

# New York City Board of Education Retirement System

Performance Overview as of June 30, 2012

# Total Fund Overview

# New York City Board of Education Retirement System

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## Through June 30, 2012

#### **Market Commentary**

The first estimate for 2Q GDP Growth was just 1.5% as consumers reduced spending and businesses invested at a slower pace. This is compared to a final estimate of 1Q 2012 GDP of 1.9% by the Bureau of Economic Analysis. Forecasts for the full year are estimating GDP to grow 2.2% in 2012, faster than the 1.7% recorded in 2011, but still slow by historical standards.

US nonfarm payroll growth has declined significantly, from roughly 275,000 in January 2012 down to 80, in June. Private nonfarm payrolls averaged only 91,000 in the second quarter of 2012, significantly slower than the 226,000 average of the previous quarter. The unemployment rate remained 8.2%.

CPI rose 1.7% over the past 12 months, which was the lowest rate since January 2011. Core CPI (excluding food and energy) for the last 12 months was 2.2%. The core rate has been above 2% consistently since August 2011.

US equity markets declined in the second quarter, as the first quarter's optimism waned. Investors refocused on the continued fiscal troubles in Europe, weaker economic data out of the U.S., contraction in Japanese industrial production, and a weakening outlook for China. For the quarter, the S&P 500 returned -2.8%. A reversal of the first quarter left the technology and financial sectors accounting for most of the losses in the second quarter, returning -6.7% and -6.8%, respectively. As expected, the defensive sectors were the best performers with consumer staples (+2.9%), utilities (+6.5%), telecommunications (+14.1%) and health care (+1.9%) recording the only positive returns for the period.

The same negative sentiment that gripped the US markets hurt international equity markets. The MSCI-EAFE returned -6.9%. The difference between regions was minor with Europe (-7.1%) and Japan (-7.3%) posting similar results while the Pacific Rim (-4.9%) was a relative outperformer. The health care (+1.0%) sector was the only positive performer while telecom was flat. The weakest performing sectors were materials (-13.0%) and technology (-14%) while industrials, consumer discretionary and energy each lost 9%. Emerging markets also declined, as investors sought to reduce risk. The MSCI Emerging Markets index returned -8.8% for the quarter, led by a -19% return for Brazil. Asia fared best among regions with a 7% loss.

## Through June 30, 2012

#### Market Commentary (continued)

Long-term interest rates in the U.S. fell to historic lows during the second quarter with the yield of the 10-year U.S. Treasury bond declining to 1.45% and the yield on the 30-year U.S. Treasury bond falling to 2.75%. As yields dropped, the longest-duration bonds performed the best in the quarter. The net result was a 2.1% return for the Barclays Aggregate Index during the quarter, while the Barclays Long Term Gov./Credit returned 7.3%. For the quarter, U.S. Treasuries returned 2.8%. The Corporate bonds market returned 2.5% due to strong demand in a low interest rate environment, while MBS (+1.0%), CMBS (+0.9%) and ABS (+1.3%) lagged Treasuries. High Yield bonds returned 1.8%, while non-USD bond returns were slightly positive (+0.2%).

#### **Asset Allocation**

At June 30, 2012, the Board of Education Retirement System (BERS) Total Portfolio was \$2.9 billion versus \$3.0 billion at the end of the first quarter.

The Plan is currently in transition to its revised asset allocation. Within equity, both US Equity and Developed International domestic and international equity are overweight 2.8% each, roughly offset by a combined 7.8% underweight to Private Equity and Private Real Estate. In fixed income, the Plan continues to be underweighted to TIPs by 2.7% and the newly-added Bank Loans asset class by 2.5%. Funding of Bank Loans is expected to occur before the end of Q3. Cash equivalents represented 5.8% of assets. Total Equity (including Real Estate and Private Equity) is approximately 67% versus the 70% target.

#### Manager Issues

BMO Asset Management Corp. increased its ownership interest in Taplin, Canida & Habacht to 92% in May 2012.

Emerging manager FIS was removed from the watch list.

Emerging market equity manager SSgA remains on watch for performance. We note sizable client redemptions from the strategy during Q2.

Wellington remains on watch due to a portfolio manager change.

## Through June 30, 2012

#### Market Commentary (continued)

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Through June 30, 2012

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Seix was terminated as high yield manager at quarter end, and the transition to Shenkman began on the next business day. Shenkman estimates a six-week period elapsed before the portfolio had been fully restructured to their liking (mid August), and formal performance measurement will begin on September 1.

The funding of Babson bank loans, as part of the Enhanced Yield allocation, is expected to commence on September 1.

#### **Total Fund Performance**

The Total Plan returned -2.3% in the quarter versus -2.2% for the benchmark. Despite having trailed by only a small amount, this result placed in the 80th percentile of the Public Fund Master Trusts > \$1 Billion Universe. For the year-to-date period, the Plan returned 6.0% compared with 6.4% for the index, but still outperformed its median peer with a 40th percentile ranking. Over the past five years, the Plan earned 2.1% relative to 1.8% for the benchmark. While this is below the long-term expected return for the Plan, performance was still greater than that of its median peer.

For the quarter, the Allocation Effect was the primary detractor from performance, including slight overweightings to equity and underweight to fixed income. Management Effect was positive for the quarter, but relatively small.

## Through June 30, 2012

### U.S. Equity

For the quarter, Total Domestic Equity returned -3.9% versus -3.2% for the Russell 3000 Index. Active management detracted value as Wellington was the only active manager to beat its benchmark. Among the rest of the managers, Zevenbergen lagged its benchmark by the greatest amount (nearly 700 basis points). Over the year-to-date period, Domestic Equity portfolio lagged the Russell 3000 index, 9.0% versus 9.3%. Wellington and Aronson outperformed, but their gains were more than offset by weak results from Zevenbergen and Daruma.

**Zevenbergen** returned -10.9% during the quarter versus -4.0% for its Russell 3000 Growth benchmark. The pronounced underperformance for the quarter weighed on year-to-date returns, where Zevenbegen returned 4.8% to 10.0% for the benchmark. Performance for the trailing three year period lags the benchmark but the five year result is slightly ahead of the index. Sector positioning had adverse effects on quarterly return (including an overweight to technology and underweight in consumer staples), but security selection was the primary detractor. Selection in technology accounted for more than half of the underperformance, while consumer discretionary and energy-sector investments also hurt. In technology, F5 Networks and Verifone Systems declined -26% and -36%, respectively. Facebook made its way into the portfolio through the IPO and secondary market purchases, accounting for 0.7% of the portfolio at the time of purchase. Netflix was a detractor in the consumer discretionary space, declining -40%. The number of holdings fell during the quarter from 53 to 47 as a number of holdings were pared on diminished growth prospects. The top ten holdings in the fund accounted for 40% of assets as of quarter end.

## Through June 30, 2012

## U.S. Equity (continued)

**Aronson** returned -3.5% for the quarter, lagging the Russell 1000 Value return of -2.2%. For the year-to-date period, Aronson maintains a lead, 9.0% versus 8.7%. Aronson also remains ahead for the trailing five-year period, -1.0% versus -2.2%. Value-related model factors drove underperformance during the quarter. It was responsible for an underweight to real estate (one of the better performing industries during the quarter), and also focused the portfolio on managed health care stocks, such as Aetna and Health Net, which reversed previously strong performances last quarter. Momentum factors also failed to contribute, not allowing the portfolio to position in strongly performing health care and consumer staples names. Management-related factors, which assess long-term growth and operating efficiency, were favorable for the fund. The portfolio's broader sector allocation remains neutral to benchmark and remain within a +/-1% range of benchmark.

**Wellington** returned -3.8% for the quarter compared to -4.9% for its S&P Midcap Index benchmark. For the year-to-date period, the portfolio is also ahead, 11.8% versus 7.9%. Security selection was again primarily responsible for outperformance during the quarter, particularly in health care and industrials sectors. In heath care, holdings in Lincare (+33%) and Amylin (+13%) were key contributors, both gaining in response to speculation over merger activity. Selection in the technology sector also helped relative return, and VeriSign (+14%) was a notable contributor. The major active sector exposures in the portfolio are an 8% overweight in health care (where biotech and generic drug manufacturers are favored), and a corresponding underweight in financials (where REITs are being avoided). Management continues to identify investable themes to guide future investment, and natural gas is one that has recently emerged. Low natural gas prices have compressed valuations for such companies, and Wellington is identifying companies that have either been unfairly punished due to their association with the industry, or those that would be poised to benefit from what they anticipate will be an eventual rebound in natural gas prices.

## Through June 30, 2012

## U.S. Equity (continued)

**Daruma** returned -5.2% in the quarter versus -3.5% for the Russell 2000 index. For the year-to-date period, the portfolio returned 7.0% versus 8.5%. Much of the attraction of Daruma's long-term return profile has been their tendency to outperform in down markets, but it was not the case in Q2. Security selection was a minor issue during the quarter. Portfolio holdings in health care underperformed, but better returns in most other sectors offset it. Instead, sector allocation was the primary driver of underperformance. The two largest active exposures (in terms of GICS classifications) were also the two largest detractors from performance. They include an underweight to financials (3% versus 23%) and an overweight in technology (37% versus 16%). Management does not intentionally manage sector allocation, and such positioning is the residual of their security selection process. A contributing factor to their financial-sector underweight, however, is their avoidance of REITs given that they consider such securities to be a separate asset class from equities. This hurt performance since REITs were the second best performing sector during the quarter (if carved out of financials).

**Progress** returned -6.0% for the quarter versus -3.2% for its Russell 3000 benchmark during quarter. They are also behind on a year-to-date basis, 8.2% versus 9.3%. Over five years, the portfolio's return of 0.4% maintains a 4 basis point lead ahead of benchmark (annualized).

**FIS** returned -6.2% for the quarter versus -3.5% for its Russell 2000 benchmark. Year-to-date, the fund is behind, 5.8% versus 8.5%. The fund is now behind benchmark over all trailing time periods.

## Through June 30, 2012

#### **International Equity**

The Total Developed Market portfolio outperformed the MSCI EAFE (net dividend) Index during the quarter, - 6.6% versus -7.1%. Sprucegrove outperformed while Baillie Gifford lagged the index. The Total Developed Market is ahead year-to-date, 4.4% versus 3.0%, and has been a strong relative performer over time.

**Baillie Gifford** returned -7.7% versus -7.1% for the MSCI EAFE (net) Index during the quarter. Year-to-date through June, the portfolio return is 4.0% versus 3.0% for the index. Baillie Gifford is well ahead of the MSCI EAFE and the MSCI EAFE Growth index over the past three years. From a regional perspective, the portfolio's allocation to emerging markets (approximately 14% as of quarter end) continues to be a notable driver of relative return versus benchmark, and for the past quarter, the effect was negative. Security selection was positive in Europe, but offset by negative selection in the UK and Developed Asia Pacific. Allocation also detracted in terms of sectors, where an overweight in technology (about 17% versus 5%) hurt relative return since it was the worst performing sector in the benchmark. Management retains a fairly optimistic outlook for the global economy over the long term, while acknowledging that volatility will be an issue over the short-term. Management continues to add to emerging market holdings (especially Asia) and also added a position in the Italian bank Unicredit.

**Sprucegrove** returned -5.2% for the quarter compared to -7.1% for the MSCI EAFE (net). Year-to-date, the portfolio is ahead, 5.0% versus 3.0%. Sprucegrove leads both the MSCI EAFE and MSCI EAFE Value Indices over the three and five year periods. Outperformance for the quarter was driven by security selection, where portfolio returns in the industrials, financials, and materials sectors outperformed the benchmark. From a regional perspective, security selection in Asia, including Japan and Singapore, also helped relative return. As of quarter end, the portfolio continues to be underweight Europe (both in terms of Eurozone and non-Eurozone), maintains a market weight in Asia Pacific, and possesses an 11% non-benchmark allocation to emerging markets. In terms of sectors, financials continue to be the largest underweight (11% versus 23%), followed by consumer discretionary. Technology is the largest overweight (11% versus 5%). Other remaining sectors are within a +/-5% range of the benchmark allocation.

## **Through June 30, 2012**

#### **Emerging Markets**

State Street Global Advisors (SSgA) returned -8.2% for the quarter versus -8.8% for the MSCI Emerging Markets Index. Year-to-date, the portfolio is behind, 3.7% versus 4.1%. The trailing three-year return is now slightly ahead of index, while the five-year return remains behind. We note that the pace of investor redemptions accelerated during the quarter, particularly among larger investors. In 2010 and 2011, the strategy experienced about \$600 million and \$900 million in net redemptions, respectively. For just Q2 of this year, the strategy experienced \$710 million in redemptions (across 8 clients). Strategy AUM as of guarter end stood at about \$4.7 billion. As a reminder, State Street announced last guarter a meaningful change to their model where security selection decisions will be made across countries, and now bypasses country allocation as an initial step. The change was finalized by guarter end, and one of the results was a sharp reduction in the number of holdings (220 as of quarter end versus 290 at year end). State Street has now announced the implementation of two more changes. The first is work on an EM Currency project, which involves the development of an active emerging market currency model, and currency exposure will become managed as an individual source of alpha. Components of the currency model include a Relative Carry model (underweight low interest-rate currencies in favor of high interest-rate currencies) and a Purchasing Power Parity model (seek to identify fundamental discrepancies in exchange-rates between countries). A second model change is the implementation of a Risk Aversion Timing project, which will attempt to predict shifts in investor risk preferences, which would result in rotating between higher-risk and lower-risk equities.

## Through June 30, 2012

#### Fixed Income – Structured Manager Composite

The Total Structured Portfolio slightly lagged its NYC Core + 5 Index during the quarter with a return of 2.5% to 2.6%. Although the individual managers mostly outperformed (SSGA Government was the only exception, lagging by one basis point), an underweight to the Government sector within the NYC Core + 5 resulted in underperformance since it was the best performing sector. Year-to-date, the Portfolio remains ahead, 3.5% versus 3.0%. The Portfolio also remains ahead of benchmark over all longer time periods.

**Taplin Canida** (credit) returned 2.5% during the quarter versus 2.3% for the customized Citigroup Credit Index. Year-to-date, Taplin is also ahead 4.7% versus 4.5%. Taplin leads the index over the past three years but is behind for the most recent five years (6.9% to 7.2%). The investment-grade corporate sector recorded a solid absolute return of 2.5% in the second quarter but underperformed comparable-duration Treasuries by approximately 1.3%. Corporate spreads widened amid renewed concerns over the challenges in Europe and the pace of economic growth in the United States. The portfolio's barbelled structure emphasizing long duration securities added value, as long duration credit significantly outperformed shorter maturities in absolute terms. Sector and quality allocations detracted from performance resulting in overall returns that were only slightly different from the index.

**Prudential** (credit) returned 2.4% during the quarter versus 2.3% returned by its customized index. Year-to-date, Prudential is also ahead, 4.6% versus 4.5% for the Index. The portfolio is positioned identically to the index in terms of yield (3.0%) and duration (6.4 years). The average quality is also identical to benchmark, per Moody's, at A3. The biggest difference relative to benchmark is in sector allocation. Non-US credit is significantly underweight, 7% versus 20%, as of quarter end. Finance is overweight (29% versus 26), with the portfolio tilted toward banking and insurance issuers. Industrials are also overweight (51% versus 44%), with the active exposure spread across a number of different industries.

## Through June 30, 2012

## Fixed Income – Structured Manager Composite (continued)

**SSgA** (governments) returned 6.2% during the quarter, just one basis point behind the benchmark. Year-to-date, the portfolio returned 3.3%, 7 basis points ahead of benchmark. The trailing one-year return was very strong in absolute terms (18.7%), while three- and five-year returns are both ahead of benchmark. Underperformance for the quarter was driven by the portfolio's allocation to Agency securities. Although the sector did well, it did not quite keep pace with Treasuries. A positioning for a narrower yield differential between 10-year and 30-year Treasuries was also a negative given steepening that occurred at that portion of the curve.

**PIMCO** (mortgages) returned 1.2% for the quarter compared to 1.0% for the benchmark. PIMCO also leads the index year-to-date with a return of 2.6% versus 1.7%. Three and five year results remain ahead of the benchmark. The portfolio outperformed the benchmark for the quarter benefiting from allocations to Commercial Mortgage-Backed Securities (CMBS), which outperformed like-duration Treasuries, and Non-Agency Mortgages. An underweight to duration hurt, as rates fell, and an underweight to lower coupon mortgages also detracted, as these securities outperformed.

#### Fixed Income – TIPS

**PIMCO** returned 3.4% during the quarter, ahead of the 3.2% return of the Barclays Capital US TIPS Index. Yearto-date, the portfolio is also ahead 4.3% versus 4.0%. The three- and five-year returns are now both ahead of benchmark by 13 and 21 basis points, respectively. Exposure to Australian Linkers contributed to return during the quarter, though the position was trimmed during the quarter on profit-taking. As a result, the allocation fell from about 4% to 2%. An underweight at the front of the curve (1-3 year) was shifted during the quarter to an underweight at the 3-7 year portion.

## Through June 30, 2012

#### **Enhanced Yield Fixed Income**

Total Enhanced Yield returned 1.5% during the quarter compared to 2.1% for the Citigroup BB & B Index, with both managers underperforming. Enhanced Yield is ahead year-to-date, 7.4% versus 6.7%, and also over the trailing three- and five-year time periods. Funding for the bank loan component of enhanced yield is expected to occur on September 1.

**Loomis Sayles** returned 1.4% for the quarter versus 1.8% for the Merrill Lynch High Yield Master II index. Over the year-to-date period, the fund is ahead, 8.2% versus 7.1%. Results also continue to remain favorable over longer time periods. An 11% allocation to convertibles hurt relative performance during the quarter, as they followed equity-market swings. Within the high-yield security component, selection also hurt as a result of weakening from the portfolio's holdings in cyclically-sensitive sectors, such as technology and consumer discretionary. The portfolio's weighted average credit rating improved one notch and now mirrors that of the benchmark at B1. Yield to maturity declined to 6.8% versus 7.8% for the benchmark.

**Seix** returned 1.6% for the quarter versus 2.1% for the Citigroup BB&B Index. Year-to-date, Seix returned 6.5% versus 6.7%. Seix was directed to cease trading in early June and formally terminated as high-yield manager following the close of June 29th. Assets were then assumed by a transition manager for funding of a high-yield portfolio managed by Shenkman.

## Through June 30, 2012

**Real Estate (Returns provided are those of the fund, as provided by the manager, and as of the date indicated)** The Fund's real estate target is 7%, which assuming a \$3 billion Total Fund market value, equals a targeted allocation of \$210 million. Current commitments total \$99 million, or 47% of target, and include \$27.6 million to La Salle Property Fund, \$41.4 million to UBS Trumbull Property Fund, and \$30 million to Franklin Templeton Private Real Estate Fund. Brief comments on the three funds follow, and a full report will be provided by the NYC real estate consultant.

**LaSalle Property Fund** (core) returned 3.3% for Q2 2012 versus 2.6% for the NFI-ODCE Index1. For the trailing one-year period the fund returned 15.4% versus 12.4% for the index. Leverage was unchanged at 27% as of quarter end, compared to 23% for the ODCE. Debt possesses a weighted average term of 7.6 years and a weighted average interest rate of 3.5%. The property count in the fund rose to 22, with approximately 42% of the NYC BERS commitment to the fund remaining uncalled (as of June 30). In terms of sector allocation, the fund is overweight to residential (38% versus 24%) and industrials (29% versus 13%), while underweight to office (19% versus 38%). Geographic focus is currently on the East and West. The portfolio is 4% allocated to value-add type investments, distributed across 3 properties (compared to 4 last quarter, as one property transitioned to core).

**UBS Trumbull Property Fund** (core) returned 3.0% for Q1 2012, compared to 2.8% for the NFI-ODCE Index1. Note, Q2 reporting was not yet available at the time of this report. For the trailing one-year period, the fund returned 12.7% versus 14.7% for the index. As of 3/31, leverage was 14%, significantly lower than the 23% of the benchmark. With respect to portfolio positioning, multi-family properties are overweight (32% versus 24%), while industrial and office properties are underweight (both by 6%). Geographic focus is overweight the East and underweight the West. The fund maintains an entry queue, and prospective investors continue to be advised of a 12-15 month wait.

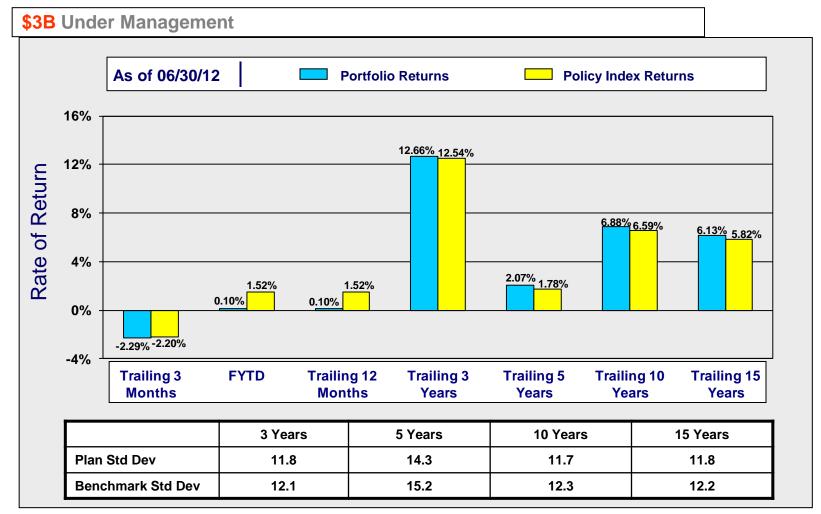
1NFI-ODCE is short for NCREIF Fund Index - Open End Diversified Core Equity. It is an index of investment returns reporting the results of 28 open-end commingled funds pursuing a core investment strategy. The Index is capitalization-weighted and reported gross of fees.

## Through June 30, 2012

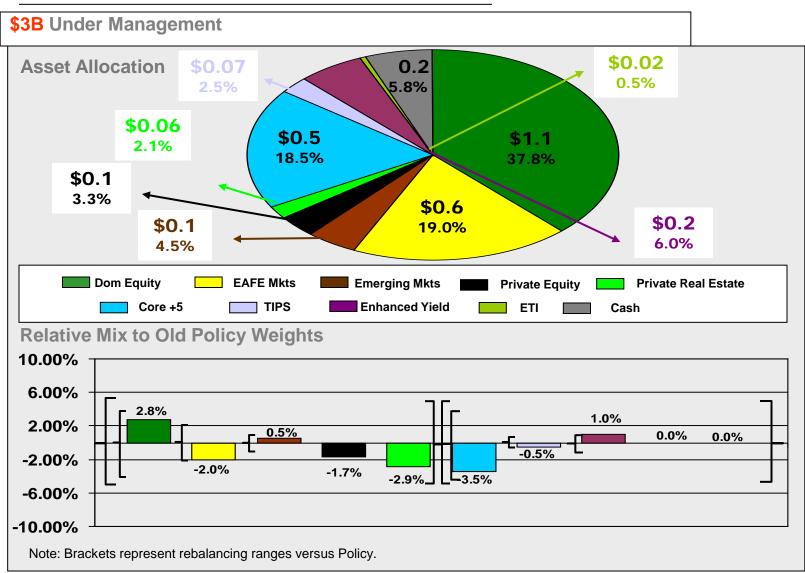
**Real Estate (Returns provided are those of the fund, as provided by the manager, and as of the date indicated) Franklin Templeton Private Real Estate Fund** (non-core), a global opportunistic real estate fund of funds, has as of year end, committed \$154 million (out of a total of \$269 million in total limited partner investor commitments) across six funds and two co-investments. They include two US funds (one of which specializes in real-estate debt), two funds with a Northern Europe focus, three Asia funds (including one co-investment), and a UK co-investment. Committed assets are now allocated 26% US, 32% Europe, and 42% Asia, with office comprising the largest sector exposure (47%). Total portfolio leverage is 54%, with the underlying fund leverage ranging from 23% to 84%.

1NFI-ODCE is short for NCREIF Fund Index - Open End Diversified Core Equity. It is an index of investment returns reporting the results of 28 open-end commingled funds pursuing a core investment strategy. The Index is capitalization-weighted and reported gross of fees.

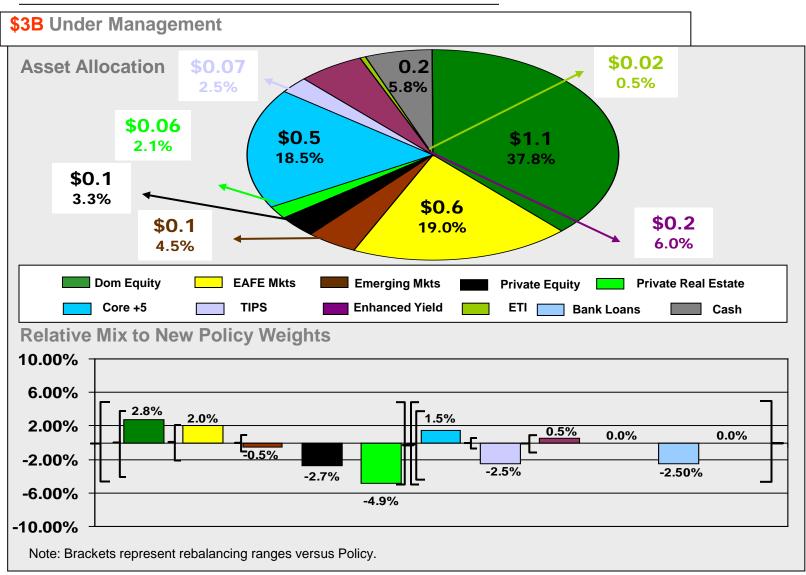
# Total Portfolio Returns: June 30, 2012



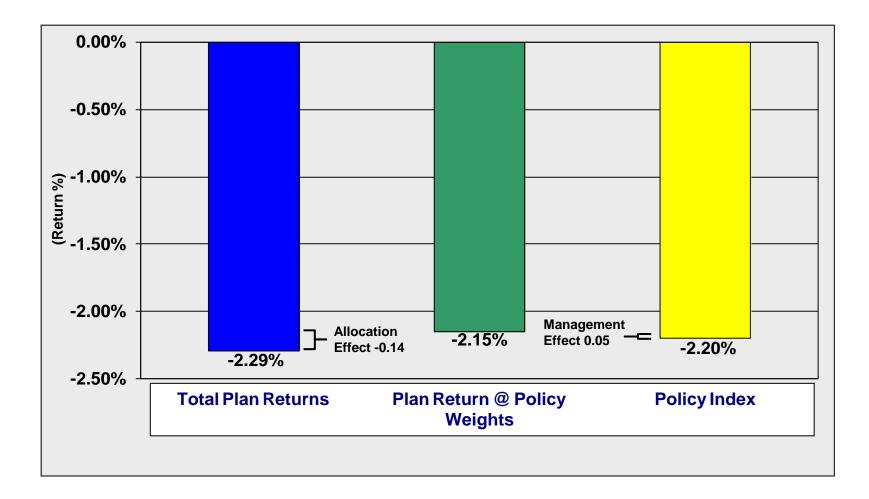
## **Portfolio Asset Allocation: June 30, 2012**



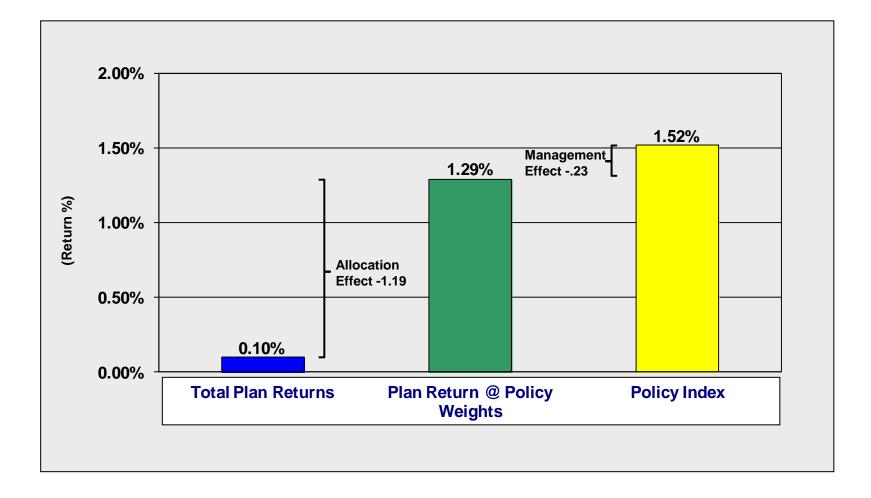
## **Portfolio Asset Allocation: June 30, 2012**



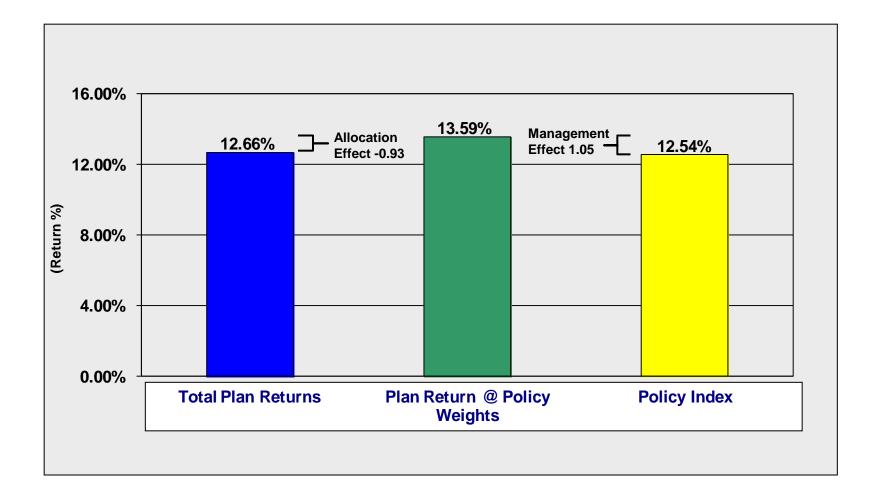
## **Performance Attribution: Total Plan - Quarter Ending June 30, 2012**



# Performance Attribution: Total Plan – 12 Months Ending June 30, 2012



## **Performance Attribution: Total Plan – 3 Years Ending June 30, 2012**



## **Total Plan - Quarter Ending June 30, 2012**

Allocation Effect – Asset Class Breakdown							
<u>Plan</u>	<u>Quarter</u>	<u>12</u> Months	<u>3</u> Years	<u>Benchmark</u>			
Domestic Equity	0.07	-0.20	-0.15	Russell 3000 Index			
EAFE Markets	-0.15	-0.21	-0.11	MSCI EAFE Index			
Emerging Markets	0.01	-0.15	-0.06	MSCI Emerging Markets Index			
Private Equity	0.00	0.00	0.00	Russell 3000 Index + 500 b.p.			
Private Real Estate	0.00	****	****	NCREIF ODCE NET			
Domestic Fixed	-0.21	-0.51	-0.16	NYC Core +5 Index			
Enhanced Yield	0.01	-0.07	-0.03	Citigroup BB&B Index			
TIPS	-0.04	-0.03	-0.02	Barclays Capital US TIPS Index			
State Street Short Term	0.08	-0.42	-0.44	Total Plan			

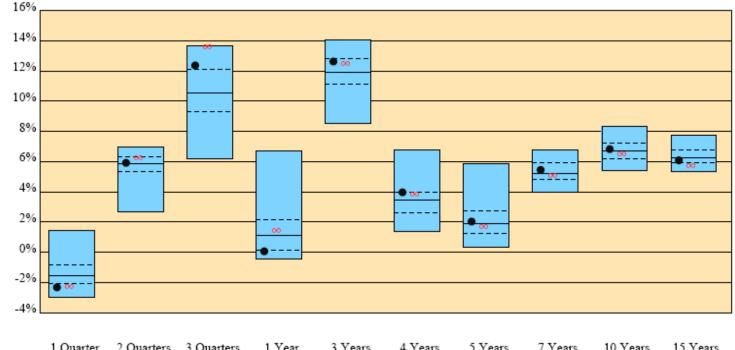
Note: Detailed effects may not add up to total due to reallocation and trading effects.

## **Total Plan - Quarter Ending June 30, 2012**

#### Management Effect – Asset Class Breakdown <u>12</u> <u>3</u> Plan **Benchmark** Quarter Months Years -0.20 Russell 3000 Index **Domestic Equity** -0.30 -0.88 EAFE Markets 1.02 MSCI EAFE Index 0.11 0.76 **Emerging Markets** 0.02 0.00 0.02 MSCI Emerging Markets Index Private Equity 0.24 -0.17 Russell 3000 Index + 500 b.p. -0.11 \*\*\*\* \*\*\*\* Private Real Estate 0.09 NCREIF ODCE NET Domestic Fixed NYC Core +5 Index -0.02 0.06 0.19 **Enhanced Yield** -0.03 -0.03 0.09 Citigroup BB&B Index TIPS 0.01 0.02 0.00 Barclays Capital US TIPS Index

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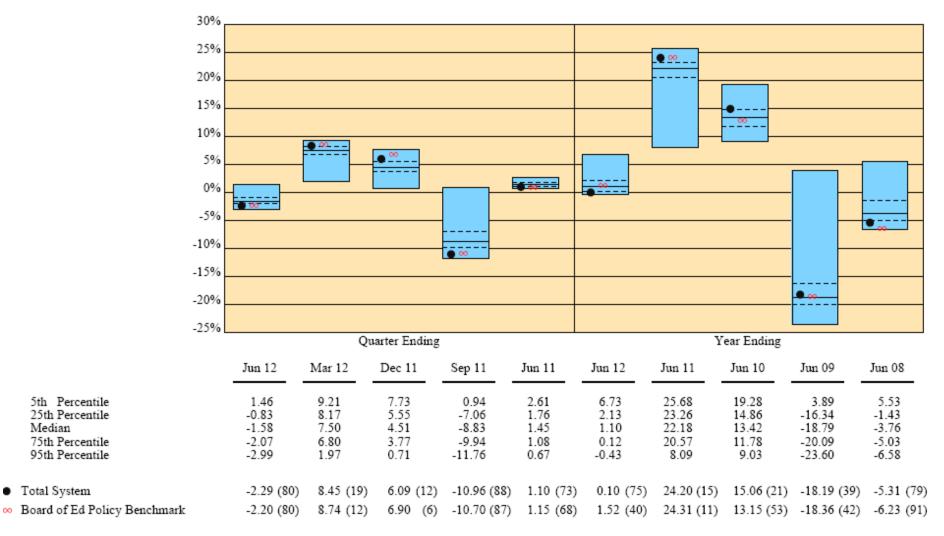
## City of New York - Board of Education Total Returns of Public Master Trusts > \$1 Billion Rates of Return for Periods Ending June 30, 2012



	I Quarter .	2 Quarters	5 Quarters	1 1 cai	5 Tears	4 16415	Jiears	/ ieais	IU I Cais	15 rears	
5th Percentile 25th Percentile Median 75th Percentile 95th Percentile	1.46 -0.83 -1.58 -2.07 -2.99	6.95 6.32 5.85 5.35 2.68	13.65 12.13 10.58 9.33 6.17	6.73 2.13 1.10 0.12 -0.43	14.05 12.80 11.91 11.15 8.52	6.78 4.00 3.45 2.61 1.34	5.84 2.71 1.87 1.24 0.31	6.77 5.91 5.22 4.82 3.99	8.31 7.25 6.72 6.19 5.39	7.77 6.75 6.25 5.92 5.37	
<ul> <li>Total System</li> <li>Board of Ed Policy Benchmark</li> </ul>	-2.29 (80) -2.20 (80)	5.96 (40) 6.35 (22)	` '	0.10 (75) 1.52 (40)	12.68 (26) 12.61 (30)	4.01 (23) 3.91 (27)	2.07 (43) 1.80 (52)	5.49 (36) 5.14 (55)	6.87 (41) 6.59 (58)	6.13 (55) 5.83 (79)	

New York City Board of Education Retirement System Performance Overview as of June 30, 2012

## City of New York - Board of Education Total Returns of Public Master Trusts > \$1 Billion Recent Periods



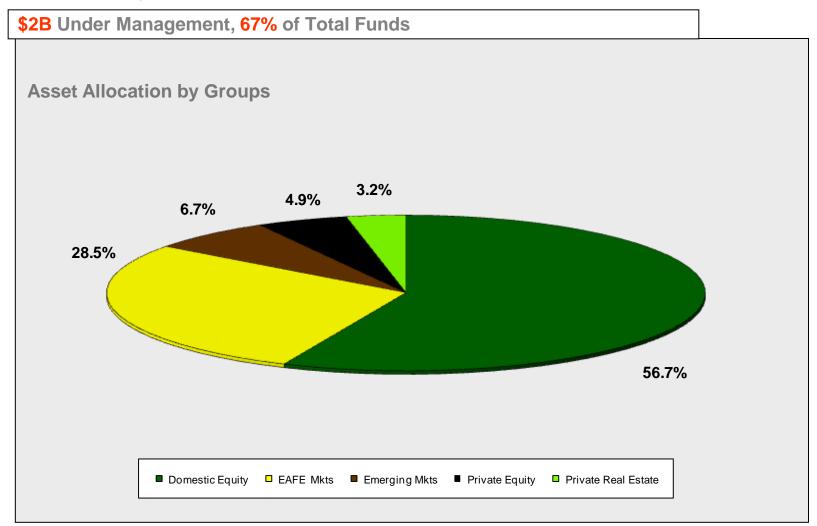
Median

Total System

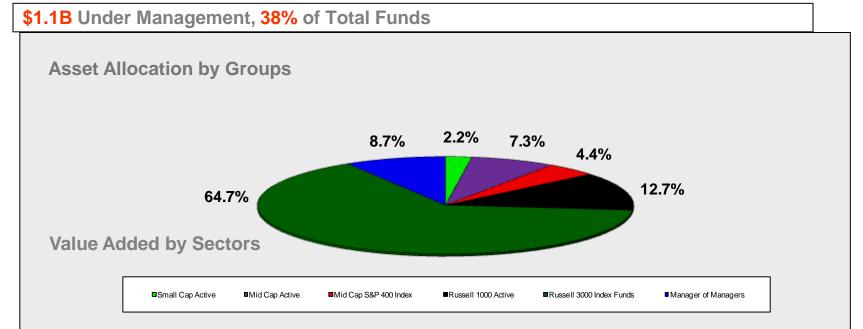
# New York City Board of Education Retirement System



## Total Equity Asset Allocation: June 30, 2012

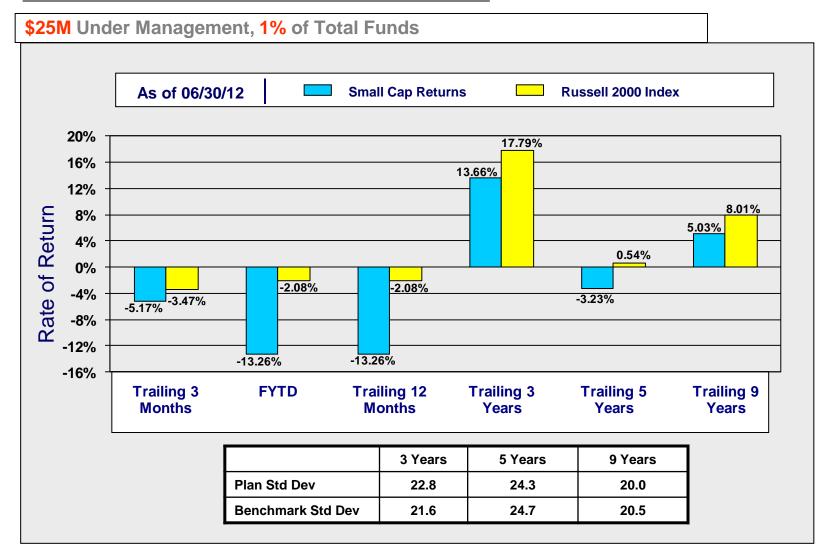


## **Total Domestic Equity Asset Allocation:** Quarter Ending June 30, 2012

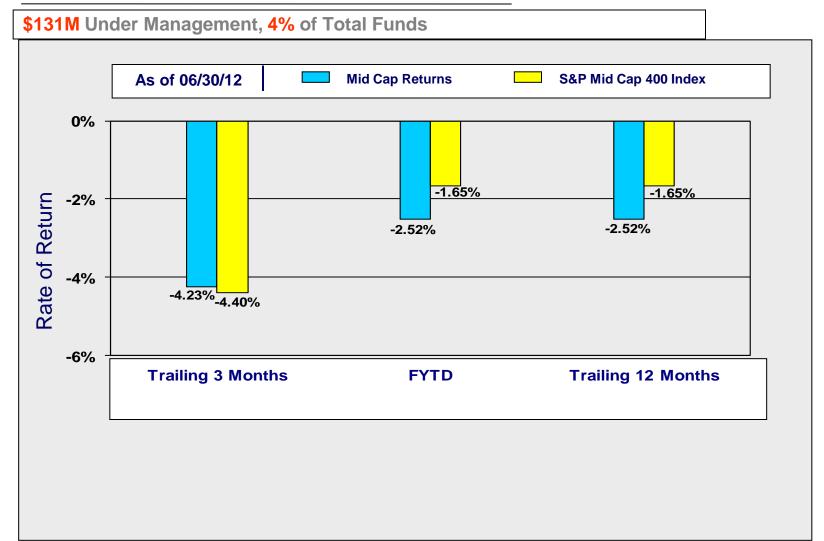


Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference	Contribution to Out/Under Performance		
							Allocation	Management	
Small Cap Active	2.83	2.25	-0.58	-3.47	-5.17	-1.70	0.00	-0.04	
Mid Cap Active	7.25	7.31	0.06	-4.93	-3.81	1.12	0.00	0.09	
Mid Cap S&P 400 Index	3.75	4.42	0.67	-4.93	-4.91	0.02	-0.01	0.00	
Russell 1000 Active	11.25	12.70	1.45	-3.12	-6.06	-2.94	0.00	-0.35	
Russell 3000 Index Funds	67.42	64.58	-2.84	-3.15	-3.13	0.02	-0.01	0.01	
Manager of Managers	7.50	8.74	1.24	-3.15	-6.04	-2.89	0.00	-0.24	

# Small Cap Returns vs Russell 2000 Index

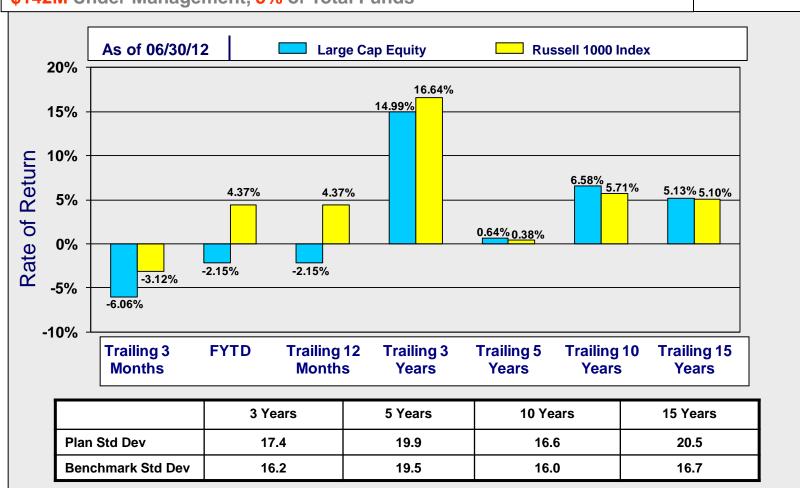


# Mid Cap Returns vs Russell MidCap Index



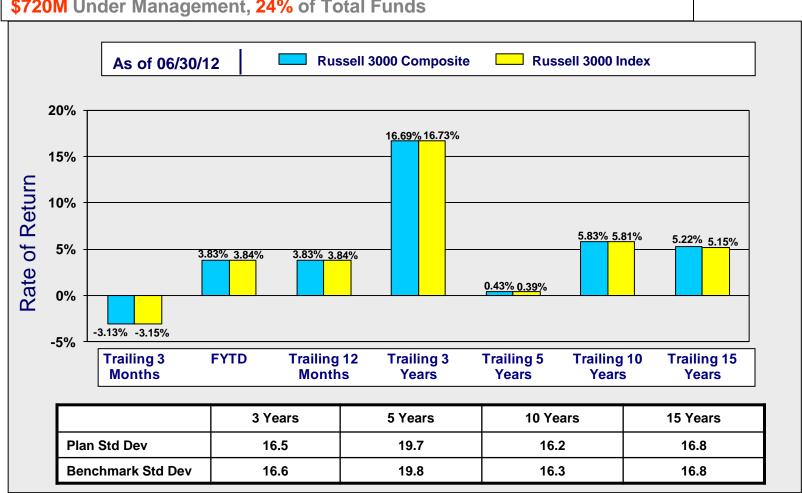
New York City Board of Education Retirement System Performance Overview as of June 30, 2012

# Large Cap Returns vs Russell 1000 Index



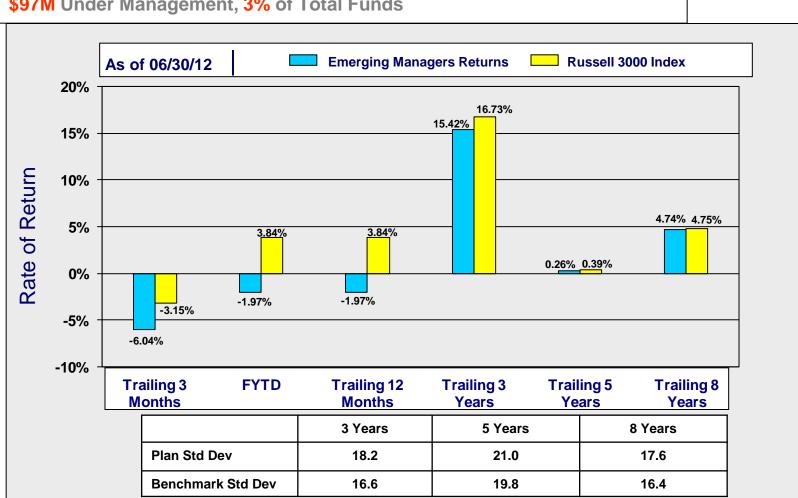
**\$142M** Under Management, **5%** of Total Funds

## Russell 3000 Passive Returns vs Russell 3000 Index



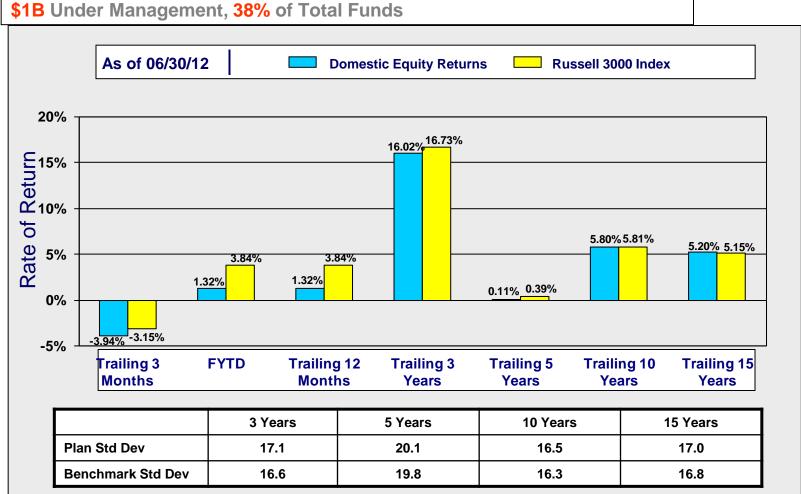
**\$720M** Under Management, **24%** of Total Funds

# **Emerging Managers Returns vs Russell 3000 Index**

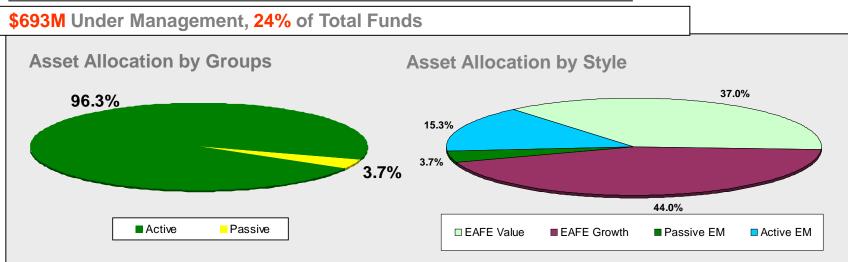


**\$97M** Under Management, **3%** of Total Funds

## **Total Domestic Equity Returns vs Russell 3000 Index**



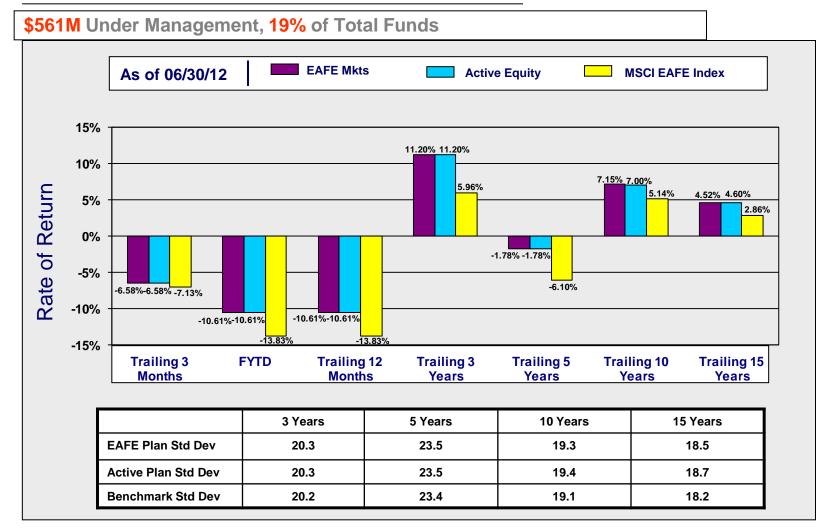
# International Equity Asset Allocation: June 30, 2012



Value Added by Sectors

Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference	Contribution to Out/Under Performance	
							Allocation	Management
EAFE Growth		44.01		-7.06	-7.71	-0.65		0.72
EAFE Value		36.95		-6.70	-5.22	1.48		0.60
ACTIVE EM		15.31		-8.77	-8.21	0.56		0.06
PASSIVE EM		3.73		-8.77	-8.88	-0.11		-0.02

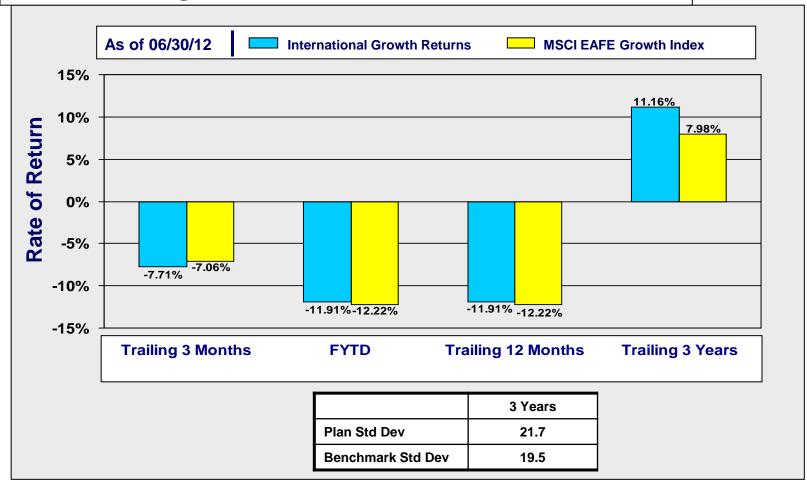
# **EAFE Markets Returns vs MSCI EAFE Index**



New York City Board of Education Retirement System Performance Overview as of June 30, 2012

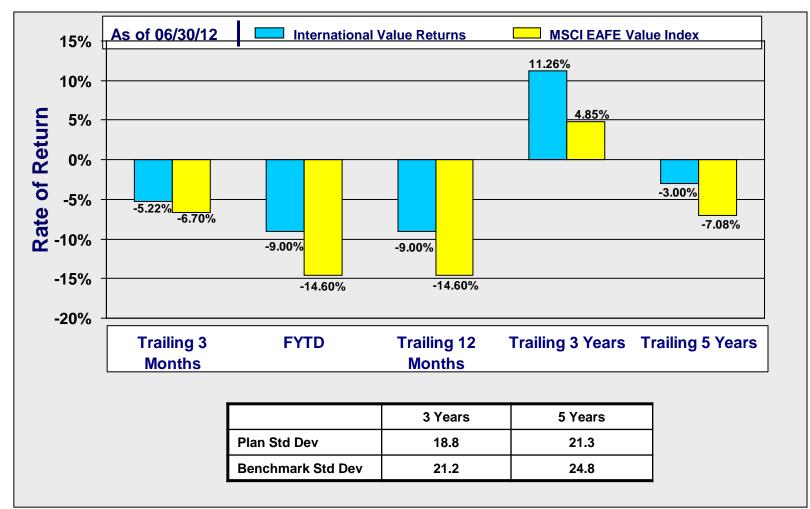
# International Growth Returns vs MSCI EAFE Growth Index

**\$305M** Under Management, **10%** of Total Funds

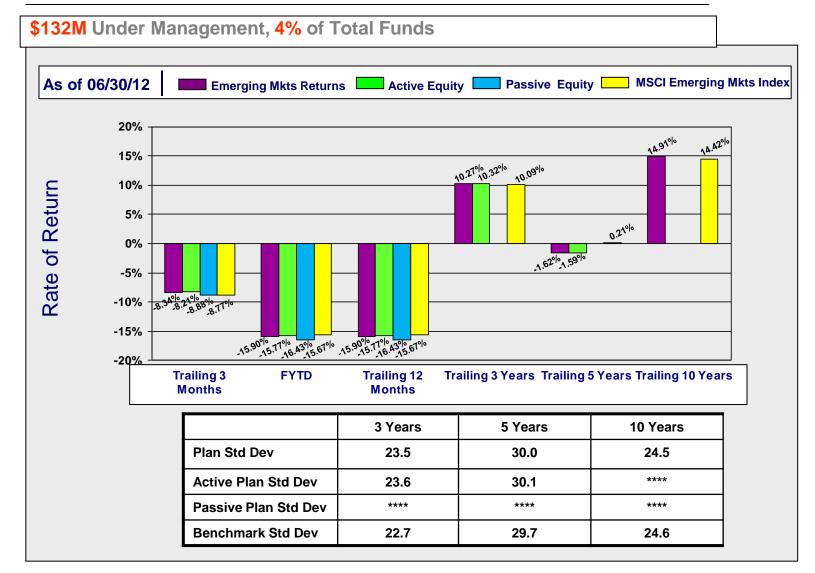


## International Value Returns vs MSCI EAFE Value Index

**\$256M** Under Management, **9%** of Total Funds



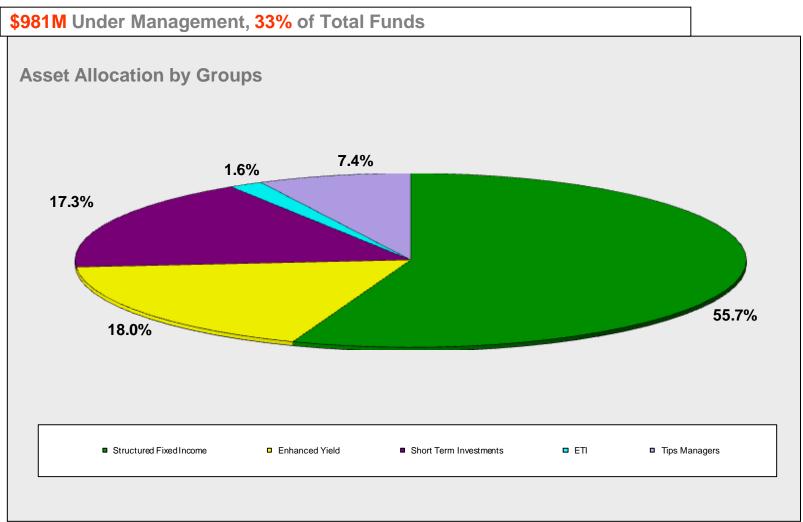
## **Emerging Markets Returns vs MSCI Emerging Markets Index**



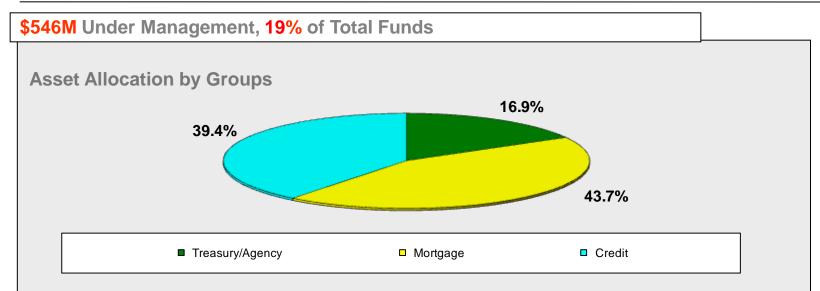
# New York City Board of Education Retirement System



## Total Fixed Income Asset Allocation: June 30, 2012



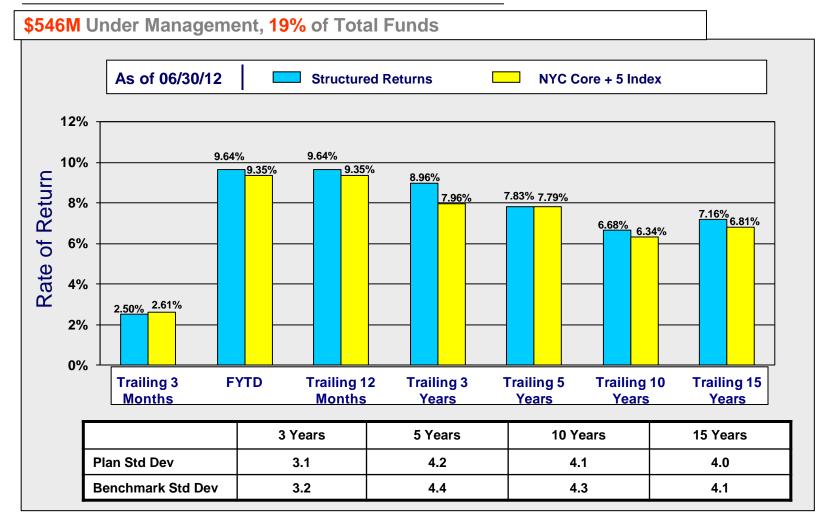
## Structured Fixed Income Asset Allocation: Quarter Ending June 30, 2012



#### **Asset Allocation by Sectors**

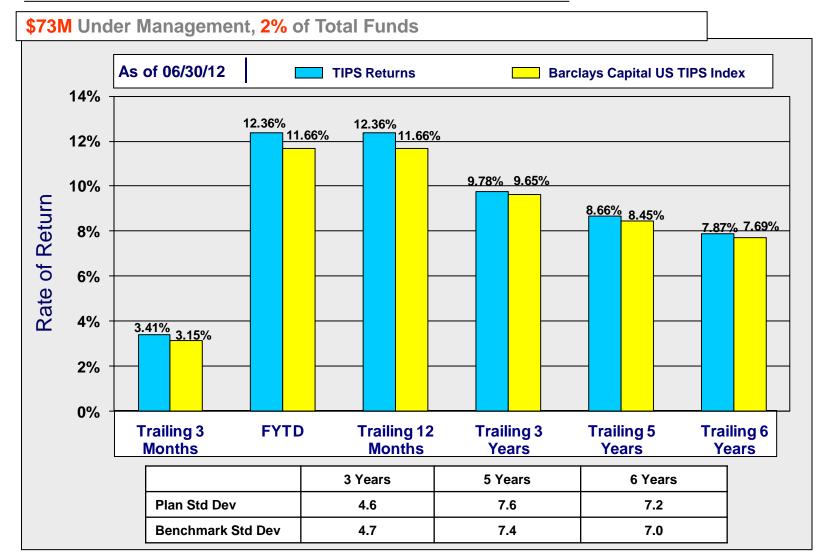
Sub Sector	Policy Weight	Actual Weight	Under/Over Weight	Index Return	Actual Return	Difference	Contribution to Out/Under Performance		
	_		_				Allocation	Management	
Treasury/Agency	21.04	16.86	-4.18	6.17	6.16	0.01	-0.17	0.00	
Mortgage	40.97	43.73	2.76	1.07	1.23	0.16	-0.03	0.07	
Credit	37.99	39.41	1.42	2.33	2.42	0.09	-0.01	0.03	
*NYC Core +5 Break	down								

### **Structured Returns vs NYC Core + 5 Index**



New York City Board of Education Retirement System Performance Overview as of June 30, 2012

# **TIPS Returns vs Barclays Capital US TIPS Index**



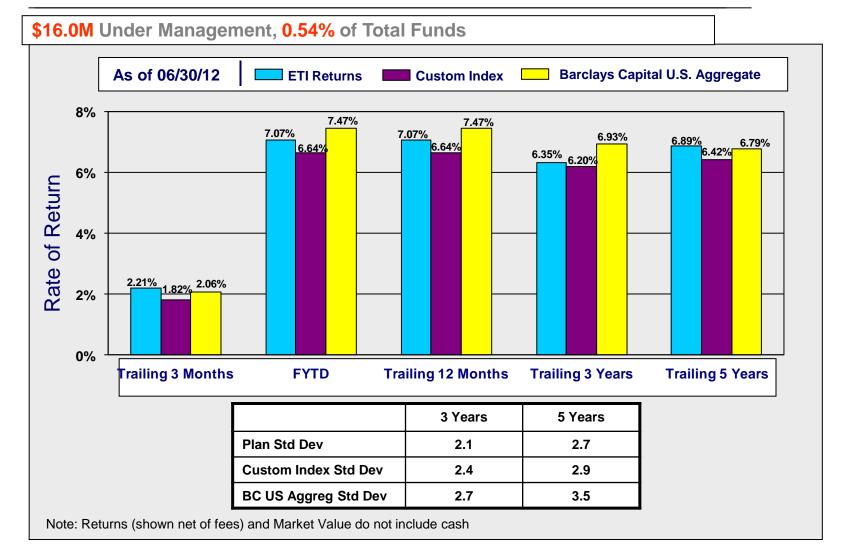
New York City Board of Education Retirement System Performance Overview as of June 30, 2012

#### Enhanced Yield Returns vs Citigroup BB & B Index & Citigroup BB & B Capped Index

As of 06/30/12 Enhanced Yield Citigroup BB& B Index E Citigroup BB& B Capped Index 18% 15.79% 14.05°10 13.98°10 15% of Return % 9.91% 8.43°/0 1.06°1° 8.45°1° 8.45°1° 8.64°0 8.72°0 7.06°/° 8.45°/° 8.45°/° 6.28° 6.98° 6 Rate 6% 1.4900 2.0800 3% 1.84 0% **Trailing 3 FYTD Trailing 12** Trailing 3 Years Trailing 5 Years Trailing 10 Years **Months Months** 5 Years 10 Years 3 Years **Plan Std Dev** 7.5 11.4 9.0 Citigroup BB&B 6.8 11.9 9.5 Citigroup BB&B Capped 6.7 11.6 9.2

**\$177M** Under Management, **6%** of Total Funds

# ETI Returns vs Custom Index & Barclays Capital U.S. Aggregate



# New York City Board of Education Retirement System



nough	oune (	, 2012							
			3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs
Assets	%		Apr-12	Jan-12	Jul-11	Jul-09	Jul-07	Jul-02	Jul-97
(\$MM)	Total		Jun-12						
		EQUITY MANAGEMENT							
		SMALL CAP							
25.02	0.85	DARUMA -SCC	-5.17	6.99	-13.26	****	****	****	****
25.02	0.85	TOTAL SMALL CAP CORE	-5.17	6.99	-13.26	****	****	****	****
		RUSSELL 2000	-3.47	8.53	-2.08	****	****	****	****
		SMALL CAP CORE MEDIAN	-4.29	7.81	-1.87	****	****	****	****
25.02	0.85	TOTAL SMALL CAP	-5.17	6.99	-13.26	13.66	-3.23	****	****
		RUSSELL 2000	-3.47	8.53	-2.08	17.79	0.54	****	****
81.51	2.76	WELLINGTON MID CAP	-3.81	11.75	-2.69	****	****	****	****
81.51	2.76	TOTAL MID CAP CORE	-3.81	11.75	-2.69	****	****	****	****
		S&P MIDCAP 400	-4.93	7.90	-2.33	****	****	****	****
49.29	1.67	STATE STREET GA S&P 400	-4.91	7.95	-2.24	****	****	****	****
49.29	1.67	TOTAL MID CAP PASSIVE	-4.91	7.95	-2.24	****	****	****	****
		S&P MIDCAP 400	-4.93	7.90	-2.33	****	****	****	****
130.79	4.44	TOTAL MID CAP	-4.23	10.29	-2.52	****	****	****	****
		RUSSELL MIDCAP	-4.40	7.97	-1.65	****	****	****	****
		LARGE CAP							
46.92	1.59	ZEVENBERGEN	-10.89	4.83	-11.18	14.73	3.02	8.72	6.22
		RUSSELL 3000 GROWTH	-4.02	9.98	5.05	17.54	2.79	6.13	3.87
46.92	1.59	TOTAL LARGE CAP GROWTH	-10.89	4.83	-11.18	12.03	1.33	5.94	4.71
		LARGE CAP GROWTH MEDIAN	-5.33	9.57	3.10	16.24	2.25	6.34	6.26
94.59	3.21	ARONSON JOHNSON	-3.46	8.95	3.04	16.12	-0.95	****	****
		RUSSELL 1000 VALUE	-2.20	8.68	3.01	15.80	-2.19	****	****
94.59	3.21	TOTAL LARGE CAP VALUE	-3.46	8.95	3.04	16.12	-0.95	****	****
		LARGE CAP VALUE MEDIAN	-4.03	7.86	0.99	15.23	-1.24	****	****
141.51	4.80	TOTAL LARGE CAP	-6.06	7.55	-2.15	14.99	0.64	6.58	5.13
		RUSSELL 1000	-3.12	9.38	4.37	16.64	0.38	5.71	5.10

•									
			3 Mos	YTD	1 Yr	3 Yrs		10 Yrs	
Assets	%				Jul-11		Jul-07		
(\$MM)	Total		Jun-12						
		PROGRESS MANAGERS							
2.33	0.08	FAN ASSET MGMT -LCG	-6.21	9.55	-0.56	15.93	2.16	5.43	****
11.91	0.40	JOHN HSU -LCC	-5.36	7.51	-2.33	15.14	2.17	8.46	****
19.12	0.65	HERNDON CAPITAL MGMT-LCV	-5.00	11.23	2.03	19.73	4.47	****	****
3.72	0.13	HIGH POINTE LLC -LCG	-4.58	9.89	8.57	****	****	****	****
4.46	0.15	LOMBARDIA CAPITAL -SCV	-4.68	3.70	-0.59	18.64	****	****	****
3.84	0.13	NICHOLS ASSET MGMT -SCG	-3.54	7.96	-0.15	****	****	****	****
13.15	0.45	REDWOOD INV -LCG	-6.74	10.98	1.92	****	****	****	****
12.83	0.44	SEIZERT CAPITAL PTNRS -LCV	-8.63	3.13	-10.13	****	****	****	****
71.36	2.42	TOTAL PROGRESS	-5.98	8.23	-1.18	15.14	0.43	5.83	****
		RUSSELL 3000	-3.15	9.32	3.84	16.73	0.39	5.81	****
		F.I.S. MANAGEMENT							
4.71	0.16	CHANNING -SCV	-5.63	4.14	-5.16	****	****	****	****
1.78	0.06	CUPPS CAPITAL SCG	-8.79	11.60	-5.58	****	****	****	****
0.00	0.00	ELESSAR INVESTMENT MGMT -SCV	-9.88	-1.63	-13.04	13.33	****	****	****
1.04	0.04	EUDAIMONIA -Micro CG	-6.13	10.20	-5.63	****	****	****	****
2.62	0.09	HUBER CAP MGMT -SCV	-5.18	12.14	7.58	****	****	****	****
0.00	0.00	LOMBARDIA CAPITAL PTNRS -SCV	-11.49	-3.71	-7.69	16.19	****	****	****
0.00	0.00	NICHOLS ASSET MGMT -SCG	-12.16	-1.69	-9.06	****	****	****	****
0.00	0.00	OAKBROOK -SCC	-12.21	-0.56	-8.27	16.76	****	****	****
0.00	0.00	PROFIT -SCC	-11.87	-1.13	-16.16	14.90	****	****	****
26.01	0.88	TOTAL F.I.S FUND MGMT	-6.21	5.81	-4.07	16.25	****	****	****
		RUSSELL 2000	-3.47	8.53	-2.08	17.79	****	****	****
97.36	3.30	TOTAL EMERGING MANAGERS	-6.04	7.57	-1.97	15.42	0.26	****	****
		RUSSELL 3000	-3.15	9.32	3.84	16.73	0.39	****	****

Assets	%		3 Mos Apr-12	YTD Jan-12	1 Yr Jul-11	3 Yrs Jul-09	Jul-07	10 Yrs Jul-02	
(\$MM)	Total						Jun-12		
. ,		RUSSELL 3000							
719.73	24.41	BLACKROCK R3000	-3.13	9.31	3.83	16.69	0.43	5.83	****
719.73	24.41	TOTAL RUSSELL 3000	-3.13	9.31	3.83	16.69	0.43	5.83	5.22
		RUSSELL 3000	-3.15	9.32	3.84	16.73	0.39	5.81	5.15
345.40	11.71	TOTAL ACTIVE	-5.47	8.46	-3.27	14.87	-0.35	5.97	3.86
769.02	26.08	TOTAL PASSIVE	-3.24	9.22	3.44	16.56	0.36	5.76	5.54
1114.42	37.79	TOTAL DOMESTIC EQUITY	-3.94	8.99	1.32	16.02	0.11	5.80	5.20
		INTERNATIONAL EQUITIY							
		DEVELOPED MARKETS							
304.99	10.34	BAILLIE	-7.71	3.97	-11.91	11.16	****	****	****
		MSCI EAFE GROWTH	-7.06	4.19	-12.22	7.98	-4.24	****	****
255.91	8.68	SPRUCEGROVE	-5.22	4.95	-9.00	11.26	-3.00	****	****
		MSCI EAFE VALUE	-6.70	2.49	-14.60	4.85	-7.08	****	****
561.05	19.03	TOTAL ACTIVE DEVELOPED MARKETS	-6.58	4.42	-10.61	11.20	-1.78	7.00	4.60
561.05	19.03	TOTAL DEVELOPED MARKETS	-6.58	4.42	-10.61	11.20	-1.78	7.15	4.52
		MSCI EAFE (NET DIVIDEND)	-7.13	2.96	-13.83	5.96	-6.10	5.14	2.86
		INTERNATIONAL EQUITY MEDIAN	-6.75	4.82	-12.70	8.22	-3.92	6.80	5.44
		EMERGING MARKETS							
106.10	3.60	STATE STREET EMG MKTS	-8.21	3.66	-15.77	10.35	-1.59	****	****
25.89	0.88	BLACKROCK EM	-8.88	3.92	-16.43	****	****	****	****
131.99	4.48	TOTAL EMERGING MARKETS	-8.34	3.71	-15.90	10.27	-1.62	14.91	****
		MSCI EMERGING MARKET FREE	-8.77	4.12	-15.67	10.09	0.21	14.42	****
		EMERGING MARKET MEDIAN	-8.14	4.54	-15.43	10.67	0.88	14.91	****
693.04	23.50	TOTAL INTERNATIONAL EQUITY	-6.92	4.28	-11.66	10.97	-1.79	8.48	4.99

0		*							
			3 Mos	YTD	1 Yr	3 Yrs		10 Yrs	
Assets	%			Jan-12		Jul-09	Jul-07	Jul-02	
(\$MM)	Total		Jun-12						
		PRIVATE EQUITY INVESTMENTS							
12.66	0.43	FAIRVIEW PRIVATE EQUITY FD	****	****	****	****	****	****	****
53.63	1.82	MESIROW PTNRS FD III	****	****	****	****	****	****	****
16.65	0.56	MESIROW PTNRS FD IV	****	****	****	****	****	****	****
13.93	0.47	MESIROW PTNRS FD V	****	****	****	****	****	****	****
96.87	3.28	TOTAL PRIVATE EQUITY	5.62	4.66	9.29	14.72	3.76	****	****
		PRIVATE REAL ESTATE							
1.38	0.05	FRANKIN TEMPLETON FD	****	****	****	****	****	****	****
13.66	0.46	LASALLE US PROPERTY FD	****	****	****	****	****	****	****
48.23	1.64	UBS TRUMBULL PROPERTY FD	****	****	****	****	****	****	****
63.27	2.15	TOTAL PRIVATE REAL ESTATE	7.07	10.27	14.84	****	****	****	****
1967.59	66.72	TOTAL EQUITY - PUBLIC & PRIVATE	-4.29	7.13	-3.08	14.31	-0.44	6.59	5.39
		FIXED INCOME MANAGEMENT							
		GOVERNMENT							
92.11	3.12	STATE STREET	6.16	3.33	18.70	10.37	10.27	7.79	8.07
92.11	3.12	ALL TREASURY / AGENCY	6.16	3.33	18.70	10.37	10.27	7.62	7.92
		NYC - TREASURY AGENCY PLUS 5	6.17	3.26	18.72	10.31	10.10	7.66	7.95
		MORTGAGE							
238.90	8.10	PIMCO	1.23	2.57	5.90	7.25	7.30	5.96	6.78
		CITIGROUP MORTGAGE INDEX	1.07	1.69	5.05	5.53	6.79	5.46	6.18
		CREDIT							
124.31	4.22	PRUDENTIAL CREDIT	2.38	4.59	9.81	****	****	****	****
90.96	3.08	TAPLIN, CANIDA	2.46	4.67	9.64	11.22	6.86	7.07	7.19
215.27	7.30	ALL INVESTMENT GRADE CREDIT	2.42	4.62	9.75	10.95	6.71	7.00	7.07
		NYC - INVESTMENT GRADE CREDIT	2.33	4.47	9.14	9.69	7.23	6.41	6.63
546.28	18.53	TOTAL STRUCTURED	2.50	3.50	9.64	8.96	7.83	6.68	7.16
		NYC - CORE PLUS FIVE	2.61	3.00	9.35	7.96	7.79	6.34	6.81

Assets	%		3 Mos Apr-12	YTD Jan-12	1 Yr Jul-11	3 Yrs Jul-09		10 Yrs Jul-02	
(\$MM)	Total				Jun-12				
. ,		ACTIVE TIPS MANAGERS							
72.55	2.46	PIMCO-TIPS-MTA	3.41	4.29	12.36	9.78	8.66	****	****
72.55	2.46	TOTAL ACTIVE TIPS MANAGERS	3.41	4.29	12.36	9.78	8.66	****	****
		BARCLAYS CAPITAL US TIPS INDEX	3.15	4.04	11.66	9.65	8.45	****	****
		ENHANCED YIELD							
92.80	3.15	LOOMIS SAYLES & CO	1.40	8.15	7.73	17.92	9.18	11.20	***:
		BofA(ML-MST II 7-03/BB&B PRIOR)	1.83	7.08	6.51	16.16	8.16	9.92	****
83.68	2.84	SEIX HIGH YIELD	1.60	6.52	6.31	13.58	7.63	****	***:
176.48	5.98	ALL ENHANCED YIELD	1.49	7.37	7.06	15.79	8.43	9.91	***
		CITIGROUP BB & B	2.08	6.72	8.45	14.05	6.28	8.64	***
		CITIGROUP BB & B CAPPED	1.84	6.43	8.45	13.98	6.98	8.72	***
		ENHANCED YIELD MEDIAN	1.72	6.38	7.41	14.74	8.04	10.74	***
		ETI							
2.73	0.09	ACCESS/RBC	1.71	2.46	6.57	6.18	7.37	****	***
11.59	0.39	AFL-CIO HOUSING INV TRUST	2.42	2.64	7.60	6.48	6.87	****	***
0.12	0.00	CFSB-PPAR	3.13	4.34	5.67	8.29	8.17	****	***:
0.28	0.01	CCD-PPAR	4.52	6.07	8.83	9.36	9.54	****	***
0.10	0.00	LIIF-PPAR	1.58	3.01	5.72	****	****	****	***
0.05	0.00	NCBCI-PPAR	2.34	3.89	8.88	****	****	****	***
1.11	0.04	CPC TERM LOAN	0.63	1.26	2.34	2.16	3.21	****	***
15.99	0.54	TOTAL ETI (WITH CASH)	2.19	2.57	7.01	6.10	6.73	4.97	5.28
		BERS CUSTOM ETI INDEX (NO CASH)	1.82	2.14	6.64	6.20	6.42	****	***
		BARCLAYS CAPITAL AGGREGATE	2.06	2.37	7.47	6.93	6.79	5.63	6.27
980.78	33.26	TOTAL FIXED INCOME	1.97	3.65	7.99	9.18	7.39	6.78	6.78

Assets	%		3 Mos Apr-12	YTD Jan-12	1 Yr Jul-11	3 Yrs Jul-09	5 Yrs Jul-07	10 Yrs Jul-02	
(\$MM)	Total						Jun-12		
0.44	0.02	SECURITIES LENDING	****	****	****	****	****	****	****
169.47	5.75	SHORT TERM INVESTMENTS	0.21	0.27	0.54	0.64	1.82	2.39	3.48
0.02	0.00	BNY - CD	****	****	****	****	****	****	***
2948.82	100.00	TOTAL BOARD OF EDUCATION	-2.29	5.96	0.10	12.66	2.07	6.88	6.13
		BOARD OF ED POLICY BENCHMARK	-2.20	6.35	1.52	12.54	1.78	6.59	5.82

### **Actual And Estimated Fees**

	YEAR ENDING JUNE 30, 2011 AN UPDATED THROUGH DECEMBE	
	Actual	Estimated
	2011	2012
INVESTMENT STYLE (EQUITIES)	BASIS POINTS	BASIS POINTS
Small Cap	49.92	59.93
Small Cap Core	49.92	59.93
Mid Cap	24.01	59.09
Small Cap Core	24.01	59.09
Large Cap	17.92	24.95
Large Cap Growth	15.61	23.60
Large Cap Value	19.26	25.64
Emerging Managers (U.S. Equities)	52.99	92.72
Passive Equities	0.30	0.39
Int'l Active Equities (EAFE)	22.81	29.22
Growth	24.52	27.44
Value	20.72	31.37
Emerging Markets	21.14	45.50

### **Actual And Estimated Fees**

	Actual	Estimated
	2011	2012
INVESTMENT STYLE (Fixed Income)	BASIS POINTS	BASIS POINTS
Structured Program	11.70	7.89
Government Secto	r 4.63	5.00
Mortgage Secto	r 17.39	8.80
Investment Grade Credit Secto	r 7.86	8.12
TIPS	8.17	10.00
Active TIPS	8.17	10.00
Enhanced Yield	36.39	25.32
Targeted - Access Voyageur	26.29	28.75
Targeted - AFL-CIO	38.50	44.00
In-House Short Term	0.00	0.00
Total Overall*	14.29	18.55

### Securities Lending Income

	U.S.	U.S.	INTERNATIONAL
	FIXED INCOME	<u>EQUITY</u>	<u>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 (6 Months)	253,000	535,000	294,000
Since Inception	<u>\$7,543,000</u>	<u>\$10,232,000</u>	<u>\$3,823,000</u>

### **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.

## **Glossary of Terms**

#### Through June 30, 2012

#### **General Notes**

All Returns are Gross of investment advisory fees unless otherwise indicated.

#### Page Specific

#### Page 18- Portfolio Asset Allocation

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

## **Glossary of Terms**

#### Through June 30, 2012

#### Page 20- 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.
- **Management 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.

#### • 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, of 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 \* 42.55%

International Developed (EAFE) Markets: MSCI EAFE \* 17%

International Emerging Markets: MSCI Emerging Markets \* 5%

Private Equity: Russell 3000 + 500 b.p. per annum \* 3.27%

Private Real Estate: NFI - ODCE Net \* 2.18%

Domestic Fixed Income: NYC Core +5 \* 21.50%

TIPS: Barclays Capital U.S. TIPS \* 3%

Enhanced Yield: Citigroup BB&B \* 5.50%

## **Glossary of Terms**

#### Through June 30, 2012

#### Page 23 - Management Effect - Asset Class Breakdown

This chart aims to break down the Management Effect 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.

#### Page 29- Domestic Equity Asset Allocation

- Value Added By Sectors: This disaggregates out-performance or under-performance by Asset Allocation and Management Effect.
- Implied Policy = Retirement's System Asset Allocation.
- Implied Return = Benchmark Return
- Allocation = 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 rests in a positive Allocation Effect and vice versa.
- **Management** = Contribution to Performance from security selection versus the Benchmark, e.g., If the managers Actual Returns are higher than the Implied Return there will be a positive Management Effect.

#### Page 43 – Structured Fixed Income Asset Allocation

See Domestic Equity Asset Allocation for explanation

#### Page 47 – ETI Returns vs Custom Index and Barclays Capital U.S. Aggregate

- ETI has implemented a Custom Benchmark to better track the performance of the individual ETI programs relative to their respective benchmarks. The Custom Benchmark represents the weighted average return of the individual benchmark indexes for each program, updated monthly. The indexes are as follows:
- AFL-CIO Housing Inv Trust: Barclays Capital U.S. Aggregate Bond Index
- CPC Term Loan: 30 Day Libor + 200 bps per annum (with a floor of 250 bps)
- PPAR: Citigroup GNMA + 65 bps per annum
- Access/RBC: 60% BofA Merrill Lynch 30 yr Mortgage Index plus 40% BofA Merrill Lynch US Treasury 1-10yr Index