



New York City Fire Officers' Variable Supplements Fund Performance Overview as of December 31, 2015

# **Total Fund Overview**



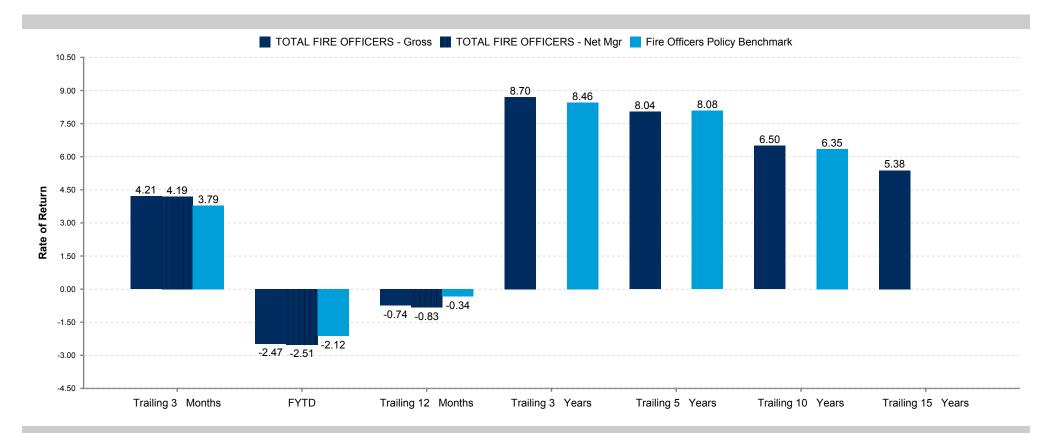
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#### Market Value (Millions)

TOTAL FIRE OFFICERS \$297.6



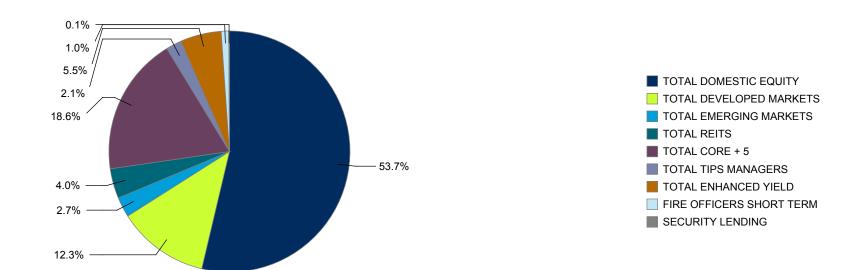
	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 7 Years	Benchmark 7 Years	Plan 10 Years
Standard Deviation							
TOTAL FIRE OFFICERS	8.2	7.8	8.0	8.9	11.1	11.2	11.7

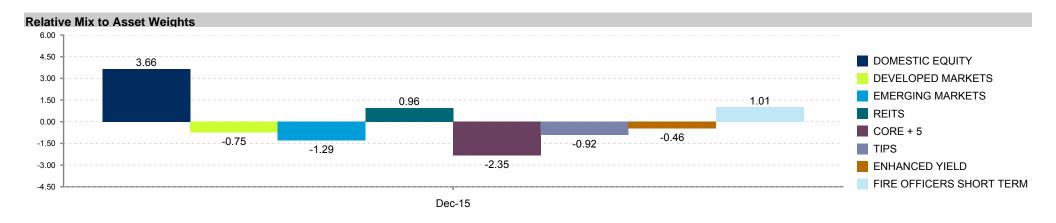


#### Market Value (Millions)

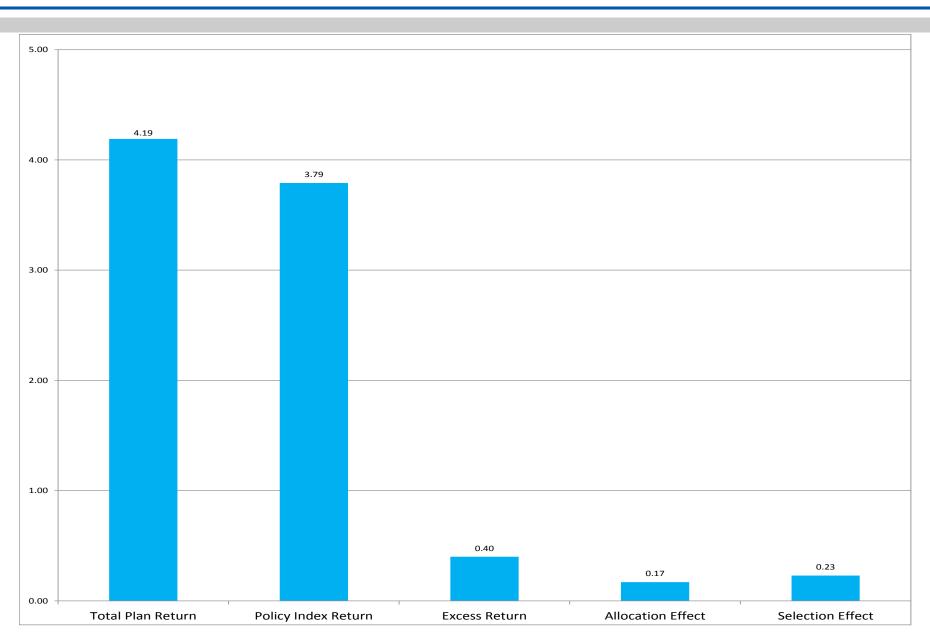
TOTAL FIRE OFFICERS \$297.6

#### **Asset Allocation**

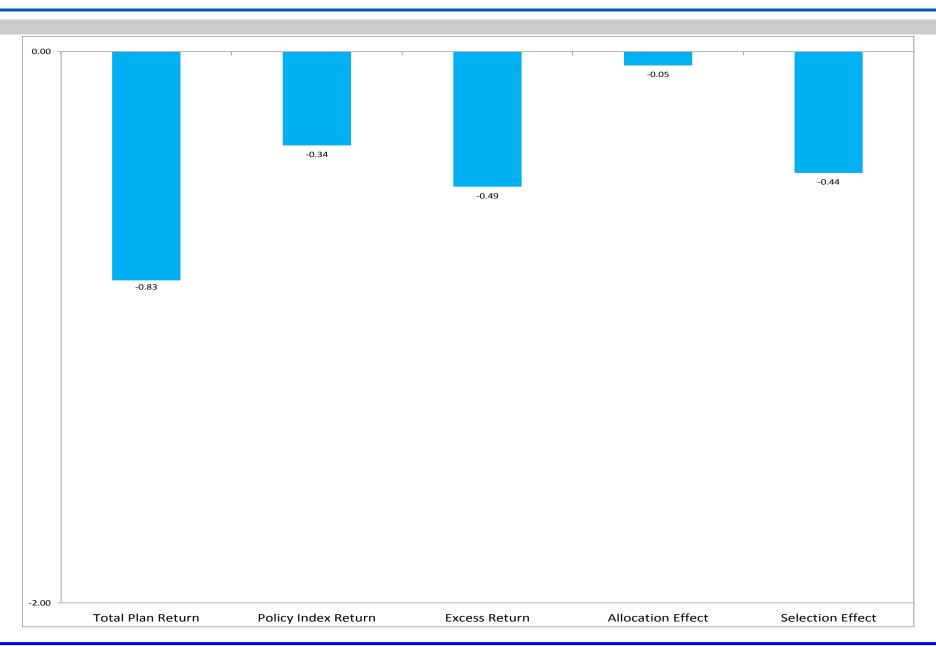




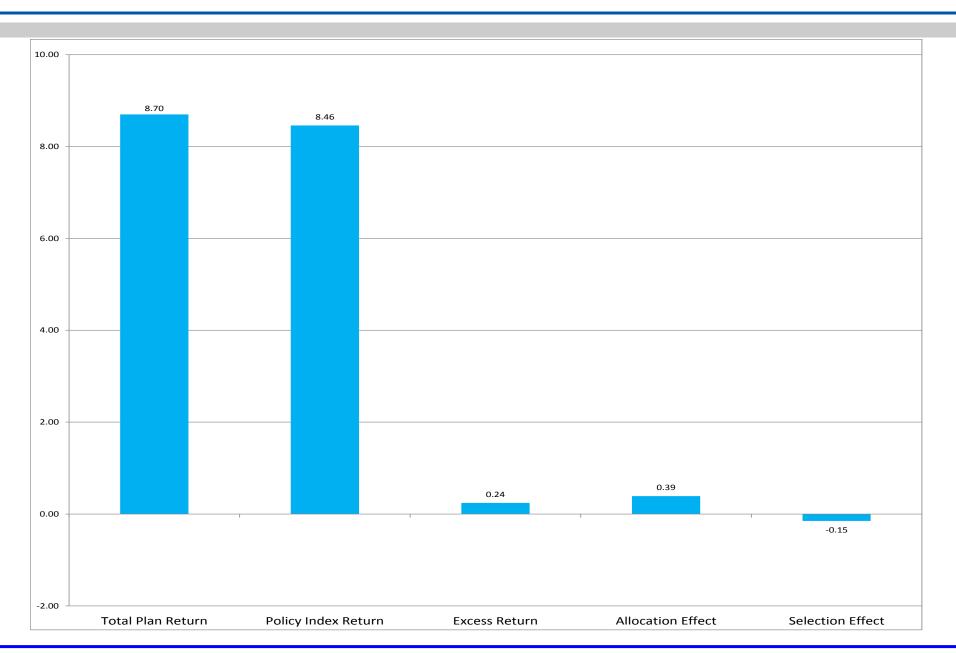














,	Allocation Effec	t - Asset Cla	ıss Breakdo	own
	<u>Quarter</u>	12 Months	3 Years*	<u>Benchmark</u>
TOTAL FIRE OFFICERS	0.17	-0.05	0.39	Fire Officers Policy Benchmark
TOTAL DOMESTIC EQUITY	0.06	-0.02	0.17	RUSSELL 3000
TOTAL DEVELOPED EQUITY	-0.02	-0.02	-0.02	MSCI EAFE NET
TOTAL EMERGING MARKETS	0.04	0.14	0.08	MSCI EMERGING MARKETS
TOTAL REAL ESTATE SECURITIES	0.03	0.00	0.01	DJ U.S. Select REIT
TOTAL STRUCTURED	0.05	-0.15	0.09	NYC - CORE PLUS FIVE
TOTAL TIPS MANAGERS	0.03	-0.01	0.07	BARCLAYS U.S TIPS INDEX
TOTAL ENHANCED YIELD	0.02	0.00	0.02	CITIGROUP BB & B
TOTAL CASH	-0.05	0.00	-0.06	

\$	Selection Effec	t - Asset Cla	ss Breakdo	own
	<u>Quarter</u>	12 Months	3 Years*	<u>Benchmark</u>
TOTAL FIRE OFFICERS	0.23	-0.44	-0.15	Fire Officers Policy Benchmark
TOTAL DOMESTIC EQUITY	0.03	0.07	0.06	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.25	-0.40	-0.26	MSCI EAFE NET
TOTAL EMERGING MARKETS	0.00	-0.19	-0.10	MSCI EMERGING MARKETS
TOTAL REAL ESTATE SECURITIES	-0.15	-0.23	-0.07	DJ U.S. Select REIT
TOTAL STRUCTURED	0.04	0.11	0.13	NYC - CORE PLUS FIVE
TOTAL TIPS MANAGERS	0.00	0.03	0.00	BARCLAYS U.S TIPS INDEX
TOTAL ENHANCED YIELD	0.07	0.17	0.09	CITIGROUP BB & B
TOTAL CASH	0.00	0.00	0.00	

<sup>\*</sup>Returns are Gross of Investment Advisory Fees



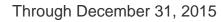
# NYC FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND SECURITIES LENDING INCOME

#### **December 31, 2015**

	U.S. <u>FIXED INCOME</u>	U.S. <u>EQUITY</u>	INTERNATIONAL EQUITY
2001	32,000	6,000	- 0 -
2002	20,000	6,200	- 0 -
2003	14,000	11,000	31,000
2004	24,000	24,000	24,000
2005	42,000	42,000	32,000
2006	44,000	98,000	32,000
2007	91,000	137,000	28,000
2008	240,000	195,000	37,000
2009	67,000	101,000	25,000
2010	32,000	101,000	20,000
2011	48,000	116,000	34,000
2012	37,000	129,000	25,000
2013	17,000	113,000	25,000
2014	7,900	11,000	131,000
2015	2,000	8,400	209,000



# **Appendix A**





		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
	SYSTEM RETURN SUMMARY														
5	FIRE OFFICERS-TOTAL PORTFOLIO - GROSS FIRE OFFICERS- ESTIMATED INVESTMENT FEES EST MANAGEMENT FEES	298	100.00	4.21 (0.02) (0.02)	(2.47) (0.04) (0.04)	(0.74) (0.09) (0.09)	8.30 (0.11) (0.11)	19.49	13.79	0.70	14.34	8.04	6.50	8.32	01/01/1988
	EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS					· · ·	· , ,								
	FIRE OFFICERS-TOTAL PORTFOLIO - NET MGR			4.19	(2.51)	(0.83)	8.19								
	FIRE OFFICERS POLICY BENCHMARK			3.79	(2.12)	(0.34)	8.29	18.23	14.09	1.33	14.04	8.08	6.35		
	EXCESS RETURN			0.40	(0.39)	(0.49)	(0.10)	1.26	(0.30)	(0.63)	0.30	(0.04)	0.15		
	EQUITY RETURN DETAIL														
17	FOVSF-TOTAL EQUITY - GROSS	216	72.59	6.03	(3.24)	(1.18)	9.13	27.60	16.30	(2.13)	16.25	9.39	6.27	5.50	08/01/2001
	ESTIMATED INVESTMENT FEES			(0.02)	(0.03)	(0.08)	(0.10)			. ,					
	EST MANAGEMENT FEES			(0.02)	(0.03)	(0.08)	(0.10)								
	EST INCENTIVE FEES														
	EST OTHER FEES														
	EST FEE OFFSETS														
	FOVSF-TOTAL EQUITY - NET MGR			6.01	(3.28)	(1.25)	9.03								
25	FOVSF-TOTAL DOMESTIC EQUITY - GROSS ESTIMATED INVESTMENT FEES	160	53.66	6.33 (0.00)	(1.31) (0.00)	0.62 (0.00)	12.73 (0.00)	33.59	16.43	1.02	17.07	12.25	7.40	9.88	01/01/1991
	FOVSF-TOTAL DOMESTIC EQUITY - NET MGR			6.32	(1.31)	0.61	12.73								
	RUSSELL 3000/S&P500 04/30/09			6.27	(1.43)	0.48	12.56	33.55	16.42	1.03	16.93	12.18	7.33	9.83	
	EXCESS RETURN			0.05	0.12	0.14	0.17	0.04	0.02	(0.01)	0.14	0.08	0.07	0.06	





		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
	EQUITY RETURN DETAIL														
37	FOVSF-TOTAL INTERNATIONAL EQUITY - GROSS ESTIMATED INVESTMENT FEES EST MANAGEMENT FEES EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS	45	15.10	5.71 (0.06) (0.06)	(11.04) (0.10) (0.10)	(6.89) (0.23) (0.23)	(5.75) (0.30) (0.30)	15.03	15.50	(14.06)	10.37	0.04	2.04	3.79	08/01/2001
	FOVSF-TOTAL INTERNATIONAL EQUITY - NET MGR			5.66	(11.14)	(7.12)	(6.05)								
	MSCI AC WORLD EX US (NET)			3.24	(9.32)	(5.66)	(3.87)	15.29	16.83	(13.71)	11.15	1.06	2.92	5.41	
	EXCESS RETURN			2.41	(1.82)	(1.46)	(2.19)	(0.26)	(1.33)	(0.35)	(0.78)	(1.02)	(0.89)	(1.62)	
47	FOVSF-DEVELOPED MARKETS - GROSS ESTIMATED INVESTMENT FEES	36	12.25	6.94 (0.07)	(9.48) (0.12)	(3.56) (0.25)	(6.55) (0.24)	21.44	14.68	(12.70)	7.45	1.84	1.69	5.38	07/01/1994
	FOVSF- DEVELOPED MARKETS - NET MGR			6.87	(9.60)	(3.81)	(6.79)								
	MSCI EAFE			4.71	(6.01)	(0.81)	(4.90)	22.78	17.32	(12.14)	7.75	3.60	3.03	4.58	
	EXCESS RETURN			2.16	(3.59)	(2.99)	(1.89)	(1.34)	(2.63)	(0.56)	(0.30)	(1.76)	(1.34)	0.80	
57	FOVSF-EMERGING MARKETS - GROSS ESTIMATED INVESTMENT FEES	8	2.71	0.51 (0.01)	(17.50) (0.03)	(19.53) (0.15)	(2.57) (0.54)	(4.84)	18.12	(17.86)	19.87	(6.26)	2.29	4.01	08/01/2005
	FOVSF-EMERGING MARKETS - NET MGR			0.50	(17.53)	(19.68)	(3.11)								
	MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)	(2.60)	18.22	(18.42)	18.88	(4.81)	3.61	5.14	
	EXCESS RETURN			(0.16)	(0.17)	(4.76)	(0.92)	(2.24)	(0.11)	0.57	1.00	(1.45)	(1.32)	(1.13)	
	EQUITY RETURN DETAIL														
69	FOVSF-TOTAL REAL ESTATE SECURITIES - GROSS ESTIMATED INVESTMENT FEES FOVSF-TOTAL REAL ESTATE SECURITIES - NET MGR DJ US SELECT REAL ESTATE SECURITIES INDEX	12	3.96	3.94 (0.10) 3.84 7.55	3.66 (0.19) 3.47 10.77	(1.26) (0.37) (1.63) 4.46	31.20 (0.48) 30.72 31.85	1.31	18.19	6.78 8.87	33.05 28.47	10.83	7.75	7.21	10/01/2005
	EXCESS RETURN			(3.71)	(7.30)	(6.09)	(1.13)	0.97	1.10	(2.09)	4.58	(1.38)	0.67	0.86	





		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
	FIXED INCOME RETURN DETAIL														
81	FOVSF-TOTAL FIXED INCOME - GROSS ESTIMATED INVESTMENT FEES EST MANAGEMENT FEES	81	27.28	(0.30) (0.03) (0.03)	(0.43) (0.06) (0.06)	0.27 (0.12) (0.12)	6.59 (0.14) (0.14)	(0.76)	8.19	8.14	9.72	4.41	5.61	6.23	08/01/1993
	EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS FOVSF-TOTAL FIXED INCOME - NET MGR			(0.33)	(0.50)	0.14	6.45								
89	FOVSF-TOTAL STRUCTURED - GROSS ESTIMATED INVESTMENT FEES	55	18.65	(0.28)	0.87	1.13	8.37 (0.08)	(2.02)	7.50	8.76	9.12	4.66	5.78	6.21	09/01/2000
	FOVSF-TOTAL STRUCTURED - NET MGR NYC - CORE PLUS FIVE EXCESS RETURN			(0.29) (0.49) <b>0.19</b>	0.83 0.78 <b>0.05</b>	1.05 0.41 <b>0.65</b>	8.29 7.66 <b>0.63</b>	(2.79) <b>0.76</b>	5.41 <b>2.09</b>	9.40 <b>(0.64)</b>	7.13 <b>1.99</b>	3.92 <b>0.74</b>	5.10 <b>0.68</b>	5.74 <b>0.48</b>	
99	ESTIMATED INVESTMENT FEES FOVSF-TOTAL TIPS MANAGERS - NET MGR	6	2.08	(0.67) (0.00) (0.67)	(1.84) (0.00) (1.84)	(0.85) (0.02) (0.87)	3.37 (0.10) 3.27	(8.52)	7.67	13.34	6.57	2.73	4.12	3.95	06/01/2005
	BARCLAYS GLOBAL INFLATION LINKED: US TIPS (DAILY) EXCESS RETURN			(0.64) (0.03)	(1.78) (0.06)	(1.44) 0.57	3.64 (0.37)	(8.61) <b>0.09</b>	6.98 <b>0.69</b>	13.56	6.31 <b>0.26</b>	2.55 <b>0.18</b>	3.93 <b>0.19</b>	3.76 <b>0.19</b>	
109	FOVSF-TOTAL ENHANCED YIELD - GROSS ESTIMATED INVESTMENT FEES FOVSF-TOTAL ENHANCED YIELD - NET MGR	16	5.54	(0.28) (0.09) (0.37)	(4.18) (0.17) (4.36)	(0.92) (0.36) (1.27)	3.29 (0.37) 2.91	7.09	13.27	5.12	14.30	5.47	6.26	6.77	02/01/2001
	CITIGROUP BB & B EXCESS RETURN			(1.70) 1.33	(6.77) 2.41	(4.21) 2.94	2.78 0.13	6.17 <b>0.92</b>	14.45 (1.18)	6.58 (1.46)	13.35 <b>0.95</b>	4.98 <b>0.49</b>	5.60 <b>0.67</b>	6.02 <b>0.75</b>	
	CASH SUMMARY														
121	FIRE OFFICERS SHORT TERM - GROSS ESTIMATED INVESTMENT FEES FIRE OFFICERS SHORT TERM - NET MGR	3	1.01	0.05 0.00 0.05	0.10 0.00 0.10	0.18 0.00 0.18	0.15 0.00 0.15	0.14 0.00 0.14	0.27 0.00 0.27	0.31 0.00 0.31	0.38 0.00 0.38	0.21 0.00 0.21	1.56 0.00 1.56		01/01/1988
125	C/D - FAIL FLOAT EARNINGS	0	0.00												
127	SECURITY LENDING	0	0.13												



# **Appendix B**

Public Markets Manager Performance Detail

# **Public Markets Manager Performance Detail**





	Market Value (\$MM)	% of Total	2 Mariet	EVED	OVER	2011
	(\$MM)	lotai	3 Month	FYTD	CYTD	2014
EQUITY SUMMARY						
US EQUITY						
BLACKROCK R2000 GROWTH	6	2.14	4.41	(9.21)	(1.30)	5.47
RUSSELL 2000 GROWTH DAILY			4.32	(9.31)	(1.38)	5.60
Excess			0.09	0.09	0.08	(0.14)
BLACKROCK R2000 VALUE	6	2.05	2.99	(8.24)	(7.38)	4.11
RUSSELL 2000 VALUE DAILY			2.88	(8.17)	(7.47)	4.22
Excess			0.11	(0.07)	0.09	(0.11)
BLACKROCK R1000 GROWTH	77	25.79	7.37	1.74	5.77	12.90
RUSSELL 1000 GROWTH - DAILY			7.32	1.64	5.67	13.05
Excess			0.06	0.10	0.11	(0.15)
BLACKROCK R1000 VALUE	70	23.68	5.67	(3.09)	(3.66)	13.38
RUSSELL 1000 VALUE (DAILY)			5.64	(3.23)	(3.83)	13.45
Excess			0.03	0.14	0.17	(0.08)
NON - US EQUITY						
Baillie Gifford	36	12.24	6.88	(9.60)	(3.81)	(6.77)
MSCI EAFE GROWTH			6.67	(2.64)	4.09	(4.43)
Excess			0.22	(6.96)	(7.90)	(2.34)
EMERGING MARKETS						
		2.71	0.50	(47.52)		
BLACKROCK MSCI EMERGING MARKETS  MSCI EMERGING MARKETS	8	2.71	0.50	(17.53)		
IVIOUI EVIERUIIVI EVIE			00.0	(17.35)		

# **Public Markets Manager Performance Detail**

#### Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
	(, )				-	
REAL ESTATE SECURITIES						
FOVSF-MORGAN STANLEY REITS	12	3.96	3.84	3.47	(1.63)	30.72
Morgan Stanley Custom RESI Index			3.90	4.47	(1.53)	31.8
Excess			(0.06)	(1.00)	(0.10)	(1.13
FIXED INCOME SUMMARY						
STRUCTURED FIXED INCOME						
Blackrock Government	10	3.52	(1.41)	1.62	0.62	
NYC - Treasury Agency Plus Five			(1.29)	2.06	0.72	
Excess			(0.12)	(0.44)	(0.11)	
Blackrock - Mortgage	25	8.27	(0.13)	1.13	1.94	6.8
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	6.1
Excess			(0.05)	(0.07)	0.38	0.68
T Rowe Price - Credit	20	6.85	0.09	0.09	0.23	8.06
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.0
Excess			0.52	0.22	0.88	1.03
ENHANCED YIELD						
FOVSF T ROWE MANAGED	16	5.54	(0.37)	(4.36)	(1.27)	2.9
CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.7
Excess			1.33	2.41	2.94	0.1
TIPS						
SSGA TIPS	6	2.08	(0.67)	(1.84)		
Barclays Global Inflation Linked: US TIPS (Daily)			(0.64)	(1.78)		
Excess			(0.03)	(0.07)		

# **Public Markets Manager Performance Detail**

### Net Returns Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
CASH						
FIRE OFFICERS SHORT TERM	3	1.01	0.05	0.10	0.18	0.15
91 DAY TREASURY BILL (DAILY)			0.03	0.04	0.05	0.03
Excess			0.02	0.05	0.13	0.11
C/D - Fail Float Earnings	0	0.00				
SECURITY LENDING	0	0.13				



# **Appendix C**

# **Footnotes**

#### **Footnotes**

Through December 31, 2015



- Effective 4/1/03, the name of the Core +5 benchmark index provider was changed from Salomon to Citigroup.
- Effective 5/31/09, the US Passive Equity sector S&P 500 Index was replaced with the Russell 3000 benchmark 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.

### **Glossary of Terms**

Through December 31, 2015



#### **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 - 7 - 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 December 31, 2015



The indexes and most recent policy weights are as follows:

U.S. Equity: Russell 3000 \* 50.00%

International Developed (EAFE) Markets: MSCI EAFE \* 13.00%

International Emerging Markets: MSCI Emerging Markets \* 4.00%

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

Domestic Fixed Income: NYC Core +5 \* 21.00%

TIPS: Lehman U.S. TIPS \* 3.00%

Enhanced Yield: Citigroup BB&B \* 6.00%

#### Page 8 - 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.