

New York City  
Fire Officers' Variable Supplements Fund  
Performance Overview as of September 30, 2017

# Total Fund Overview

## **New York City Fire Officers' Variable Supplements Fund**

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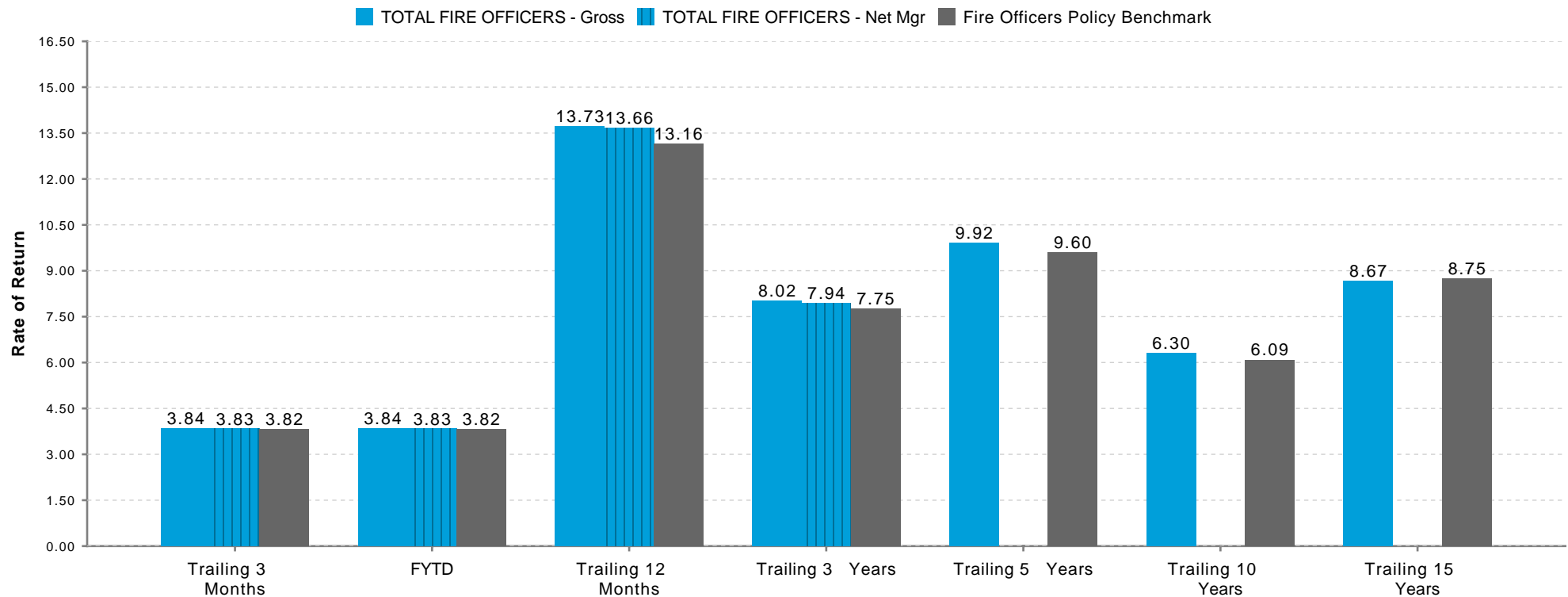
## Total Portfolio Returns: September 30, 2017



TOTAL FIRE OFFICERS

Market Value (Millions)

\$313.7



	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 FIRE OFFICERS	7.8	7.4	9.9	7.1	8.8	8.3	11.7	11.8

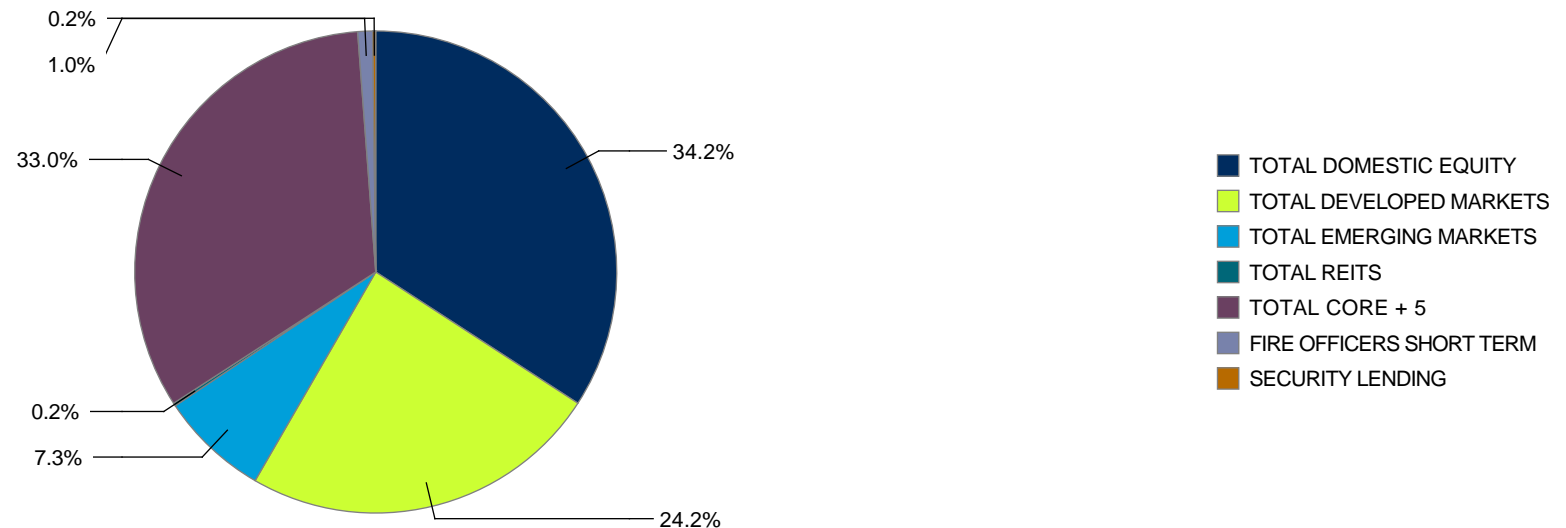


TOTAL FIRE OFFICERS

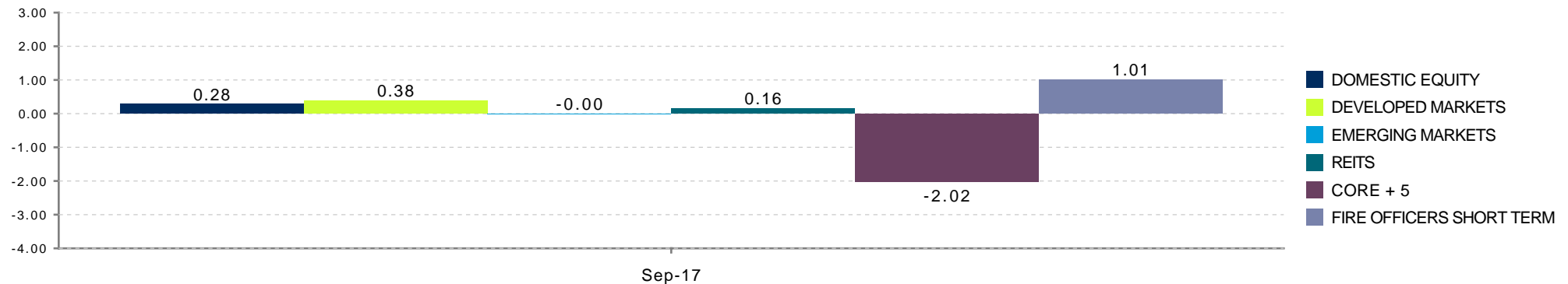
**Market Value (Millions)**

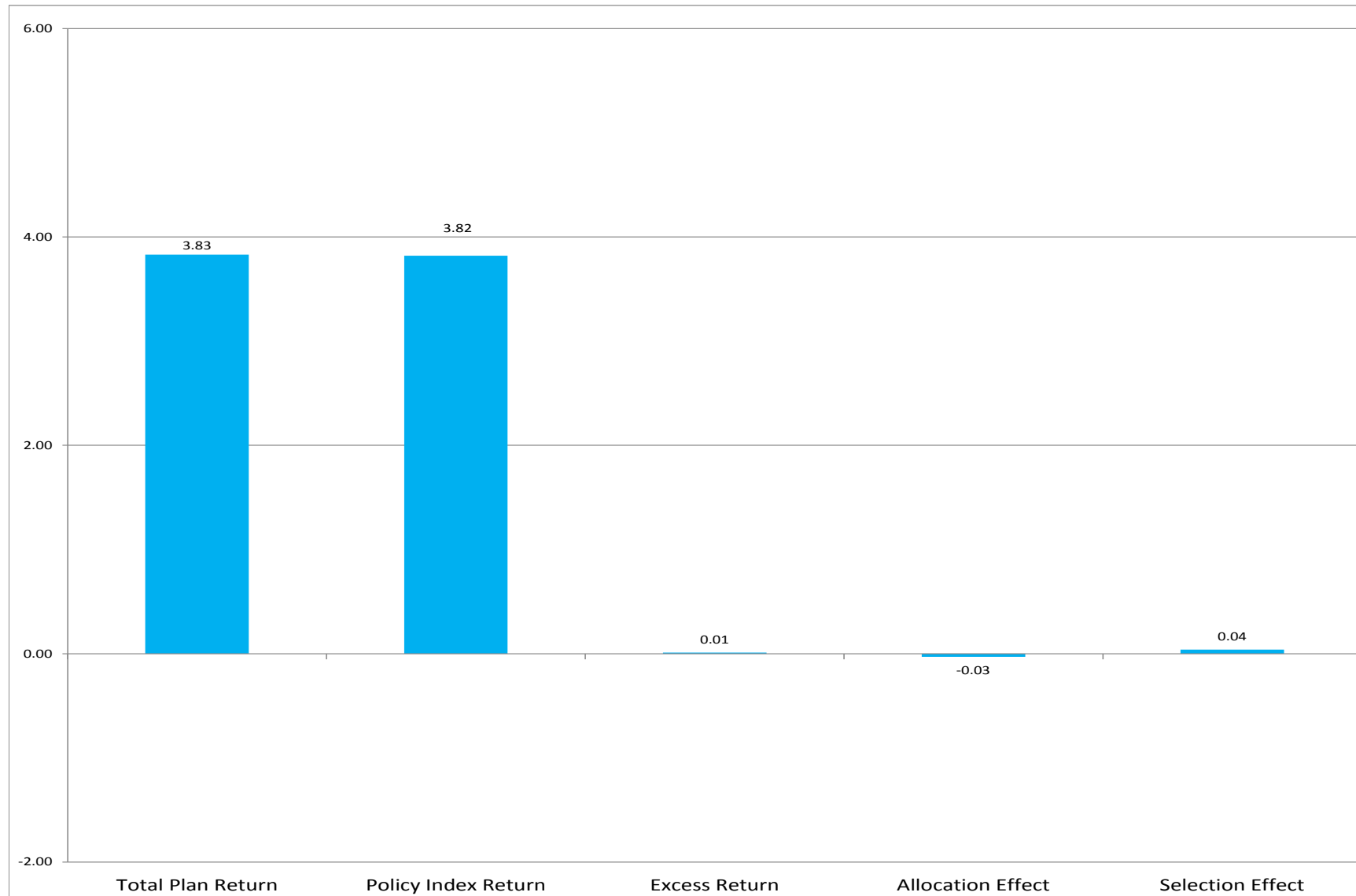
\$313.7

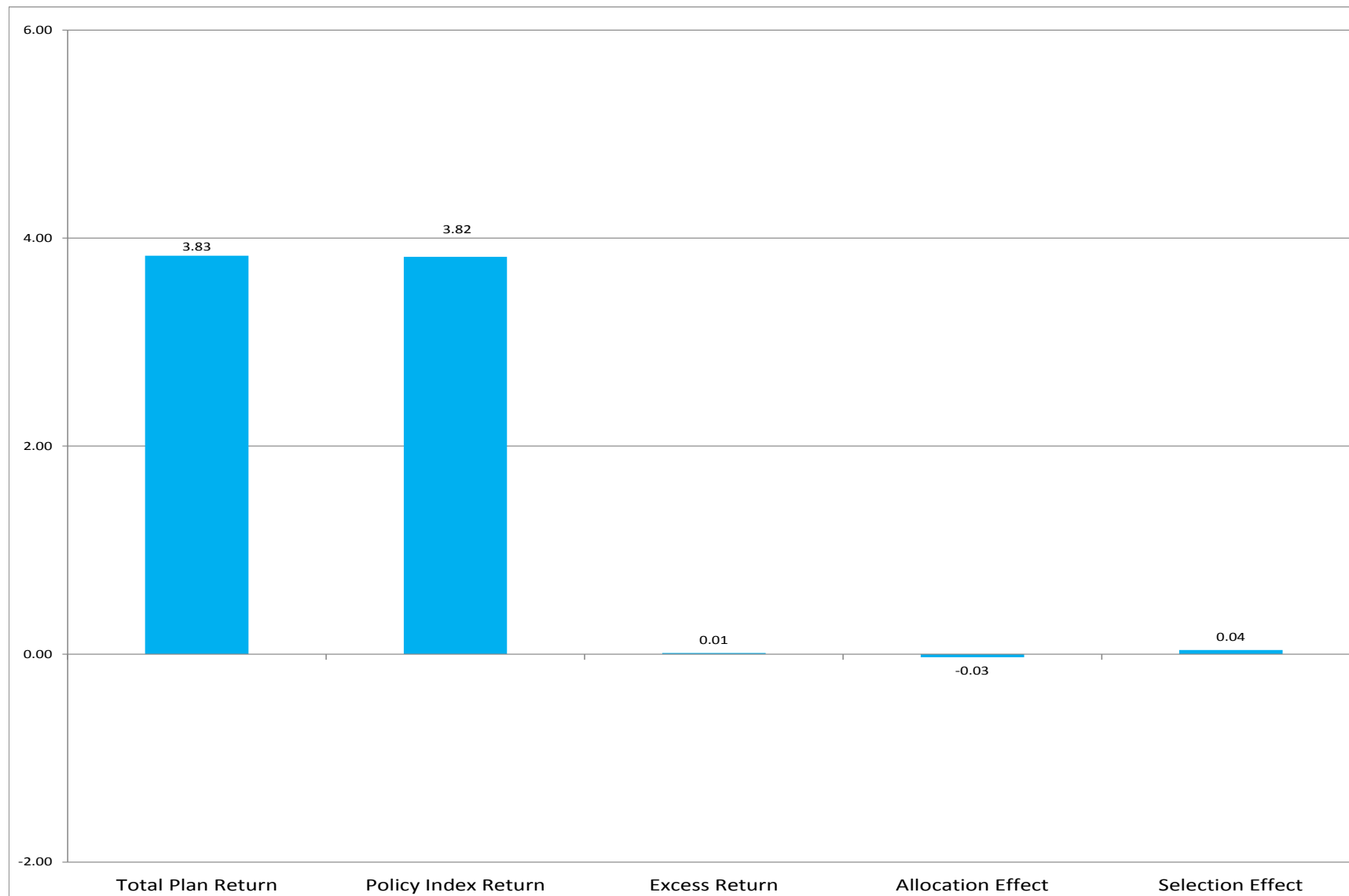
**Asset Allocation**

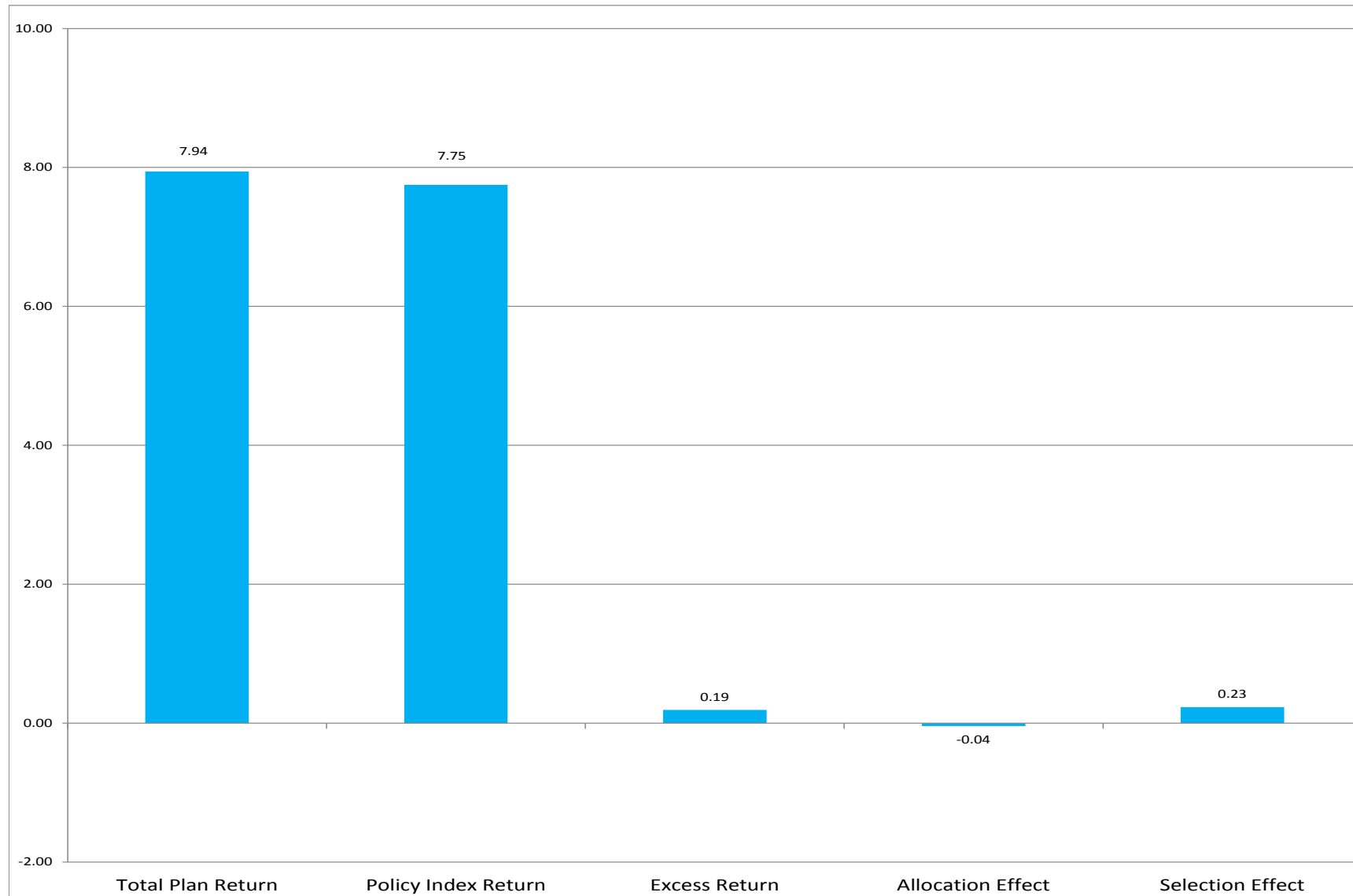


**Relative Mix to Asset Weights**









Allocation Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>FYTD</u>	<u>3 Years</u>	<u>Benchmark</u>
TOTAL FIRE OFFICERS	-0.03	-0.03	-0.04	Fire Officers Policy Benchmark
TOTAL DOMESTIC EQUITY	0.00	0.00	0.01	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.00	0.00	0.02	MSCI World ex USA IMI Net
TOTAL EMERGING MARKETS	-0.01	-0.01	0.03	MSCI EMERGING MARKETS
TOTAL REAL ESTATE SECURITIES	-0.01	-0.01	0.01	DJ U.S. Select REIT
TOTAL STRUCTURED	0.03	0.03	-0.05	Barclays Aggregate
TOTAL CASH	-0.02	-0.02	-0.09	

Selection Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>FYTD</u>	<u>3 Years</u>	<u>Benchmark</u>
TOTAL FIRE OFFICERS	0.04	0.04	0.23	Fire Officers Policy Benchmark
TOTAL DOMESTIC EQUITY	0.00	0.00	0.02	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.06	0.06	0.39	MSCI World ex USA IMI Net
TOTAL EMERGING MARKETS	-0.01	-0.01	-0.07	MSCI EMERGING MARKETS
TOTAL REAL ESTATE SECURITIES	0.00	0.00	-0.11	DJ U.S. Select REIT
TOTAL STRUCTURED	-0.02	-0.02	-0.02	Barclays Aggregate
TOTAL CASH	0.00	0.00	0.00	



**NYC FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND**  
**SECURITIES LENDING INCOME**  
**September 30, 2017**

	<u>U. S. FIXED INCOME</u>	<u>U. S. EQUITY</u>	<u>INTERNATIONAL EQUITY</u>	<u>TOTAL</u>
2001	32,000	6,000	-	38,000
2002	20,000	6,200	-	26,200
2003	14,000	11,000	31,000	56,000
2004	24,000	24,000	24,000	72,000
2005	42,000	42,000	32,000	116,000
2006	44,000	98,000	32,000	174,000
2007	91,000	137,000	28,000	256,000
2008	240,000	195,000	37,000	472,000
2009	67,000	101,000	25,000	193,000
2010	32,000	101,000	20,000	153,000
2011	48,000	116,000	34,000	198,000
2012	37,000	129,000	25,000	191,000
2013	17,000	113,000	25,000	155,000
2014	7,900	11,000	131,000	149,900
2015	2,000	8,400	209,000	219,400
2016	7,000	131,000	170,000	308,000
2017 (9 months)	13,000	44,000	70,000	127,000
Since Inception	<u>737,900</u>	<u>1,273,600</u>	<u>893,000</u>	<u>2,904,500</u>

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

# **Appendix A**

## **Consolidated Performance Report**

# Consolidated Performance Report

Through September 30, 2017



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
<b>SYSTEM RETURN SUMMARY</b>															
5 FIRE OFFICERS-TOTAL PORTFOLIO - GROSS	314	100.00	3.84	3.84	13.17	8.64	(0.74)	8.30	19.49	13.79	8.02	9.92	6.30	8.56	01/01/1988
FIRE OFFICERS- ESTIMATED INVESTMENT FEES			(0.01)	(0.01)	(0.05)	(0.08)	(0.09)	(0.11)			(0.09)				
EST MANAGEMENT FEES			(0.01)	(0.01)	(0.05)	(0.08)	(0.09)	(0.11)			(0.09)				
EST INCENTIVE FEES															
EST OTHER FEES															
EST FEE OFFSETS															
FIRE OFFICERS-TOTAL PORTFOLIO - NET MGR			3.83	3.83	13.11	8.56	(0.83)	8.19			7.94				
FIRE OFFICERS POLICY BENCHMARK			3.82	3.82	11.99	9.01	(0.34)	8.29	18.23	14.09	7.75	9.60	6.09		
EXCESS RETURN			0.02	0.02	1.13	(0.45)	(0.49)	(0.10)	1.26	(0.30)	0.19	0.32	0.21		
<b>EQUITY RETURN DETAIL</b>															
17 FOVSF-TOTAL EQUITY - GROSS	206	65.82	5.49	5.49	17.90	10.41	(1.18)	9.13	27.60	16.30	10.18	12.77	6.08	6.62	08/01/2001
ESTIMATED INVESTMENT FEES			(0.01)	(0.01)	(0.05)	(0.07)	(0.08)	(0.10)			(0.08)				
EST MANAGEMENT FEES			(0.01)	(0.01)	(0.05)	(0.07)	(0.08)	(0.10)							
EST INCENTIVE FEES															
EST OTHER FEES															
EST FEE OFFSETS															
FOVSF-TOTAL EQUITY - NET MGR			5.48	5.48	17.85	10.34	(1.25)	9.03			10.11				
25 FOVSF-TOTAL DOMESTIC EQUITY - GROSS	107	34.18	4.59	4.59	13.91	12.96	0.62	12.73	33.59	16.43	10.78	14.35	7.61	10.24	01/01/1991
ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			(0.00)				
FOVSF-TOTAL DOMESTIC EQUITY - NET MGR			4.58	4.58	13.91	12.95	0.61	12.73			10.77				
RUSSELL 3000/S&P500 04/30/09			4.57	4.57	13.91	12.74	0.48	12.56	33.55	16.42	10.74	14.23	7.51	10.18	
EXCESS RETURN			0.01	0.01	(0.01)	0.22	0.14	0.17	0.04	0.02	0.04	0.12	0.10	0.06	

# Consolidated Performance Report

Through September 30, 2017



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL																
37	FOVSF-TOTAL INTERNATIONAL EQUITY - GROSS	99	31.53	6.51	6.51	30.30	3.17	(6.89)	(5.75)	15.03	15.50	7.18	7.73	0.88	5.28	08/01/2001
	ESTIMATED INVESTMENT FEES			(0.01)	(0.01)	(0.14)	(0.23)	(0.23)	(0.30)			(0.23)				
	EST MANAGEMENT FEES			(0.01)	(0.01)	(0.14)	(0.23)	(0.23)	(0.30)							
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	FOVSF-TOTAL INTERNATIONAL EQUITY - NET MGR			6.50	6.50	30.16	2.94	(7.12)	(6.05)			6.94				
	MSCI AC WORLD EX US (NET)			6.16	6.16	21.13	4.50	(5.66)	(3.87)	15.29	16.83	4.70	6.97	1.28	6.35	
	EXCESS RETURN			0.34	0.34	9.03	(1.56)	(1.46)	(2.19)	(0.26)	(1.33)	2.24	0.76	(0.39)	(1.07)	
47	FOVSF-DEVELOPED MARKETS - GROSS	76	24.18	6.11	6.11	30.71	1.38	(3.56)	(6.55)	21.44	14.68	8.16	9.10	1.20	6.24	07/01/1994
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.15)	(0.26)	(0.25)	(0.24)			(0.25)				
	FOVSF- DEVELOPED MARKETS - NET MGR			6.11	6.11	30.56	1.11	(3.81)	(6.79)			7.91				
	MSCI EAFE			5.40	5.40	19.96	1.00	(0.81)	(4.90)	22.78	17.32	5.04	8.38	1.34	5.09	
	EXCESS RETURN			0.70	0.70	10.60	0.11	(2.99)	(1.89)	(1.34)	(2.63)	2.87	0.72	(0.14)	1.15	
57	FOVSF-EMERGING MARKETS - GROSS	23	7.30	7.87	7.87	28.12	11.25	(19.53)	(2.57)	(4.84)	18.12	3.25	2.81	(0.34)	6.48	08/01/2005
	ESTIMATED INVESTMENT FEES			(0.04)	(0.04)	(0.09)	(0.06)	(0.15)	(0.54)			(0.15)				
	FOVSF-EMERGING MARKETS - NET MGR			7.83	7.83	28.04	11.19	(19.68)	(3.11)			3.10				
	MSCI EMERGING MARKETS			7.89	7.89	27.78	11.19	(14.92)	(2.19)	(2.60)	18.22	4.90	3.99	1.32	7.44	
	EXCESS RETURN			(0.07)	(0.07)	0.26	0.01	(4.76)	(0.92)	(2.24)	(0.11)	(1.80)	(1.18)	(1.66)	(0.96)	
EQUITY RETURN DETAIL																
69	FOVSF-TOTAL REAL ESTATE SECURITIES - GROSS	1	0.16	1.59	1.59	5.82	3.81	(1.26)	31.20	2.28	18.19	7.40	8.37	5.51	7.70	10/01/2005
	ESTIMATED INVESTMENT FEES			(0.10)	(0.10)	(0.39)	(0.28)	(0.37)	(0.48)			(0.39)				
	FOVSF-TOTAL REAL ESTATE SECURITIES - NET MGR			1.50	1.50	5.44	3.52	(1.63)	30.72			7.00				
	DJ US SELECT REAL ESTATE SECURITIES INDEX			0.38	0.38	1.75	6.65	4.46	31.85	1.31	17.09	9.26	9.15	5.21	6.85	
	EXCESS RETURN			1.12	1.12	3.69	(3.13)	(6.09)	(1.13)	0.97	1.10	(2.25)	(0.78)	0.30	0.84	

# Consolidated Performance Report

Through September 30, 2017



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014	2013	2012	3 Year	5 Year	10 Year	ITD	Inception Date
<b>FIXED INCOME RETURN DETAIL</b>															
81 FOVSF-TOTAL FIXED INCOME - GROSS	107	33.99	0.81	0.81	3.32	5.33	0.27	6.59	(0.76)	8.19	3.41	3.14	5.62	6.14	08/01/1993
ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.06)	(0.11)	(0.12)	(0.14)			(0.11)				
EST MANAGEMENT FEES			(0.00)	(0.00)	(0.06)	(0.11)	(0.12)	(0.14)							
EST INCENTIVE FEES															
EST OTHER FEES															
EST FEE OFFSETS															
FOVSF-TOTAL FIXED INCOME - NET MGR			0.80	0.80	3.26	5.22	0.14	6.45			3.30				
89 FOVSF-TOTAL STRUCTURED - GROSS	103	32.98	0.80	0.80	2.95	3.50	1.13	8.37	(2.02)	7.50	3.22	2.86	5.63	5.95	09/01/2000
ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.04)	(0.07)	(0.08)	(0.08)			(0.07)				
FOVSF-TOTAL STRUCTURED - NET MGR			0.80	0.80	2.90	3.43	1.05	8.29			3.15				
NYC - CORE PLUS FIVE			1.00	1.00	3.85	3.20	0.41	7.66	(2.79)	5.41	3.23	2.47	4.99	5.56	
EXCESS RETURN			(0.20)	(0.20)	(0.95)	0.23	0.65	0.63	0.76	2.09	(0.08)	0.39	0.63	0.39	
<b>CASH SUMMARY</b>															
101 FIRE OFFICERS SHORT TERM - GROSS	3	0.96	0.20	0.20	0.66	0.48	0.18	0.15	0.14	0.27	0.45	0.34	0.76		01/01/1988
ESTIMATED INVESTMENT FEES						0.00	0.00	0.00	0.00	0.00					
FIRE OFFICERS SHORT TERM - NET MGR						0.48	0.18	0.15	0.14	0.27					
105 C/D - FAIL FLOAT EARNINGS	0	0.00													
107 SECURITY LENDING	1	0.19													

New York City  
Fire Officers' Variable Supplements Fund

# Appendix B

## Public Markets Manager Performance Detail

# Public Markets Manager Performance Detail



Net Returns Through September 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
EQUITY SUMMARY								
US EQUITY								
BLACKROCK R2000 GROWTH	4	1.43	6.24	6.24	16.85	11.29	(1.30)	5.47
RUSSELL 2000 GROWTH DAILY			6.22	6.22	16.81	11.32	(1.38)	5.60
Excess			0.02	0.02	0.04	(0.02)	0.08	(0.14)
BLACKROCK R2000 VALUE	4	1.41	5.11	5.11	5.10	31.71	(7.38)	4.11
RUSSELL 2000 VALUE DAILY			5.11	5.11	5.68	31.74	(7.47)	4.22
Excess			0.00	0.00	(0.58)	(0.03)	0.09	(0.11)
BLACKROCK R1000 GROWTH	49	15.60	5.91	5.91	20.77	7.06	5.77	12.90
RUSSELL 1000 GROWTH - DAILY			5.90	5.90	20.72	7.08	5.67	13.05
Excess			0.01	0.01	0.05	(0.02)	0.11	(0.15)
BLACKROCK R1000 VALUE	49	15.74	3.12	3.12	7.90	17.31	(3.66)	13.38
RUSSELL 1000 VALUE (DAILY)			3.11	3.11	7.92	17.34	(3.83)	13.45
Excess			0.00	0.00	(0.02)	(0.03)	0.17	(0.08)
NON - US EQUITY								
Baillie Gifford	2	0.69	12.43	12.43	39.41	1.12	(3.81)	(6.77)
NYC Developed Growth Benchmark			5.06	5.06	22.58	(3.04)	4.09	(4.43)
Excess			7.37	7.37	16.83	4.16	(7.90)	(2.34)
SSGA	63	20.06	5.68	5.68				
NYC Custom World ex US Index			5.62	5.62				
Excess			0.06	0.06				
SSGA EAFE SC IDX	11	3.42	7.47	7.47				
MSCI EAFE SMALL CAP NET (DAILY)			7.46	7.46				
Excess			0.02	0.02				

## Public Markets Manager Performance Detail



Net Returns Through September 30, 2017

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2016	2015	2014
EMERGING MARKETS								
BLACKROCK MSCI EMERGING MARKETS	23	7.30	7.82	7.82	28.03	11.19		
MSCI EMERGING MARKETS			7.89	7.89	27.78	11.19		
Excess			(0.07)	(0.07)	0.25	0.01		
REAL ESTATE SECURITIES								
FOVSF-MORGAN STANLEY REITS	1	0.16	1.50	1.50	5.44	3.52	(1.63)	30.72
Morgan Stanley Custom RESI Index			1.49	1.49	6.17	2.37	(1.53)	31.85
Excess			0.01	0.01	(0.74)	1.15	(0.10)	(1.13)
FIXED INCOME SUMMARY								
STRUCTURED FIXED INCOME								
SSGA-US AGG BD INDEX	104	33.00	0.82	0.82				
BBG BARC Agg (Dly)			0.85	0.85				
Excess			(0.03)	(0.03)				
CASH								
FIRE OFFICERS SHORT TERM	3	1.01				0.48	0.18	0.15
91 DAY TREASURY BILL (DAILY)						0.33	0.05	0.03
Excess						0.16	0.13	0.11
C/D - Fail Float Earnings	0	0.00						
SECURITY LENDING	1	0.19						



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

# Appendix C

## Footnotes

Through September 30, 2017



- 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.

### 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.*

*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%*

*International Emerging Markets: MSCI Emerging Markets \* 7.30%*

*REITs: Dow Jones Select Real Estate Securities \* 0.00%*

*Domestic Fixed Income: Barclays Aggregate \* 35.00%*

*TIPS: BBG BARC Gbl Inf-Lk: US TIPS (Dly)\* 0.00%*

*High Yield: Citigroup BB&B \* 0.00%*

### **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.