

New York City  
Board of Education Retirement System  
Performance Overview as of December 31, 2015

# Total Fund Overview

## **New York City Board of Education Retirement System**

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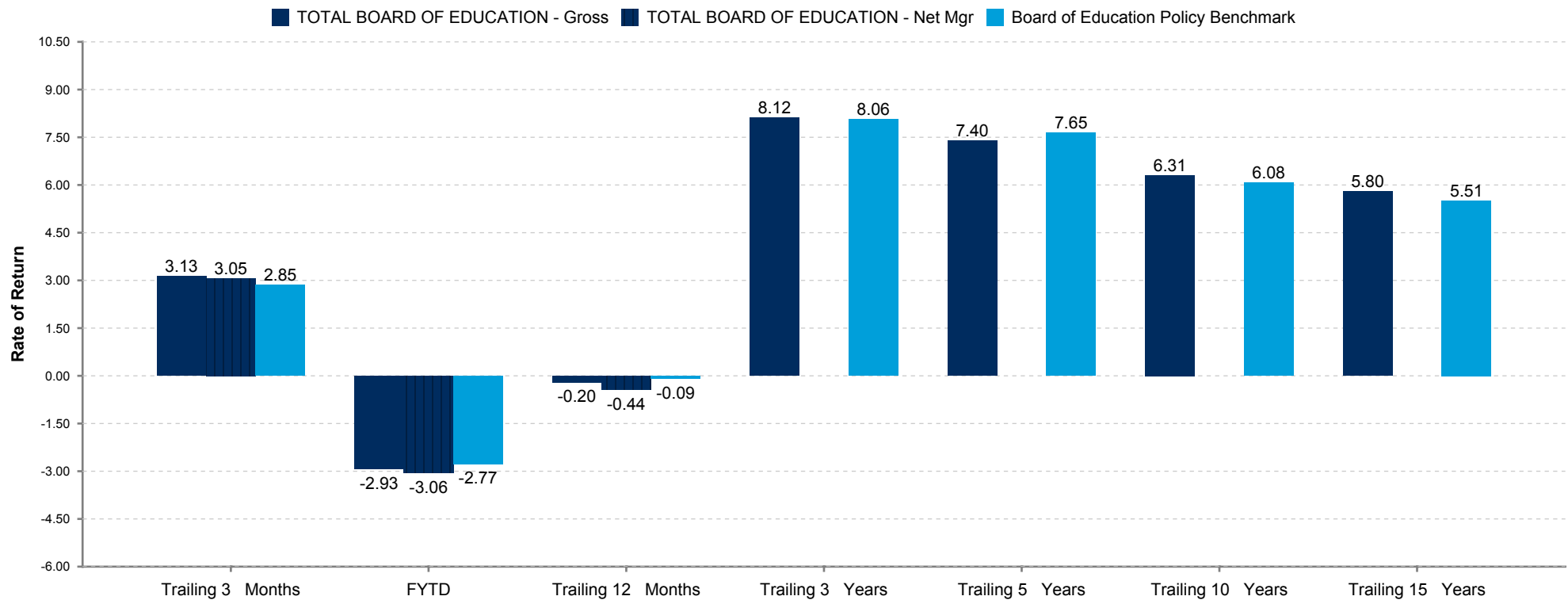
## Total Portfolio Returns: December 31, 2015



TOTAL BOARD OF EDUCATION

**Market Value (Billions)**

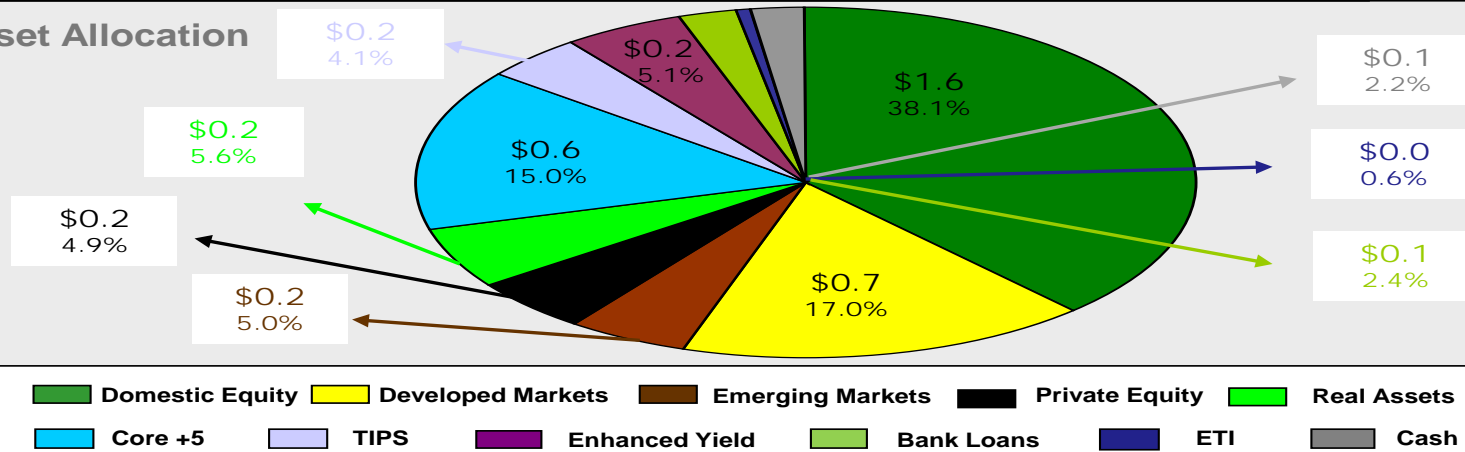
\$4.3



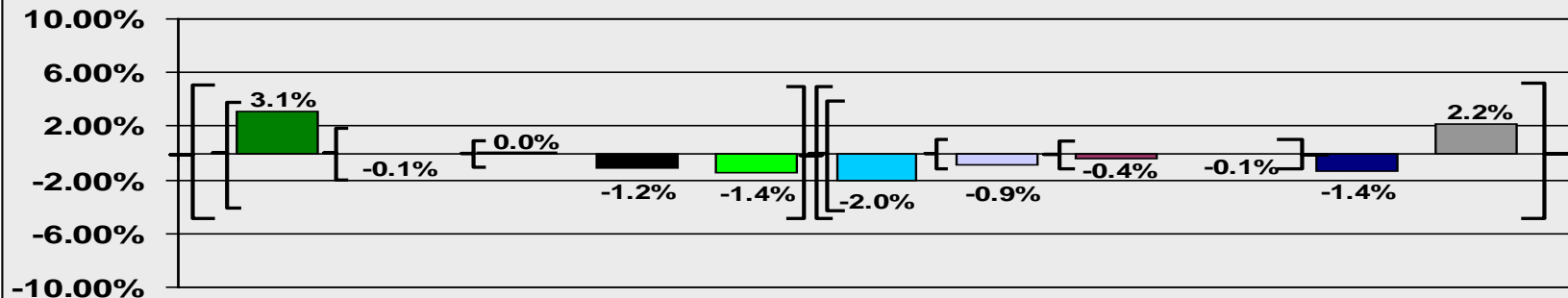
	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 10 Years	Benchmark 10 Years
Standard Deviation						
TOTAL BOARD OF EDUCATION	7.5	7.2	7.4	8.6	11.2	11.7

**\$4.3B Under Management**

**Asset Allocation**



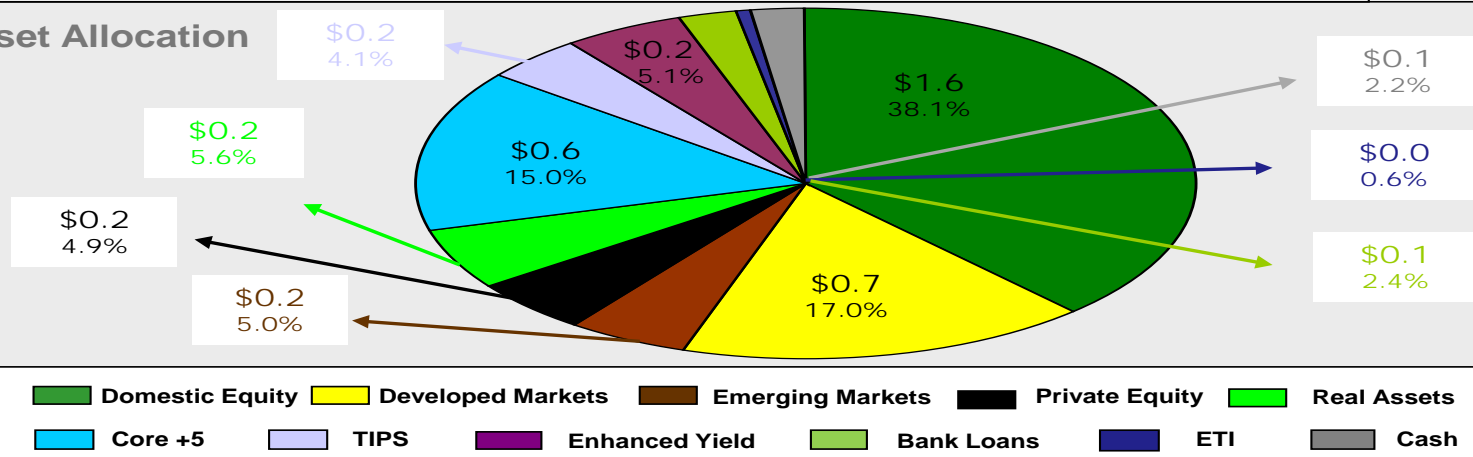
**Relative Mix to New Policy Weights**



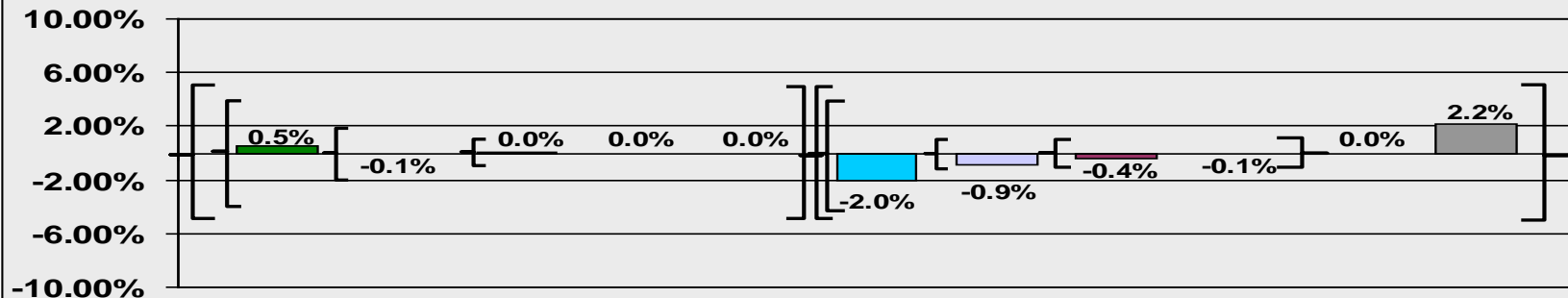
Note: Brackets represent rebalancing ranges versus Policy.

**\$4.3B Under Management**

**Asset Allocation**

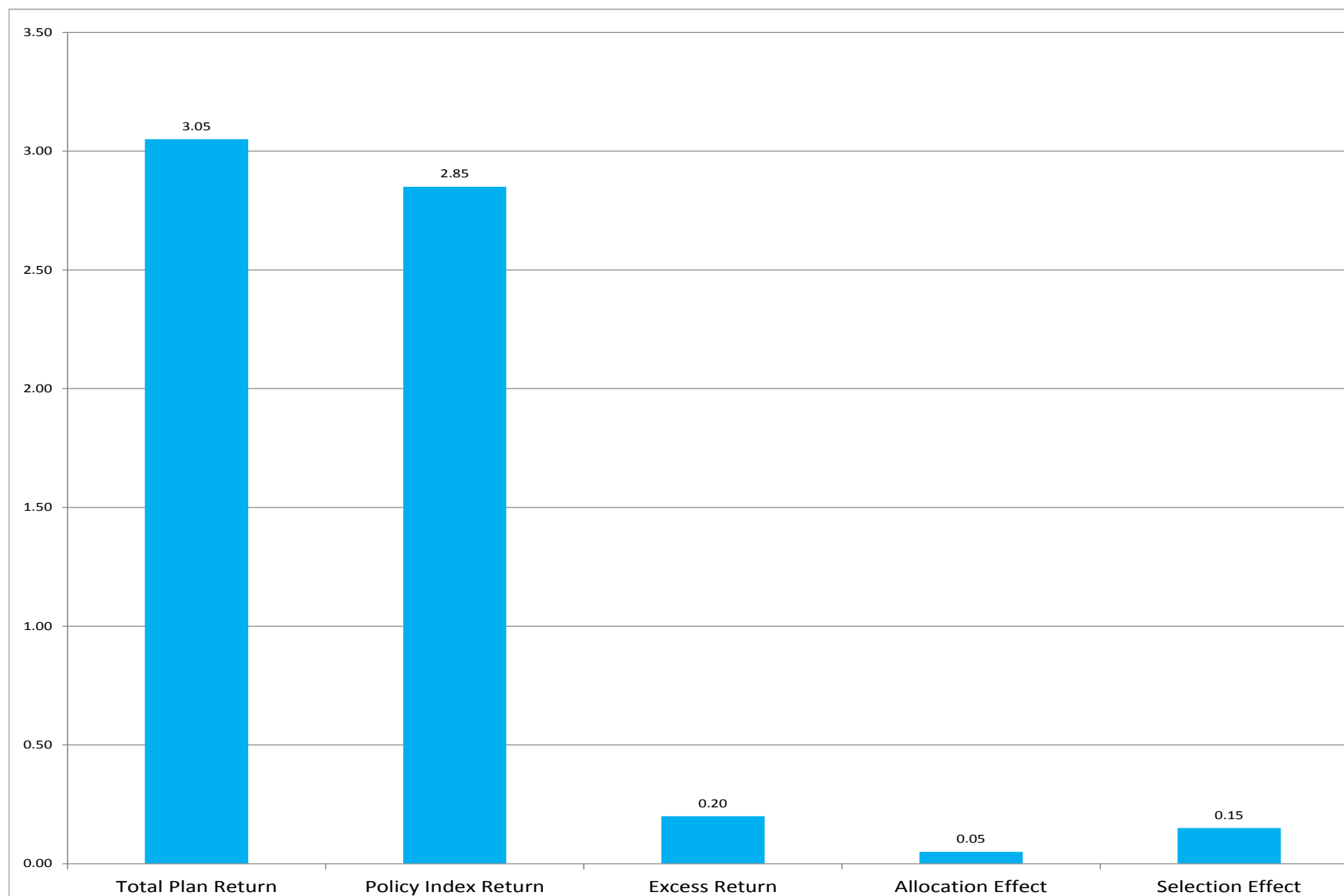


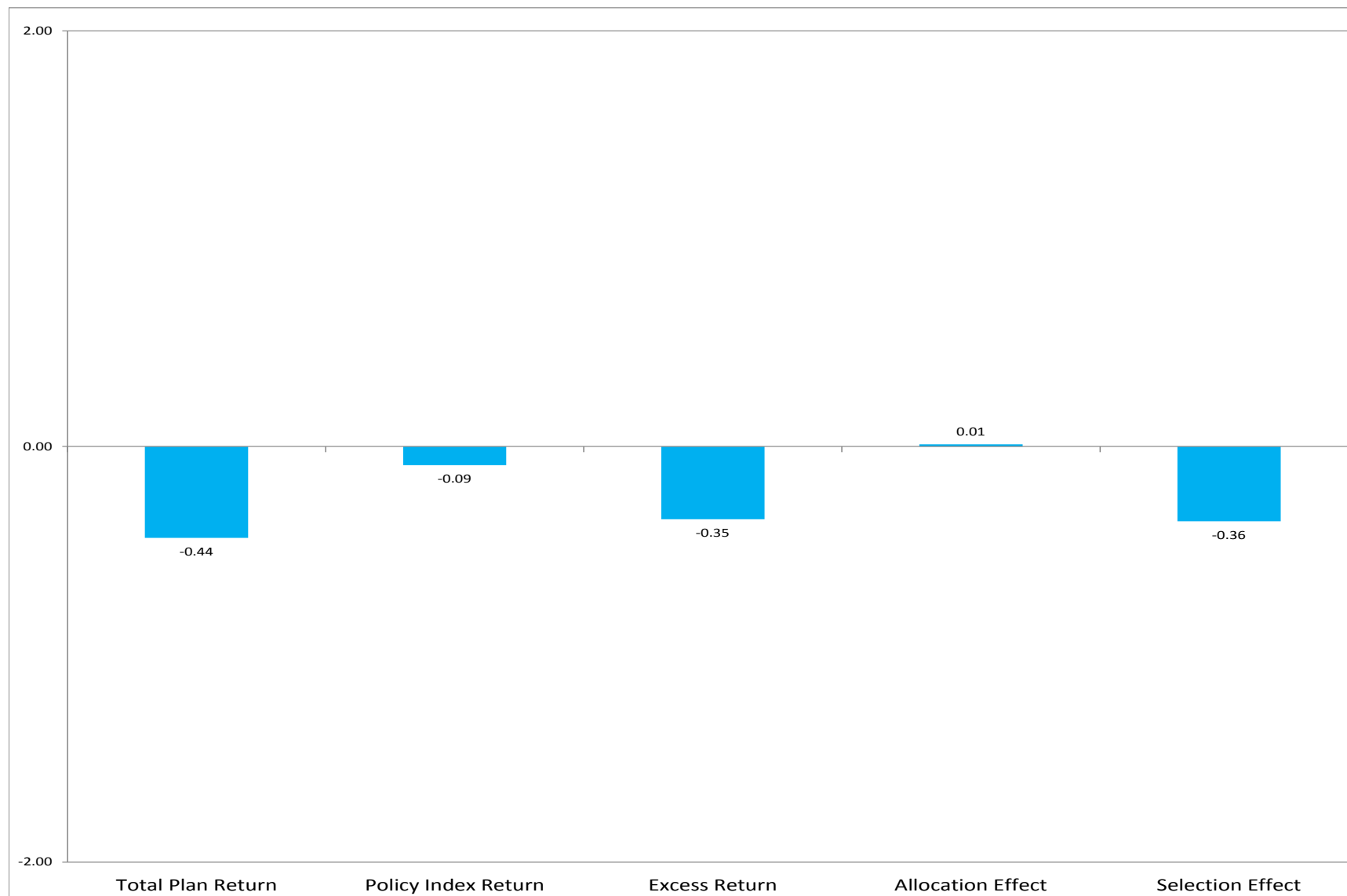
**Relative Mix to Adjusted New Policy Weights**

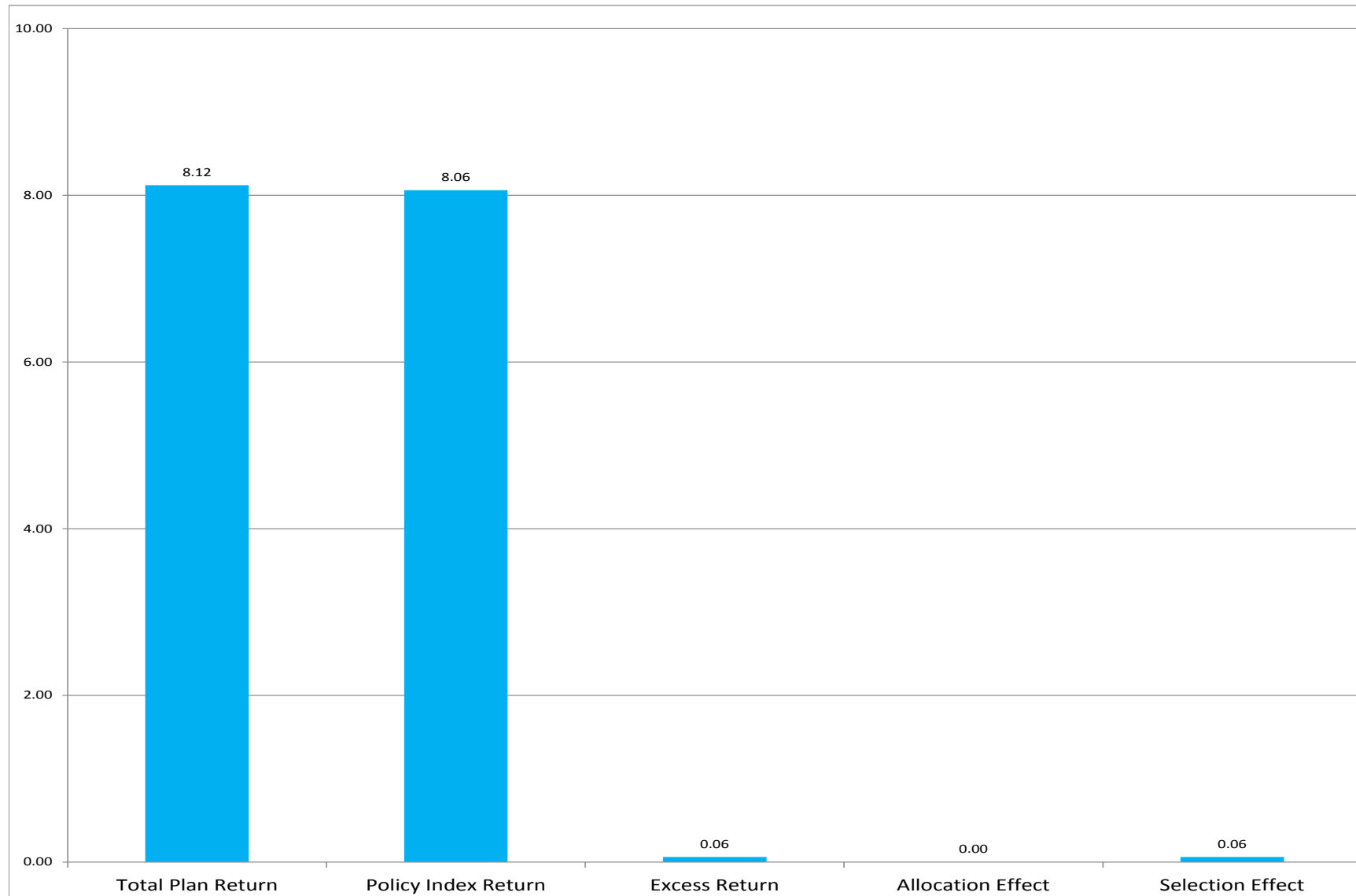


Note: Brackets represent rebalancing ranges versus Policy.

Note: On December 31, 2015 BERS' combined Fixed Income and Cash portfolios have a duration of 5.4 years. The duration of the Barclays US Aggregate Index was 5.7 years on that date.









Allocation Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL BOARD OF EDUCATION	0.05	0.01	0.00	Board of Education Policy Benchmark
TOTAL DOMESTIC EQUITY	0.04	-0.03	-0.03	RUSSELL 3000
TOTAL DEVELOPED EQUITY	-0.02	-0.01	-0.03	MSCI EAFE NET
TOTAL EMERGING MARKETS	0.01	0.02	0.02	MSCI EMERGING MARKETS
TOTAL PRIVATE EQUITY	-0.02	-0.01	0.00	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	0.00	0.01	0.00	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.00	0.00	CPI + 4%
TOTAL STRUCTURED	0.03	-0.06	0.00	NYC - CORE PLUS FIVE
TOTAL TIPS MANAGERS	0.05	0.01	0.10	BARCLAYS U.S TIPS INDEX
TOTAL HIGH YIELD	0.03	0.02	0.01	CITIGROUP BB & B
TOTAL BANK LOANS	0.02	0.00	0.01	CSFB LEVERAGED LOAN INDEX
TOTAL CASH	-0.12	0.02	-0.09	

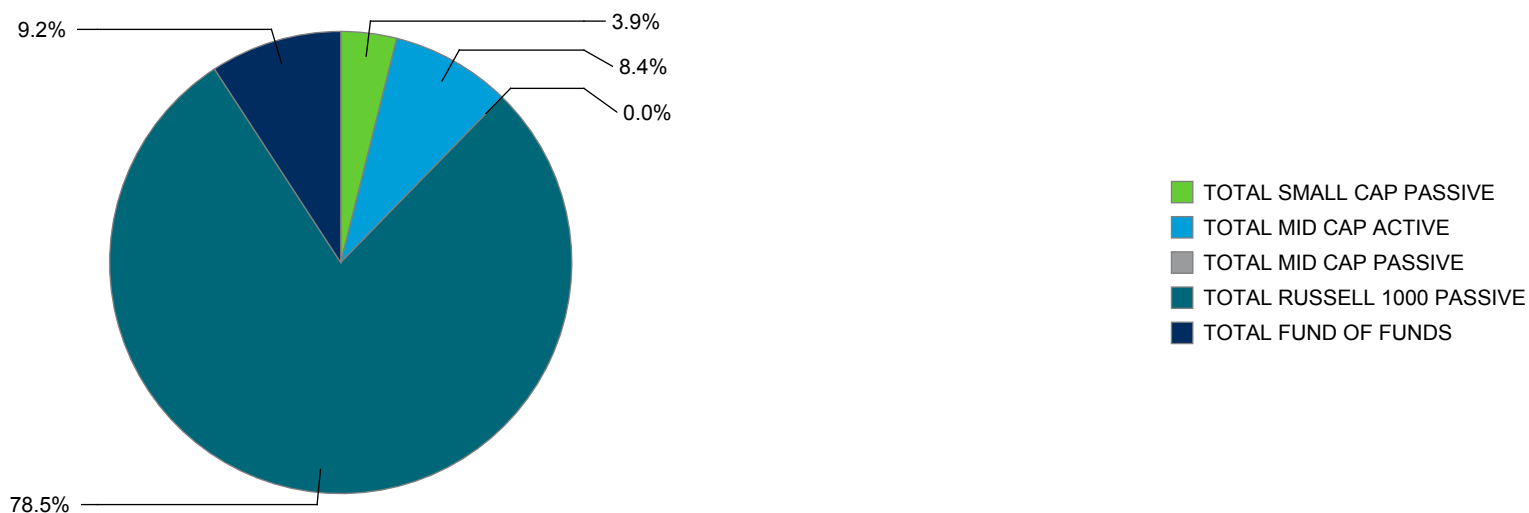
Selection Effect - Asset Class Breakdown				
	<u>Quarter</u>	<u>12 Months</u>	<u>3 Years*</u>	<u>Benchmark</u>
TOTAL BOARD OF EDUCATION	0.15	-0.36	0.06	Board of Education Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.17	-0.03	0.09	RUSSELL 3000
TOTAL DEVELOPED EQUITY	0.02	-0.72	-0.16	MSCI EAFE NET
TOTAL EMERGING MARKETS	-0.01	-0.01	0.08	MSCI EMERGING MARKETS
TOTAL PRIVATE EQUITY	0.34	0.43	0.08	NYC R3000 +3% Lagged
TOTAL PRIVATE REAL ESTATE	0.02	-0.03	-0.01	NCREIF NFI-ODCE NET + 1%
TOTAL INFRASTRUCTURE	0.00	0.01	0.01	CPI + 4%
TOTAL STRUCTURED	0.00	-0.03	0.01	NYC - CORE PLUS FIVE
TOTAL TIPS MANAGERS	0.00	0.02	0.01	BARCLAYS U.S TIPS INDEX
TOTAL HIGH YIELD	-0.06	-0.02	0.04	CITIGROUP BB & B
TOTAL BANK LOANS	0.00	0.01	0.01	CSFB LEVERAGED LOAN INDEX
TOTAL CASH	0.00	0.01	0.01	

\*Returns are Gross of Investment Advisory Fees

## Total Domestic Equity Asset Allocations: December 31, 2015



	Market Value (Billions)	% of Plan
TOTAL DOMESTIC EQUITY	\$1.6	38.1

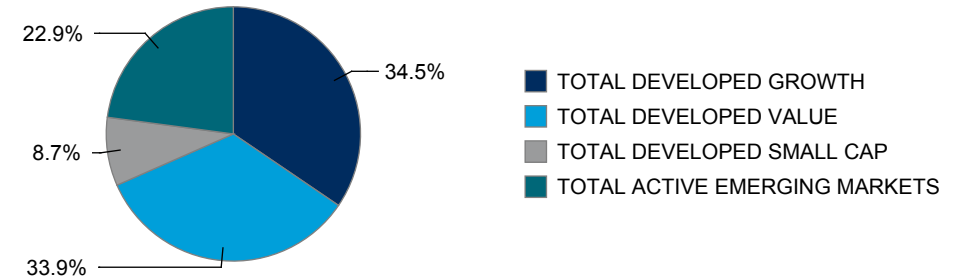
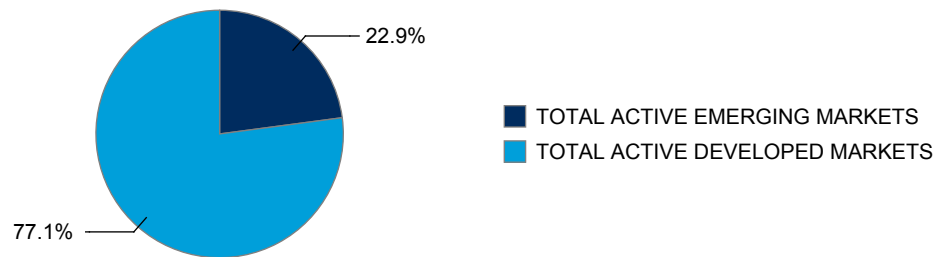


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL SMALL CAP ACTIVE	2.83	0.00	-2.83	3.59		-3.59
TOTAL SMALL CAP PASSIVE	5.39	3.88	-1.51	3.59	3.72	0.12
TOTAL MID CAP ACTIVE	7.25	8.37	1.12	3.62	2.62	-1.00
TOTAL MID CAP PASSIVE	3.75	0.00	-3.75	2.60		-2.60
TOTAL RUSSELL 1000 ACTIVE	11.25	0.00	-11.25	6.50		-6.50
TOTAL RUSSELL 1000 PASSIVE	62.03	78.50	16.47	6.50	6.53	0.04
TOTAL EMERGING MANAGERS	7.50	9.21	1.71	6.27	3.68	-2.59

## International Equity Asset Allocation: December 31, 2015



	<u>Market Value (Millions)</u>	<u>% of Plan</u>
TOTAL INTERNATIONAL EQUITY	\$946.1	22.0

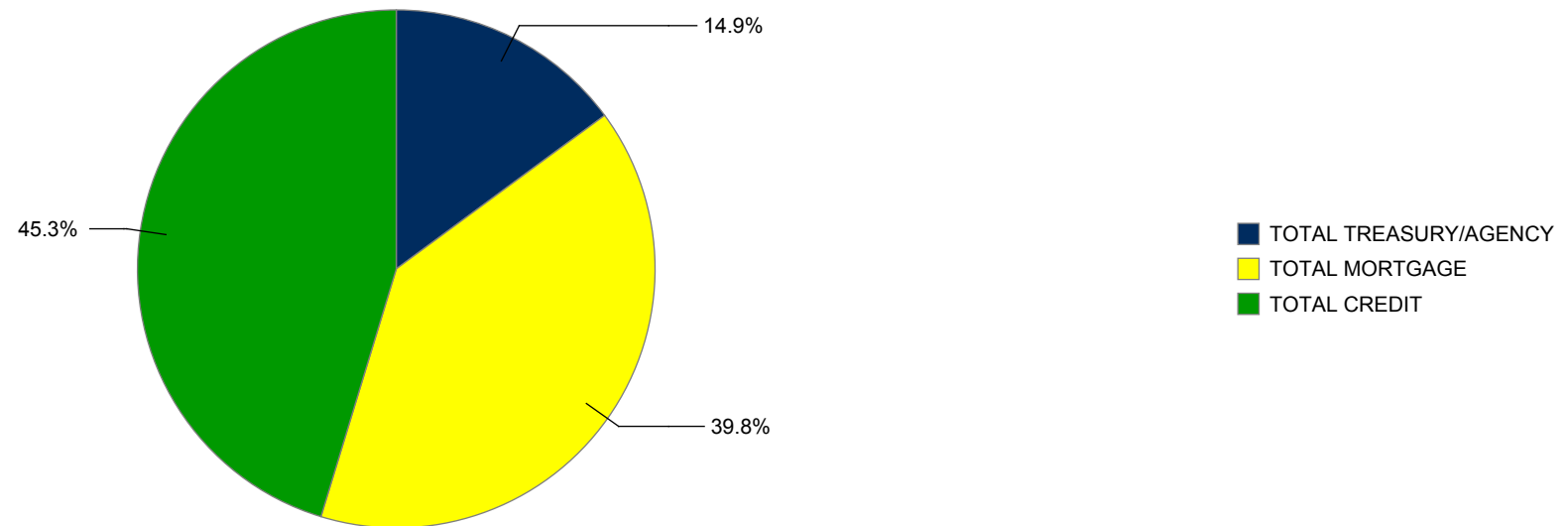


	<u>Asset Weight</u>	<u>Quarterly Returns - Fund and Benchmark</u>		
		<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL DEVELOPED GROWTH	34.53	6.95	6.67	0.28
TOTAL DEVELOPED VALUE	33.85	2.22	2.68	(0.45)
TOTAL DEVELOPED SMALL CAP	8.72	6.91	5.86	1.05
TOTAL ACTIVE EMERGING MARKETS	22.89	0.60	0.66	(0.05)
TOTAL INTERNATIONAL EQUITY	100.00	3.98	3.24	0.73

## Structured Fixed Income Asset Allocation: December 31, 2015



	<u>Market Value (Millions)</u>	<u>% of Plan</u>
TOTAL STRUCTURED	\$646.0	15.0



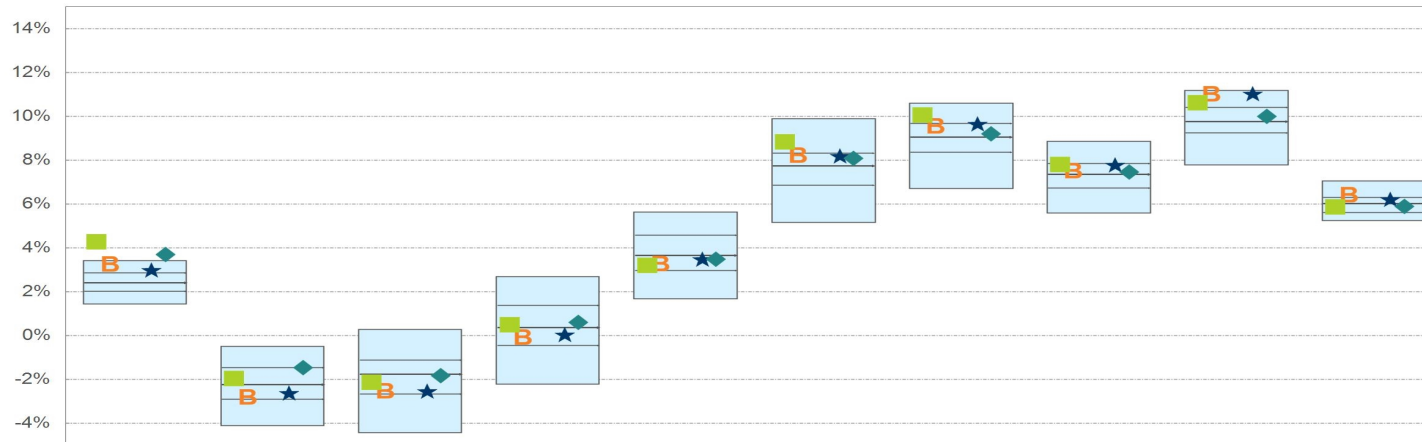
Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference
TOTAL TREASURY/AGENCY	20.81	14.94	-5.87	-1.29	-1.22	0.07
TOTAL MORTGAGE	36.15	39.78	3.63	-0.07	-0.13	-0.06
TOTAL INV GRADE CREDIT	43.04	45.28	2.24	-0.44	-0.52	-0.08

Through December 31, 2015



## City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$1 Billion  
Cumulative Periods Ending : December 31, 2015



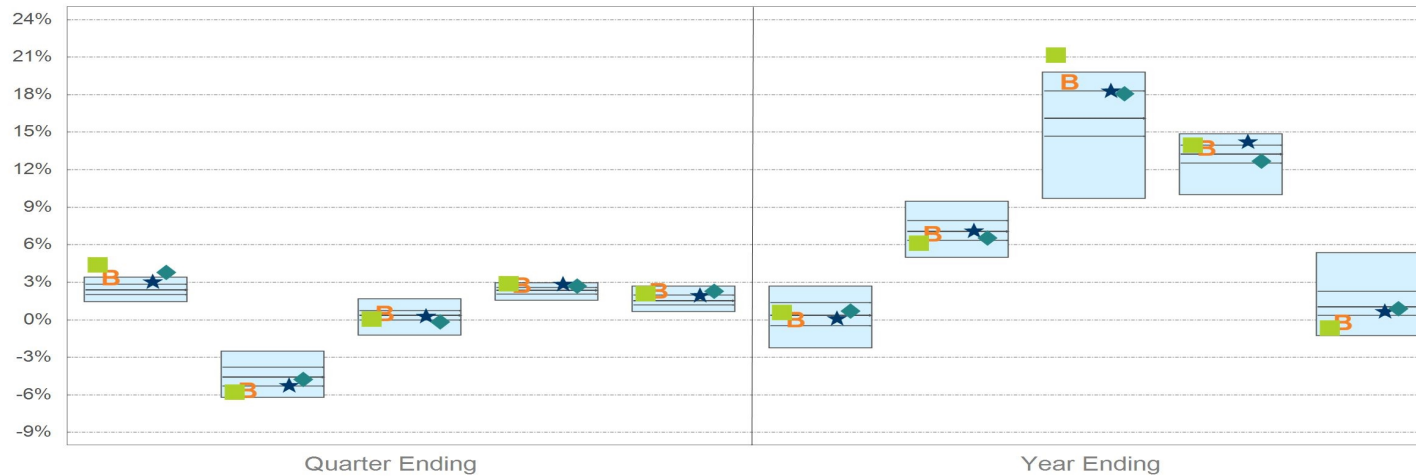
Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	3.42	-0.50	0.28	2.69	5.63	9.90	10.61	8.86	11.20	7.05
25th	2.85	-1.46	-1.13	1.38	4.57	8.32	9.68	7.85	10.41	6.30
50th	2.41	-2.24	-1.78	0.36	3.66	7.75	9.06	7.36	9.77	6.03
75th	2.02	-2.92	-2.67	-0.46	2.97	6.86	8.37	6.74	9.26	5.62
95th	1.44	-4.11	-4.45	-2.23	1.68	5.16	6.72	5.59	7.79	5.25
No. Of Obs	66	65	65	65	65	65	65	65	61	58
<b>B</b> Total System - BOE	3.13 (11)	-2.93 (76)	-2.66 (71)	-0.20 (67)	3.16 (65)	8.12 (34)	9.44 (32)	7.40 (45)	10.91 (12)	6.31 (21)
<b>★</b> Board of Ed Policy Ben	2.85 (28)	-2.77 (67)	-2.67 (75)	-0.09 (65)	3.36 (57)	8.06 (35)	9.53 (29)	7.65 (34)	10.91 (12)	6.08 (41)
<b>■</b> Public Mkt Equiv 25	4.15 (1)	-2.10 (43)	-2.26 (64)	0.35 (54)	3.08 (70)	8.72 (14)	9.95 (14)	7.69 (32)	10.51 (23)	5.75 (60)
<b>◆</b> Public Mkt Equiv 35	3.56 (2)	-1.59 (29)	-1.97 (57)	0.46 (43)	3.35 (57)	7.97 (40)	9.08 (48)	7.34 (50)	9.88 (46)	5.77 (58)

Wilshire Trust Universe Comparison Service® (TUCS®)

Through December 31, 2015



**City of New York  
Performance Comparison**  
*Total Returns of Master Trusts - Public : Plans > \$1 Billion  
Consecutive Time Periods: December 31, 2015*



Percentile Rankings	Dec 15	Sep 15	Jun 15	Mar 15	Dec 14	Dec 15	Dec 14	Dec 13	Dec 12	Dec 11
5th	3.42	-2.49	1.69	2.95	2.71	2.69	9.47	19.80	14.88	5.39
25th	2.85	-3.78	0.74	2.59	1.97	1.38	7.92	18.28	13.98	2.30
50th	2.41	-4.57	0.37	2.36	1.51	0.36	7.08	16.10	13.25	1.04
75th	2.02	-5.29	-0.01	2.06	1.18	-0.46	6.34	14.66	12.53	0.36
95th	1.44	-6.20	-1.24	1.58	0.67	-2.23	5.00	9.72	9.99	-1.27
No. Of Obs	66	65	66	66	66	65	66	66	66	65
<b>B</b> Total System - BOE	3.13 (11)	-5.87 (87)	0.28 (62)	2.53 (31)	2.11 (20)	-0.20 (67)	6.64 (70)	18.78 (19)	13.50 (39)	-0.42 (86)
★ Board of Ed Policy Ben	2.85 (28)	-5.46 (76)	0.10 (67)	2.66 (23)	1.75 (37)	-0.09 (65)	6.93 (53)	18.10 (26)	14.05 (23)	0.47 (68)
■ Public Mkt Equiv 25	4.15 (1)	-6.00 (89)	-0.17 (81)	2.67 (22)	1.87 (31)	0.35 (54)	5.88 (82)	20.94 (1)	13.75 (34)	-0.89 (89)
◆ Public Mkt Equiv 35	3.56 (2)	-4.98 (68)	-0.38 (85)	2.48 (32)	2.07 (22)	0.46 (43)	6.31 (76)	17.86 (29)	12.47 (76)	0.65 (62)

Wilshire Trust Universe Comparison Service® (TUCS®)

# Actual and Estimated Fees

Through December 31, 2015



BERS RETIREMENT SYSTEM					
ACTUAL FEES FOR FISCAL YEAR ENDING JUNE 30, 2015 AND ESTIMATED FEES FOR FY 2016 UPDATED THROUGH SEPTEMBER 2015					
	Actual 2015			Estimates 2016	
INVESTMENT STYLE (EQUITIES)	MV 06-30-15 (\$MM)	Mgmt Fees in Basis Points		MV 09-30-15 (\$MM)	Mgmt in Basis Points
<b>US Equities</b>	<b>1,770</b>	<b>11.13</b>		<b>1,640</b>	<b>10.56</b>
Small Cap Active	33	56.41		-	-
Small Cap Growth	-	-		-	-
Small Cap Value	-	-		-	-
Small Cap core	33	56.41		-	-
Small Cap Fundamental Index	-	-		-	-
Small/Mid Cap Active	-	-		-	-
Small/Mid Cap Growth	-	-		-	-
Small/Mid Cap Value	-	-		-	-
Mid Cap Active	143	54.23		134	56.66
Mid Cap Growth	-	-		-	-
Mid Cap Value	-	-		-	-
Mid Cap core	143	54.23		134	56.66
Russell 1000 Active	-	-		-	-
Russell 1000 Fundamental Index	-	-		-	-
Active Emerging Managers (U.S. Equities)	162	58.39		146	62.57
Total US Active Equities	338	57.23		279	59.74
Total US Passive Equities	1,432	0.45		1,360	0.44
Environmental US E. Strategies	-	-		-	-
<b>International Equities</b>	<b>970</b>	<b>26.73</b>		<b>856</b>	<b>26.83</b>
Active EAFE Equities	752	24.27		667	24.53
Growth	361	24.99		306	26.03
Value	308	21.34		284	20.57
Core	-	0.00		-	-
Small Cap	83	32.01		77	33.16
Non-US Environmental Strategies	-	-		-	-
Active Emerging Markets	218	35.24		189	34.97
Total Int'l Active Equities	970	26.73		856	26.83
Total Int'l Passive Equities	-	-		-	-
<b>REITS Passive Index</b>	<b>-</b>	<b>-</b>		<b>-</b>	<b>-</b>

Information provided by the New York City Comptroller

# Actual and Estimated Fees

Through December 31, 2015



BERS RETIREMENT SYSTEM				
ACTUAL FEES FOR FISCAL YEAR ENDING JUNE 30, 2015 AND ESTIMATED FEES FOR FY 2016 UPDATED THROUGH SEPTEMBER 2015				
	Actual 2015		Estimates 2016	
INVESTMENT STYLE (FIXED INCOME)	MV 06-30-15 (\$MM)	Mgmt Fees in Basis Points	MV 09-30-15 (\$MM)	Mgmt in Basis Points
<b>Fixed Income</b>	<b>1,292</b>	<b>11.52</b>	<b>1,260</b>	<b>11.40</b>
Structured Program	643	6.11	649	5.78
Government Sector	95	4.70	98	4.49
Mortgage Sector	254	6.17	257	4.32
Investment Grade Credit Sector	294	6.51	294	7.48
Global Fixed Income	-	-	-	-
Progress Fixed Emerging Managers	-	-	-	-
TIPS	139	1.29	138	0.50
Active TIPS	-	0.00	-	-
Passive TIPS	139	0.34	138	0.50
Opportunistic Fixed Income	-	-	-	-
Enhanced Yield	217	32.93	206	33.57
Bank Loans	86	34.05	85	34.57
Convertible Bonds	-	-	-	-
ETI - Access - RBC	7	24.06	7	22.65
ETI - AFL-CIO HIT	12	42.51	12	42.64
<b>Total Public Markets (Externally managed)</b>	<b>3,845</b>	<b>15.74</b>	<b>3,593</b>	<b>15.21</b>
Other ETI Programs	5	-	6	-
In-House Short Term	182	0.00	157	0.00
<b>Total Public Markets</b>	<b>4,032</b>	<b>15.01</b>	<b>3,756</b>	<b>14.55</b>
INVESTMENT STYLE (PRIVATE)				
Hedge Funds	-	-	-	-
Private Equities	152	106.79	196	162.71 <sup>1</sup>
Real Assets	184	91.35	192	109.98 <sup>1</sup>
Private Real Estate	162	89.30	169	96.96
Infrastructure	22	70.77	24	88.74 <sup>2</sup>
Opportunistic Fixed Income	-	-	-	-
<b>Total Private Markets</b>	<b>336</b>	<b>87.86</b>	<b>388</b>	<b>136.63 <sup>3</sup></b>
<b>Total Overall</b>	<b>4,368</b>	<b>21.42</b>	<b>4,144</b>	<b>25.99 <sup>4</sup></b>
Footnotes				
1 - Private Equity & Real Assets Investments exclude GP CARRY & Incentive Fees .				
2- Infrastructure Fees are based on committed Amounts for each investment which are higher than the actual Market Values.				
3- Private Equity and Private Real Estate fees are based on Invested values and committed amounts depending on the age of the investment.				
4- The Incentive Fees paid for the Police Fund in 2015 are 1.94 BPS.				

Information provided by the New York City Comptroller



# Securities Lending Income

Through December 31, 2015



## NYC BOARD OF EDUCATION RETIREMENT SYSTEM SECURITIES LENDING INCOME December 31, 2015

	<u>U.S. FIXED INCOME</u>	<u>U.S. EQUITY</u>	<u>INTERNATIONAL EQUITY</u>	
1989*	\$70,000	--	--	
1990	79,000	--	--	
1991	111,000	--	--	
1992	122,000	\$11,000	--	
1993	79,000	32,000	\$15,000	
1994	93,000	77,000	20,000	
1995	112,000	93,000	12,000	
1996	99,000	76,000	27,000	
1997	101,000	126,000	40,000	
1998	111,000	170,000	60,000	
1999	159,000	263,000	100,000	
2000	193,000	310,000	97,000	
2001	295,000	208,000	159,000	
2002	209,000	143,000	152,000	
2003	153,000	158,000	195,000	
2004	226,000	255,000	174,000	
2005	384,000	479,000	217,000	
2006	303,000	734,000	246,000	
2007	593,000	1,208,000	272,000	
2008	2,514,000	2,266,000	451,000	
2009	698,000	1,416,000	367,000	
2010	246,000	729,000	326,000	
2011	340,000	943,000	599,000	
2012	516,000	1,144,000	495,000	
2013	349,000	1,325,000	446,000	
2014	287,000	512,000	1,387,000	
2015	338,000	429,000	1,985,000	
Since Inception	<u>\$8,780,000</u>	<u>\$13,107,000</u>	<u>\$7,842,000</u>	*Inception 4/89

**New York City  
Board of Education Retirement System**

# **Appendix A**

## **Consolidated Performance Report**

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
<b>SYSTEM RETURN SUMMARY</b>														
5 BERS-TOTAL PORTFOLIO - GROSS	4,303	100.00	3.13	(2.93)	(0.20)	6.64	18.78	13.50	(0.42)	14.95	7.40	6.31	8.62	07/01/1987
BERS - ESTIMATED INVESTMENT FEES			(0.08)	(0.13)	(0.24)	(0.25)								
EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL)			(0.03)	(0.07)	(0.14)	(0.15)								
EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH)			(0.05)	(0.06)	(0.10)	(0.10)								
EST INCENTIVE FEES														
EST OTHER FEES														
EST FEE OFFSETS														
BERS-TOTAL PORTFOLIO - NET MGR			3.05	(3.06)	(0.44)	6.39								
BOARD OF EDUCATION POLICY BENCHMARK			2.85	(2.77)	(0.09)	6.93	18.10	14.05	0.47	13.04	7.65	6.08		
EXCESS RETURN			0.20	(0.29)	(0.36)	(0.53)	0.68	(0.55)	(0.89)	1.91	(0.25)	0.22		
<b>EQUITY RETURN DETAIL</b>														
18 BERS-TOTAL EQUITY (INCLUDES PE & RA) - GROSS	3,035	70.53	4.87	(3.63)	(0.13)	7.08	27.83	16.72	(4.01)	17.52	8.90	6.59	8.77	08/01/1993
ESTIMATED INVESTMENT FEES			(0.10)	(0.16)	(0.30)	(0.28)								
EST MANAGEMENT FEES			(0.10)	(0.16)	(0.30)	(0.28)								
EST INCENTIVE FEES														
EST OTHER FEES														
EST FEE OFFSETS														
BERS-TOTAL EQUITY (INCL PE & RA) - NET MGR			4.77	(3.79)	(0.43)	6.81								
26 BERS-TOTAL DOMESTIC EQUITY - GROSS	1,640	38.11	5.84	(1.88)	0.51	11.27	35.96	16.62	(0.72)	17.27	11.97	7.35	9.46	09/01/1991
ESTIMATED INVESTMENT FEES			(0.03)	(0.05)	(0.12)	(0.13)								
BERS-TOTAL DOMESTIC EQUITY - NET MGR			5.81	(1.93)	0.39	11.14								
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56	33.55	16.42	1.03	16.93	12.18	7.35	9.34	
EXCESS RETURN			(0.46)	(0.50)	(0.09)	(1.42)	2.41	0.20	(1.75)	0.34	(0.20)	(0.00)	0.12	
36 BERS-TOTAL SMALL CAP - GROSS	64	1.48	3.72	(9.55)	(6.44)	3.20	44.74	19.91	(10.17)	21.37	8.52	5.21	5.67	04/01/2004
ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.08)	(0.15)								
BERS-TOTAL SMALL CAP - NET MGR			3.71	(9.55)	(6.52)	3.05								
RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89	38.82	16.35	(4.18)	26.85	9.19	6.80	7.14	
EXCESS RETURN			0.12	(0.80)	(2.11)	(1.85)	5.92	3.56	(5.99)	(5.48)	(0.66)	(1.59)	(1.47)	
46 BERS-TOTAL MID CAP - GROSS	137	3.19	2.62	(3.45)	2.56	10.77	37.52	19.12	(5.53)		11.95		13.95	10/01/2010
ESTIMATED INVESTMENT FEES			(0.14)	(0.27)	(0.55)	(0.41)								
BERS-TOTAL MID CAP - NET MGR			2.48	(3.73)	2.01	10.36								
RUSSELL MIDCAP (DAILY)			3.62	(4.68)	(2.44)	13.22	34.76	17.28	(1.55)		11.44		13.49	
EXCESS RETURN			(1.14)	0.95	4.45	(2.86)	2.76	1.84	(3.98)		0.51		0.46	

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>														
58 BERS-TOTAL RUSSELL 1000 - GROSS	1,288	29.92	6.53	(0.72)	0.98	12.92	62.18	14.87	(1.64)	16.72	15.88	9.71	9.91	09/01/1993
ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.01)								
BERS-TOTAL RUSSELL 1000 - NET MGR			6.53	(0.72)	0.97	12.91								
RUSSELL 1000 (DAILY)			6.50	(0.78)	0.92	13.24	33.11	16.42	1.50	16.10	12.44	7.40	9.08	
EXCESS RETURN			0.03	0.05	0.05	(0.33)	29.07	(1.56)	(3.14)	0.62	3.43	2.31	0.83	
68 BERS-TOTAL FUND OF FUNDS - GROSS	151	3.52	3.68	(6.74)	(3.07)	5.43	40.84	17.00	(1.75)	18.99	10.59	7.06	7.41	04/01/2004
ESTIMATED INVESTMENT FEES			(0.17)	(0.32)	(0.65)	(0.71)								
BERS-TOTAL FUND OF FUNDS - NET MGR			3.51	(7.06)	(3.72)	4.72								
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56	33.55	16.42	1.03	16.93	12.18	7.35	7.59	
EXCESS RETURN			(2.76)	(5.62)	(4.20)	(7.84)	7.29	0.58	(2.78)	2.06	(1.59)	(0.29)	(0.18)	

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>														
80 BERS-TOTAL INTERNATIONAL EQUITY - GROSS	946	21.99	3.98	(10.94)	(7.04)	(3.03)	17.99	18.36	(11.84)	18.25	2.10	4.69	7.20	11/01/1992
ESTIMATED INVESTMENT FEES			(0.07)	(0.12)	(0.25)	(0.26)								
BERS-TOTAL INTERNATIONAL EQUITY - NET MGR			3.91	(11.06)	(7.30)	(3.30)								
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		
EXCESS RETURN			0.66	(1.74)	(1.63)	0.57	2.70	1.52	1.87	7.09	1.05	1.77		
90 BERS-TOTAL DEVELOPED GROWTH ACTIVE - GROSS	327	7.59	6.95	(9.48)	(3.56)	(6.42)	29.53	18.88	(10.71)	17.36	4.41		3.24	08/01/2007
ESTIMATED INVESTMENT FEES			(0.07)	(0.12)	(0.25)	(0.24)								
BERS-TOTAL DEVELOPED GROWTH ACTIVE - NET MGR			6.88	(9.60)	(3.81)	(6.66)								
MSCI EAFE GROWTH			6.67	(2.64)	4.09	(4.43)	22.55	16.86	(12.11)	12.25	4.60		1.06	
EXCESS RETURN			0.22	(6.96)	(7.90)	(2.23)	6.98	2.02	1.40	5.12	(0.19)		2.19	
100 BERS-TOTAL DEVELOPED VALUE ACTIVE - GROSS	320	7.44	2.22	(10.57)	(9.37)	(2.98)	16.94	17.84	(9.92)	18.56	1.77	3.40	5.68	08/01/2004
ESTIMATED INVESTMENT FEES			(0.05)	(0.10)	(0.19)	(0.21)								
BERS-TOTAL DEVELOPED VALUE ACTIVE - NET MGR			2.17	(10.66)	(9.56)	(3.19)								
MSCI EAFE VALUE NET (DAILY)			2.68	(9.41)	(5.68)	(5.39)	22.95	17.69	(12.17)	3.25	2.55	1.96	4.49	
EXCESS RETURN			(0.51)	(1.26)	(3.87)	2.21	(6.01)	0.15	2.26	15.31	(0.78)	1.44	1.19	
110 BERS-TOTAL DEVELOPED SMALL CAP ACTIVE - GROSS	83	1.92	6.91	(0.29)	9.04	(4.60)							7.31	05/01/2013
ESTIMATED INVESTMENT FEES			(0.09)	(0.16)	(0.36)	(0.32)								
BERS-TOTAL DEVELOPED SMALL CAP ACTIVE - NET MGR			6.82	(0.46)	8.68	(4.92)								
S&P EPAC SMALL CAP INDEX			5.86	(1.46)	8.95	(3.10)							7.57	
EXCESS RETURN			0.96	1.00	(0.28)	(1.81)							(0.26)	
120 BERS-TOTAL ACTIVE EMERGING MARKETS - GROSS	217	5.03	0.60	(17.68)	(14.83)	4.14	(4.70)	18.12	(17.86)	19.85	(3.89)	3.28	7.33	04/01/2004
ESTIMATED INVESTMENT FEES			(0.09)	(0.15)	(0.31)	(0.37)								
BERS-TOTAL ACTIVE EMERGING MARKETS - NET MGR			0.52	(17.84)	(15.14)	3.77								
MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)	(2.60)	18.22	(18.42)	18.88	(4.81)	3.61	6.89	
EXCESS RETURN			(0.14)	(0.48)	(0.22)	5.96	(2.10)	(0.11)	0.57	0.97	0.92	(0.33)	0.44	

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
<b>EQUITY RETURN DETAIL</b>														
132 BERS-TOTAL PRIVATE EQUITY (TIME WEIGHTED)	209	4.85	1.06	4.67	14.26	22.16	15.34	7.70	19.15	13.64	15.62		4.97	07/01/2006
NYC R3000 +3% LAGGED			(6.54)	(5.72)	2.49	21.24	24.53	35.20	5.55	15.96	17.17		10.96	
EXCESS RETURN			7.60	10.39	11.77	0.92	(9.19)	(27.50)	13.60	(2.32)	(1.55)		(5.99)	
142 BERS-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED)	213	4.95	4.38	8.72	16.06	13.67	8.64	14.30	9.43		12.38		12.16	12/01/2010
NCREIF NFI-ODCE NET + 100 BP			3.36	7.17	15.08	12.56	14.02	10.88	16.09		13.71		14.52	
EXCESS RETURN			1.02	1.55	0.98	1.10	(5.39)	3.41	(6.66)		(1.33)		(2.36)	
152 BERS-TOTAL INFRASTRUCTURE (TIME WEIGHTED)	27	0.62	2.62	4.28	11.63	18.85							14.52	12/01/2013
CPI + 4%			1.10	2.01	4.69	4.70							4.81	
EXCESS RETURN			1.52	2.27	6.94	14.15							9.72	

# Consolidated Performance Report

Through December 31, 2015



	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
<b>FIXED INCOME RETURN DETAIL</b>														
164 BERS-TOTAL FIXED INCOME - GROSS	1,174	27.29	(1.03)	(1.59)	(0.68)	5.69	(0.56)	8.55	9.42	9.39	4.39	5.51	5.23	04/01/2004
ESTIMATED INVESTMENT FEES			(0.03)	(0.06)	(0.13)	(0.16)								
EST MANAGEMENT FEES			(0.03)	(0.06)	(0.13)	(0.16)								
EST INCENTIVE FEES														
EST OTHER FEES														
EST FEE OFFSETS														
BERS-TOTAL FIXED INCOME - NET MGR			(1.07)	(1.66)	(0.81)	5.53								
172 BERS-TOTAL STRUCTURED FIXED INCOME - GROSS	646	15.01	(0.47)	0.47	0.26	7.66	(2.38)	6.68	9.23	8.36	4.19	5.24	7.87	01/01/1985
ESTIMATED INVESTMENT FEES			(0.01)	(0.03)	(0.06)	(0.08)								
BERS-TOTAL STRUCTURED FIXED INCOME - NET MGR			(0.49)	0.44	0.20	7.58								
NYC - CORE PLUS FIVE			(0.49)	0.78	0.41	7.66	(2.79)	5.41	9.40	7.13	3.92	5.10		
EXCESS RETURN			0.00	(0.34)	(0.21)	(0.08)	0.41	1.27	(0.17)	1.23	0.27	0.15		
182 BERS-TOTAL TIPS - GROSS	177	4.11	(0.67)	(1.84)	(0.83)	3.37	(8.52)	7.67	13.34	6.57	2.74	4.13	3.95	06/01/2005
ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.02)	(0.10)								
BERS-TOTAL TIPS - NET MGR			(0.67)	(1.84)	(0.85)	3.27								
BARCLAYS GLOBAL INFLATION LINKED: US TIPS (DAILY)			(0.64)	(1.78)	(1.44)	3.64	(8.61)	6.98	13.56	6.31	2.55	3.93	3.76	
EXCESS RETURN			(0.03)	(0.06)	0.58	(0.37)	0.09	0.69	(0.22)	0.26	0.19	0.19	0.19	
192 BERS-TOTAL ENHANCED YIELD - GROSS	220	5.12	(2.75)	(7.58)	(4.34)	3.09	8.39	15.68	6.25	15.01	5.61	6.90	5.51	08/01/1997
ESTIMATED INVESTMENT FEES			(0.08)	(0.16)	(0.32)	(0.34)								
BERS-TOTAL ENHANCED YIELD - NET MGR			(2.83)	(7.74)	(4.66)	2.75								
CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78	6.17	14.45	6.58	13.35	4.98	5.60	5.57	
EXCESS RETURN			(1.13)	(0.97)	(0.45)	(0.04)	2.22	1.23	(0.33)	1.66	0.63	1.30	(0.06)	
202 BERS- TOTAL BANK LOANS - GROSS	103	2.40	(2.03)	(2.84)	0.48	2.34	6.33						3.19	12/01/2012
ESTIMATED INVESTMENT FEES			(0.08)	(0.16)	(0.34)	(0.35)								
BERS-TOTAL BANK LOANS - NET MGR			(2.11)	(3.00)	0.14	1.99								
CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06	6.15						2.74	
EXCESS RETURN			(0.15)	0.16	0.52	(0.07)	0.18						0.44	
212 BERS-TOTAL TARGETED INVESTMENTS (NO CASH)	28	0.65	(0.53)	3.12	3.60	7.31	(1.66)	4.35	7.15	6.31	4.10	5.71	7.07	12/01/1984
BERS CUSTOM BENCHMARK (NO CASH)			(0.36)	0.94	1.18	5.76	(1.71)	3.74	7.09	5.98	3.16			
EXCESS RETURN			(0.17)	2.18	2.42	1.55	0.05	0.60	0.06	0.33	0.93			

# Consolidated Performance Report

Through December 31, 2015



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014	2013	2012	2011	2010	5 Year	10 Year	ITD	Inception Date
<b>CASH SUMMARY</b>															
224	BOARD OF ED. SHORT TERM - GROSS	94	2.18	0.04	0.14	0.39	0.28	0.29	0.53	0.62	0.47	0.42	1.87	2.16	10/01/2000
	ESTIMATED INVESTMENT FEES			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	BOARD OF ED. SHORT TERM - NET MGR			0.04	0.14	0.39	0.28	0.29	0.53	0.62	0.47	0.42	1.87		
228	C/D - FAIL FLOAT EARNINGS	0	0.00												
230	SECURITY LENDING	-0	-0.00												



New York City  
Board of Education Retirement System

# Appendix B

## Public Markets Manager Performance Detail

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
EQUITY SUMMARY						
US EQUITY						
NYC BERS BLACKROCK R2000 GROWTH	32	0.75	4.41	(9.21)	(1.30)	5.50
RUSSELL 2000 GROWTH DAILY			4.32	(9.31)	(1.38)	5.60
Excess			0.09	0.09	0.08	(0.11)
NYC BERS BLACKROCK R2000 VALUE	31	0.72	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)
Wellington Mgmt MCC	137	3.19	2.48	(3.73)	1.76	10.96
S&P MID CAP 400			2.60	(6.11)	(2.18)	9.77
Excess			(0.13)	2.39	3.94	1.19
NYC BERS BLACKROCK R1000 GROWTH	646	15.01	7.37	1.74	5.78	12.91
RUSSELL 1000 GROWTH - DAILY			7.32	1.64	5.67	13.05
Excess			0.06	0.10	0.12	(0.14)
NYC BERS BLACKROCK R1000 VALUE	642	14.91	5.67	(3.24)	(3.81)	13.39
RUSSELL 1000 VALUE (DAILY)			5.64	(3.23)	(3.83)	13.45
Excess			0.03	(0.01)	0.01	(0.06)
FUND OF FUNDS						
BERS-TOTAL FUND OF FUNDS	151	3.52	3.51	(7.06)	(3.72)	4.72
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56
Excess			(2.76)	(5.62)	(4.20)	(7.84)
BERS-TOTAL PROGRESS	76	1.77	4.03	(5.35)	(3.19)	7.77
RUSSELL 3000 (DAILY)			6.27	(1.43)	0.48	12.56
Excess			(2.24)	(3.91)	(3.67)	(4.78)

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
BERS-TOTAL FIS	75	1.74	2.98	(8.74)	(4.25)	1.80
RUSSELL 2000 (DAILY)			3.59	(8.75)	(4.41)	4.89
Excess			(0.61)	0.01	0.17	(3.10)
NON - US EQUITY						
Sprucegrove MTA (BOE)	320	7.44	2.17	(10.66)	(9.56)	(3.19)
MSCI EAFE VALUE NET (DAILY)			2.68	(9.41)	(5.68)	(5.39)
Excess			(0.51)	(1.26)	(3.87)	2.21
Baillie Gifford MTA	327	7.59	6.88	(9.60)	(3.81)	(6.66)
MSCI EAFE GROWTH			6.67	(2.64)	4.09	(4.43)
Excess			0.22	(6.96)	(7.90)	(2.23)
Acadian	83	1.92	6.82	(0.46)	8.68	(4.92)
S&P EPAC Small Cap Index			5.86	(1.46)	8.95	(3.10)
Excess			0.96	1.00	(0.28)	(1.81)
EMERGING MARKETS						
ACADIAN	217	5.03	0.52	(17.84)	(15.14)	3.77
MSCI EMERGING MARKETS			0.66	(17.35)	(14.92)	(2.19)
Excess			(0.14)	(0.48)	(0.22)	5.96
FIXED INCOME SUMMARY						
STRUCTURED FIXED INCOME						
Blackrock Mortgages	257	5.97	(0.14)	1.04	1.73	
CITIGROUP MORTGAGE INDEX			(0.07)	1.20	1.56	
Excess			(0.07)	(0.16)	0.17	
Prudential - Credit	168	3.89	(0.38)	0.24	(0.22)	7.20
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			0.05	0.38	0.43	0.16

# Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
Taplin Canida Habacht - Credit	109	2.52	(0.80)	(2.06)	(3.01)	8.68
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			(0.37)	(1.92)	(2.36)	1.64
Prudential-Privest - Credit	16	0.38	(0.34)	0.83	1.63	7.20
NYC - Investment Grade Credit			(0.44)	(0.13)	(0.65)	7.04
Excess			0.09	0.96	2.28	0.16
State Street Govt	97	2.24	(1.23)	2.02	0.45	12.21
NYC - Treasury Agency Plus Five			(1.29)	2.06	0.72	12.38
Excess			0.06	(0.04)	(0.27)	(0.16)
ENHANCED YIELD						
Loomis Sayles - High Yield	105	2.45	(4.36)	(9.89)	(7.07)	2.83
NYC-Loomis (BoA MLMSTII 7-03/BB&B PRIOR)			(2.17)	(6.96)	(4.64)	2.50
Excess			(2.19)	(2.92)	(2.43)	0.33
Shenkman - High Yield	115	2.67	(1.21)	(5.37)	(1.97)	2.66
CITIGROUP BB & B			(1.70)	(6.77)	(4.21)	2.78
Excess			0.49	1.40	2.24	(0.13)
BANK LOANS						
Babson BL	103	2.40	(2.13)	(3.02)	0.12	1.99
CSFB LEVERAGED LOAN INDEX			(1.96)	(3.16)	(0.38)	2.06
Excess			(0.16)	0.15	0.51	(0.07)
TIPS						
SSGA TIPS	177	4.11	(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
ECONOMICALLY TARGETED INVESTMENTS						
ACCESS RBC	6	0.15	(0.42)	0.98	1.81	6.66
Access RBC Benchmark			(0.34)	0.98	1.40	5.08
Excess			(0.07)	0.00	0.41	1.57
AFL-CIO HOUSING INV TRUST	15	0.36	(0.69)	0.74	1.13	6.10
Barclays Aggregate (Daily)			(0.57)	0.65	0.55	5.97
Excess			(0.12)	0.09	0.58	0.14
CPC CONST FACILITY	1	0.02	2.89	11.45	12.90	
CPC CONST BENCHMARK			0.73	1.45	2.90	
Excess			2.16	10.00	10.01	
BOA-PPAR (FNMA)	1	0.03	(1.33)	10.68	42.03	13.31
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.34)	9.05	39.53	6.19
CCD-PPAR (FNMA)	1	0.02	(1.33)	11.41	6.69	25.71
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.34)	9.78	4.20	18.58
CCD-PPAR (GNMA)	0	0.01	(1.18)	8.39	5.08	15.37
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.56)	6.80	3.06	8.72
CFSB-PPAR (GNMA)	0	0.00	(1.45)	9.58	5.90	15.34
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.82)	7.98	3.88	8.69
CPC-PPAR (FNMA)	1	0.02	(0.12)	12.66	8.96	13.91
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(0.12)	11.03	6.46	6.78

## Public Markets Manager Performance Detail



Net Returns Through December 31, 2015

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2014
JPMC-PPAR (FNMA)	1	0.03	(1.11)	13.08	6.18	12.06
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.12)	11.45	3.68	4.93
LIIF-PPAR (FNMA)	0	0.01	(1.36)	10.62	6.29	38.12
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.37)	9.00	3.79	30.99
LIIF-PPAR (GNMA)	0	0.00	(1.08)	4.02	3.92	9.74
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.46)	2.42	1.91	3.09
NCBCI-PPAR (FNMA)	0	0.00	(1.09)	8.13	4.97	14.93
FNMA Plus 85bps			0.01	1.63	2.50	7.13
Excess			(1.10)	6.51	2.47	7.81
NCBCI-PPAR (GNMA)	0	0.00	(1.23)	8.66	5.53	16.66
GNMA Plus 65bps			0.37	1.60	2.02	6.65
Excess			(1.61)	7.06	3.52	10.01
CASH						
BOARD OF ED. SHORT TERM	94	2.18	0.04	0.14	0.39	0.28
91 DAY T-BILL			0.03	0.05	0.05	0.02
Excess			0.01	0.09	0.35	0.26
C/D - FAIL FLOAT EARNINGS	0	0.00				
SECURITY LENDING	-0	-0.00				

New York City  
Board of Education Retirement System

# Appendix C

## Alternative Assets Manager Performance Detail

# Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
<b>TOTAL PRIVATE EQUITY</b>		432,869,256	207,450,320	93,015,961	195,496,350	1.39	10.3%
<b>TOTAL ACTIVE</b>		432,869,256	207,450,320	93,015,961	195,496,350	1.39	10.3%
Mesirow Financial Private Equity Partnership Fund III, L.P.	2005	57,000,000	54,238,273	50,200,092	39,563,249	1.65	9.1%
Mesirow Financial Private Equity Partnership Fund IV, L.P.	2006	25,000,000	21,217,233	12,253,759	20,243,076	1.53	10.2%
New York Fairview Private Equity Fund, L.P.	2006	19,000,000	17,155,813	12,411,406	10,880,387	1.36	6.8%
Mesirow Financial Private Equity Partnership Fund V, L.P.	2009	45,000,000	28,364,326	6,983,886	36,139,986	1.52	16.6%
Platinum Equity Capital Partners III, L.P.	2012	15,000,000	8,316,460	6,086,299	5,814,000	1.43	45.4%
Warburg Pincus Private Equity XI, L.P.	2012	25,000,000	18,013,072	2,430,597	20,747,515	1.29	17.0%
Apollo Investment Fund VIII, L.P.	2013	20,000,000	4,491,551	106,967	4,299,194	0.98	-2.5%
Carlyle Partners VI, L.P.	2013	20,000,000	7,283,960	302,054	6,792,186	0.97	-2.3%
Carlyle Partners VI, L.P. - Side Car	2013	2,200,000	486,043	-	449,330	0.92	-7.4%
Centerbridge Capital Partners III, L.P.	2013	2,500,000	397,835	-	401,590	1.01	1.7%
CVC Capital Partners VI, L.P.	2013	17,558,838	2,560,031	2,600	1,873,045	0.73	-36.4%
Landmark Equity Partners XV, L.P.	2013	19,000,000	6,015,262	1,421,869	5,789,927	1.20	19.4%
Landmark Equity Partners XV, L.P. - Side Car	2013	6,000,000	2,515,826	233,559	2,728,263	1.18	18.7%
American Securities Partners VII, L.P.	2014	8,000,000	-	-	-	0.00	N/M
ASF VI, L.P.	2014	15,000,000	5,534,444	146,053	6,734,104	1.24	N/M
ASF VI NYC Co-Invest, L.P.	2014	5,000,000	2,920,163	375,000	3,301,837	1.26	N/M
Crestview Partners III, L.P.	2014	15,000,000	2,035,163	41,292	1,894,418	0.95	N/M
Crestview Partners III (Co-Investment B), L.P.	2014	5,000,000	-	-	-	0.00	N/M
Lexington Capital Partners VIII, L.P.	2014	20,000,000	2,017,698	3,491	3,039,805	1.51	N/M
Siris Partners III, L.P.	2014	3,500,000	35,116	-	-	0.00	N/M
Vista Equity Partners Fund V, L.P.	2014	25,000,000	15,988,420	13,266	16,942,798	1.06	N/M
<u>NYCBERS - 2012 Emerging Manager Program</u>	<u>2012</u>	<u>25,000,000</u>	<u>5,765,327</u>	<u>3,772</u>	<u>5,920,565</u>	<u>1.03</u>	<u>N/M</u>
Bridgepoint Europe V, L.P.	2015	8,433,125	-	-	-	0.00	N/M
Bridgepoint Europe V Co-Invest	2015	2,811,042	-	-	-	0.00	N/M
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	10,000,000	2,098,304	-	1,941,075	0.93	N/M
EQT VII, L.P.	2015	16,866,251	-	-	-	0.00	N/M

Information provided by the New York City Board of Education Retirement System Consultants



## Alternative Assets Manager Performance Detail

Through September 30, 2015



	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
<b>TOTAL REAL ASSETS</b>		359,000,000	201,464,597	38,992,675	216,996,729	1.27	12.5%
<b>TOTAL PRIVATE REAL ESTATE</b>		300,000,000	179,701,681	38,422,984	194,577,631	1.30	12.6%
<b>TOTAL INFRASTRUCTURE</b>		59,000,000	21,762,916	569,691	22,419,098	1.06	11.2%
<b>TOTAL PRIVATE REAL ESTATE</b>							
Franklin Templeton Private Real Estate Fund	2011	30,000,000	27,436,045	18,086,980	17,654,719	1.30	22.5%
LaSalle Property Fund	2011	27,600,000	27,600,000	4,054,008	35,064,058	1.42	12.9%
UBS Trumbull Property Fund	2011	41,400,000	52,496,518	8,890,913	67,488,806	1.45	10.4%
Brookfield Strategic Real Estate Partners	2012	10,000,000	10,067,374	2,487,425	10,247,308	1.26	17.8%
NYC Asset Investor #1 LLC	2013	10,000,000	7,927,942	1,074,386	9,142,893	1.29	26.5%
NYC Asset Investor #2 LLC	2013	11,000,000	7,592,025	1,304,548	7,296,460	1.13	12.2%
NYC Asset Investor #3 LLC	2013	8,000,000	1,824,048	31,308	1,858,212	1.04	3.4%
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2014	32,500,000	19,080,771	1,966,303	18,991,875	1.10	N/A
Carlyle Realty Partners VII	2014	25,000,000	6,165,837	-	5,896,607	0.96	N/A
MetLife Core Property Fund	2014	15,000,000	15,000,000	527,113	16,254,091	1.12	N/A
Blackstone Real Estate Partners VIII	2015	16,500,000	713,210	-	780,510	1.09	N/A
H/2 Special Opportunities Fund III	2015	15,000,000	3,797,911	-	3,902,092	1.03	N/A
Jamestown Premier Property Fund	2015	5,000,000	-	-	-	N/A	N/A
NYC/Artemis Co-investment Program	2015	11,000,000	-	-	-	N/A	N/A
USAA Eagle Fund	2015	10,000,000	-	-	-	N/A	N/A
Tristan EPISO 4	2015	11,000,000	-	-	-	N/A	N/A
Westbrook Partners X	2015	10,000,000	-	-	-	N/A	N/A
PW Real Estate Fund III	2015	11,000,000	-	-	-	N/A	N/A
<b>TOTAL INFRASTRUCTURE</b>							
Brookfield Infrastructure Fund II	2013	10,000,000	4,600,727	537,446	4,987,557	1.20	18.4%
IFM Global Infrastructure	2014	15,000,000	15,032,245	32,245	15,486,981	N/A	N/A
First Reserve Energy Infrastructure Fund II	2014	15,000,000	888,618	-	688,303	N/A	N/A
KKR Global Infrastructure Investors II L.P.	2014	19,000,000	1,241,326	-	1,256,257	N/A	N/A

Information provided by the New York City Board of Education Retirement System Consultants

**New York City  
Board of Education Retirement System**

# Appendix D

## Footnotes

- 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 BofA 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

- 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

### Page 4 & 5 - Portfolio Asset Allocation

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

### Pages 6 - 8 - 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 \* 38.29%*

*International Developed (EAFE) Markets: MSCI EAFE \* 17.00%*

*Emerging Markets: MSCI Emerging Markets \* 5.00%*

*Private Equity: Russell 3000 + 300 b.p. per annum \* 4.49%*

*Private Real Estate: NFI - ODCE Net+100BPS \* 4.64%*

*Infrastructure: CPI + 4% \* 0.58%*

*Domestic Fixed Income: NYC Core +5 \* 17.00%*

*TIPS: Lehman U.S. TIPS \* 5.00%*

*Enhanced Yield: Citigroup BB&B \* 5.50%*

*Bank Loans: Credit Suisse Leveraged Loan \* 2.50%*

### **Page 9 – 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.