31	5.99	6.68	11.62	9.22	08/01/1993
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST MANAGEMENT FEES			(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POVSF-TOTAL EQUITY - NET MGR			19.64	1.31	(7.03)	5.14	26.81	(9.50)	23.15	1.31	5.98	6.67			
25	POVSF-TOTAL DOMESTIC EQUITY - GROSS	639	35.41	22.04	6.20	(3.63)	8.90	30.77	(5.08)	21.13	6.20	9.98	10.06	13.72	9.81	07/01/1991
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			
	POVSF-TOTAL DOMESTIC EQUITY - NET MGR			22.04	6.20	(3.63)	8.89	30.77	(5.09)	21.13	6.20	9.97	10.06			
	RUSSELL 3000 (DAILY)			22.03	6.53	(3.48)	8.98	31.02	(5.24)	21.13	6.53	10.04	10.03	13.72	9.90	
	EXCESS RETURN			0.02	(0.33)	(0.15)	(0.09)	(0.25)	0.16	(0.00)	(0.33)	(0.07)	0.03	0.00	(0.09)	
35	POVSF-TOTAL SMALL CAP PASSIVE - GROSS	47	2.60	25.53	(6.45)	(12.84)	(3.28)	25.51	(10.96)	14.65	(6.45)	2.09	4.38		6.04	10/01/2013
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			
	POVSF-TOTAL SMALL CAP PASSIVE - NET MGR			25.53	(6.45)	(12.84)	(3.28)	25.51	(10.96)	14.65	(6.45)	2.09	4.37			
	RUSSELL 2000 (DAILY)			25.42	(6.63)	(12.98)	(3.31)	25.52	(11.01)	14.65	(6.63)	2.01	4.29		5.91	
	EXCESS RETURN			0.12	0.18	0.14	0.02	(0.02)	0.05	0.00	0.18	0.08	0.09		0.12	
45	POVSF-TOTAL RUSSELL 1000 - GROSS	592	32.81	21.78	7.37	(2.81)	10.04	31.26			7.37				9.38	04/01/2018
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			(0.00)				(0.00)	
	POVSF-TOTAL RUSSELL 1000 - NET MGR			21.78	7.37	(2.81)	10.04	31.26			7.37				9.38	
	RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)	10.02	31.43			7.48				9.43	
	EXCESS RETURN			(0.05)	(0.11)	(0.00)	0.02	(0.17)			(0.11)				(0.05)	

Consolidated Performance Report

Through June 30, 2020



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN SUMMARY															
57	POVSF-TOTAL WORLD ex-USA - GROSS	359	19.93	16.30	(4.82)	(11.44)	0.74	23.15	(14.27)	25.22	(4.82)	1.18	2.20	3.00	02/01/2015
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	
	POVSF-TOTAL WORLD ex-USA - NET MGR			16.30	(4.83)	(11.45)	0.72	23.14	(14.28)	25.21	(4.83)	1.17	2.19	2.99	
	WORLD EX-USA CUSTOM BM			16.21	(5.11)	(11.68)	0.16	22.91	(14.68)	26.40	(5.11)	0.82	2.32	3.18	
	EXCESS RETURN			0.09	0.27	0.23	0.56	0.23	0.40	(1.19)	0.27	0.35	(0.13)	(0.19)	
67	POVSF-TOTAL EMERGING MARKETS - GROSS	129	7.16	17.65	(3.70)	(10.16)	1.44	18.79	(14.44)		(3.70)	1.84		1.84	07/01/2017
	ESTIMATED INVESTMENT FEES			(0.01)	(0.02)	(0.01)	(0.02)	(0.03)	0.00		(0.02)	(0.03)		(0.03)	
	POVSF-TOTAL EMERGING MARKETS - NET MGR			17.64	(3.72)	(10.16)	1.42	18.76	(14.44)		(3.72)	1.81		1.81	
	MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	1.21	18.42	(14.57)		(3.39)	1.90		1.90	
	EXCESS RETURN			(0.44)	(0.34)	(0.38)	0.21	0.34	0.13		(0.34)	(0.09)		(0.09)	

Consolidated Performance Report

Through June 30, 2020



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
FIXED INCOME RETURN SUMMARY																
79	POVSF-TOTAL FIXED INCOME - GROSS	676	37.50	2.81	8.86	6.28	7.93	8.73	(0.20)	3.58	8.86	5.27	4.44	4.19	6.18	04/01/1991
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)			
	EST MANAGEMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POVSF-TOTAL FIXED INCOME - NET MGR			2.81	8.84	6.27	7.92	8.72	(0.22)	3.55	8.84	5.26	4.41			
87	POVSF-TOTAL STRUCTURED FIXED INCOME - GROSS	669	37.10	2.83	8.88	6.32	8.00	8.77	(0.24)	3.66	8.88	5.29	4.49	4.35	5.32	08/01/2000
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)			
	POVSF-TOTAL STRUCTURED FIXED INCOME - NET MGR			2.83	8.86	6.32	7.99	8.75	(0.25)	3.63	8.86	5.28	4.46			
	BBG BARC AGG (DLY)			2.90	8.74	6.14	7.87	8.72	0.01	3.54	8.74	5.32	4.30	3.82	5.11	
	EXCESS RETURN			(0.07)	0.12	0.18	0.12	0.04	(0.26)	0.09	0.12	(0.05)	0.16	0.52	0.21	
CASH SUMMARY																
99	Short Term - POVSF - GROSS	7	0.40	0.03	1.31	0.39	2.28	2.10	1.66	0.58	1.31					01/01/1988
	ESTIMATED INVESTMENT FEES			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
	Short Term - POVSF - NET MGR			0.03	1.31	0.39	2.28	2.10	1.66	0.58	1.31					
103	Cash Account	0	-													
105	Securities Lending	0	-													

**New York City
Police Officers' Variable Supplements Fund**

Appendix B

Public Markets Manager Performance Detail

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
EQUITY SUMMARY										
US EQUITY										
BlackRock US SCG R2000	27	1.49	30.67	3.50	(2.99)	28.39	(9.14)	22.26	11.29	(1.30)
RUSSELL 2000 GROWTH DAILY			30.58	3.48	(3.06)	28.48	(9.31)	22.17	11.32	(1.38)
Excess			0.08	0.02	0.07	(0.09)	0.17	0.09	(0.02)	0.08
BlackRock US SCV R2000	20	1.11	19.13	(17.27)	(23.43)	22.60	(12.79)	7.34	31.71	(7.38)
RUSSELL 2000 VALUE DAILY			18.91	(17.48)	(23.50)	22.39	(12.86)	7.84	31.74	(7.47)
Excess			0.22	0.21	0.07	0.20	0.08	(0.49)	(0.03)	0.09
BlackRock US LMC R1000 Core	592	32.81	21.78	7.37	(2.81)	31.26				
RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)	31.43				
Excess			(0.05)	(0.11)	(0.00)	(0.16)				
NON - US EQUITY										
SSGA WorldxUS LMC NYC Custom IDX	303	16.82	15.38	(5.11)	(11.22)	22.75	(13.64)	24.58	1.31	
NYC Custom World ex US Index			15.34	(5.42)	(11.49)	22.49	(14.09)	24.12	1.00	
Excess			0.04	0.32	0.27	0.26	0.45	0.47	0.31	
SSGA WorldxUS SC Custom IDX ¹	56	3.11	21.62	(2.75)	(12.60)	25.67	(17.97)			
World ex USA SC PASSIVE CUSTOM BM			21.66	(3.20)	(12.87)	25.41	(18.07)			
Excess			(0.05)	0.45	0.27	0.26	0.10			
EMERGING MARKETS										
BlackRock MSCI EM Core	129	7.16	17.64	(3.72)	(10.16)	18.76	(14.44)			
MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	18.42	(14.57)			
Excess			(0.44)	(0.34)	(0.38)	0.34	0.13			

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
FIXED INCOME SUMMARY										
STRUCTURED FIXED INCOME										
SSGA-Core US Agg	669	37.10	2.83	8.86	6.32	8.75	(0.25)			
BBG BARC Agg (Dly)			2.90	8.74	6.14	8.72	0.01			
Excess			(0.07)	0.12	0.18	0.04	(0.26)			
CASH										
Short Term POVSF	7	0.40	0.03	1.31	0.39	2.10	1.66		0.60	0.12
ICE BofA US 3-Month Treasury Bill			0.02	1.63	0.60	2.28	1.87		0.33	0.05
Excess			0.01	(0.31)	(0.20)	(0.18)	(0.21)		0.28	0.07
Cash Account	0	0.00								
Securities Lending	0	0.00								

**New York City
Police Officers' Variable Supplements Fund**

Appendix C

Footnotes

Footnotes

Through June 30, 2020



- Effective 4/1/03, the name of the Core +5 benchmark index provider was changed from Salomon to Citigroup.
- Effective 7/1/03, the “NYC-Loomis” benchmark index for the Loomis Sayles Enhanced Yield portfolio reflects a change from the Citigroup BB&B Index to the more appropriate Merrill Lynch High Yield Master II Index.
- Effective 7/1/09, the Core+5 program was restructured.
- The U.S. Gov’t sector benchmark Index was changed from the Citigroup Core+5 Treasury/Gov’t Sponsored Index to the Citigroup Core+5 Treasury/Agency Index.
- The Corporate and Yankee sectors were combined to form the new Investment Grade Credit sector. The benchmark for the new combined sector is the customized Citigroup Credit Index. For historical performance purposes, the old Corporate sector Index is linked to the new Credit sector Index.
- There were no changes to the Mortgage sector Index.
- The total Core+5 results and benchmark returns combine the three sectors. Historical total Core+5 returns continue to include the old Corporate and Yankee sector returns.

General Notes

- Returns are Net of Manager Fees for periods after January 2014 and Gross of investment advisory fees for other periods unless otherwise indicated.

Page Specific

Page 4 - Portfolio Asset Allocation

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

Pages 5 - 6 - Performance Attribution: Total Plan

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

Glossary of Terms

Through June 30, 2020



The indexes and most recent policy weights are as follows:

*U.S. Equity: Russell 3000 * 33.90%*

*International Developed (EAFE) Markets: MSCI World ex USA IMI Net * 23.80%*

*Emerging Markets: MSCI Emerging Markets * 7.30%*

*Domestic Fixed Income: Barclays Aggregate * 35.00%*

Page 7 – 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.