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Scott M. Stringer  
COMPTROLLER

NEW YORK CITY BOARD OF EDUCATION  
RETIREMENT SYSTEM

INVESTMENT MEETING

SEPTEMBER 12, 2014

LOCATION:

PowerSpace @ 1 Pennsylvania Plaza  
New York, NY 10119  
(36th Floor)

# NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

## INVESTMENT MEETING

SEPTEMBER 12, 2014

### PUBLIC AGENDA

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I. Performance Reviews: (30 Minutes)	
• Quarterly Review/Annual Review – June 30, 2014 (Previously distributed)	---
• ETI Quarterly Report – June 30, 2014	6
• Private Equity Quarterly Report – March 31, 2014	12
• Real Assets Quarterly Report – March 31, 2014	45
II. July Monthly Performance Review: (30 Minutes)	60

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## **PUBLIC AGENDA**

## I. Performance Reviews:

Quarterly Review/Annual Review:  
(Previously Distributed)

ETI Quarterly Report:

# BERS Economically Targeted Investments Quarterly Report

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## Public/Private Apartment Rehabilitation Program (PPAR)

Lenders*	BOA		CCD		CFSB		CPC		JPMS		LIIF		NCBCI		NHS		All Lender Totals	
	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units
Contractual Commitments	\$4.00 MM	n/a	\$4.00 MM	n/a	\$1.00 MM	n/a	\$4.00 MM	n/a	\$5.00 MM	n/a	\$4.00 MM	n/a	\$1.00 MM	n/a	\$1.00 MM	n/a	\$24.00 MM	n/a
Current Market Value	\$0.10 MM		\$0.59 MM		\$0.14 MM		\$0.22 MM		\$0.24 MM		\$0.41 MM		\$0.11 MM		\$0.00 MM		\$1.81 MM	
<b>Commitments 2Q 14 (included in total)</b>																		
Bronx	\$0	0	\$0	0	\$0	0	\$24,500	150	\$84,900	39	\$0	0	\$0	0	\$0	0	\$109,400	189
Brooklyn	0	0	0	0	0	0	25,270	183	62,160	80	181,500	95	0	0	0	0	268,930	358
Manhattan	336,000	100	0	0	0	0	0	0	0	0	283,800	79	0	0	0	0	619,800	179
Queens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staten Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outside of NYC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>\$336,000</b>	<b>100</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$49,770</b>	<b>333</b>	<b>\$147,060</b>	<b>119</b>	<b>\$465,300</b>	<b>174</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$998,130</b>	<b>726</b>
<b>Delivered 2Q 14 (included in total)</b>																		
Bronx	\$0	0	\$0	0	\$0	0	\$0	0	\$102,600	81	\$0	0	\$0	0	\$0	0	\$102,600	81
Brooklyn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manhattan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staten Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outside of NYC	0	0	0	0	0	0	8,425	39	0	0	0	0	0	0	0	0	8,425	39
<b>Total</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$8,425</b>	<b>39</b>	<b>\$102,600</b>	<b>81</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$111,025</b>	<b>120</b>
<b>Total Commitments</b>																		
Bronx	\$262,500	60	\$673,700	86	\$0	0	\$242,779	971	\$2,010,477	955	\$263,450	117	\$0	0	\$0	0	\$3,452,906	2,189
Brooklyn	278,535	54	617,800	128	0	0	473,449	1,262	392,718	268	746,076	283	57,190	54	0	0	2,565,769	2,049
Manhattan	336,000	100	259,125	30	0	0	350,519	1,277	269,403	232	1,069,962	359	159,769	153	0	0	2,444,777	2,151
Queens	662,952	174	0	0	0	0	140,865	484	54,000	96	0	0	0	0	0	0	857,817	754
Staten Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outside of NYC	0	0	0	0	0	0	97,170	221	197,700	56	0	0	0	0	0	0	294,870	277
<b>Total</b>	<b>\$1,539,987</b>	<b>388</b>	<b>\$1,550,625</b>	<b>244</b>	<b>\$0</b>	<b>0</b>	<b>\$1,304,782</b>	<b>4,215</b>	<b>\$2,924,298</b>	<b>1,607</b>	<b>\$2,079,488</b>	<b>759</b>	<b>\$216,959</b>	<b>207</b>	<b>\$0</b>	<b>0</b>	<b>\$9,616,140</b>	<b>7,420</b>
<b>Historical Investments</b>																		
Bronx	\$0	0	\$289,500	366	\$0	0	\$45,524	270	\$236,100	244	\$0	0	\$0	0	\$0	0	\$571,124	880
Brooklyn	0	0	81,116	124	0	0	50,869	220	0	0	108,209	174	0	0	0	0	240,194	518
Manhattan	0	0	133,258	253	161,181	197	29,868	250	8,100	47	168,505	101	103,318	123	0	0	604,229	971
Queens	90,000	65	40,000	54	0	0	7,675	16	0	0	0	0	0	0	0	0	137,675	135
Staten Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outside of NYC	0	0	0	0	0	0	62,270	183	0	0	0	0	0	0	0	0	62,270	183
<b>Total</b>	<b>\$90,000</b>	<b>65</b>	<b>\$543,874</b>	<b>797</b>	<b>\$161,181</b>	<b>197</b>	<b>\$196,206</b>	<b>939</b>	<b>\$244,200</b>	<b>291</b>	<b>\$276,714</b>	<b>275</b>	<b>\$103,318</b>	<b>123</b>	<b>\$0</b>	<b>0</b>	<b>\$1,615,493</b>	<b>2,687</b>

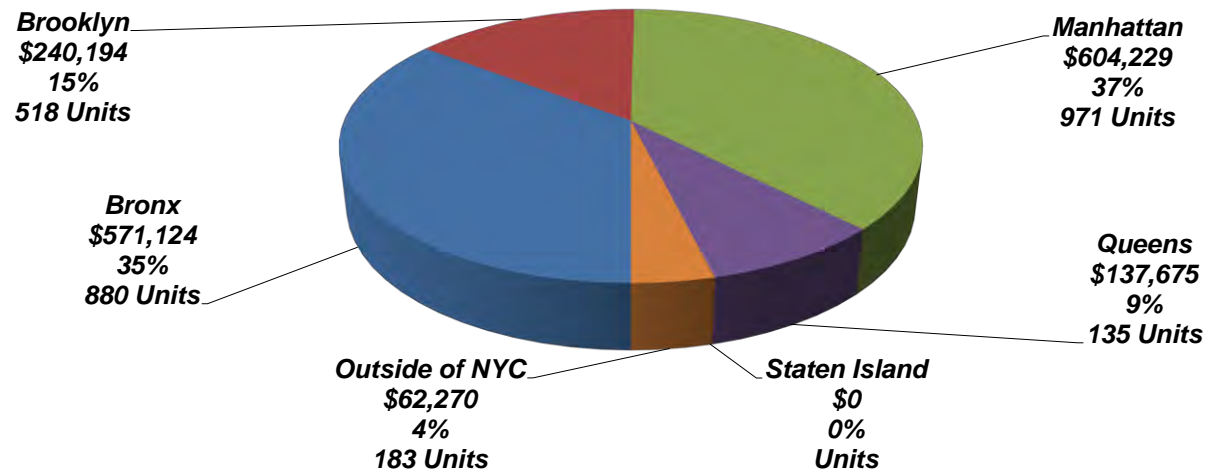
\*Lenders : Bank of America Citibank Community Development Carver Federal Savings Bank The Community Preservation Corporation JP Morgan Chase Low Income Investment Fund NCB Capital Impact Neighborhood Housing Service

# BERS Economically Targeted Investments Quarterly Report

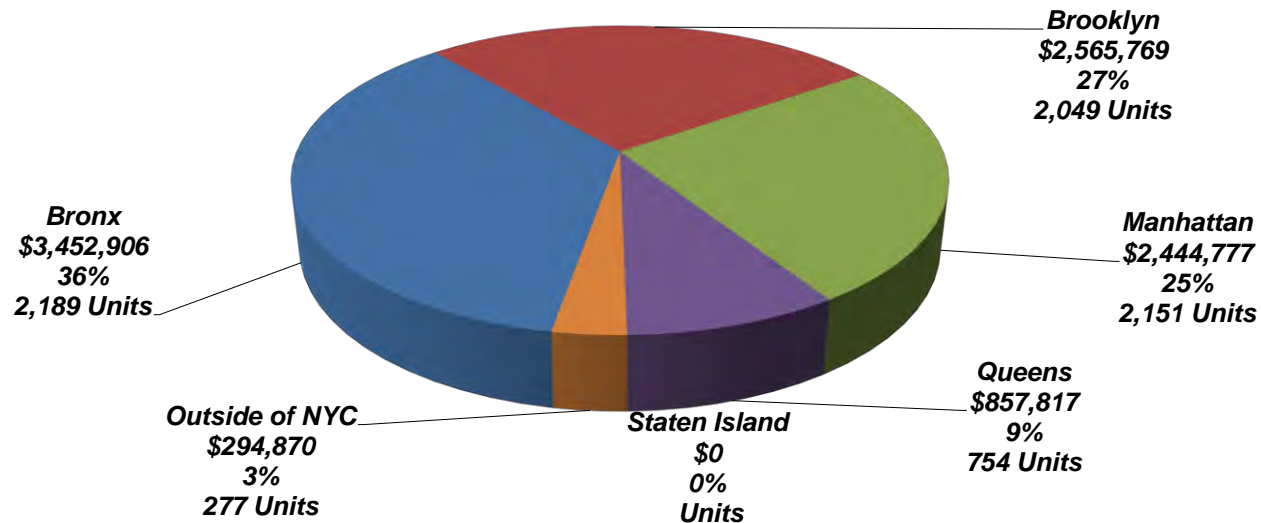
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## Public/Private Apartment Rehabilitation Program (PPAR)

### Historical Investments Since Inception All PPAR Lenders



### Current Commitments All PPAR Lenders





# BERS Economically Targeted Investments Quarterly Report

AFL-CIO Housing Investment Trust (HIT)  
BERS Portion Market Value \$11.98million\*  
NYC Community Investment Initiative (NYCCII)

## NYCCII Phase II 2006-2013 Multifamily Investments Detail

<u>Borough</u>	<u>2Q Investments</u>	<u>Investments Since Inception</u>	<u>2Q Housing Units</u>	<u>Housing Units Since Inception</u>
Bronx	\$0	\$52,827,900	0	802
Brooklyn	0	103,890,446	0	5,616
Manhattan	0	174,075,200	0	926
Queens	0	17,760,000	0	1,260
Staten Island	0	6,414,554	0	693
Outside NYC	0	100,000,000	0	137
<b>Total</b>	<b>\$0</b>	<b>\$454,968,100</b>	<b>0</b>	<b>9,434</b>
<b>Grand Total NYCCII Phase II</b>		<b>\$454,968,100</b>		<b>9,434</b>

## NYCCII Phase I 2002 - 2005

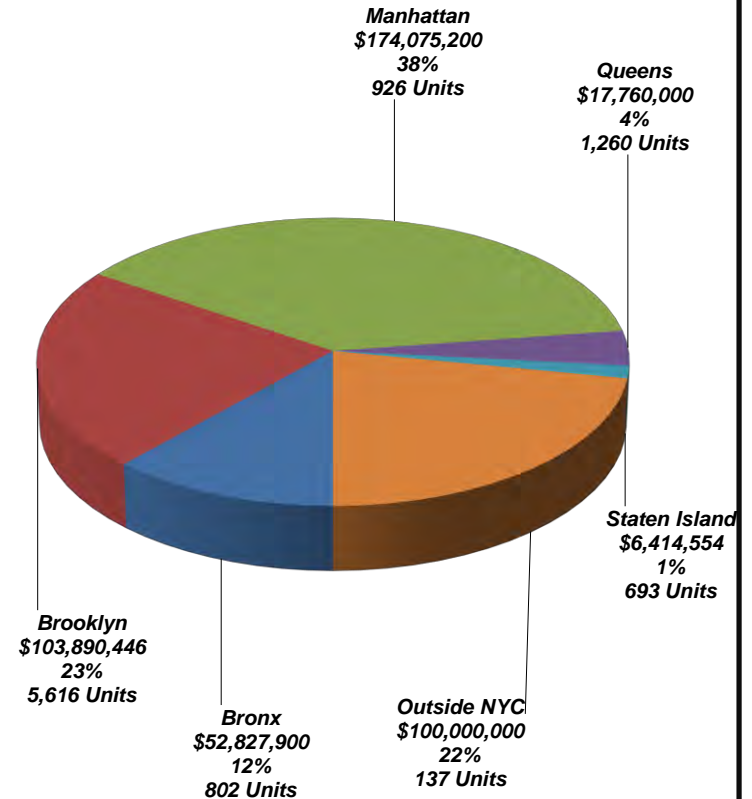
	<u>Dollars</u>	<u>Units</u>	<u>Member Loans</u>	<u>Total All NYC PF's</u>
Multifamily Investments	\$249,123,500	12,337	n/a	n/a
HIT Home Investments	348,300,563	n/a	131	446
<b>Total NYCCII Phase I</b>	<b>\$597,424,063</b>	<b>12,337</b>	<b>131</b>	<b>446</b>

## NYCCII Phases I & II

	<u>Dollars</u>	<u>Units</u>	<u>Member Loans</u>	<u>Total All NYC PF's</u>
Multifamily Investments	\$704,091,600	21,771	n/a	n/a
HIT Home Investments	2,899,899,500	n/a	131	446
<b>Grand Total NYCCII Phases I &amp; II</b>	<b>\$3,603,991,100</b>	<b>21,771</b>	<b>131</b>	<b>446</b>

\*Interest is reinvested

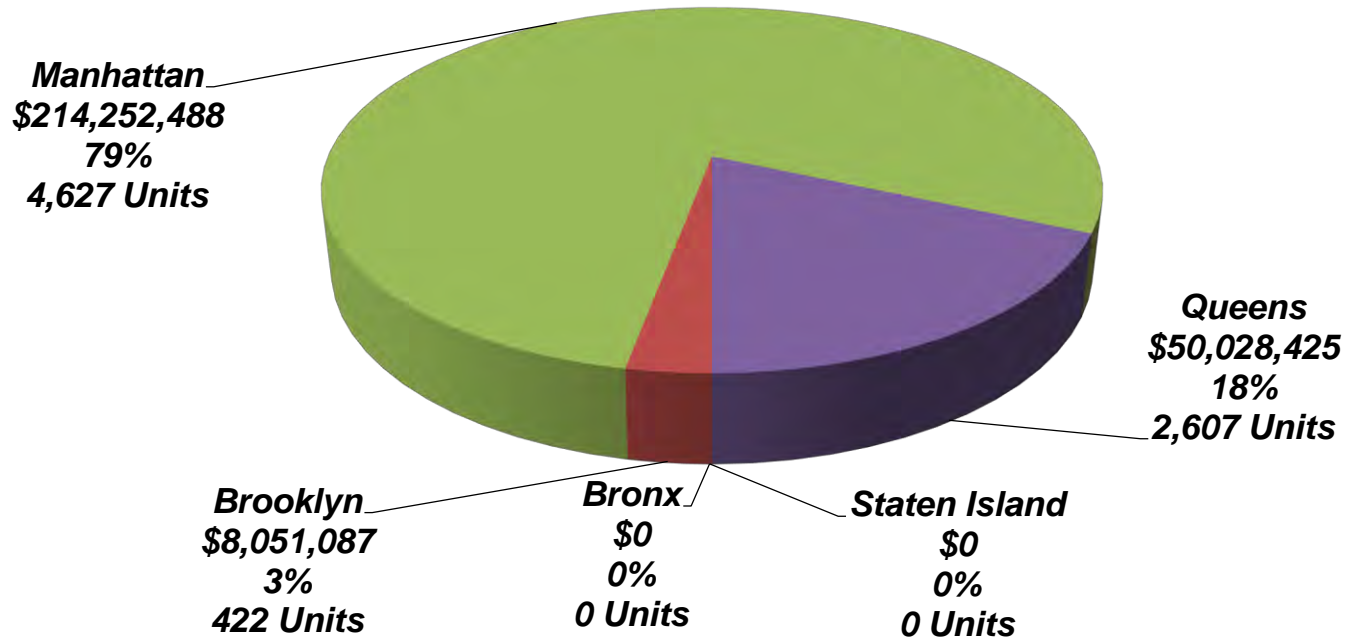
## HIT Multifamily Investments



# BERS Economically Targeted Investments Quarterly Report

AFL-CIO Housing Investment Trust (HIT)				
NYC Workforce Housing Initiative 2009-2013				
Investments Through 06/30/2014				
Workforce Investments Detail				
<u>Borough</u>	<u>2Q Investments</u>	<u>Investments Since Inception</u>	<u>2Q Housing Units</u>	<u>Housing Units Since Inception</u>
Bronx	\$0	\$0	0	0
Brooklyn	0	8,051,087	0	422
Manhattan	45,000,000	214,252,488	0	4,627
Queens	0	50,028,425	0	2,607
Staten Island	0	0	0	0
Total	\$45,000,000	\$272,332,000	0	7,656

## HIT Workforce Housing Initiative



# BERS Economically Targeted Investments Quarterly Report

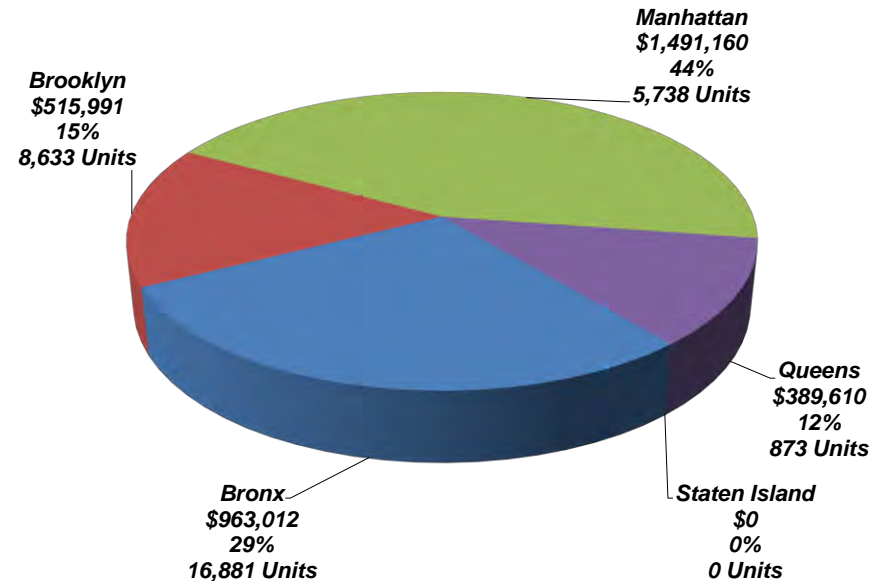
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ACCESS CAPITAL STRATEGIES (Since Inception 2/1/07)

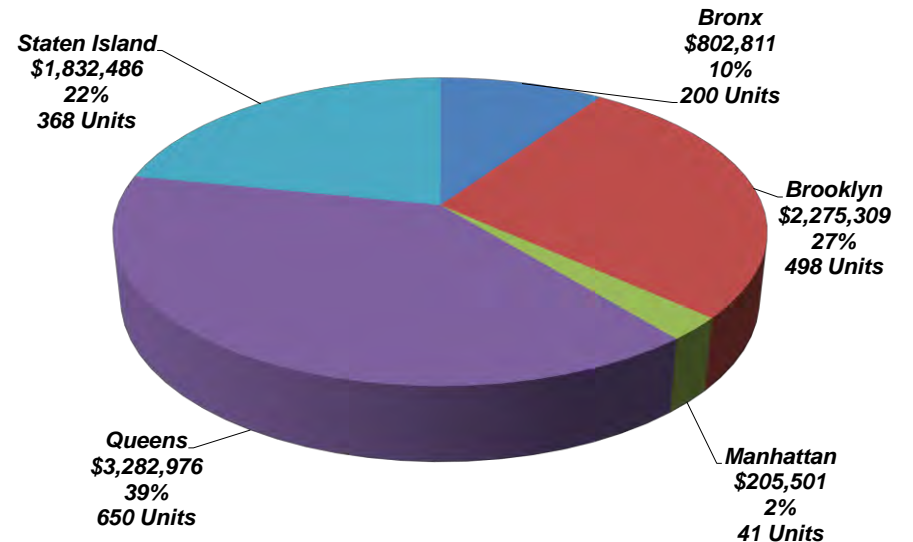
\$7.2 million Allocated (2.34% of total account)  
Market Value \$6.73 million

<b>Multifamily Investments Detail</b>				
	2Q \$ Invested	Total	2Q Total Units	Total
Bronx	\$0	\$963,012	0	16,881
Brooklyn	0	\$515,991	0	8,633
Manhattan	0	\$1,491,160	0	5,738
Queens	117,000	\$389,610	111	873
Staten Island	0	\$0	0	0
<b>Total BERS Multifamily Investments</b>	<b>117,000</b>	<b>\$3,359,772</b>	<b>111</b>	<b>32,125</b>
<b>MultifamilyTotal All Systems</b>	<b>5,000,000</b>	<b>\$143,580,014</b>	<b>111</b>	<b>32,125</b>
<b>Single Family Investments Detail</b>				
	2Q \$ Invested	Total	2Q Total Units	Total
Bronx	106,961	\$802,811	25	200
Brooklyn	283,080	\$2,275,309	64	498
Manhattan	0	\$205,501	0	41
Queens	467,803	\$3,282,976	87	650
Staten Island	297,169	\$1,832,486	61	368
<b>Total BERS Single Family Investments</b>	<b>1,155,013</b>	<b>\$8,399,082</b>	<b>237</b>	<b>1,757</b>
<b>Single Family Total All Systems</b>	<b>49,359,546</b>	<b>\$358,935,110</b>	<b>237</b>	<b>1,757</b>
<b>Other Investments Detail</b>				
	2Q \$ Invested	Total	2Q # of Loans	Total
Bronx	0	\$15,795	0	1
Brooklyn	0	\$126,135	0	8
Manhattan	0	\$56,930	0	5
Queens	0	\$12,716	0	3
Staten Island	0	\$0	0	0
<b>Total BERS Other Investments</b>	<b>0</b>	<b>\$211,577</b>	<b>0</b>	<b>17</b>
<b>Other InvestmentsTotal All Systems</b>	<b>0</b>	<b>\$9,041,740</b>	<b>0</b>	<b>17</b>
<b>Grand Total BERS</b>	<b>1,272,013</b>	<b>\$11,970,431</b>		
<b>Grand Total All Systems</b>	<b>54,359,546</b>	<b>\$511,556,864</b>		

**Access Multifamily Investments Since Inception BERS**



**Access Single Family Investment Since Inception BERS**



## Private Equity Quarterly Report:



Hamilton Lane



MARCH 31, 2014

ALTERNATIVE INVESTMENT REPORT

## NYC Board of Education Retirement System

One Presidential Boulevard, 4<sup>th</sup> Floor, Bala Cynwyd, PA 19004  
[www.hamiltonlane.com](http://www.hamiltonlane.com) | P 610.934.2222 | F 610.617.9853

# NYC Board of Education Retirement System

## First Quarter 2014 Report

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## Section 1:

### Market Update

# NYC Board of Education Retirement System

## First Quarter 2014 Report

# The Private Equity Market

## Introduction

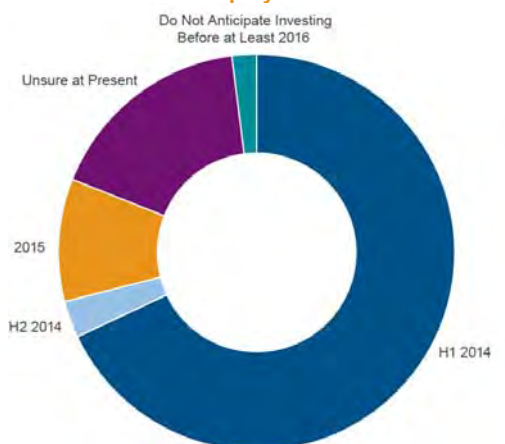
Coming off one of the best performing years in decades, public markets slowed their growth during the first quarter of 2014. The S&P 500 grew just 1.8% during the quarter, after a 3.5% decrease in January to start off the year.<sup>1</sup> Meanwhile, US GDP started the year by dropping 2.9% during 1Q14, as reported by the Bureau of Economic Analysis's third and final estimate. In February, Janet Yellen's tenure as chairman of the Federal Reserve officially began, and with it, the Fed announced it would finally begin tapering its bond purchasing program. On the jobs front, US unemployment dropped to 6.3% as of May 2014, the lowest level since September of 2008.<sup>2</sup> Turning to Europe, the region continues to recover from the Global Financial Crisis as the European Union posted GDP growth of 0.3% during the quarter.<sup>3</sup>

Turning to private equity, the asset class continued to perform well in 1Q14. Performance and distributions have remained strong, with the asset class returning \$120 billion to investors in 1Q14 alone, the third largest amount in the history of asset class according to the Hamilton Lane Fund Investment Database. Allocations continue to rise and consequently fundraising remains successful, but also challenging for General Partners. One hundred eighty five funds closed on aggregate capital commitments of \$98 billion representing a decrease of 42 funds as compared to the same quarter in 2013. Although fundraising and dry powder both continue to rise, spending of capital remains low and thus deal activity remains stagnant as managers look to avoid overpriced deals.

## Increasing Allocations

LP allocations to private equity have continued to rise as a primary result of the asset class's strong long term performance. As shown in Chart 1, over 71% of investors said they plan on investing in 2014. Private equity has consistently offered large institutional investors superior performance with less volatility than public equities. According to the Hamilton Lane Fund Investment Database, private equity returned about 13% to investors with observed volatility of about 10% over a ten year period. In contrast, the MSCI World Index returned just 6% with volatility of 16% over the same time period.

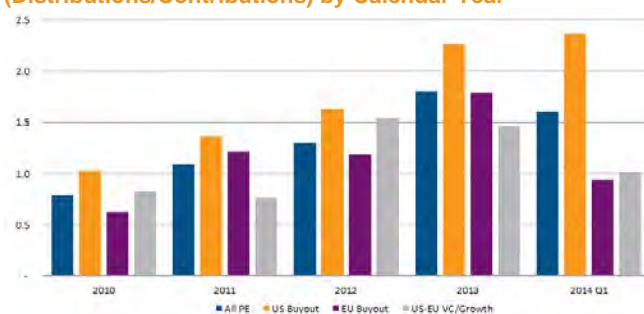
**Chart 1: Investors' Timeframe for Next Intended Commitments to Private Equity Funds**



Source: Preqin

Additionally, private equity has been returning large sums of cash to investors since 2011, leaving investors with more capital to allocate. Looking at Chart 2, the liquidity ratio for all private equity has been above one since 2011, meaning many portfolios have been self-funding leaving investors with extra cash to invest. Cash returned to LPs has continued to climb, particularly in the US Buyout space where investors have received over two dollars for every dollar they've invested in 2013 and 1Q14. This is a clear demonstration of how a properly paced private equity portfolio can be a self-funding, profitable asset in a well-diversified institutional portfolio.

**Chart 2: Annual Liquidity Ratio by Strategy (Distributions/Contributions) by Calendar Year**



Source: Hamilton Lane Fund Investment Database (May 2014).

<sup>1</sup> BNY Capital Markets Review 1Q 2014

<sup>2</sup> Bureau of Economic Analysis

<sup>3</sup> EuroStat

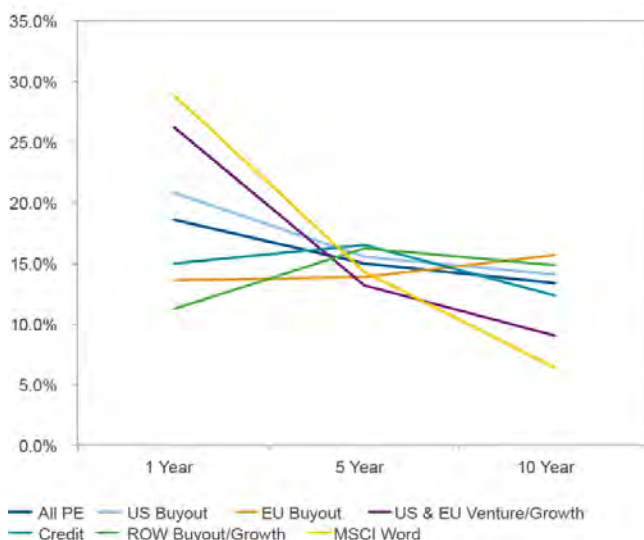


# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Private Equity Performance

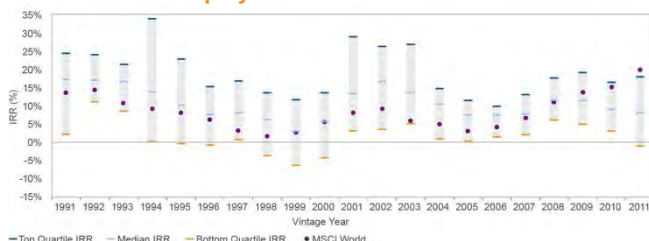
**Chart 3: Time Weighted Returns: Private Equity vs. MSCI World**



Source: Hamilton Lane Fund Investment Database (May 2014). Return figures are geometric averages of time-weighted returns, in local fund currency. Returns longer than one year are annualized.

Though private equity has lagged public markets over the one-year period, the asset class has rewarded investors with strong double digit one-year returns despite being a long term asset class. The PE industry level return was approximately 19% as compared to the MSCI World's one year return of 30%.<sup>4</sup> US Buyout and US & EU Venture/Growth were particularly strong performers in this time frame, returning 21% and 26%, respectively. Looking at the five- and ten-year returns, private equity has outperformed the MSCI World Index, returning 15% and 13% as compared the MSCI's returns of 14% and 6% over the same time periods.

**Chart 4: Private Equity IRR Quartiles**



Source: Hamilton Lane Fund Investment Database (May 2014) MSCI World, net reinvested dividends. Benchmark calculated as PME (Public Market Equivalent) using All Private Equity pooled cashflows.

As shown in Chart 4, the premium earned by Limited Partners over public equities is even greater for those invested in upper quartile PE funds. Upper quartile funds have on average outperformed the MSCI Index by 1,000 bps in each of their respective vintage years. Even median quartile managers have outperformed the index, beating it in seventeen of the last twenty-one vintage years. Such superior performance helps

<sup>4</sup> Hamilton Lane Fund Investment Database (May 2014)

compensate Limited Partners for the typical long hold periods and lack of liquidity associated with the asset class.

### Flat Line in Deal Activity

**Chart 5: Quarterly Aggregate Value of Private Equity-Backed Buyout Deals**

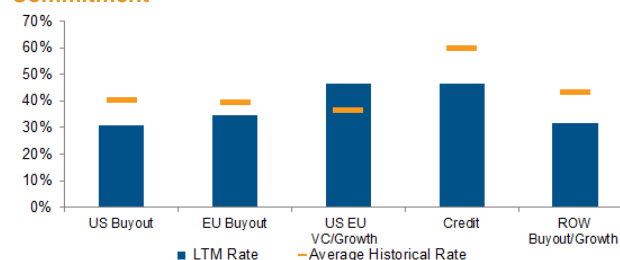


Source: Preqin Private Equity Quarterly 1Q 2014

The first quarter of 2014 saw 688 deals executed on an aggregate deal value totaling \$79.5 billion, a quarter-over-quarter decrease of 81 deals and an increase of \$18.8 billion in value. The majority of deals executed were in North America, with \$48 billion of deal value attributable to the region. In Europe, deal activity remained relatively unchanged with \$15.6 billion in value during 1Q14. Asia has shown some growth with deal value totaling \$12.8 billion during 1Q14, an increase of \$3.8 billion quarter-over-quarter.

The lack of deal activity is partially represented by managers' ability to show discipline and avoid overpriced deals. With many swollen valuations, particularly deals with public market comparables, managers are very carefully deploying capital as evidenced by Chart 6. With the exception of US and EU VC/Growth, contributions as a percentage of unfunded commitments are all well below historical averages, indicating managers are spending capital at much slower paces. With managers raising more capital than they are spending, it appears that dry powder will continue to accumulate.

**Chart 6: Contributions as a Percentage of Unfunded Commitment**



Source: Hamilton Lane Fund Investment Database (May 2014)

# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Private Equity Fundraising

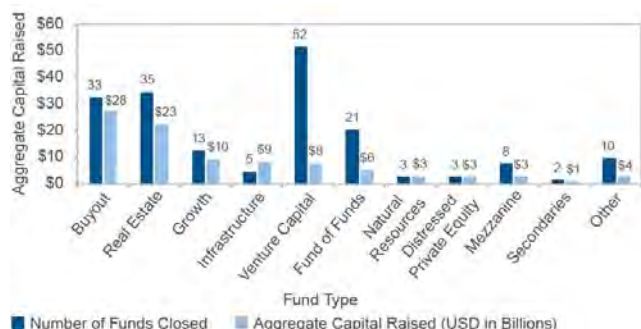
Chart 7: Global Private Equity Fundraising



Source: Preqin Private Equity Quarterly 1Q 2014

Following the highest annual total of capital raised in 2013, the first quarter of 2014 saw 185 funds close on aggregate committed capital of \$98 billion. This represents an increase in capital raised of \$6 billion as compared to the first quarter of 2013, but a decline in total funds closed of 42. As shown in Chart 8, Buyout strategies attracted the most capital with 33 vehicles closing on \$28 billion in capital. Private Real Estate funds finished a close second with 35 vehicles closing on \$23 billion in capital.

Chart 8: Breakdown of Private Equity Funds Closed in Q1 2014



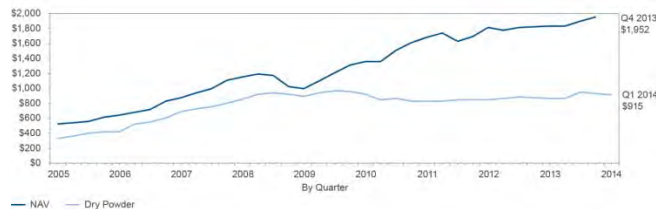
Source: Preqin Private Equity Quarterly 1Q 2014

Though 2013 was a very successful fundraising year for the asset class, the fundraising environment remains challenging. According to Preqin, of the 185 funds to close in 1Q14, approximately 35% closed below their target fund size. Investor allocations are up, but LPs have become extremely selective in which managers they are committing capital to. Competition is also extremely fierce as the number of managers in operation is the highest in the history of the industry.<sup>5</sup> Additional competition is being drawn from other alternative asset classes. For instance, hedge funds are beginning to move in and compete for deals and capital that would typically be left for PE managers. The private equity space is particularly attractive to some hedge funds given the closed end structure PE funds operate under that helps eliminate early redemptions.

<sup>5</sup> Preqin Investor Outlook Alternative Assets H1 2014

### The Old Overhang Issue

Chart 9: Industry Level NAV & Dry Powder

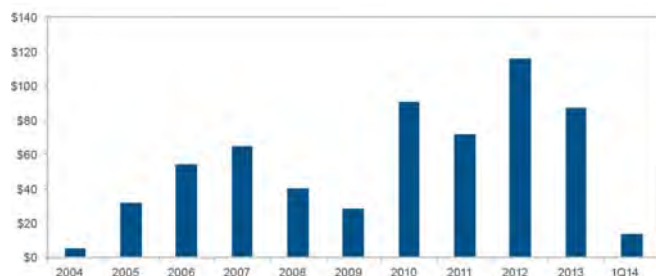


Source: Hamilton Lane Fund Investment Database (May 2014)

The industry overhang and dry powder has continued to grow through 1Q14 following a very successful year of fundraising and capital appreciation of NAVs. Industry level dry powder totaled \$915 billion as of March 31, 2014 and with quarterly contributions of just \$74 billion, there has not been much deal activity to reduce this total. Though exit activity has increased and GPs are distributing the largest amounts of cash to investors in the history of the asset class, portfolio valuations continue to climb and the overhang of NAV grows. Spending will eventually have to pick up at which point it will be key on how that money is spent. If money starts being spent on overpriced deals, and GP's are not able to unlock value creation, then distributions and returns will begin to diminish. This issue will come into strong focus over the coming years as the 2013 vintages begin actively investing their newly committed capital.

### Debt Markets

Chart 10: Annual Volume of Sponsored High-Yield Bond Issuances



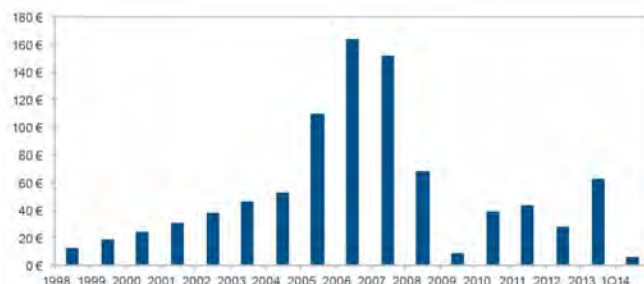
Source: S&P Capital IQ M&A Stats March 2014

1Q14 sponsored high-yield bond issuances totaled \$14 billion, representing just 16% of the issuances experienced last year. Similar trends, seen in 2012 and 2013, the majority of these issuances went towards refinancing, recapitalizations, and dividend payments as GPs continue to take advantage of the low interest rate environment and extract cash from their portfolio companies. Looking to Europe, LBO transaction volume remained light totaling just €6 billion during 1Q14. Given the high deal multiples and the region's economic uncertainty, General Partners in the European Union continue to exercise caution when it comes to LBOs.

# NYC Board of Education Retirement System

## First Quarter 2014 Report

**Chart 11: European LBO Transaction Volume (€Billion)**

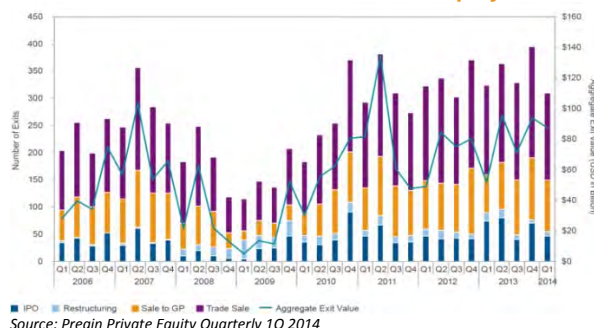


Source: S&P Capital IQ M&A Stats March 2014

### Slowdown in Exit Activity

Exit activity dropped to its lowest quarterly total in 1Q14 since 2012, with only 310 private equity backed exits. Aggregate exit value was up significantly totaling \$87 billion, an increase of almost \$36 billion over the same quarter a year ago. The reasoning behind the large drop in actual exits versus the large jump in exit value has been due to IPOs. GPs have continued to take advantage of the IPO exit avenue given the attractive pricing environment in public equities. In 1Q14, there were 46 PE backed IPOs valued at \$17 billion which represents 20% of the quarter's aggregate exit value.<sup>6</sup>

**Chart 12: Global Number of Private Equity-Backed Exits**



Source: Preqin Private Equity Quarterly 1Q 2014

Outside of PE backed IPOs, part of the slowdown in exit activity is partially explained by low deal activity and high valuations. GPs have yet to break discipline and are staying away from spending capital on high multiple deals. In turn, this limits one of the more traditional exit avenues for managers, GP to GP sales. This will be an issue to watch going forward as GPs stand on both sides, on one hand looking to exit at their high valuations, but then on the other, unwilling to overpay.

In terms of turning exits into cash for investors, the industry continues to distribute record levels, distributing over \$120 billion to LPs resulting in net cash flows back to investors of \$45 billion in 1Q14. GPs will have to maintain this strong distribution momentum if they intend to convert the industry record NAV into cash for investors.

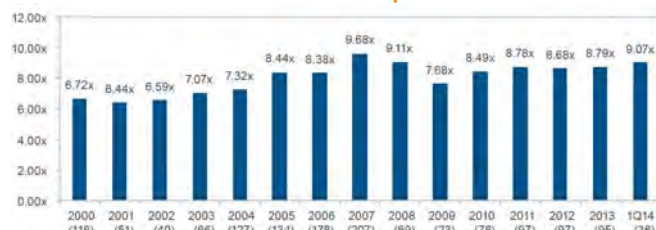
**Chart 13: Private Equity Industry Level Cash Flows (Billion)**



Source: Hamilton Lane Fund Investment Database (May 2014)

### Deal Pricing

**Chart 14: LBO Purchase Price Multiples**



Source: S&P Capital IQ M&A Stats March 2014

Purchase price multiples finally rose above 9.00x to 9.07x in 1Q14 after remaining relatively inelastic since 2010. Up to this point, GPs have generally remained disciplined and avoided high multiple deals but with valuations high as they are, and dry powder accumulating, spending on higher multiple deals was and is inevitable. Industries in high demand are priced even higher, such as the technology and healthcare industries which fetched 10.07x and 10.57x purchase price multiples, respectively, in 2013.<sup>7</sup>

Competition for deals will also contribute to driving deal multiples upward. Managers in today's market face competition from market participants that weren't present in past market cycles, such as hedge funds, which have moved in and begun competing for some of the same assets traditionally left for PE funds. Even some of the larger LPs, who have the size and resources to source and execute their own co-investments, have begun competing with GPs for deals. With the exception of another market collapse to deflate asset prices, this is most likely the new normal for deal pricing and GPs will have to change and adapt to create value for their investors.

<sup>6</sup> EY Private Equity Public Exits 1Q 2014 Digital Edition

<sup>7</sup> S&P Capital IQ M&A Stats March 2014



# NYC Board of Education Retirement System

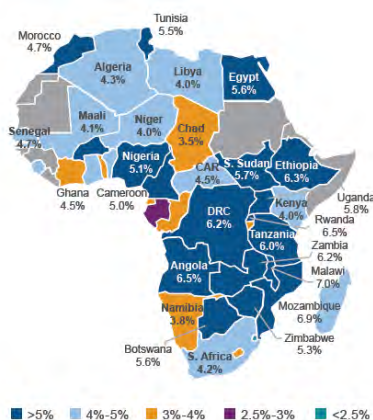
## First Quarter 2014 Report

### Spotlight: Africa Overview

#### Introduction

Africa is getting increased attention in the investment world by public and private institutions alike. The continent includes 54 countries and over 1,000 languages. Each country differs in policy, culture, economic development, governance structures and so forth, which in turn impacts the opportunity, and challenge, set in each country. This overview attempts to simplify the challenge by dividing the continent into three regions, each of which has certain characteristics which binds the countries within it: South Africa, the most economically developed country in the continent; Sub-Saharan Africa, excluding South Africa, a region which starts from a low base but has strong macroeconomic tailwinds behind it; and North Africa, which benefits from many of the economical tailwinds that are apparent in Sub-Saharan Africa, but represents a significantly smaller market with continued political volatility.

**Chart 1: Projected GDP Growth Rate (% Change Year to Year 2012 – 2017)**



Source: Ernst & Young; Oxford Economics

Each of these regions offers various opportunities, as well as challenges to private equity investment. South Africa continues to provide the most institutionalized opportunities. Maturity of the market and ease of doing business, including the prominence of English as a core language, has led to high penetration and transparency from a private equity perspective. With asset prices up in recent years, the opportunity set revolves around finding good assets at reasonable prices, and avoiding auctions where possible, especially at the larger end of the market. Sub-Saharan Africa has seen strong positive macroeconomic momentum in recent years, driven by growing urbanization and affluence of the middle classes, and provides a more stable political landscape than North Africa. However, challenges for private equity in the region include hiring talented human capital, currency volatility and mixed performance with long holding periods and limited exits. North Africa benefits from similar macroeconomic tailwinds to Sub-Saharan Africa, and faces many of the same challenges. However, a volatile political environment combined with a smaller market, makes the region less attractive than Sub-Saharan Africa.

#### The Macro Perspective

Many South Africa and Sub-Saharan Africa markets remain un-institutional from a governance, and M&A opportunity set perspective. South Africa forms the majority of investment activity in the Southern African Development Community; while the interesting regions from a private equity perspective are in Sub-Saharan Africa, which can themselves be further categorized into Anglophone West Africa, East Africa, and Francophone West Africa. The combined region presents certain attractive macroeconomic dynamics: size of the economy and recent and expected GDP growth rates; abundance of natural resources; improving infrastructure; and a young population with increased urbanization and a growing middle class consumer set.

**Chart 2: 2013 Economic Indicators**

Country	South Africa	Kenya	Uganda	Nigeria	Ghana
GDP	\$595.7	\$79.9	\$54.4	\$478.5	\$90.4
GDP Growth Rate	2.0%	5.1%	5.6%	6.2%	7.9%
Population (M)	48.3	45.0	35.9	177.2	25.8
Inflation Rate	5.8%	5.8%	6.2%	8.7%	11.0%
Exports	\$91.1	\$6.6	\$3.2	\$93.6	\$13.4
Imports	\$99.6	\$15.9	\$4.9	\$56.0	\$18.5

Source: CIA World Factbook; USD in Billions

Of the Sub-Saharan countries, South Africa is the most developed. In its 20 years as a democratic nation, South Africa has substantially improved its core development macroeconomic indicators. GDP growth continues to be strong and increasing, accounting for 0.5% of World GDP in 2013.<sup>8</sup> Wage inflation and government grants have improved consumer expenditure. Meanwhile, infrastructure and governance structures have been well developed in South Africa, underpinning future growth potential. There are also decreasing barriers and increasing inter-regional cooperation that are further developing the markets in South Africa.

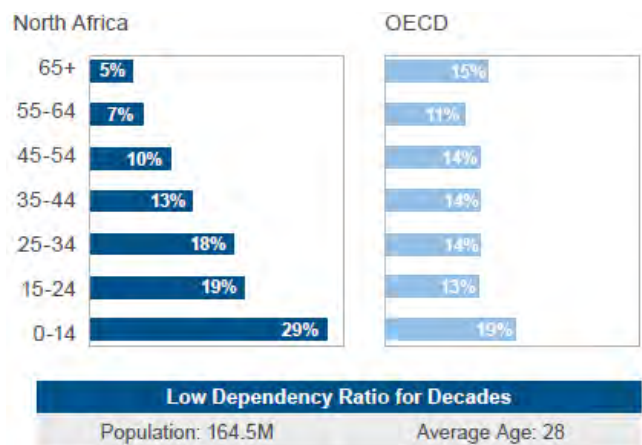
Turning to North Africa, the region consists of 7 countries, with Arabic and French being the principal languages. Egypt, Tunisia, Algeria and Morocco continue to lead the growth potential in North Africa. From an economic perspective, North Africa faces similar macroeconomic tailwinds to Sub-Saharan Africa: a young, albeit smaller, population with an expanding middle class driving strong GDP growth.

<sup>8</sup> Bloomberg, IMF, WEO Database and Goldman Sachs Report

# NYC Board of Education Retirement System

## First Quarter 2014 Report

**Chart 3: Population Distribution**

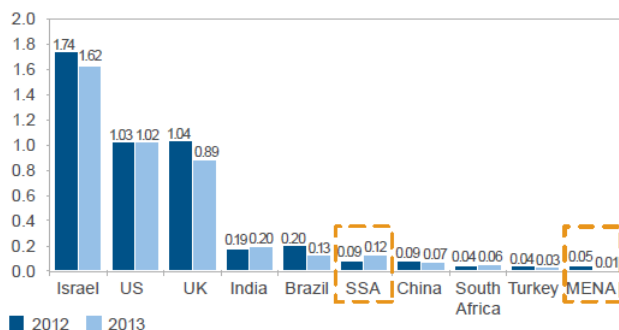


Source: Abraaj, Business Monitor International and EIU

### African Private Equity Markets

The African private equity market still remains in its nascent stages with Africa being one of the most recent markets for PE investment and institutional-quality M&A more broadly. H2 2013 and H1 2014 started seeing an increase in investor interest in the SSA region, as some other emerging markets suffered from slowing growth, difficult exit markets, below-expectation returns and ample dry powder. While still low in the global context, PE penetration and deployment in Sub-Saharan Africa continues to improve year-on-year since the Global Financial Crisis while the North African political landscape continues to make that geography difficult.

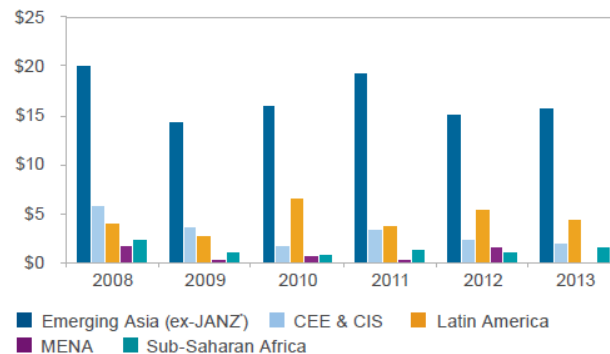
**Chart 4: PE Investment as % of GDP**



Source: EMPEA

In 2013, issues surrounding the PE industry in Africa continued to circle around challenges in hiring talented human capital, currency and political volatility (particularly in North Africa), performance, and achieving timely exits. These in turn have limited PE penetration in the region vis-à-vis other markets. That said, high GDP growth rates combined with favorable demographic and urbanization trends lead to increased interest in the region; Sub-Saharan Africa represents a more stable investment environment than North Africa.

**Chart 5: Emerging Markets Investment Pacing**



Source: EMEPA. USD in Billions; JANZ includes: Japan, Australia, and New Zealand

South Africa, the most institutional and mature of the African private equity markets, is a relatively transparent market, particularly at the upper mid-market end. Public and private asset prices have increased relative to other global markets, despite slowing GDP growth. Moreover, slowing local growth and high pricing has led some of the incumbent South African General Partners to consider add on assets outside of South Africa in order to tap the Sub-Saharan African growth story, while operating from a market with stronger governance structures. Deals are more proprietary at the smaller end, although governance structures are less developed here.

### Fundraising

**Chart 6: Africa Private Equity Fundraising by Region**



Source: EMPEA and Hamilton Lane. USD in Millions.

The upper mid-market of the General Partner landscape in Africa is dominated by pan-regional players, which is largely a result of: (1) the relatively small and non-institutional nature of each of the individual country markets (outside South Africa), and (2) the limited number of opportunities with good governance practices at the smallest end of the market. Region-dedicated fundraising continues to be lumpy, and driven by the timing of fundraising of established large GPs such as Ethos in South Africa and Helios in Sub-Saharan Africa. Large global General Partners such as Carlyle, Warburg Pincus and Abraaj are also increasingly actively targeting the Sub-Saharan African market, anticipating to play on the substantial growth opportunities. 2014 is likely to be a year of robust fundraising in Sub-Saharan Africa. In March and April 2014, Helios and Carlyle announced closes of \$355M and \$698M, respectively. North Africa continues to remain a difficult place for LPs to commit capital given the small market and continued political uncertainties, giving it a relatively small share of African fundraising.

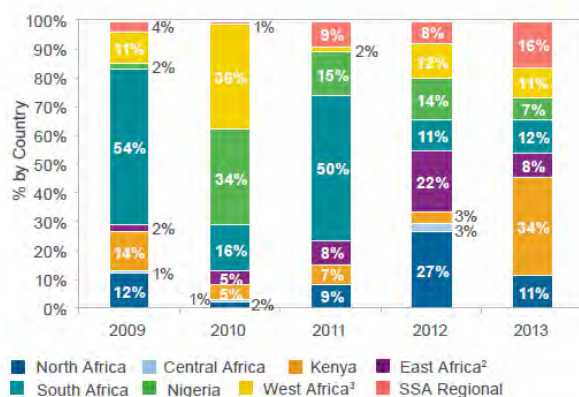
# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Geographies and Sectors

From a country perspective, South Africa, Kenya and Nigeria are the most mature with the largest addressable populations. These markets receive the most dollars of investment. Egypt in North Africa, which historically has been a market of interest, has seen lumpy investment pacing since the onset of the Arab Spring. Across African markets, the most popular investment themes rely on the growth of the middle class consumer with increasing wealth, higher urbanization and favorable population demographics. As a result, the relatively underpenetrated consumer, telecoms and banking/ insurance sectors receive the most dollars from investors. Sub-Saharan Africa remains abundant in natural resources; therefore energy and natural resources remain key investment trends for private capital.

**Chart 7: Africa Capital Deployment**



<sup>1</sup> South Africa data includes small investments in other parts of Southern Africa

<sup>2</sup> Excluding Kenya

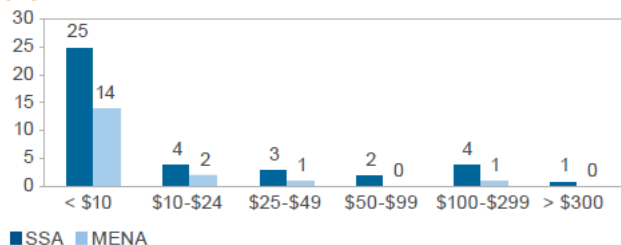
<sup>3</sup> Excluding Nigeria

Source: EMPEA

### Deal Activity

Small deals of less than \$10 million equity tickets continue to dominate the investment landscape across Sub-Saharan and North Africa. This is a result of the relatively un-institutionalized nature of the market with smaller economies and less developed PE markets, and where there are few companies which are addressable and of genuine pan-African scale. The businesses that are of pan-African scale, tend to be less proprietary and attract higher multiples at entry.

**Chart 8: SSA & MENA Investment Size by No. of Deals in 2013<sup>1</sup>**



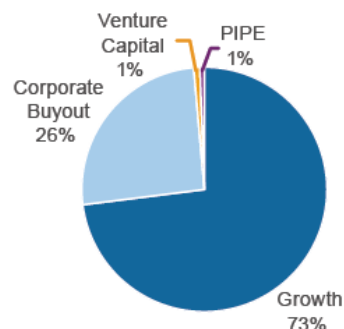
Source: EMPEA, USD in Millions

<sup>1</sup> SSA includes South Africa

Given the high growth nature of many top-performing businesses, combined with entrepreneurs' unwillingness to give

up control, most transactions in the region continue to be growth equity transactions across the African markets. As a result, one of the challenges faced by many general partners operating in the region is replacing or augmenting key management teams in portfolio companies and reducing key person risk. While professionals are beginning to return to Africa having studied and worked abroad, the African "brain drain" has historically led to a lack of ready available top-quality management teams, particularly for smaller deals.

**Chart 9: Africa Largest Known Investments**



Source: EMPEA

### Exit Activity

Exits continue to be limited across the African continent, presenting one of the more prominent challenges to private equity investing in the region. With private equity being in its early stages, the secondary market is extremely sporadic; corporates are beginning to re-invest in Africa but African strategies have often been non-core and therefore also sporadic; IPO markets across most African countries are limited and illiquid, with limited appetite for African companies in foreign exchanges. Limited exits often leads to longer-than-desired hold periods with a corresponding impact on IRRs.

### Conclusions

Outside South Africa, private equity markets remain in nascent stages, but with many limited partners now exploring the market with an increasing level of interest. High GDP growth rates combined with favorable demographic and urbanization trends lend to some interesting opportunities. However, challenges continue to circle around finding sufficiently talented human capital both at general partner and portfolio company levels, currency and political volatility, and achieving timely exits. An addressable opportunity largely relates mainly to pan-regional funds targeting mid-market transactions. Country funds are small with limited track records and it is questionable whether the opportunity in each country is large enough and de-risked enough. As is the case with the asset class as a whole, manager selection is key with investing in this region.

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## Section 2:

### Portfolio Update

# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Portfolio Snapshot

Hamilton Lane was engaged by the NYC Board of Education Retirement System ("BERS") in November 2012 to provide alternative investment fund administration services in accordance with the investment objectives of the BERS Private Equity portfolio (the "Portfolio"). This report represents the review by Hamilton Lane of the BERS's Portfolio and is based on information made available to Hamilton Lane by the general partners sponsoring each of the partnership investments in the Portfolio as of March 31, 2014, with highlights through June 30, 2014.

**Private Equity Allocation:** BERS has a target allocation of 6.0% to Private Equity. As of March 31, 2014, Private Equity constituted 3.2% of BERS total plan. (Plan value is \$4.0 billion as of March 31, 2014)

**Performance:** As of March 31, 2014, the Portfolio consists of 13 partnerships and 9 underlying fund managers. The Portfolio has generated a since inception internal rate of return ("IRR") of 9.25% and a total value multiple of 1.38x.

Portfolio Summary			
\$ millions	12/31/2013	3/31/2014	Change
Active Partnerships	12	13	1
Active GP Relationships	8	9	1
Capital Committed <sup>(1)</sup>	\$274.4	\$294.4	\$20.0
Unfunded Commitment	\$154.4	\$168.2	\$13.8
Capital Contributed	\$122.3	\$128.8	\$6.5
Capital Distributed	\$39.9	\$48.6	\$8.7
Market Value	\$126.4	\$129.5	\$3.1
Total Value Multiple	1.36x	1.38x	0.02x
Since Inception IRR	8.85%	9.25%	40 bps
Avg. Age of Active Commitments	3.6 years	3.6 years	0.0 years

<sup>(1)</sup> The "change" in capital committed from the prior quarter reflects currency adjustments from existing foreign denominated funds and additional commitments made during the quarter.

**Portfolio Exposures:** The Corporate Finance/Buyout strategy represents 47% of the Portfolio's total exposure, Venture Capital represents 14%, Secondary represents 13%, Distressed/Turnaround represents 10%, Growth Equity accounts for 10%, Other represents 3%, and Co-Investment represents 3%. Strategic exposure takes into account the strategies for each of the underlying partnerships in the funds-of-funds within the BERS Portfolio.



# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Portfolio Overview

#### Commitments

The table below highlights the funds that have closed during the first quarter of the calendar year 2014.

YTD Commitments - 2014			
Closing Date	Partnership	Investment Strategy	Commitment (\$ in Millions)
3/31/2014	Lexington Capital Partners VIII, L.P.	Secondaries	\$20.0
Total			\$20.0

The Portfolio closed on one new investment, totaling \$20.0 million, which is detailed below:

**Lexington Capital Partners VIII, L.P. (\$20.0 million)** the fund will focus on acquiring private equity partnership interests from limited partners seeking liquidity through secondary transactions in both U.S and non-U.S. buyouts, venture capital and mezzanine partnerships.

#### Subsequent Closings

Subsequent to the quarter end March 31, 2014, the portfolio closed on four additional commitments totaling \$40.0 million

Subsequent Closings			
Partnership	Investment Strategy	Commitment (\$ in Millions)	Closing Date
ASF VI, L.P.	Secondaries	\$15.0	4/22/2014
ASF VI NYC Co-Invest, L.P.	Co-Invest	5.0	4/22/2014
Crestview Partners III, L.P.	Corporate Finance/Buyout - Mid	15.0	6/20/2014
Crestview Partners III (Co-Investment B), L.P.	Co-Invest	5.0	6/20/2014
Vista Equity Partners Fund V, L.P.	Growth Equity	25.0	7/11/2014
		\$65.0	

**ASF VI, L.P. & Side Car (\$15.0/\$5.0 million)** the fund will pursue a secondary investment strategy, acquiring limited partnership interests through the global secondary market in buyout, growth equity, and venture capital funds.

**Crestview Capital Partners III, L.P. & Side Car (\$15.0/\$5.0 million)** the fund will pursue investments in opportunities arising from dislocations in out-of-favor industries, focusing primarily on four industries that are undergoing major transitions or dislocations: Energy, Financial Services, Healthcare and Media.

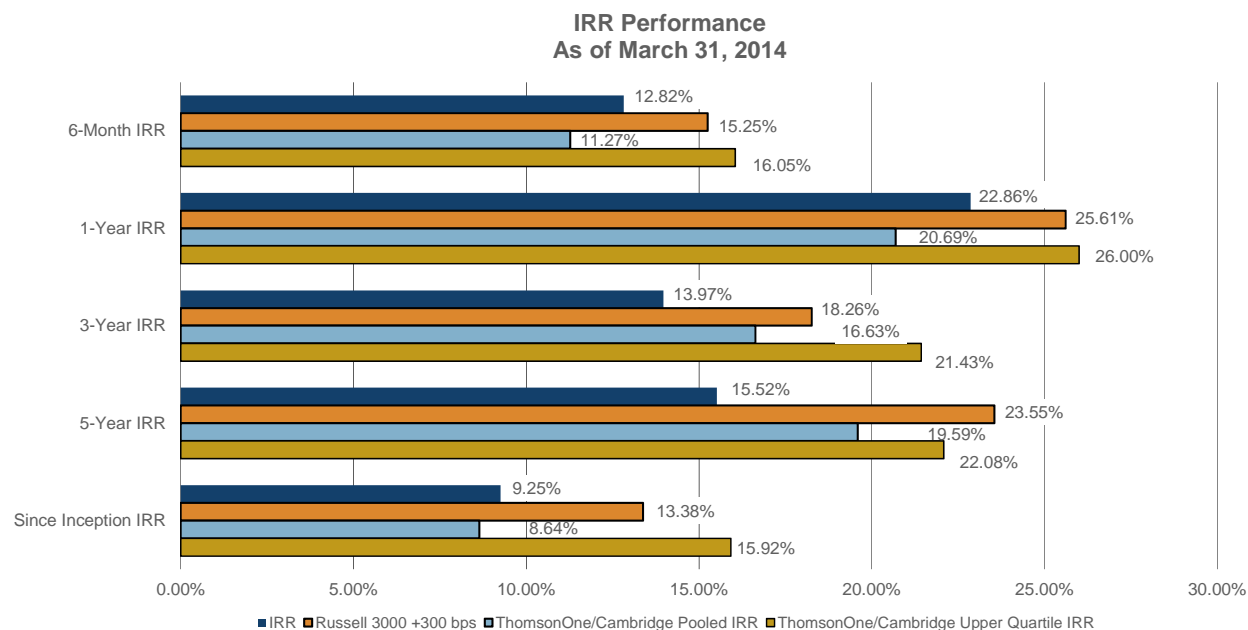
**Vista Equity Partners V, L.P. (\$25.0 million)** the fund will be focused on the middle-market software segment, and will execute control buyouts of businesses that offer mission-critical and technology-enabled solutions across a variety of industries.

# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Portfolio Performance Summary

The chart below is a graphical depiction of the IRR performance of the Portfolio with respect to 6-Month, 1-, 3-, 5-Year, and Since Inception time periods. The Portfolio is benchmarked against the ThomsonOne/Cambridge Pooled IRR, and ThomsonOne/Cambridge Upper Quartile IRR, as well as the Russell 3000 plus 300bps.



*Note: Private Equity benchmark is provided by ThomsonOne/Cambridge and reflects U.S. Buyout Funds Pooled IRR and Upper Quartile IRR as of March 31, 2014, for funds with vintage years 2006, 2009, 2012 and 2013. The Russell 3000 Total return index incorporates the Long Nickels methodology where the assumption is that the capital is being invested and withdrawn from the index on the days the capital was called and distributed from the underlying fund managers. This calculation includes a 3.0% premium.*

- As private equity is a long term asset class, the most significant time horizon is the since inception time period. Performance on a since inception basis for the first quarter of 2014 increased 40 basis points from the prior quarter, with the Portfolio generating an IRR of 9.25%.
  - Relative to the benchmarks, the since inception IRR is outperforming the ThomsonOne/Cambridge Pooled IRR by 61 basis points, but underperforming the ThomsonOne/Cambridge Upper Quartile IRR by 667 basis points and the Russell 3000 plus 300bps by 413 basis points.
- Performance on a one-year basis for the first quarter 2014 increased 175 basis points from the fourth quarter 2013, with the Portfolio generating an IRR of 22.86%.
  - Relative to the benchmarks, the one-year IRR is outperforming the ThomsonOne/Cambridge Pooled IRR by 217 basis points, but underperforming the ThomsonOne/Cambridge Upper Quartile IRR by 314 basis points, and the Russell 3000 plus 300bps by 275 basis points.
  - Underperformance to the public benchmark can be attributed to the continued strong performance of the public markets through the quarter end, March 31, 2014.

## NYC Board of Education Retirement System

### First Quarter 2014 Report

The table below details quarterly performance of the Portfolio for the year ending March 31, 2014.

Portfolio Summary					
in \$ millions	Quarter Ending				Year Ending
	6/30/2013	9/30/2013	12/31/2013	3/31/2014	3/31/2014
Beginning Market Value	\$109.8	\$109.7	\$114.9	\$126.4	\$109.8
Paid-in Capital	1.2	3.6	6.3	6.5	17.6
Distributions	(4.7)	(4.7)	(4.4)	(8.7)	(22.5)
<b>Net Value Change</b>	<b>3.4</b>	<b>6.3</b>	<b>9.6</b>	<b>5.3</b>	<b>24.6</b>
Ending Market Value	\$109.7	\$114.9	\$126.4	\$129.5	\$129.5
<b>Unfunded Commitments</b>	<b>\$162.2</b>	<b>\$160.3</b>	<b>\$154.4</b>	<b>\$168.2</b>	<b>\$168.2</b>
Total Exposure	\$271.9	\$275.2	\$280.8	\$297.7	\$297.7
Point to Point IRR	3.04%	5.73%	8.29%	4.20%	22.86%
Since Inception IRR	6.71%	7.57%	8.85%	9.25%	9.25%

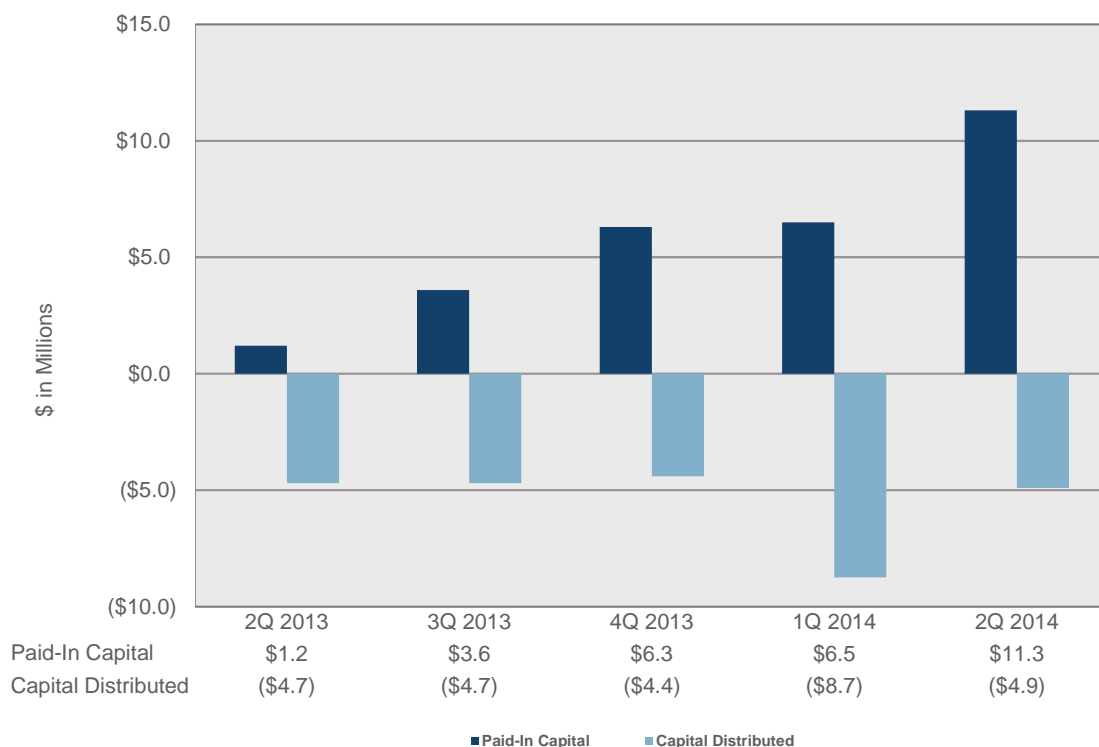
- Over the past twelve months, the Portfolio has experienced a total of \$24.6 million in net value appreciation.
  - The one-year IRR of 22.86% represents a 1,375 basis point increase when compared to the one-year IRR as of March 31, 2013.
  - The since inception IRR of 9.25% represents a 288 basis point increase when compared to the since inception IRR as of March 31, 2013.

# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Cash Flow Drivers

The chart below highlights the cash flows of the Portfolio over the past five quarters ended June 30, 2014.



- Contribution activity remained steady during the first quarter of 2014, with contributions totaling \$6.5 million. However, distribution activity increased significantly during the first quarter of 2014, with distributions totaling \$8.7 million.
  - Mesirow Financial Private Equity Partnership Fund IV, L.P. called the most capital during the first quarter of 2014, calling \$1.8 million to fund various underlying investments.
  - Mesirow Financial Private Equity Partnership Fund III, L.P. distributed the most capital during the first quarter of 2014, distributing \$4.0 million in proceeds from various underlying investments.
- Contribution activity increased significantly during the second quarter of 2014, with contributions totaling \$11.3 million. Distribution activity decreased significantly during the second quarter of 2014, with distributions totaling \$4.9 million.
  - Warburg Pincus Private Equity XI, L.P. called the most capital during the second quarter of 2014, calling \$3.5 million for various underlying investments which included, but were not limited to, Electronic Funds Source LLC, Wencor Group LLC, and PayScale, Inc.
  - Headquartered in Ogden, Utah, Electronic Funds Source LLC provides corporate payment solutions that enable companies to manage and control purchases, payroll, settlements and cash advances.

## NYC Board of Education Retirement System

### First Quarter 2014 Report

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- Headquartered in Springville, Utah, Wencor Group LLC manufactures and distributes aircraft parts for repair stations and aircraft operators worldwide.
- Headquartered in Seattle, Washington, PayScale, Inc. provides cloud compensation software solutions for individuals and business customers in the United States and internationally.
- Mesirow Financial Private Equity Partnership Fund III, L.P. distributed the most capital during the second quarter of 2014, distributing \$3.4 million in proceeds from various underlying investments.

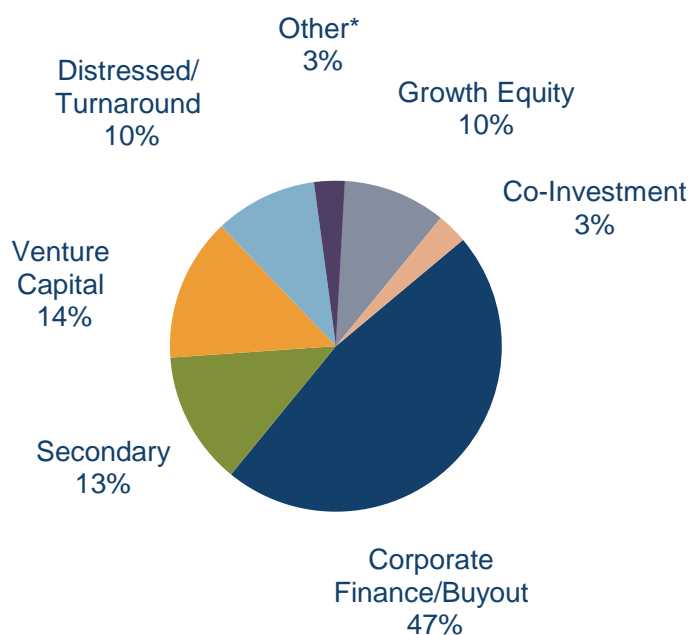
## NYC Board of Education Retirement System

### First Quarter 2014 Report

## Portfolio Exposures

The pie chart below represents the strategic diversification of the Portfolio as of March 31, 2014. Strategy is measured by total exposure, which is the sum of the market value and the unfunded commitments and provides a snapshot of the Portfolio's future diversification. Strategic exposure takes into account the strategies for each underlying partnership in the funds-of-funds within the BERS Portfolio.

### Strategic Diversification by Total Exposure As of March 31, 2014



*\*Strategic exposure to 'Other' consists of underlying partnerships for which investment strategies are not disclosed in the quarter end financial statements.*

- The Portfolio is focused in the Corporate Finance/Buyout strategy, with 47% of the total exposure attributable to this strategy.

# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Private Equity Company Exposure

The table below identifies the top ten partnership holdings held by funds-of-funds in the BERS Portfolio, as measured by exposed market value as of March 31, 2014. As noted in the second column, the values of partnerships held by several funds-of-funds have been aggregated.

Top 10 Partnership Holdings by Exposed Market Value March 31, 2014			
Partnership Name	Funds-of-Funds	Exposed Valuation (\$ Millions)	% of Total Portfolio
DCM V, L.P.	Mesirow Financial Private Equity Partnership Fund III, L.P.	\$3.8	2.9%
Vicente Capital Partners Growth Equity Fund	New York Fairview Private Equity Fund, L.P.	3.2	2.5%
Encore Consumer Capital Fund	New York Fairview Private Equity Fund, L.P.	3.1	2.4%
Kelso Investment Associates VIII, L.P.	Mesirow Financial Private Equity Partnership Fund III, L.P. Mesirow Financial Private Equity Partnership Fund IV, L.P. Mesirow Financial Private Equity Partnership Fund V, L.P.	3.0	2.4%
Landmark Acquisition Fund VI	Landmark Equity Partners XV, L.P.	3.0	2.3%
The Resolute Fund II, L.P.	Mesirow Financial Private Equity Partnership Fund III, L.P. Mesirow Financial Private Equity Partnership Fund IV, L.P.	2.9	2.3%
Draper Fisher Jurvetson Fund IX, L.P.	Mesirow Financial Private Equity Partnership Fund III, L.P. Mesirow Financial Private Equity Partnership Fund IV, L.P.	2.9	2.3%
Sun Capital Partners V, L.P.	Mesirow Financial Private Equity Partnership Fund III, L.P. Mesirow Financial Private Equity Partnership Fund IV, L.P.	2.6	2.0%
GenNx360 Capital Partners	New York Fairview Private Equity Fund, L.P.	2.5	2.0%
Green Equity Investors V, L.P.	Mesirow Financial Private Equity Partnership Fund III, L.P. Mesirow Financial Private Equity Partnership Fund IV, L.P.	2.5	1.9%
<b>Total</b>		<b>\$29.5</b>	<b>23.0%</b>

- As of March 31, 2014, the top ten partnership holdings represent 23.0% of the total Portfolio's exposed market value, or \$29.5 million of exposed market value.
- Five of the ten top partnerships are held in multiple funds-of-funds within the portfolio.
- DCM V, L.P., a 2006 vintage Venture Capital partnership, is the Portfolio's largest exposure and is held through the Mesirow Financial Private Equity Partners Fund III, L.P. funds-of-funds.

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## Section 3:

### Portfolio Assessment



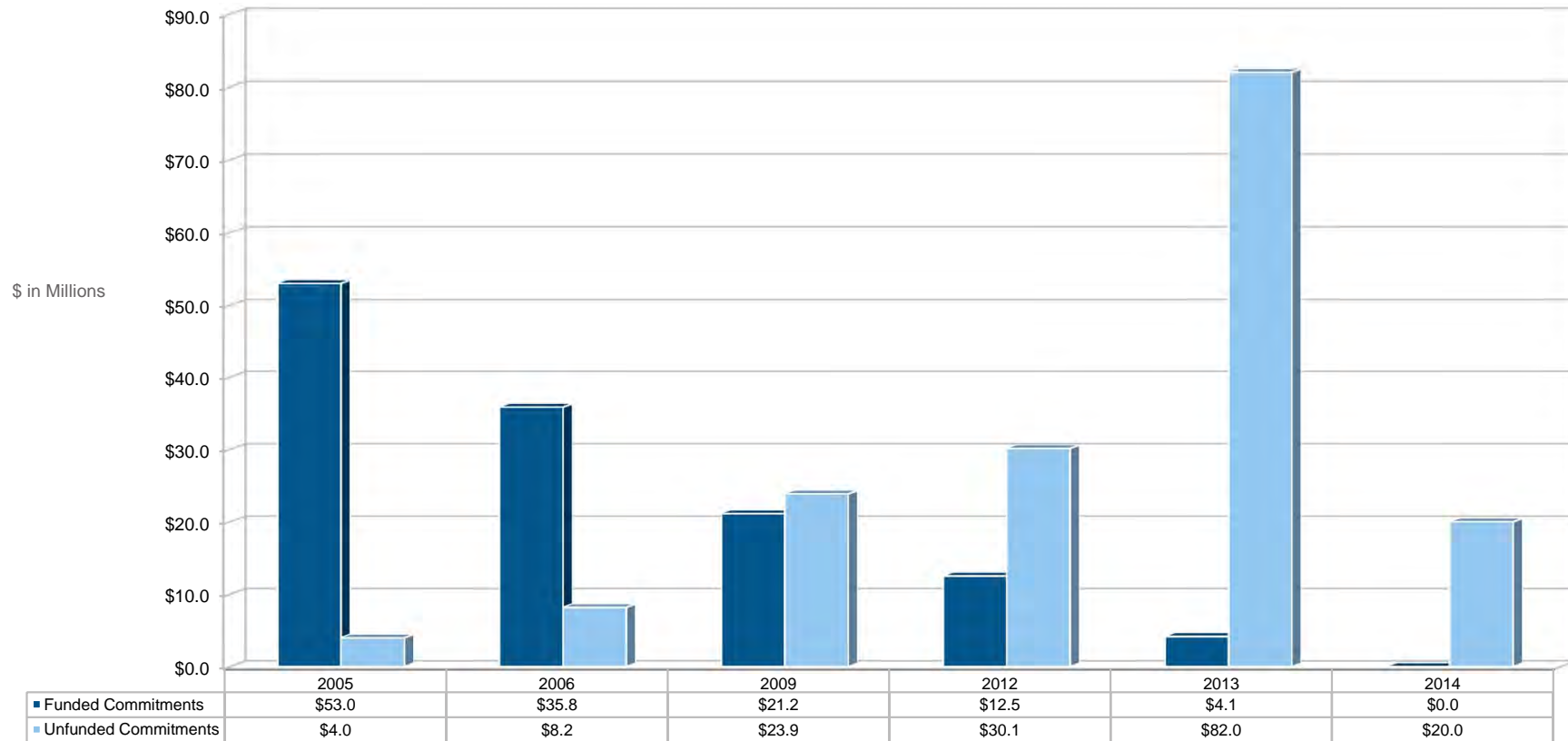
**NYC Board of Education Retirement System**  
**Private Equity Portfolio**  
**As of March 31, 2014 (in USD)**

Vintage Year	Investment	First Drawdown	Committed Capital	Paid-In Capital	Distributed Capital	Market Value	Multiple	IRR
<b>Active Investments</b>								
2005	Mesirow Financial Private Equity Partnership Fund III, L.P.	7/20/2006	\$ 57,000,000	\$ 53,383,273	\$ 28,996,092	\$ 52,238,539	1.52x	8.70%
2006	Mesirow Financial Private Equity Partnership Fund IV, L.P.	3/31/2008	25,000,000	20,217,233	5,753,759	21,813,778	1.36x	9.49%
2006	New York Fairview Private Equity Fund, L.P.	7/14/2006	19,000,000	15,838,013	7,367,694	12,946,467	1.28x	6.29%
2009	Mesirow Financial Private Equity Partnership Fund V, L.P.	3/7/2011	45,000,000	21,614,326	2,033,886	26,728,238	1.33x	16.59%
2012	Warburg Pincus Private Equity XI, L.P.	7/17/2012	25,000,000	7,798,050	796,175	7,964,512	1.12x	N/M
2012	Platinum Equity Capital Partners III, L.P.	1/14/2013	15,000,000	5,760,144	3,643,485	3,596,970	1.26x	N/M
2012	Carlyle Partners VI, L.P.	7/3/2013	20,000,000	868,952	-	628,900	0.72x	N/M
2012	Carlyle Partners VI, L.P. - Side Car	N/A	2,200,000	-	-	-	0.00x	N/M
2013	Landmark Equity Partners XV, L.P.	10/30/2013	19,000,000	2,106,264	-	2,598,084	1.23x	N/M
2013	Landmark Equity Partners XV, L.P. - Side Car	12/24/2013	6,000,000	307,193	-	299,001	0.97x	N/M
2013	Apollo Investment Fund VIII, L.P.	12/11/2013	20,000,000	721,492	12,756	573,356	0.81x	N/M
2013	CVC Capital Partners VI, L.P.	2/18/2014	21,173,924	144,928	-	71,362	0.49x	N/M
2014	Lexington Capital Partners VIII, L.P.	N/A	20,000,000	-	-	-	0.00x	N/M
<b>Total Portfolio</b>			<b>\$ 294,373,924</b>	<b>\$ 128,759,867</b>	<b>\$ 48,603,847</b>	<b>\$ 129,459,207</b>	<b>1.38x</b>	<b>9.25%</b>

Vintage Year	Investment	First Drawdown	Committed Capital	Net Contributed Capital	Net Distributed Capital	Market Value	Multiple	IRR
<b>Commitments Closed Subsequent to as of Date</b>								
2014	ASF VI, L.P.	N/A	\$ 15,000,000	\$ -	\$ -	\$ -	N/A	N/A
2014	ASF VI NYC Co-Invest, L.P.	N/A	5,000,000	-	-	-	N/A	N/A
2014	Crestview Partners III, L.P.	N/A	15,000,000	-	-	-	N/A	N/A
2014	Crestview Partners III (Co-Investment B), L.P.	N/A	5,000,000	-	-	-	N/A	N/A
2014	Vista Equity Partners Fund V, L.P.	N/A	25,000,000	-	-	-	N/A	N/A
<b>Total Commitments Closed Subsequent to as of Date</b>			<b>\$ 65,000,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>N/A</b>	<b>N/A</b>

Note: Where available, March 31, 2014 reported valuations were used. In the absence of March 31, 2014 reported values, market values have been adjusted forward using interim cashflows through March 31, 2014. The IRR calculated in the early years of a fund is not meaningful given the j-curve effect. The aggregate portfolio performance figures for IRR and multiple are as of March 31, 2014.

**NYC Board of Education Retirement System  
Commitments By Vintage Year  
As of March 31, 2014**



Funded Commitments exclude additional fees.

Unfunded Commitments include recallable returns of capital.

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## Section 4:

### Funds-of-Funds Review

# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Mesirow Financial Private Equity Partnership Fund III, L.P.

#### Fund Overview

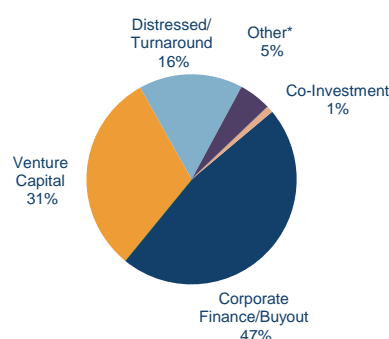
The Partnership, a 2005 vintage year Partnership, was formed on April 6, 2005 with the intent of investing capital in various private equity limited partnerships. As of March 31, 2014, the Partnership has invested in 40 underlying funds.

#### Partnership Summary

NYC Board of Education Retirement System committed \$57.0 million to the Mesirow Financial Private Equity Partnership Fund III, L.P. and as of March 31, 2014, has generated a 8.70% IRR and a Total Value Multiple of 1.52x from its investment. The Partnership is well diversified strategically.

Performance Summary			
\$ millions	12/31/2013	3/31/2014	Change
Capital Commitment	\$57.0	\$57.0	\$0.0
Unfunded Commitment	\$5.1	\$4.0	(\$1.1)
Capital Contributed	\$52.2	\$53.4	\$1.2
Capital Distributed	\$25.0	\$29.0	\$4.0
Market Value	\$52.6	\$52.2	(\$0.4)
Total Value Multiple	1.49x	1.52x	0.03x
Since Inception IRR	8.32%	8.70%	38bps

**Strategic Diversification  
by Exposed Market Value  
As of March 31, 2014**



Time Horizon Performance				
6-Month IRR	1-Year IRR	3-Year IRR	5-Year IRR	Since-Inception IRR
12.22%	24.63%	13.60%	16.71%	8.70%

\*Strategic exposure to 'Other' consists of underlying partnerships for which investment strategies are not disclosed in the quarter end financial statements.

#### Performance Drivers

When compared to global private equity funds of the same vintage, Mesirow Financial Private Equity Partnership Fund III, L.P. is underperforming the upper quartile benchmark<sup>1</sup> by 192 bps and is outperforming the median quartile benchmark<sup>1</sup> by 262 bps on a since inception basis, as of March 31, 2014.

Outperformance of the median quartile benchmark<sup>1</sup> is being driven by seven underlying funds, all of which are being held above a 2.0x total value multiple as of March 31, 2014. The seven underlying partnerships are equally spread across buyout and venture capital strategies and represent roughly 17.6% of underlying commitments.

Underperformance when compared to the upper quartile benchmark<sup>1</sup> is being driven by six underlying funds, all of which are being held below a 1.0x total value multiple as of March 31, 2014. Two of the six funds are European focused, which were established in tough vintage years and have been hurt by exchange rates. These funds represent roughly 15.0% of underlying commitments.

<sup>1</sup>ThomsonOne/Cambridge – Global All Private Equity IRR as of March 31, 2014

# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Mesirow Financial Private Equity Partnership Fund IV, L.P.

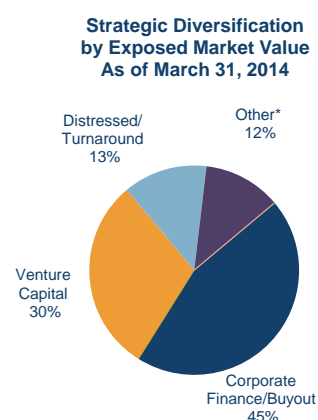
#### Fund Overview

The Partnership, a 2006 vintage year Partnership, was formed on November 21, 2006 with the intent of investing capital in various private equity limited partnerships. As of March 31, 2014, the Partnership has invested in 46 underlying funds.

#### Performance Summary

NYC Board of Education Retirement System committed \$25.0 million to the Mesirow Financial Private Equity Partnership Fund IV, L.P. and as of March 31, 2014, has generated a 9.49% IRR and a Total Value Multiple of 1.37x from its investment. The Partnership is well diversified strategically.

Performance Summary			
\$ millions	12/31/2013	3/31/2014	Change
Capital Commitment	\$25.0	\$25.0	\$0.0
Unfunded Commitment	\$6.8	\$5.0	(\$1.8)
Capital Contributed	\$18.5	\$20.2	\$1.7
Capital Distributed	\$3.3	\$5.8	\$2.5
Market Value	\$21.9	\$21.8	(\$0.1)
Total Value Multiple	1.36x	1.37x	0.01x
Since Inception IRR	9.34%	9.49%	15bps



Time Horizon Performance				
6-Month IRR	1-Year IRR	3-Year IRR	5-Year IRR	Since-Inception IRR
14.81%	23.95%	14.87%	14.86%	9.49%

\*Strategic exposure to 'Other' consists of underlying partnerships for which investment strategies are not disclosed in the quarter end financial statements.

#### Performance Drivers

When compared to global private equity funds of the same vintage, Mesirow Financial Private Equity Partnership Fund IV, L.P. is underperforming the upper quartile benchmark<sup>1</sup> by 137 bps and is outperforming the median quartile benchmark<sup>1</sup> by 274 bps on a since inception basis, as of March 31, 2014.

Outperformance of the median quartile benchmark<sup>1</sup> is being driven by eight underlying funds, all of which are being held above a 2.0x total value multiple as of March 31, 2014. Two of the seven underlying funds are secondary purchases. These seven funds represent roughly 9.8% of underlying commitments.

Underperformance when compared to the upper quartile benchmark<sup>1</sup> is being driven by three underlying funds, all of which are being held at or below a 1.0x total value multiple as of March 31, 2014. One of the three funds is European focused, and was established in a tough vintage year and has been hurt by exchange rates. These three funds represent roughly 5.8% of underlying commitments.

<sup>1</sup>ThomsonOne/Cambridge – Global All Private Equity IRR as of March 31, 2014

# NYC Board of Education Retirement System

## First Quarter 2014 Report

### Mesirow Financial Private Equity Partnership Fund V, L.P.

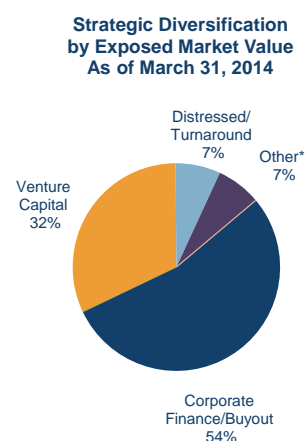
#### Fund Overview

The Partnership, a 2009 vintage year Partnership, was formed on November 5, 2008 with the intent of investing capital in various private equity limited partnerships. As of March 31, 2014, the Partnership has invested in 49 underlying funds.

#### Performance Summary

NYC Board of Education Retirement System committed \$45.0 million to the Mesirow Financial Private Equity Partnership Fund V, L.P. and as of March 31, 2014, has generated a 16.59% IRR and a Total Value Multiple of 1.32x from its investment. The Partnership is well diversified strategically.

Performance Summary			
\$ millions	12/31/2013	3/31/2014	Change
Capital Commitment	\$45.0	\$45.0	\$0.0
Unfunded Commitment	\$23.9	\$23.9	\$0.0
Capital Contributed	\$21.7	\$21.7	\$0.0
Capital Distributed	\$2.0	\$2.0	\$0.0
Market Value	\$25.6	\$26.7	\$1.1
Total Value Multiple	1.27x	1.32x	0.05x
Since Inception IRR	16.31%	16.59%	28bps



Time Horizon Performance				
6-Month IRR	1-Year IRR	3-Year IRR	5-Year IRR	Since-Inception IRR
15.60%	26.00%	16.13%	N/A	16.59%

\*Strategic exposure to 'Other' consists of underlying partnerships for which investment strategies are not disclosed in the quarter end financial statements.

#### Performance Drivers

When compared to global private equity funds of the same vintage, Mesirow Financial Private Equity Partnership Fund V, L.P. is underperforming the upper quartile benchmark<sup>1</sup> by 371 bps and is outperforming the median quartile benchmark<sup>1</sup> by 258 bps on a since inception basis, as of March 31, 2014.

Outperformance of the median quartile benchmark<sup>1</sup> is being driven by five underlying funds, all of which are being held above a 2.0x total value multiple as of March 31, 2014. Three of the five underlying funds are secondary purchases. These five funds represent roughly 6.1% of underlying commitments.

Underperformance when compared to the upper quartile benchmark<sup>1</sup> is being driven by six underlying funds, all of which are being held at or below a 1.0x total value multiple as of March 31, 2014. The six funds, which represent roughly 14.6% of underlying commitments, are all recent additions to the underlying portfolio.

<sup>1</sup>ThomsonOne/Cambridge – Global All Private Equity IRR as of March 31, 2014

# NYC Board of Education Retirement System

## First Quarter 2014 Report

### New York Fairview Private Equity Fund, L.P.

#### Fund Overview

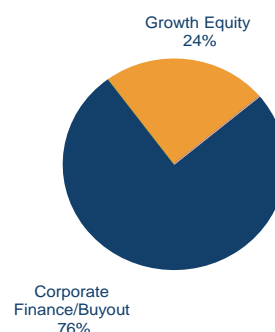
The Partnership, a 2006 vintage year Partnership, was formed on May 22, 2006 with the intent of investing in emerging private equity funds with aggregate capital commitments of no more than \$300million. As of March 31, 2014, the Partnership has invested in 6 underlying funds.

#### Performance Summary

NYC Board of Education Retirement System committed \$19.0 million to the New York Fairview Private Equity Fund, L.P. and as of March 31, 2014 has generated a 6.29% IRR and a Total Value Multiple of 1.29x from its investment. The Partnership is heavily weighted towards Corporate Finance/Buyout, with roughly 76% of the underlying funds exposed market value attributable to this sector.

Performance Summary			
\$ millions	12/31/2013	3/31/2014	Change
Capital Commitment	\$19.0	\$19.0	\$0.0
Unfunded Commitment	\$3.2	\$3.2	\$0.0
Capital Contributed	\$15.8	\$15.8	\$0.0
Capital Distributed	\$6.7	\$7.4	\$0.7
Market Value	\$13.4	\$13.0	(\$0.4)
Total Value Multiple	1.27x	1.29x	0.02x
Since Inception IRR	6.29%	6.29%	0 bps

**Strategic Diversification  
by Exposed Market Value  
As of March 31, 2014**



Time Horizon Performance				
6-Month IRR	1-Year IRR	3-Year IRR	5-Year IRR	Since-Inception IRR
8.40%	12.00%	10.25%	10.01%	6.29%

#### Performance Drivers

When compared to global private equity funds of the same vintage, New York Fairview Private Equity Fund, L.P. is underperforming both the upper quartile benchmark<sup>1</sup> and median quartile benchmark<sup>1</sup> by 457 bps and 46 bps, respectively, on a since inception basis, as of March 31, 2014.

Underlying fund performance has been mixed, with two funds performing well and being held at or above a 2.0x total value multiple. These two funds represent roughly 33.3% of the total underlying commitments. The four remaining underlying funds are not performing as well and are being held at a 1.4x total value multiple or lower as of March 31, 2014.

<sup>1</sup>ThomsonOne/Cambridge – Global All Private Equity IRR as of March 31, 2014

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# Appendix A:

## Glossary of Terms



# NYC Board of Education Retirement System

## First Quarter 2014 Report

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**Additional Fees:** The amount of capital an investor pays into a fund/investment that does not count against the investors' commitment. Additional fees typically consist of management fees or late-closing interest expense.

**Capital Committed:** An investor's financial obligation to provide a set amount of capital to the investment.

**Capital Contributed:** Capital contributed from an investor's capital commitment to fund partnership investments, organizational expenses and management fees.

**Capital Distributed:** Cash or stock disbursed to the investors of an investment.

**Co/Direct Investment:** A direct investment is a purchased interest of an operating company. A co-investment is a direct investment made alongside a partnership.

**Corporate Finance/Buyout:** Funds seeking to make controlling and non-controlling investments in established companies which have the potential to achieve greater value through improved performance.

**Cost Basis:** Capital contributions less return of principal.

**Fund-of-Funds:** An investment vehicle which invests in other private equity partnerships.

**Fund/Investment Size:** The total amount of capital committed by investors to a fund.

**Investment Category:** Used to identify investments in one of the following categories: co/direct investments, fund-of-funds, primary funds, secondary fund-of-funds or secondary purchases.

**Investment Strategy:** A sub-classification of a partnership's investment type, such as Co/Direct Investment, Corporate Finance/Buyout, Mezzanine, Real Estate, Special Situation, Venture Capital.

**Life Cycle Period:** The current stage of a partnership depending on the percentage contributed to date. Life cycle periods are investment and realization.

**Mezzanine:** An investment strategy involving the purchase of subordinated debt. These securities exist between the senior debt and equity of a holding's capital structure. Subordinated debt carries a lower level of risk than pure equity structures because they generate current income and have a more senior position in the company's capital structure.

**Net Internal Rate Of Return ("IRR"):** The discount rate that equates the net present value of the partnership's cash outflows with its inflows and residual value at the time of calculation. The calculation is net of management fees and the general partner's carried interest.

**Originator:** The institution responsible for recommending a client commit to an investment.

**Ownership Percentage:** The investor's percent of ownership as measured by capital committed divided by fund/investment size.

**Paid-In Capital:** The amount of capital an investor has contributed to a partnership, which includes capital contributions and additional fees.

# NYC Board of Education Retirement System

## First Quarter 2014 Report

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**Pooled Average IRR:** An IRR calculation which aggregates cash flows (paid-in capital and capital distributed) and the reported market values of each investment within a portfolio to create one portfolio investment and return.

**Portfolio Holding Exposure:** The limited partner's pro rata allocation to an underlying investment based on the ownership percentage of the partnership.

**Primary Fund:** Defines when the investor acquired an interest in the partnership. Primary fund is the investment category when an investor participates in a closing at the inception of the partnership.

**Private Equity Partnership:** A professionally managed pool of capital that generally invests in unlisted companies or securities. Common investment strategies include corporate finance/buyout, mezzanine, special situations and venture capital.

**Realized Multiple:** Ratio of cumulative distributions to paid-in capital.

**Return On Investment ("ROI"):** A calculation based on the total value (market value plus distributions) divided by paid-in capital for an investment.

**Reported Market Value:** The investment's capital account balance at quarter end, which includes the general partner's reported value of the underlying holdings and other assets and liabilities.

**Secondary Fund-of-Funds:** A private equity vehicle formed to purchase active partnership interests from an investor.

**Secondary Purchase:** A purchase of an existing partnership interest or pool of partnership interests from an investor.

**Special Situation:** Partnerships that invest using a unique strategy. Examples include distressed and turnaround, industry focused and multi-stage partnerships.

**Total Exposure:** Calculated by the summation of market value and unfunded commitments.

**Venture Capital:** An investment strategy that provides start-up or growth capital to companies in the early stages of development. Venture investments generally involve a greater degree of risk, but have the potential for higher returns.

**Vintage Year:** The year in which a partnership makes its first capital call for an investment into a portfolio company/holding.

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## Appendix B:

### Disclosure Statements

## NYC Board of Education Retirement System

### First Quarter 2014 Report

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Non-public information contained in this report is confidential and intended solely for dissemination to NYC Board of Education Retirement System and/or its Affiliates. Hamilton Lane has prepared this report to enable NYC Board of Education Retirement System and/or its Affiliates to assess the performance and status of its alternative investment portfolio. Hamilton Lane hereby disclaims any liability resulting from any unauthorized dissemination of the attached information.

The information contained in this report may include forward-looking statements regarding the funds presented or their portfolio companies. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the funds or the portfolio companies, which may result in material differences in actual results, performance or other expectations. The information presented is not a complete analysis of every material fact concerning each fund or each company. The opinions, estimates and analyses reflect our current judgment, which may change in the future.

All opinions, estimates and forecasts of future performance or other events contained herein are based on information available to Hamilton Lane as of the date of this presentation and are subject to change. Past performance of the investments described herein is not indicative of future results. Certain of the information included in this presentation has not been reviewed or audited by independent public accountants. Certain information included herein has been obtained from sources that Hamilton Lane believes to be reliable but the accuracy of such information cannot be guaranteed.

The past performance information contained in this report is not necessarily indicative of future results and there is no assurance that the funds will achieve comparable results or that they will be able to implement their investment strategy or achieve their investment objectives. The actual realized value of currently unrealized investments will depend on a variety of factors, including future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of sale, all of which may differ from the assumptions and circumstances on which the current unrealized valuations are based.

Any tables, graphs or charts relating to past performance included in this report are intended only to illustrate the performance of the funds or the portfolio companies referred to for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.

## Real Assets Quarterly Report:

# The New York City Board of Education Retirement System

## Executive Summary: First Quarter 2014 Performance Measurement Report Real Estate

### Portfolio Profile

The New York City Board of Education Retirement System has allocated 7.0% (+/- 2%) of the total plan to Real Assets. Real Estate investments are categorized under Real Assets. The Real Estate Portfolio's objective is to generate a total net return that exceeds the NFI-ODCE +100 bps total net return measured over full market cycles.

### Portfolio Statistics (March 31, 2014)

Total Plan Assets	\$4.0 billion
Target Real Assets Allocation (%)	7%
Target Real Assets Allocation (\$)	\$280.3 million
Total Real Estate Market Value	\$109.3 million
Real Estate Unfunded Commitments	\$75.1 million
Total Real Estate Exposure	\$184.4 million
Number of Investments	8
Number of Managers	8

### Net Returns (as of March 31, 2014)

1Q14 Time-Weighted Net Return:	4.2%
1 Year Time Weighted Net Return:	13.3%
3 Year Time Weighted Net Return:	10.9%
Inception-to-Date (ITD) Time-Weighted:	6.8%
ITD Net IRR:	11.0%
ITD Net Equity Multiple:	1.2x

### Investment Guidelines

Style Sector:	Target •40-60% Core/Core Plus •40-60% Non-Core
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Benchmark	NFI-ODCE Index +100 bps net over full market cycles
Region Diversification	Maximum 25% Int'l
Investment Diversification	Limit 15% to a single investment
Manager Diversification	Limit 15% to a single manager
Leverage	65%

### First Quarter Investment Activity

During the Quarter, the Board made a \$15.0 million commitment to a core open-end fund and a \$25.0 million commitment to a domestic opportunistic fund. Subsequent to Quarter-end, both transactions closed.

### OVERVIEW

Real GDP was revised down to -1.0% in the first three months of 2014, though it is expected to reach 3.3% for the full year and grow by 4.0% in 2015. Employment gains continue to drive the economy forward with 192,000 jobs created in March 2014, although the unemployment rate remained at 6.7%. Consumer credit surged in March (up 5.4% annualized) suggesting renewed consumer optimism, although revolving credit has been slow to recover with quarterly growth of 0.1% since April 2011.

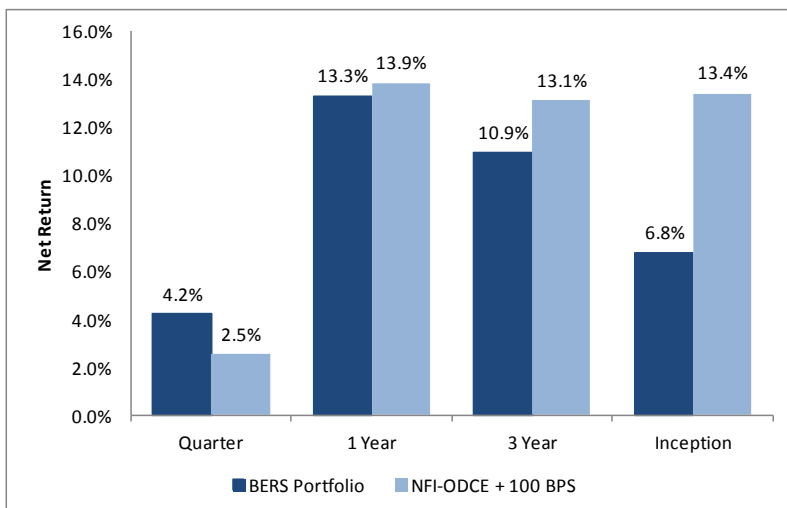
In real estate, the debt markets experienced a continuous rise in liquidity, driven by an improving CMBS market and support from both alternative and balance sheet lenders who are contributing to the rise in transaction volumes. Exiting a harsh winter across the U.S., March data has revealed large rebounds in vehicle sales, retail sales, manufacturing output and employment gains. The Market Update section of this report provides additional information on global real estate conditions.

### Direct Commercial Real Estate Volumes, 2013

\$ US Billions	% Change Q4 13 - Q1 14				% Change Q1 13 - Q1 14			% Change 2012 - 2013
	Q4 13	Q1 14	Q1 14	Q1 13	Q1 14	2012	2013	2013
Americas	88	62	-30%	38	63%	204	241	18%
EMEA	85	51	-40%	43	19%	161	220	37%
Asia Pacific	37	23	-38%	27	-15%	98	127	30%
Total	210	136	-35%	108	26%	463	588	27%

Source: Jones Lang LaSalle

The New York City Board of Education Retirement System ("NYCBERS") Real Estate Portfolio is well positioned to take advantage of conditions in the real estate marketplace and has been an active investor in the most recent vintage years. At the end of the First Quarter 2014, the Portfolio achieved a total gross return of 4.5% which was comprised of 1.2% income and 3.3% appreciation. The net return for the Quarter was 4.2%. A detailed analysis of the Portfolios real estate performance is found later in this Executive Summary.



# The New York City Board of Education Retirement System

## Executive Summary: First Quarter 2014 Performance Measurement Report Real Estate

### FUNDING AND COMPOSITION

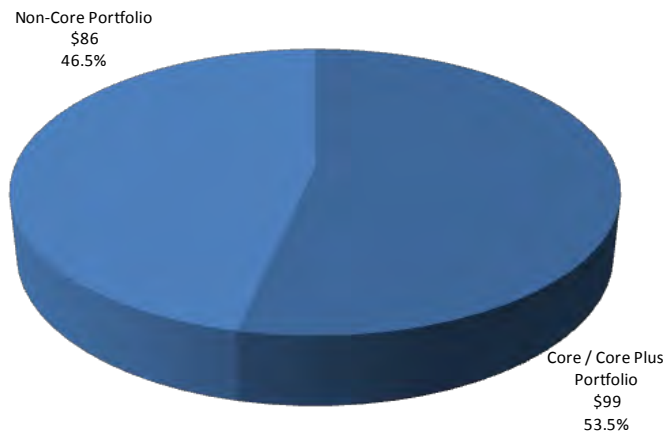
At the end of the First Quarter, the Portfolio was funded at \$109.3 million, or 2.7% of total plan assets. A total of \$75.1 million in unfunded commitments are still outstanding. Unfunded commitments are down from \$80.4 million as of Fourth Quarter 2013. However, new commitment activity has accelerated over the past several months and the trend will continue throughout 2014.

New contributions for the Quarter totaled \$7.9 million, offset by \$2.4 million in distributions and withdrawals. Distributions were weighted to the Non-Core sector.

Shown in the pie chart to the right is the current risk sector exposure calculated by Market Value + Unfunded Commitments. The Core/ Core Plus component accounts for 53.5% of the Portfolio exposure during the Quarter. The Non-Core component accounts for 46.5% of the Portfolio exposure.

A more detailed break-down of the Portfolio Composition is shown in the table below. Attached as Exhibit A is a matrix which demonstrates compliance with various Investment Policy Statement guidelines.

### Real Estate Exposure



### New York City Board of Education Retirement System

Total Plan Assets	3/31/2014	\$4,004
Real Assets Allocation (%)		7.0%
Real Assets Allocation (\$)		\$280

### Style Sector Allocation

Core / Core Plus Portfolio	40.0%	\$112
Non-Core Portfolio	60.0%	\$168
Uncommitted Core / Core Plus Portfolio		(\$2)
Uncommitted Non-Core Portfolio		\$82

### Funded (Market Value) and Committed Statistics

Core / Core Plus Portfolio	57.0%
Non-Core Portfolio	43.0%
\$ Committed	\$199
% Committed on Real Estate Allocation	55.5%
% Committed on Total Plan Assets	3.9%

### Funded (Market Value) Statistics

% Funded (Market Value) of Total Plan Assets	2.7%
% Funded (Market Value) of Total Real Estate Allocation	39.0%

### PERFORMANCE

During the Quarter under review, the NYCBERS Real Estate Portfolio produced a 4.5% total gross return. The total net return for the Quarter was 4.2%. On a rolling one-year basis the total gross return of 14.7% was recorded. On a net basis the total return was 13.3%. The benchmark return contemplates a 100 bps premium over the ODCE net return over full market cycles. This benchmark is not meaningful at this point in time as the NYCBERS Portfolio is in its infancy. The various components of the Portfolio returns are depicted in the chart below.

#### Core/Core Plus

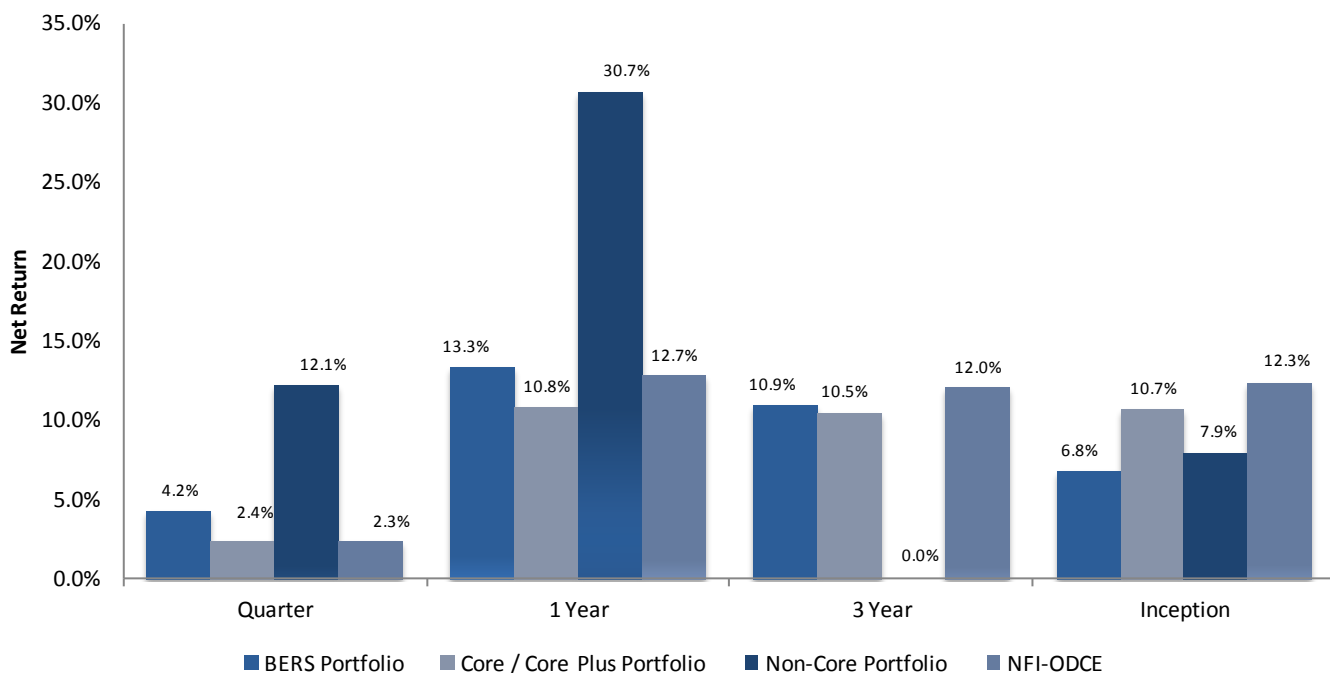
As of March 31, 2014 the market value of the Core/ Core Plus Portfolio was \$86.5 million, or 79.1% on an invested basis. On a funded and committed basis, the Core/ Core Plus Portfolio totaled \$98.6 million, or 53.5% of the total Portfolio. The Core/ Core plus Portfolio generated a 2.6% total gross return for the Quarter comprised of 1.3% in income and 1.3% in appreciation. The total net return for the Quarter was 2.4%.

The Core/Core Plus Portfolio achieved a 10.8% net return over the one-year period ending March 31, 2014 and has achieved a 10.7% net return since the inception of the Core/ Core Plus Portfolio in 2011.

#### Non-Core

As of March 31, 2014 the market value of the Non-Core Portfolio was \$22.8 million, or 20.9% on an invested basis. On a funded and committed basis, the Non-Core Portfolio totaled \$85.8 million, or 46.5% of the total Portfolio. The Non-Core Portfolio generated a 12.8% total gross return for the Quarter comprised of 0.8% in income and 12.0% in appreciation. The total net return for the Quarter was 12.1%.

The Non-Core Portfolio achieved a 26.4% net return over the one-year period ending March 31, 2014 and has achieved a 7.9% net return since the inception of the Non-Core Portfolio in 2011.





## PERFORMANCE

### Portfolio Performance

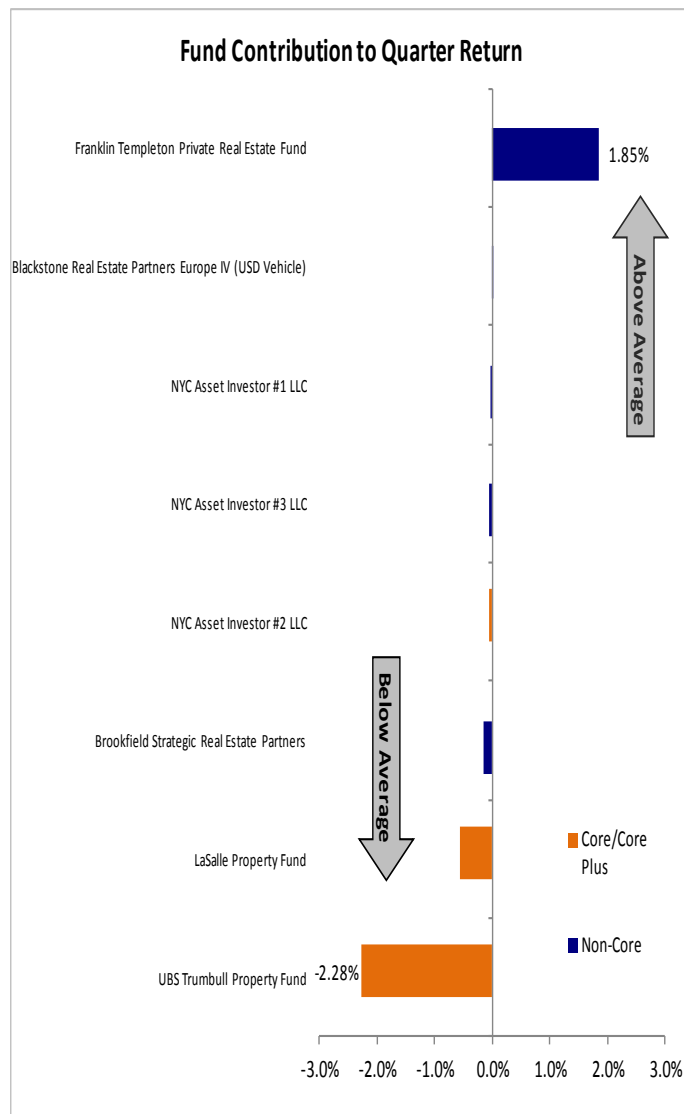
At the end of the First Quarter 2014, the Portfolio had a cumulative market value of \$109.3 million. Total market value plus unfunded commitments was \$184.4 million, or 55.5% of the real estate allocation. During the Quarter, the Portfolio achieved a total gross return of % which was comprised of 1.2% income and 3.3% appreciation. The Portfolio achieved a total net return of 4.2%. Since inception, the Portfolio has a net IRR of 11.0% and an equity multiple of 1.2x as of March 31, 2014. Note, attached as Exhibit B are performance metrics relating to each investment within the Portfolio.

The Quarterly return was driven by Franklin Templeton Private Real Estate Fund, which contributed 1.85% to the overall performance. The primary laggard in the Portfolio was UBS Trumbull Property Fund, which detracted (2.28%). Brief reviews of the Funds in the Portfolio are found below. Note, that attached as Exhibit C is a chart relating to fund contributions to returns over the one-year period.

**Franklin Templeton Private Real Estate Fund (FTPREF).** The Fund's total gross return for the Quarter was 25.4% comprised of 1.4% in income and 24.0% in appreciation. The net return after fees was 24.8%. Through March 31, 2014, the Fund has closed 11 investments. The Fund is approximately 80% committed to underlying funds and co-investments. On a committed basis, the Fund's geographic diversification is 40% domestic, 22% Europe and 38% Asia. The Fund's GreenOak Japan investment closed on a signification realization in April 2014. GreenOak sold seven of its nine existing properties, resulting in a gross IRR of over 100% and a 2.3x gross equity multiple.

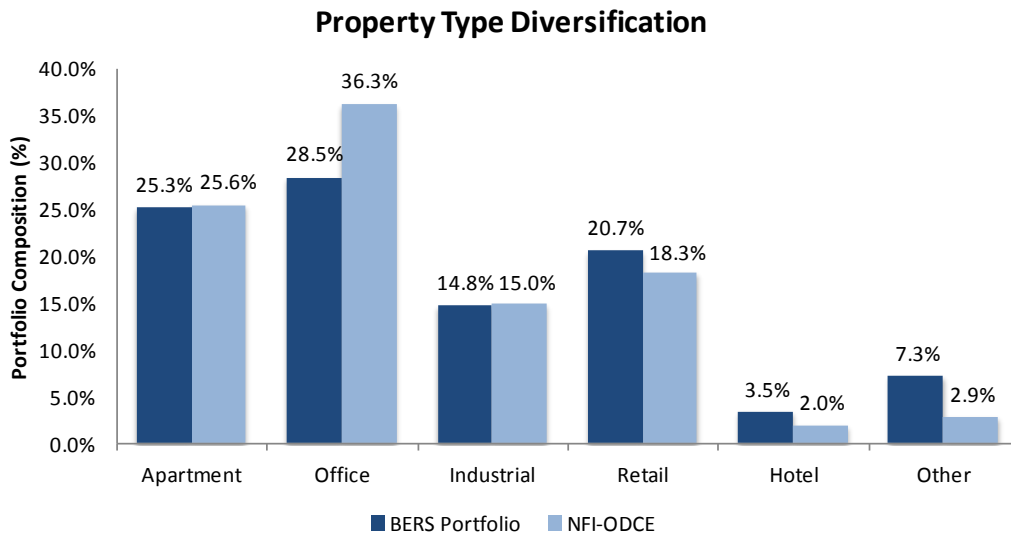
**Blackstone Real Estate Partners Europe IV (BREP Europe IV).** BREP Europe IV had a total gross return of 5.9% comprised solely of appreciation. The net return after fees was 4.8%. As of March 31, 2014, the Fund has invested/committed nearly €2.8 billion of equity, representing approximately 56% of the Fund's available capital. The Fund's portfolio increased in value by €81.5 million or 7.5% (including currency adjustments). Since the commencement of the Fund, BREP Europe IV has closed on or committed to over 32 transactions across the region.

**NYC Asset Investor #1 LLC (Emmes).** The Fund's total gross return for the Quarter was 3.5% comprised of 1.0% in income and 2.4% in appreciation. The net return after fees was 3.2%. The Fund currently consists of two assets; 833 Flatbush, which was valued at \$18.3 million as of December 31, 2013; and The BX4 Portfolio, which was valued at the \$49.6 million. Located in Brooklyn, New York, 833 Flatbush consists of eight retail units which are 92% leased. The Fund is expecting to benefit from the property's cash flows, appreciation, and further lease-up of the two vacant spaces. The BX4 Portfolio is a mixed-use portfolio comprised of five Bronx buildings. The portfolio was acquired in December 2013, and required \$51.3 million in total initial funding.



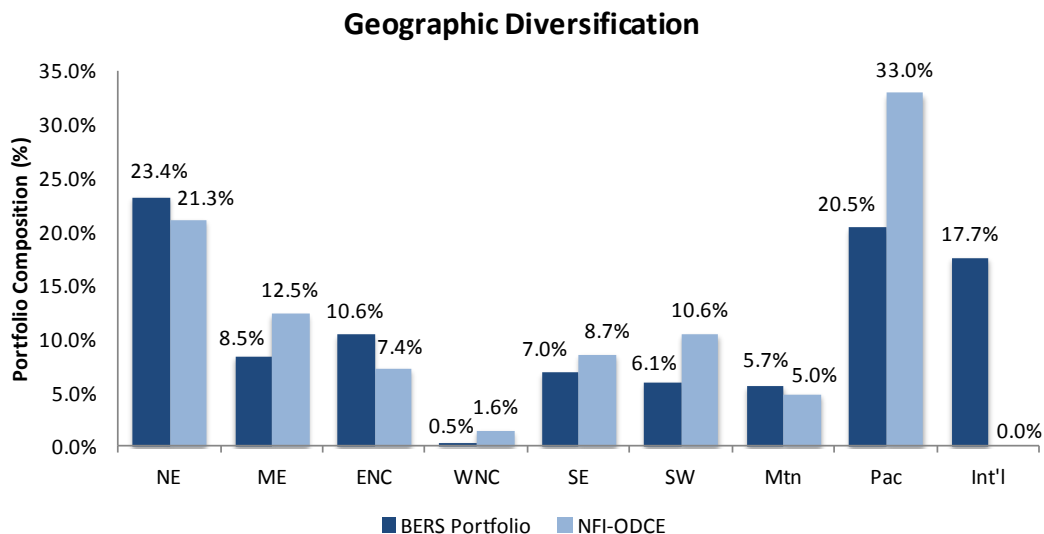
### PROPERTY TYPE DIVERSIFICATION

The diversification of the current Portfolio by property type is shown below and compared to the diversification of the NCREIF-ODCE at the end of the Quarter. The Portfolio is in line with all property sectors relative to the ODCE, with a slight underweight to Office and a slight overweight to Retail, Hotel and Other.



### GEOGRAPHIC DIVERSIFICATION

The diversification of the current funded Portfolio by geographic region is shown below and compared to the diversification of the NFI-ODCE at the end of the Quarter. The ODCE is a US-only index. The domestic portion of the Portfolio is well diversified relative to the ODCE with a slight overweight to the Northeast and East North Central and a slight underweight to the Mideast, Southeast, Southwest and Pacific. The 17.7% international exposure is appropriate for the risk and return profile of NYCBERS and consistent with our long-term target.



## MARKET UPDATE

### Macroeconomic Perspective

In 2014, and for the next few years, we expect all the major regions around the globe to experience growth: growth in the U.S. is likely to accelerate, Europe is moving out of recession, and Abenomics is giving Japan a temporary lift. Growth in the emerging economies of China, India, and Brazil, though still positive, is likely to moderate. Further, global trade has increased and is expected to maintain that trajectory, employment levels are rising, and we expect global consumption to continue to improve.

While the overall global picture appears optimistic, we believe there are pockets of risk that investors need to take into consideration. In the U.S., the recovery is unsteady as labor participation rates are low and the anticipated Fed tapering is renewing risks to economic growth. In Europe, structural reforms are needed to ensure that growth rates remains positive and prevent a return to recession. Further, in Japan, demographic trends continue to be unfavorable, causing an issue for long-term growth. However, some of the biggest risks are lurking in the emerging economies around the world. Concerns are growing for China's slowing growth, and recent weak PMI and GDP growth rates have renewed worries. Most anticipate a soft landing in China; however, such a slowdown could be contagious as the trade links with Australia, Europe, and the U.S. are strong. India and Brazil are dealing with very high inflation rates and structural reforms are needed in these two emerging economies; however, it is unclear whether there is a political will to enact such reforms.

### Real Estate Outlook by Key Global Regions

#### United States

In the U.S., our overarching theme is to invest in order to benefit from continued growth and recovery. We expect positive NOI growth rates across all four major asset classes (Office, Industrial, Retail, and Multifamily). We are mindful of the fact that Core asset values have risen, but believe they are justified given low interest rates and a stable growth outlook. Furthermore, we believe that there are many areas where Value - Added opportunities are mispriced. We caution investors to be selective in pursuing such opportunities and limit themselves to markets and sub-markets with good growth and demand drivers.

#### Europe

Europe is emerging from recession. We believe investment opportunity lies in identifying stress and deep value. Across Europe, with the exception of a few specific regions and property types, real estate valuations are discounted due to limited observed rental growth. Cap rates are higher with the potential to offer double-digit, levered cash yields and low growth. By country, the conditions across Europe differ: UK is growing at over 2%, Germany's growth is healthy, France seems to be limping along, and Italy is now emerging from recession. As such, real estate investment opportunities vary by country and region. In the UK, rents and occupancies are rising, correspondingly, investors are paying higher valuations (or lower cap rates) to acquire assets. In Germany, occupancy is rising, but rental growth has been flat. We expect that to change and find the lower valuation (or higher cap rates) to be an attractive entry point. In France, occupancy declines have stopped, though investors will need to wait to see real estate incomes rise.

#### Asia

In Asia, the dominant investment opportunity is real estate development linked to the urbanization of China; however, investors need to be very selective. There are select pockets of overbuilding mostly resulting from slower growth. Even though demand is high, supply is even higher. In certain locations and asset classes, developers were expecting greater growth in demand. Since there is very limited stock of good quality finished assets for ownership, we expect Core assets to deliver low but stable returns. Overall, global investors need to be very disciplined and selective on real estate opportunities. Most of the asset value appreciation in Core assets has already taken place. Going forward, rent growth will drive capital returns which are important for low-yielding Core assets. While Non-Core investments offer a higher cash yield, investors need to be able to discern between those locations and property types where income may remain flat or even decline, versus those that offer positive growth. We recommend a global well-diversified portfolio and a combination of income-producing Core strategies, coupled with higher growth Non-Core investments.

# The New York City Board of Education Retirement System

Executive Summary: First Quarter 2014 Performance Measurement Report  
Real Estate

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## EXHIBIT A: COMPLIANCE MATRIX

Category	Requirement	Portfolio Status
Benchmark	NFI-ODCE (net) +100 bps over full market cycles (10-year)	N/A
Portfolio Composition	Core/Core Plus (minimum of 40%)	The portfolio is funded (market value) and committed at 55.5% of real asset allocation with a portfolio composition of 57.0% core and 43.0% non-core.
	Non Core (minimum of 60%)	
Real Asset Allocation	Target of 7.0%	Funded (market value) and committed dollars place the portfolio at 3.9% of total plan assets.
	Currently Funded at 2.7%	
Property Type Diversification	Up to 40% Multifamily Up to 35% Industrial Up to 45% Office Up to 35% Retail Up to 25% Hotel Up to 20% Other	All property type locations are in compliance.
Geographic Diversification	Diversified geographically Max 25% Ex-US	All geographic type locations are in compliance
LTV	65%	Portfolio is in early stages of funding, but is in compliance (30.0 %).
Manager Exposure	15% of real estate allocation	N/A

# The New York City Board of Education Retirement System

## Executive Summary: First Quarter 2014 Performance Measurement Report Real Estate

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### EXHIBIT B: FOIL

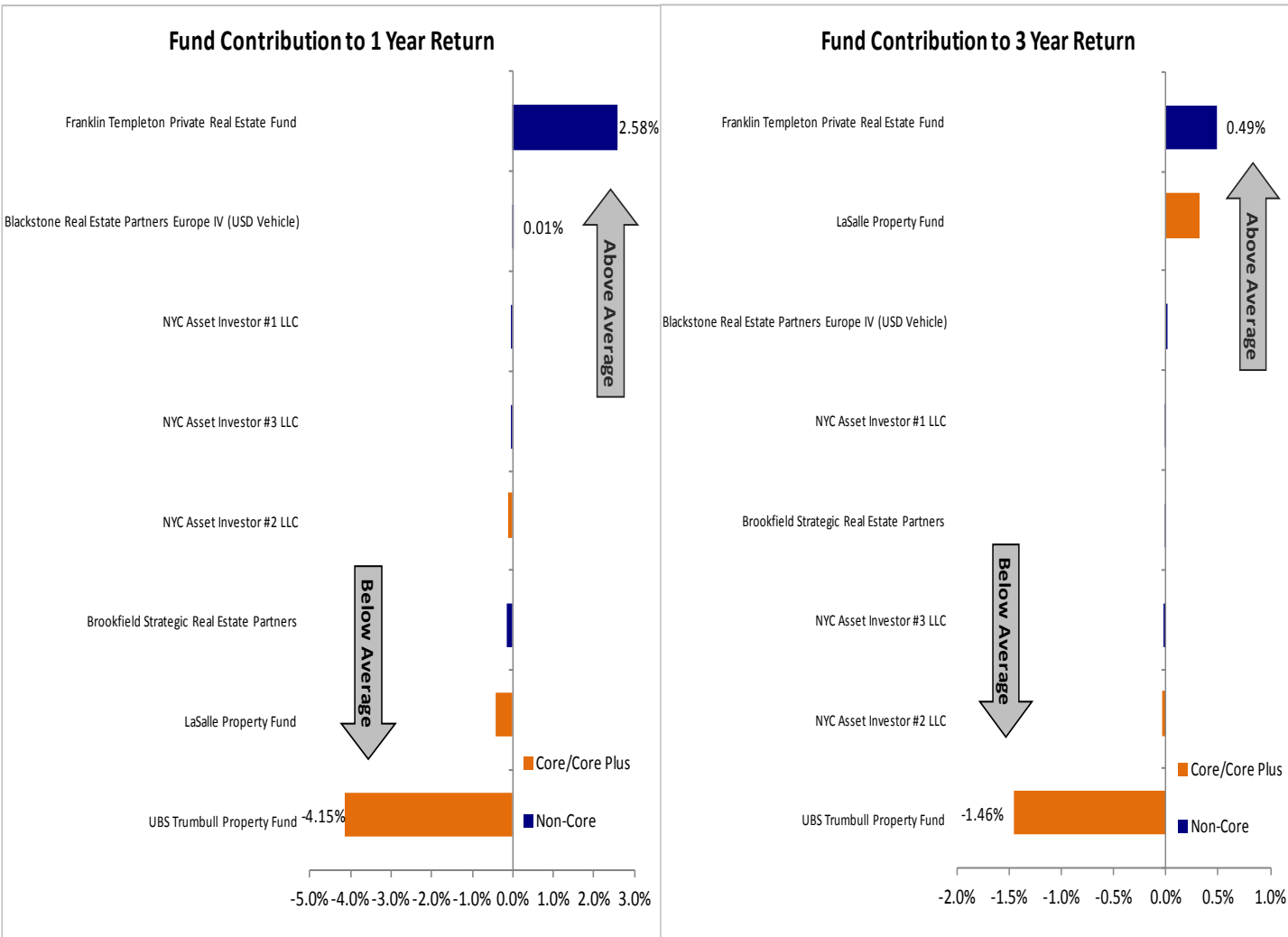
The Townsend Group®

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

Vintage Year	Fund Name	First Draw Down	Capital Committed	Contributions	Distributions	Market Value	Equity Multiple	Net IRR
2011	UBS Trumbull Property Fund	4/1/2011	\$41,400,000	\$48,116,729	(\$5,351,145)	\$56,513,741	1.3	9.9%
2011	LaSalle Property Fund	12/13/2010	\$27,600,000	\$23,139,430	(\$1,984,025)	\$26,664,282	1.2	12.3%
2013	NYC Asset Investor #2 LLC	7/9/2013	\$11,000,000	\$3,378,516	(\$72,900)	\$3,280,775	1.0	-4.8%
<b>Core/Core Plus Portfolio</b>			<b>\$80,000,000</b>	<b>\$74,634,675</b>	<b>(\$7,408,069)</b>	<b>\$86,458,799</b>	<b>1.3</b>	<b>10.4%</b>
2011	Franklin Templeton Private Real Estate Fund	3/31/2011	\$30,000,000	\$10,008,817	(\$2,371,563)	\$10,457,012	1.3	19.1%
2012	Brookfield Strategic Real Estate Partners	9/20/2012	\$10,000,000	\$5,445,701	(\$30,768)	\$5,809,626	1.1	11.0%
2013	NYC Asset Investor #1 LLC	6/25/2013	\$10,000,000	\$1,951,994	\$0	\$1,971,693	1.0	2.2%
2013	NYC Asset Investor #3 LLC	9/20/2013	\$8,000,000	\$634,978	\$0	\$602,700	0.9	-23.9%
2014	Blackstone Real Estate Partners Europe IV (USD Vehicle)	12/23/2013	\$25,000,000	\$3,949,087	(\$153,594)	\$3,952,785	1.0	19.6%
<b>Non-Core Portfolio</b>			<b>\$83,000,000</b>	<b>\$21,990,577</b>	<b>(\$2,555,925)</b>	<b>\$22,793,816</b>	<b>1.2</b>	<b>16.8%</b>
<b>New York City Board of Education Retirement System</b>			<b>\$163,000,000</b>	<b>\$96,625,251</b>	<b>(\$9,963,994)</b>	<b>\$109,252,615</b>	<b>1.2</b>	<b>11.0%</b>

Source: PCG historical cash flow data. TTG cash flow data from Fund Managers, effective 2005. Note: The equity multiples and IRRs contained in this report are interim calculations based upon information provided by the investment managers of the New York City Retirement Systems, including cash flows and quarterly unaudited, or audited, valuations. The IRR calculated in early years of a fund life is not meaningful given the J-curve effect and can be significantly impacted by the timing of cash flows, investment strategy, investment pacing, and fund life. The calculations are not necessarily indicative of total fund performance, which can only be determined after the fund is liquidated and all capital contributed and earnings have been distributed to the investor. All data supplied is as of March 31, 2014. Note: The General Partner of the JPMorgan Urban Renaissance Fund terminated the Fund on February 23, 2010 and all capital contributed, including management fees, was returned to investors.

#### EXHIBIT C : ATTRIBUTION



# The New York City Board of Education Retirement System

## Executive Summary: First Quarter 2014 Performance Measurement Report

### Infrastructure

#### Portfolio Profile

The New York City Board of Education Retirement System has allocated 7.0% (+/- 2%) of the total plan to Real Assets. Infrastructure investments are categorized under Real Assets. The Infrastructure Portfolio's objective is to generate a total net return that exceeds the CPI + 400 bps total net return measured over rolling five-year period.

#### Portfolio Statistics (March 31, 2014)

Total Plan Assets	\$4.0 billion
Target Real Assets Allocation (%)	7%
Target Real Assets Allocation (\$)	\$280.0 million
Total Infrastructure Market Value	\$1.4 million
Infrastructure Unfunded Commitments	\$38.7 million
Total Infrastructure Exposure	\$40.1 million
Number of Investments	3
Number of Managers	3

#### Net Returns (as of March 31, 2014)

1Q14 Time-Weighted Net Return:	9.3%
1 Year Time Weighted Net Return:	N/A
3 Year Time Weighted Net Return:	N/A
Inception-to-Date (ITD) Time-Weighted:	9.3%
ITD Net IRR:	30.1%
ITD Net Equity Multiple:	1.1x

#### Investment Guidelines

Style Sector:	Target • 60-100% Core • 0-40% Non-Core
Benchmark	CPI + 400 bps net over a rolling five year period
Region Diversification	Global
Investment Diversification	Limit 15% to a single investment
Manager Diversification	Limit 10% to a single manager
Leverage	65%

#### First Quarter Investment Activity

During the Quarter, the Board made a \$15.0 million commitment to First Reserve Energy Infrastructure Fund II.

#### OVERVIEW

There is a significant need for private investment in the development and refurbishment of infrastructure on a global basis. Based on industry estimates, approximately \$57 trillion of infrastructure investments are needed globally to keep pace with GDP growth.

The New York City Board of Education Retirement System ("NYCBERS") Infrastructure Portfolio is well positioned to take advantage of conditions in the infrastructure marketplace. NYCBERS has committed \$40 million to three top-tier Infrastructure funds which were approved for investment in Fiscal Year 2014. The current Infrastructure investments are in Core Infrastructure and meet the portfolio construction, strategic objectives and the performance goals as set forth in the Infrastructure Investment Policy Statement. The managers are beginning to draw capital and will invest globally across multiple sectors laying the foundation for a portfolio well-diversified across sectors and geographies.

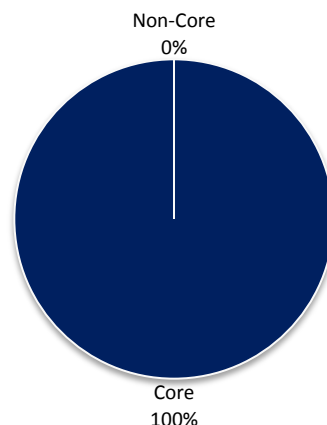
The existing investments in the Portfolio will principally be invested in defensive assets in regulated or highly contracted businesses with reduced economic and demand risk from highly predictable long-term cash flows. At the end of the First Quarter 2014, the Portfolio achieved a total gross return of 11.9% which was comprised of 0.8% income and 11.1% appreciation. The net return for the Quarter was 9.3%.

#### FUNDING AND COMPOSITION

At the end of the First Quarter, the Infrastructure Portfolio was funded at \$1.4 million. A total of \$38.7 million in unfunded commitments are still outstanding. On a funded and committed basis, the Portfolio represents 1.0% of the total plan assets.

Shown in the pie chart below is the current risk sector exposure calculated by Market Values + Unfunded Commitments. The Core component accounts for 100% of the Portfolio exposure during the Quarter.

#### Infrastructure Exposure



# The New York City Board of Education Retirement System

## Executive Summary: First Quarter 2014 Performance Measurement Report Infrastructure

### FUNDING AND COMPOSITION

The Infrastructure Portfolio is mostly unfunded due to the recent formation of the Infrastructure Program. Of the three existing Infrastructure investments, Brookfield Infrastructure Fund II has called capital as of quarter end. We anticipate the pace of drawdown to increase as the newly established relationships with First Reserve Energy Infrastructure Fund II and IFM Global Infrastructure Fund begin to call capital for investments. A more detailed break-down of the Portfolio Composition is shown in the table below. Attached as Exhibit A is a matrix which demonstrates compliance with various Investment Policy Statement guidelines.

New York City Board of Education Retirement System		
Total Plan Assets	3/31/2014	\$4,004
Real Assets Allocation (%)		7.0%
Real Assets Allocation (\$)		\$280
Funded (Market Value) and Committed Statistics - Infrastructure		
Core / Core Plus Portfolio		100.0%
Non-Core Portfolio		0.0%
\$ Committed (MV + Unfunded)		\$40
% Committed on Real Assets Allocation		14.3%
% Committed on Total Plan Assets		1.0%
Funded (Market Value) Statistics		
% Funded (Market Value) of Total Plan Assets		0.0%
% Funded (Market Value) of Total Real Assets Allocation		0.5%

### PORTFOLIO DIVERSIFICATION

The existing Portfolio consists of three investments in Energy (77.2%) and Transportation (22.8%). In the coming years, the Portfolio will be well-diversified by sector and geography as the existing positions are funded.

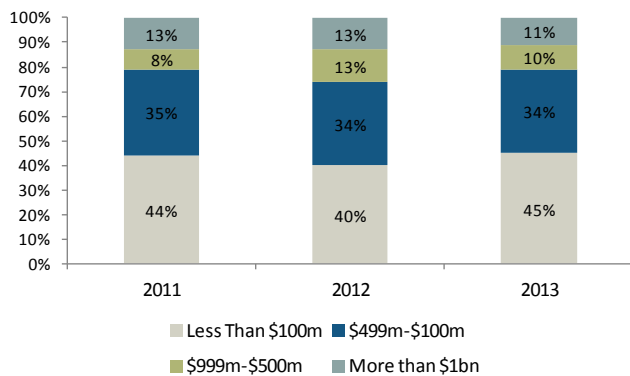


## MARKET UPDATE

### General Market Overview

There was significant Infrastructure M&A activity in 2013 with approximately \$300 billion of transactions completed. Europe (mainly UK) has generated the highest number of transactions. The mid-market segment represented the largest proportion of transactions with approximately 90% of the transactions less than \$1 billion. Developed markets greenfield opportunities (c.30%) typically offer a premium to brownfield. The total number of infrastructure funds has almost tripled in the prior five years.

Breakdown of Infrastructure Deals by Value  
(2011-2012)

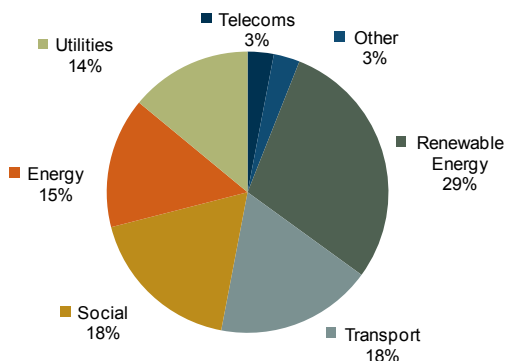


Trends in Unlisted Infrastructure Funds in Market  
(2007-2013)

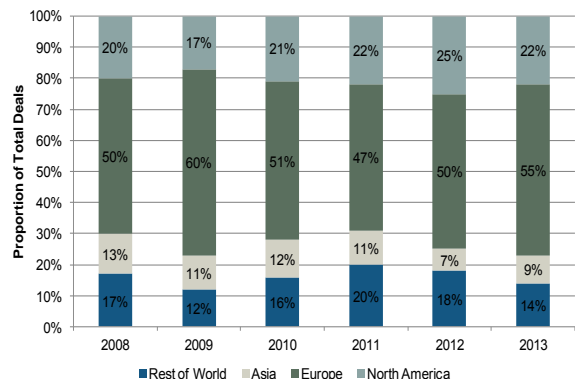


OECD countries have dominated the aggregate capital raised and invested by infrastructure funds over the prior five years. By region, Europe has historically represented the largest number of infrastructure deals. Of recent infrastructure deals completed globally, 70% were Brownfield involving a fully operational asset and 30% were Greenfield projects to design, build and operate infrastructure assets. Brownfield deals dominated the deal mix in the US representing about 90% of the completed deals. Energy and utility assets have historically represented 58% of infrastructure deals globally. Approximately 18% of the infrastructure deals were in transportation

Infrastructure Transactions by Sector  
(2008-2013)



Infrastructure Deal Flow (nr. deals) by Region  
(2008-2013)



### MARKET UPDATE cont.

Increasing activity at ports and airports in the major economies signals a pick-up in economic and trade activity. This has been borne out in the strong recent U.S. economic data and positive news from Europe including the U.K.'s continued strong recovery and a fall in Spanish unemployment.

Due to the current low interest rate environment there continues to be strong competition for established "core" infrastructure assets in developed economies with strong rule of law, keeping valuations high. GDP-linked infrastructure investments such as those in the transportation sector offer an attractive play on the global economic recovery.

Projected annual global energy demand will double between 2000 and 2030, far outstripping the anticipated addition of new generation capacity providing an attractive opportunity for infrastructure investors.

#### North America

There continues to be an increased pressure on developing and replacing US infrastructure, but P3 opportunities have been slow to materialize. An increase in domestic energy production presents a significant investment opportunity to invest in energy (shale and renewables), and energy transmission. US transportation opportunities are expected to increase in the medium term.

Canada has a mature P3 market and established infrastructure debt market. Initiatives by the Federal Government to extend P3 beyond population centres of Ontario and British Columbia. It is estimated that required investment to meet future demand ranges from 6-10x the current level of infrastructure spending.

#### U.K. and Europe

Europe represents the world's most active infrastructure market. The current opportunities result from asset rich, cash-poor governments privatizing state owned assets to reduce public debt. Balance sheet pressures on corporates are forcing strategic asset sales. A significant need for additional and modernized infrastructure remains. Market dynamics are also attractive due to a strong rule of law and transparency which support liquidity.

#### Asia-Pacific

In emerging markets, the demographic "dividend", rapid development, urbanization, a corresponding need for energy and a desire for improvement to living standards through infrastructure drive opportunities. China and India are seeking to invest up to \$1 trillion in infrastructure each by 2017. Sustainability and renewables play a key theme in China and Japan particularly following Fukushima.

Fiscal constraints in Australia are driving a second wave of privatization. Australia is a commodity-rich market which continues to support infrastructure investment case.

#### Latin America & Others

Ambitious government spending plans particularly in Brazil and Mexico require private investment support. Demand for export and transportation infrastructure greatly exceeds supply. Brazil needs to expand transportation infrastructure to break bottleneck to support export-led growth. Government initiatives to increase investment in infrastructure and improving economic and institutional stability in Mexico will provide opportunities to invest.

### EXHIBIT A: COMPLIANCE MATRIX

Category	Requirement	Portfolio Status
Benchmark	CPI + 400 bps net of fees over a rolling 5-year period; total return of at least 6.5%	<i>The Portfolio has generated a 1Q14 net return of 9.3% and is outperforming the benchmark return of 1.4%.</i>
Portfolio Composition	Core Infrastructure (60% - 100%)  Non Core Infrastructure (0% - 40%)	<i>The Infrastructure Portfolio is funded and committed at 14.3% of Real Assets allocation with an infrastructure portfolio composition of 100% to Core Infrastructure.</i>
Real Assets Allocation	Target of 7.0%	<i>Funded (market value) and committed dollars place the Real Assets portfolio at 6.6% of total plan assets.</i>
	Currently Funded at 2.8%	
Asset Type Diversification	Diversified by asset type and revenue driver; the portfolio may include but is not limited to electricity transmission, pipelines, airports, toll roads, communication towers and electric generators, windmills etc.	<i>Projected asset type exposure is in compliance including all recent investments.</i>
Geographic Diversification	Diversified globally	<i>All geographic type locations are in compliance including all recent investments.</i>
LTV	No higher than 65%	<i>Current leverage is 35%.</i>
Manager Exposure	Maximum commitment to a single General Partner is 10% of total real assets program allocation; maximum commitment to a single investment is 15% of a single fund-raise	<i>Manager exposure is within compliance ranges.</i>

## II. July Monthly Performance Review:



# *Monthly Performance Review* *July 2014*

*Prepared for the New York City*  
*Board of Education Retirement System*  
*9.12.2014*



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**MARKET INDICATORS**

	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
S&P 500	(1.38)	3.02	(1.38)	16.94	20.90	16.84	16.79	8.00
S&P 400 MIDCAP	(4.27)	1.46	(4.27)	12.89	22.53	14.96	18.61	10.55
RUSSELL 1000	(1.62)	2.93	(1.62)	17.06	21.56	16.84	17.13	8.40
RUSSELL 2000	(6.05)	(0.26)	(6.05)	8.56	20.95	13.59	16.56	8.78
RUSSELL 3000	(1.97)	2.68	(1.97)	16.37	21.50	16.58	17.08	8.43
RUSSELL 3000 GROWTH	(1.89)	3.30	(1.89)	17.89	20.25	15.86	17.25	8.72
RUSSELL 3000 VALUE	(2.06)	2.05	(2.06)	14.87	22.67	17.24	16.88	8.00
MSCI EAFE NET	(1.97)	0.59	(1.97)	15.07	19.20	7.96	9.40	7.07
MSCI EMF NET	1.93	8.29	1.93	15.32	8.43	0.40	7.34	12.37
MSCI WORLD NET	(1.60)	2.13	(1.60)	15.96	19.54	11.89	12.77	7.43
MSCI EUROPE SMID CAP NET	(4.62)	(4.65)	(4.62)	17.82	25.99	10.43	13.32	9.72
MSCI AC WORLD ex US NET	(0.99)	2.63	(0.99)	15.48	16.22	5.86	8.84	7.96
NYC - TREASURY AGENCY PLUS FIVE	(0.04)	1.72	(0.04)	4.53	(1.45)	4.44	5.71	6.04
CITIGROUP MORTGAGE	(0.56)	0.90	(0.56)	4.05	1.00	2.29	3.68	4.84
NYC - INVESTMENT GRADE CREDIT	(0.11)	1.41	(0.11)	6.39	2.69	4.97	6.68	5.55
NYC - CORE PLUS FIVE	(0.27)	1.27	(0.27)	5.15	1.21	3.83	5.23	5.47
CITIGROUP BROAD INVESTMENT GRADE	(0.25)	0.95	(0.25)	3.94	0.98	3.05	4.38	4.92
BARCLAYS AGGREGATE	(0.25)	0.94	(0.25)	3.97	0.99	3.04	4.47	4.80
CITIGROUP BB & B	(1.31)	0.33	(1.31)	7.56	7.77	8.16	10.88	7.20
BofA ML HIGH YIELD MASTER II	(1.32)	0.51	(1.32)	8.28	8.90	8.34	12.28	8.62
CSFB LEVERAGED LOAN	(0.04)	1.18	(0.04)	4.95	6.34	5.61	7.90	4.99



**MARKET INDICATORS**

	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
BARCLAYS GLOBAL US TIPS	0.03	2.45	0.03	3.71	(1.19)	2.25	5.54	5.15
BofA ML ALL CONVERTIBLES EX MANDATORY	(1.98)	3.15	(1.98)	17.21	19.57	13.05	14.63	8.00
DJ US SELECT REAL ESTATE	0.18	3.55	0.18	12.61	9.53	10.64	21.36	9.28
NCREIF NFI - ODCE NET*	0.00	2.69	0.00	11.74	11.41	11.38	8.97	6.15
CPI + 4%	0.42	1.69	0.42					
91 DAY TREASURY BILL	0.00	0.01	0.00	0.05	0.08	0.08	0.11	1.64

\*NCREIF NFI - ODCE NET index return calculated on a quarterly basis





**MARKET INDICATORS**

	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
S&P 500	4.00	4.69	2.57	25.25	21.93	20.61	16.88	8.38
S&P 400 MIDCAP	5.08	4.75	0.59	23.25	23.48	19.79	18.77	11.13
RUSSELL 1000	4.13	4.78	2.45	25.36	22.57	20.80	17.24	8.78
RUSSELL 2000	4.96	3.85	(1.39)	17.68	21.90	19.00	17.03	9.36
RUSSELL 3000	4.20	4.70	2.14	24.74	22.51	20.65	17.22	8.83
RUSSELL 3000 GROWTH	4.66	5.01	2.68	25.56	21.36	19.89	17.86	9.29
RUSSELL 3000 VALUE	3.73	4.39	1.60	23.92	23.56	21.35	16.55	8.25
MSCI EAFE NET	(0.15)	(1.17)	(2.12)	16.43	17.54	11.36	8.21	7.01
MSCI EMF NET	2.25	7.00	4.23	19.98	9.83	4.35	7.90	12.16
MSCI WORLD NET	2.20	2.37	0.57	21.10	19.35	15.48	12.35	7.62
MSCI EUROPE SMID CAP NET	(0.01)	(5.35)	(4.62)	18.22	23.20	14.29	11.53	9.71
MSCI AC WORLD ex US NET	0.55	1.23	(0.45)	17.75	15.34	9.27	8.17	7.93
NYC - TREASURY AGENCY PLUS FIVE	2.28	2.03	2.23	7.87	(0.17)	3.39	5.91	5.95
CITIGROUP MORTGAGE	0.90	0.61	0.33	5.32	1.40	2.16	3.72	4.76
NYC - INVESTMENT GRADE CREDIT	1.43	1.40	1.32	8.71	3.27	5.35	6.59	5.45
NYC - CORE PLUS FIVE	1.39	1.22	1.11	7.25	1.87	3.68	5.27	5.38
CITIGROUP BROAD INVESTMENT GRADE	1.11	0.91	0.86	5.62	1.50	2.90	4.39	4.83
BARCLAYS AGGREGATE	1.10	0.90	0.85	5.66	1.51	2.91	4.48	4.72
CITIGROUP BB & B	1.68	1.07	0.35	10.21	8.11	9.99	11.13	7.18
BofA ML HIGH YIELD MASTER II	1.52	1.02	0.18	10.62	9.07	10.38	12.17	8.58
CSFB LEVERAGED LOAN	0.23	0.79	0.19	5.15	5.90	7.20	7.47	4.99

\*NCREIF NFI - ODCE NET index return calculated on a quarterly basis

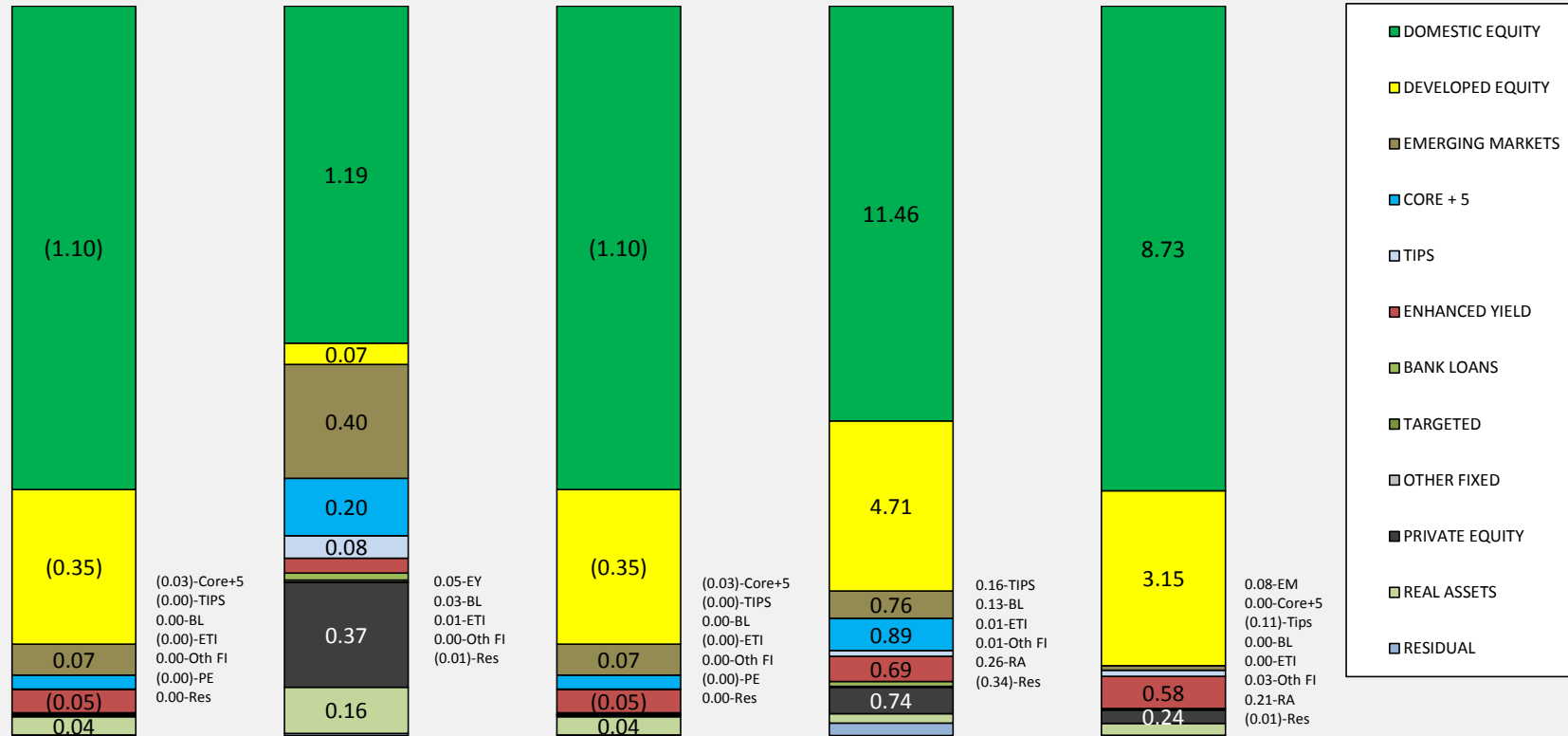


## MARKET INDICATORS

	<u>1 Month</u>	<u>3 Month</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
BARCLAYS GLOBAL US TIPS	0.44	0.77	0.47	5.70	(0.83)	2.12	5.45	4.92
BofA ML ALL CONVERTIBLES EX MANDATORY	3.59	4.39	1.54	22.81	20.41	16.49	14.69	8.37
DJ US SELECT REAL ESTATE	2.82	3.92	3.01	24.25	11.20	13.86	18.72	8.76
NCREIF NFI - ODCE NET*	0.00	2.69	0.00	11.74	11.41	11.38	8.97	6.15
CPI + 4%								
91 DAY TREASURY BILL	0.00	0.01	0.01	0.05	0.08	0.07	0.10	1.62

\*NCREIF NFI - ODCE NET index return calculated on a quarterly basis

## NYC Board of Education Retirement System Contribution to Return - July 2014



1 Month - Total Fund  
Return: (1.42)%

3 Months - Total Fund  
Return: 2.55%

FYTD - Total Fund  
Return: (1.42)%

FY Ending 6/30/14 Total  
Return: 19.47%

FY Ending 6/30/13  
Return: 12.90%

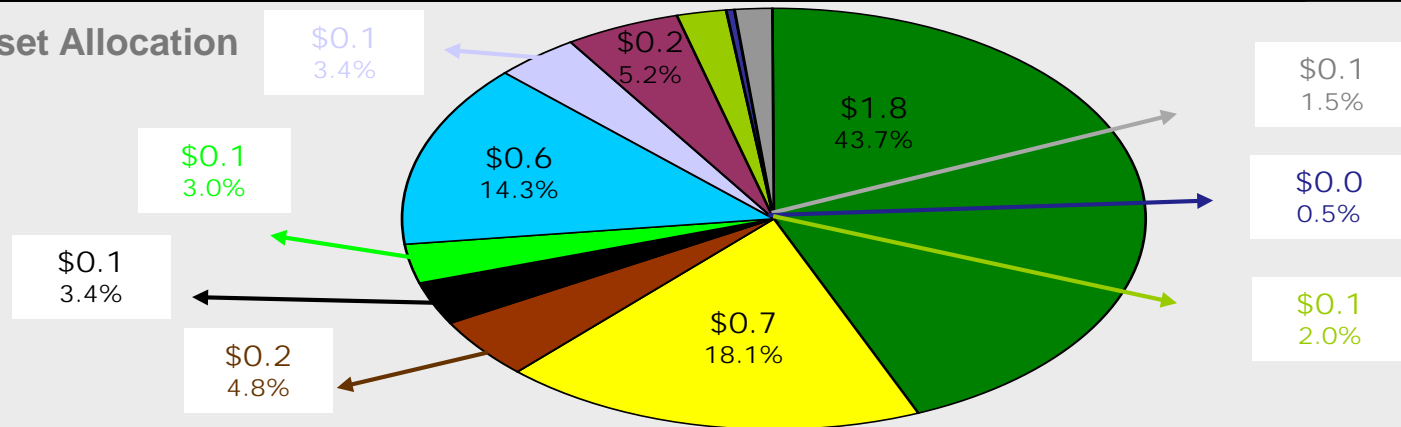
Prepared by State Street  
Investment Analytics

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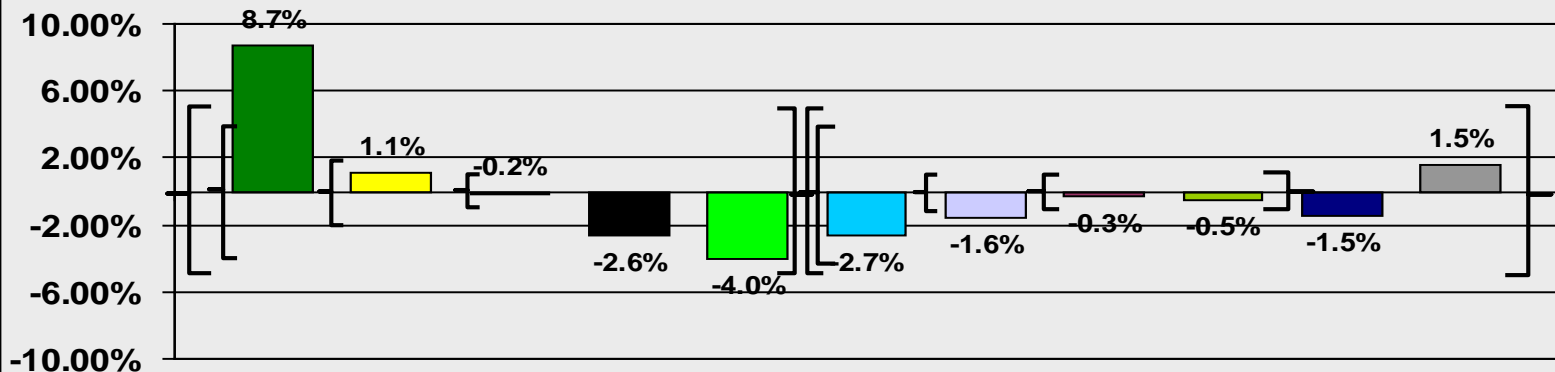
## Portfolio Asset Allocation: July 31, 2014

**\$4.1B** Under Management

### Asset Allocation



### Relative Mix to New Policy Weights



Note: Brackets represent rebalancing ranges versus Policy.

New York City Board of Education Retirement System

Performance Overview as of July 31, 2014

Prepared by State Street Investment Analytics

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# NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

## CLASSIFICATION OF INVESTMENTS

*(as of July 31st, 2014)*

### ASSET CLASS ALLOCATIONS

	In \$MM	Actual	Policy Target	Adjustment	Adjusted Policy	Adjusted Target Range***
<b>TOTAL EQUITIES</b>	\$3,013.2	73.0%	70.0%	NA	70.0%	65.0% - 75.0%
<b>TOTAL FIXED INCOME</b>	\$1,115.7	27.0%	30.0%	NA	30.0%	25.0% - 35.0%
<b>TOTAL ASSETS</b>	\$4,128.9	100.0%	100.0%	NA	100.0%	

	In \$MM	Actual	Policy Target	Adjustment	Adjusted Policy	Adjusted Target Range***
US Equities	\$1,802.8	43.7%	35.0%	6.6%	41.6%	37.6% - 45.6%
Non-US Equities/EAFE	\$748.9	18.1%	17.0%	NA	17.0%	15.0% - 19.0%
Emerging Markets	\$198.1	4.8%	5.0%	NA	5.0%	4.0% - 6.0%
<b>TOTAL PUBLIC EQUITY</b>	\$2,749.8	66.6%	57.0%	NA	63.6%	
<b>* REAL ASSETS</b>	\$124.5	3.0%	7.0%	NA	3.0%	6.0% - 8.0%
<b>* PRIVATE EQUITY</b>	\$138.9	3.4%	6.0%	NA	3.4%	5.0% - 7.0%
<b>TOTAL EQUITIES</b>	\$3,013.2	73.0%	70.0%	NA	70.0%	65.0% - 75.0%

	In \$MM	Actual	Policy Target	Adjustment	Adjusted Policy	Adjusted Target Range***
Core +5	US - Government	\$91.1	2.2%	NA		
	US - Mortgage	\$247.5	6.0%	NA	17.0%	13.0% - 21.0%
	US - Investment Grade Credit	\$253.6	6.1%	NA		
	<b>TOTAL CORE + 5</b>	\$592.2	14.3%	NA	17.0%	13.0% - 21.0%
	High Yield	\$214.8	5.2%	NA	5.5%	
	Bank Loans	\$83.4	2.0%	NA	2.5%	7.0% - 9.0%
	<b>Total High Yield &amp; Bank Loans</b>	\$298.2	7.2%	NA	8.0%	7.0% - 9.0%
	TIPS	\$141.2	3.4%	NA	5.0%	4.0% - 6.0%
	**ETI	\$20.6	0.5%	**2.0%	**0.5%	**0.5%
	Cash	\$63.5	1.5%	NA	0.0%	0.0% - 5.0%
	<b>TOTAL PUBLIC FIXED INCOME</b>	\$1,115.7	27.0%	NA	30.0%	
	<b>TOTAL FIXED INCOME</b>	\$1,115.7	27.0%	NA	30.0%	25.0% - 35.0%

\* Ranges for illiquid asset classes represent minimums and maximums which will be monitored and will influence pacing analysis but will not necessarily result in purchases or sales.

\*\* ETIs have a policy of 2% of the total Fund. The ETI adjusted policy % is shown for illustrative purposes only and is not included in the sub-totals. The ETI policy % is included within the policy % of the other asset classes.

\*\*\* Adjusted Target Ranges are calculated as follows: Total Equities: +/-5%; Total Fixed Income: +/-5%; US Equities: +/-4%; Non-US Equities/EAFE: +/-2%; Emerging Markets: +/-1%; Real Assets: +/-1%; Private Equity: +/-1%; Core +5: +/-4%; TIPS: +/-1%; High Yield & Bank Loans: +/-1%; Cash: 0-5%.

# NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

## CLASSIFICATION OF INVESTMENTS

*(as of July 31st, 2014)*

### Adjustments to Long-Term Asset Allocation

#### **1) Private Equity**

100% of uninvested commitments will be invested in Domestic Equity.

#### **2) Real Assets**

100% of uninvested commitments will be invested in Domestic Equity.

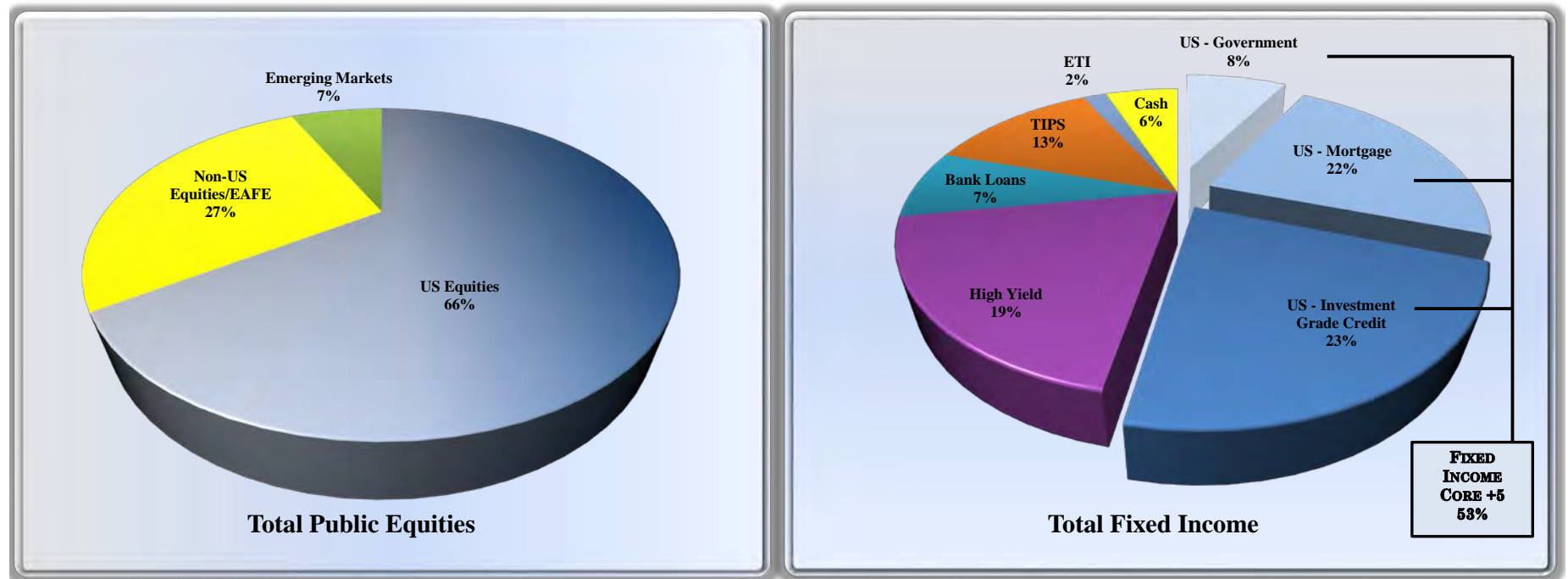
### Impact of Adjustments

<b>1) Domestic Equity Policy Target %</b>	<b>35.0%</b>
Adjustment: 100% of uninvested Private Equity	2.6%
Adjustment: 100% of uninvested Real Assets	4.0%
<b>Adjusted Domestic Equity Policy Target %</b>	<b>41.6%</b>

# NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

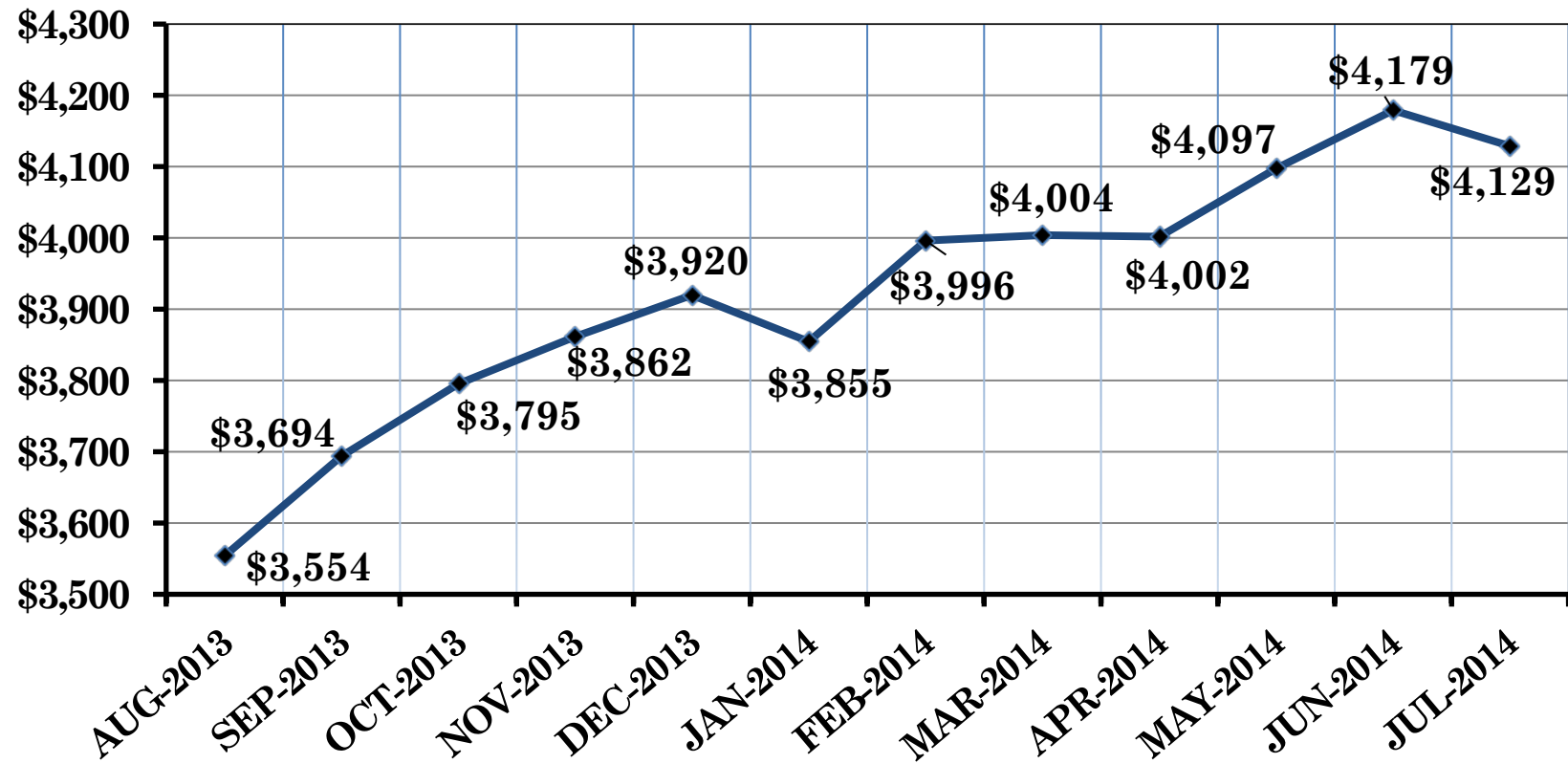
## CLASSIFICATION OF INVESTMENTS

*(as of July 31st, 2014)*

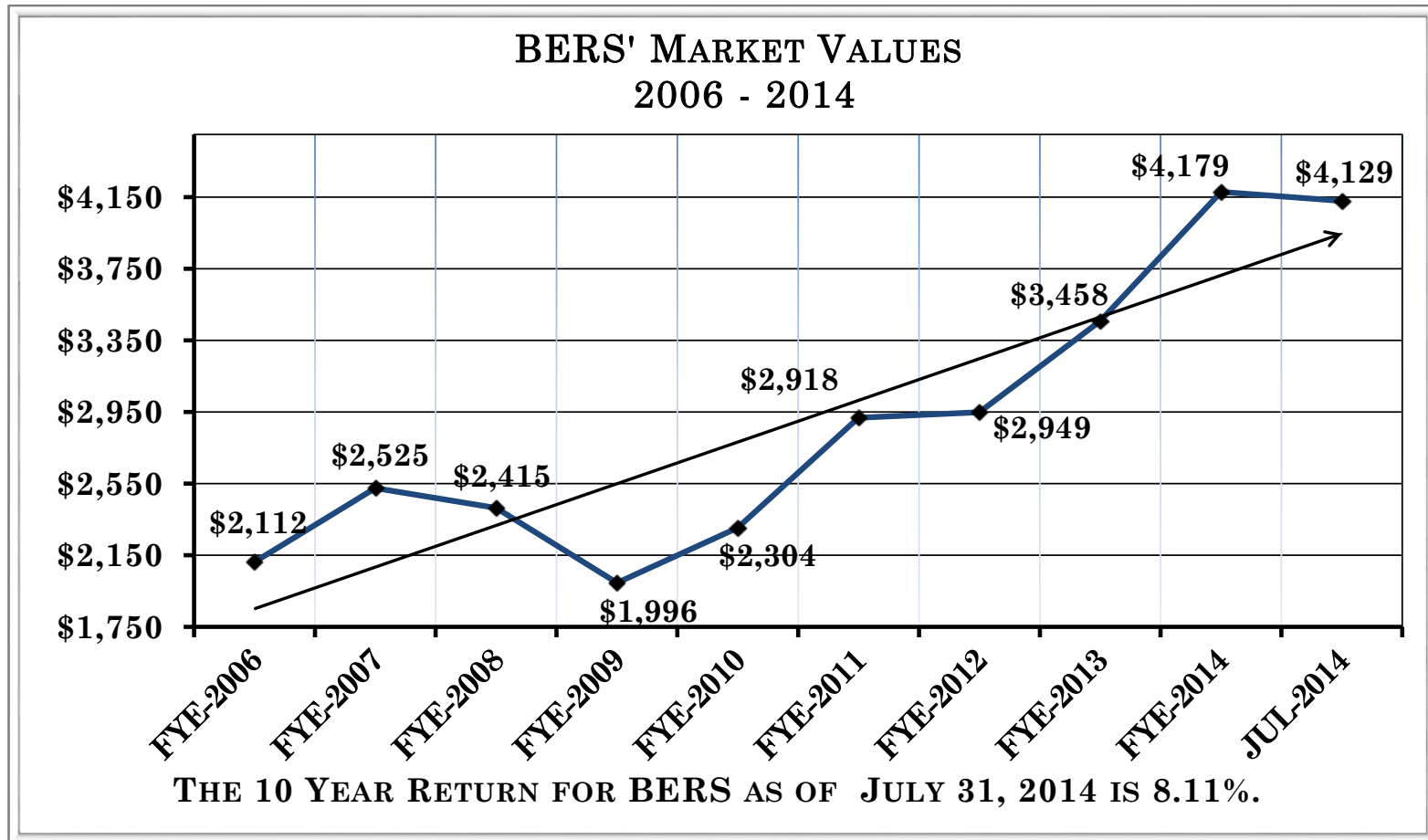


Note: Totals may not equal 100% due to rounding

### **BERS' MARKET VALUES AUGUST 2013 - JULY 2014**







## NYC Board of Education Retirement System

Manager / Benchmark Comparison Report

Rates of Return - Total

Periods Ending July 31, 2014



	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	FYTD	CYTD	FYE 06/30/14	CYE 12/31/13	CYE 12/31/12	CYE 12/31/11	CYE 12/31/10	Trailing 1 Year	Trailing 3 Year	Trailing 5 Year	Trailing 10 Year	ITD	Inception Date
<b>ASSET CLASS SUMMARY</b>																	
BERS-TOTAL DOM EQUITY	1,802.81	43.66	-2.47	2.67	-2.47	4.03	26.06	35.96	16.62	-0.72	17.27	16.17	16.42	17.02	8.55	9.73	Sep-01-91
BERS-TOTAL DEVELOPED EQUITY ACTIVE	748.87	18.14	-1.93	0.41	-1.93	1.91	25.59	24.21	18.40	-10.35	17.92	15.77	9.22	12.41	9.73	8.60	Nov-01-92
BERS-TOTAL EMERGING (INTL)	198.08	4.80	1.52	8.73	1.52	10.35	16.42	-4.27	18.15	-18.03	19.85	18.03	0.30	7.72	11.94	8.95	Nov-01-97
BERS-TOTAL STRUCTURED	592.19	14.34	-0.22	1.41	-0.22	5.06	5.97	-2.38	6.68	9.23	8.36	5.64	4.43	6.00	5.65	8.17	Jan-01-85
BERS-TOTAL ACTIVE TIPS MANAGERS	141.20	3.42	-0.04	2.29	-0.04	5.79	4.44	-8.52	7.67	13.34	6.57	3.57	2.71	5.71		4.94	Jun-01-05
BERS-TOTAL HIGH YIELD	214.83	5.20	-1.02	1.00	-1.02	5.08	12.96	8.39	15.68	6.25	15.01	9.67	8.94	12.49	8.83	6.38	Aug-01-97
BERS-TOTAL BANK LOANS	83.41	2.02	0.18	1.27	0.18	2.72	6.31	6.33				5.32				5.12	Sep-01-12
BERS-TOTAL TARGETED	20.60	0.50	-0.38	1.37	-0.38	2.42	3.19	-1.70	4.29	7.10	5.75	2.86	2.72	3.93	5.43	6.75	Dec-01-84
BERS-TOTAL PRIVATE EQUITY	138.91	3.36	-0.11	12.09	-0.11	12.51	24.58	15.34	7.70	19.15	13.64	24.66	13.43	15.18		3.08	Jul-01-06
BERS-TOTAL REAL ASSETS	124.51	3.02	1.40	5.69	1.40	9.05	10.22	8.57	14.30	9.43		11.54	10.94			11.31	Dec-01-10
BERS-TOTAL CASH	63.29	1.53	0.02	0.05	0.02	0.11	0.75	0.29	0.54	0.59	0.47	0.22	0.38	0.50	2.30	2.26	Apr-01-04
SECURITY LENDING	0.06	0.00															Apr-01-04
<b>BERS-TOTAL BOARD OF ED.</b>	<b>4,128.75</b>	<b>100.00</b>	<b>-1.42</b>	<b>2.55</b>	<b>-1.42</b>	<b>4.51</b>	<b>19.47</b>	<b>18.78</b>	<b>13.50</b>	<b>-0.42</b>	<b>14.95</b>	<b>13.42</b>	<b>10.34</b>	<b>12.33</b>	<b>8.11</b>	<b>9.02</b>	<b>Jul-01-87</b>
BERS-TOTAL EQUITY	2,749.76	66.60	-2.04	2.46	-2.04	3.87	25.25	29.23	17.29	-5.27	17.69	16.19	12.94	14.92	8.87	8.26	Apr-01-04
BERS-TOTAL FIXED INCOME	1,052.23	25.49	-0.33	1.43	-0.33	4.92	7.10	-0.56	8.55	9.42	9.39	6.08	5.34	7.31	6.29	5.96	Apr-01-04
BERS-TOTAL PRIVATE EQUITY	138.91	3.36	-0.11	12.09	-0.11	12.51	24.58	15.34	7.70	19.15	13.64	24.66	13.43	15.18		3.08	Jul-01-06
BERS-TOTAL REAL ASSETS	124.51	3.02	1.40	5.69	1.40	9.05	10.22	8.57	14.30	9.43		11.54	10.94			11.31	Dec-01-10
BERS-TOTAL CASH	63.29	1.53	0.02	0.05	0.02	0.11	0.75	0.29	0.54	0.59	0.47	0.22	0.38	0.50	2.30	2.26	Apr-01-04
SECURITY LENDING	0.06	0.00															Apr-01-04
<b>BERS-TOTAL BOARD OF ED.</b>	<b>4,128.75</b>	<b>100.00</b>	<b>-1.42</b>	<b>2.55</b>	<b>-1.42</b>	<b>4.51</b>	<b>19.47</b>	<b>18.78</b>	<b>13.50</b>	<b>-0.42</b>	<b>14.95</b>	<b>13.42</b>	<b>10.34</b>	<b>12.33</b>	<b>8.11</b>	<b>9.02</b>	<b>Jul-01-87</b>
Board of Education Policy Benchmark			-1.15	2.31	-1.15	4.98	18.30	18.10	14.05	0.47	13.04	13.04	10.79	12.22	7.82		Jun-01-94

# NYC Board of Education Retirement System

Manager / Benchmark Comparison Report

Rates of Return - Total

Periods Ending July 31, 2014



	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	FYTD	CYTD	FYE 06/30/14	CYE 12/31/13	CYE 12/31/12	CYE 12/31/11	CYE 12/31/10	Trailing 1 Year	Trailing 3 Year	Trailing 5 Year	Trailing 10 Year	ITD	Inception Date
<b>EQUITY ASSET CLASS SUMMARY</b>																	
BERS-TOTAL DOM EQUITY	1,802.81	43.66	-2.47	2.67	-2.47	4.03	26.06	35.96	16.62	-0.72	17.27	16.17	16.42	17.02	8.55	9.73	Sep-01-91
RUSSELL 3000 (DAILY)			-1.97	2.68	-1.97	4.83	25.22	33.55	16.42	1.03	16.93	16.37	16.58	17.08	8.43	9.59	Sep-01-91
Excess			-0.49	0.00	-0.49	-0.80	0.84	2.41	0.20	-1.75	0.34	-0.21	-0.16	-0.07	0.12	0.15	
BERS-TOTAL PASSIVE DOM EQUITY	1,436.53	34.79	-2.08	2.61	-2.08	4.71	25.20	33.59	16.50	0.69	16.99	16.21	16.48	17.01	8.40	9.46	Sep-01-93
RUSSELL 3000 (DAILY)			-1.97	2.68	-1.97	4.83	25.22	33.55	16.42	1.03	16.93	16.37	16.58	17.08	8.43	9.23	Sep-01-93
Excess			-0.11	-0.07	-0.11	-0.12	-0.02	0.04	0.08	-0.33	0.06	-0.16	-0.10	-0.08	-0.03	0.22	
BERS-TOTAL SMALL CAP PASSIVE	101.66	2.46	-6.05	-0.26	-6.05	-3.03										5.64	Oct-01-13
RUSSELL 2000 (DAILY)			-6.05	-0.26	-6.05	-3.06										5.40	Oct-01-13
Excess			0.00	0.00	0.00	0.02										0.25	
BERS-TOTAL MID CAP PASSIVE	73.91	1.79	-4.26	1.43	-4.26	2.90	25.16	33.46	17.89			12.86	14.97			13.58	Feb-01-11
S&P 400 MIDCAP INDEX (DAILY)			-4.27	1.46	-4.27	2.90	25.24	33.50	17.88			12.89	14.96			13.57	Feb-01-11
Excess			0.01	-0.03	0.01	0.00	-0.08	-0.04	0.01			-0.03	0.01			0.01	
BERS-RUSSELL 1000 PASSIVE	1,260.97	30.54	-1.61	2.92	-1.61	5.51										16.32	Oct-01-13
RUSSELL 1000 (DAILY)			-1.62	2.93	-1.62	5.53										16.33	Oct-01-13
Excess			0.00	-0.01	0.00	-0.03										-0.01	
BERS-TOTAL ACTIVE DOM EQUITY	305.98	7.41	-4.61	2.12	-4.61	0.82	29.30	44.80	16.91	-3.63	17.87	15.11	16.55	17.24	9.01	8.73	Feb-01-93
RUSSELL 2000 (DAILY)			-6.05	-0.26	-6.05	-3.06	23.64	38.82	16.35	-4.18	26.85	8.56	13.59	16.56	8.78	9.15	Feb-01-93
Excess			1.44	2.38	1.44	3.88	5.66	5.98	0.56	0.54	-8.99	6.55	2.96	0.69	0.23	-0.42	
BERS-TOTAL SMALL CAP ACTIVE	31.08	0.75	-7.22	-2.79	-7.22	-6.48	22.21	44.54	19.91	-10.17	21.37	7.11	12.63	15.43	7.09	6.13	Apr-01-04
RUSSELL 2000 (DAILY)			-6.05	-0.26	-6.05	-3.06	23.64	38.82	16.35	-4.18	26.85	8.56	13.59	16.56	8.78	7.81	Apr-01-04
Excess			-1.17	-2.53	-1.17	-3.43	-1.44	5.72	3.56	-5.99	-5.48	-1.45	-0.96	-1.12	-1.69	-1.68	
BERS-TOTAL MID CAP ACTIVE	127.92	3.10	-4.77	2.68	-4.77	5.76	32.77	40.05	19.88	-6.79		18.33	17.79			17.73	Oct-01-10
RUSSELL MIDCAP (DAILY)			-2.95	2.46	-2.95	5.46	26.85	34.76	17.28	-1.55		16.36	16.36			17.51	Oct-01-10
Excess			-1.82	0.22	-1.82	0.30	5.92	5.28	2.60	-5.25		1.97	1.43			0.22	

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# NYC Board of Education Retirement System

## Manager / Benchmark Comparison Report

Rates of Return - Total

Periods Ending July 31, 2014



	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	FYTD	CYTD	FYE 06/30/14	CYE 12/31/13	CYE 12/31/12	CYE 12/31/11	CYE 12/31/10	Trailing 1 Year	Trailing 3 Year	Trailing 5 Year	Trailing 10 Year	ITD	Inception Date
BERS-TOTAL EMERGING MANAGER PROGRAM	146.97	3.56	-3.91	0.81	-3.91	-0.81	24.89	40.84	17.00	-1.75	18.99	12.87	15.14	16.67	8.69	8.15	Apr-01-04
RUSSELL 3000 (DAILY)			-1.97	2.68	-1.97	4.83	25.22	33.55	16.42	1.03	16.93	16.37	16.58	17.08	8.43	7.88	Apr-01-04
Excess			-1.93	-1.87	-1.93	-5.64	-0.33	7.29	0.58	-2.78	2.06	-3.50	-1.45	-0.42	0.26	0.27	
BERS-TOTAL INTL EQUITY	946.95	22.94	-1.22	2.04	-1.22	3.56	23.68	17.99	18.36	-11.84	18.25	16.23	7.41	11.46	10.06	8.38	Nov-01-92
MSCI AC WORLD ex US (NET)			-0.99	2.63	-0.99	4.51	21.75	15.29	16.83	-13.71	11.15	15.48	5.86	8.84	7.96		Nov-01-92
Excess			-0.23	-0.59	-0.23	-0.95	1.93	2.70	1.52	1.87	7.09	0.75	1.55	2.62	2.10		
BERS-TOTAL DEVELOPED EQUITY	748.87	18.14	-1.93	0.41	-1.93	1.91	25.59	24.21	18.40	-10.35	17.92	15.77	9.22	12.41	9.64	8.31	Nov-01-92
MSCI EAFE			-1.97	0.59	-1.97	2.72	23.57	22.78	17.32	-12.14	7.75	15.07	7.96	9.40	7.07	6.79	Nov-01-92
Excess			0.04	-0.18	0.04	-0.81	2.02	1.43	1.09	1.79	10.17	0.70	1.26	3.01	2.56	1.53	
BERS-TOTAL ACTIVE EMERGING MARKETS	198.08	4.80	1.52	8.73	1.52	10.35	16.26	-4.70	18.12	-17.86	19.85	18.02	0.15	7.67	11.91	10.70	Apr-01-04
MSCI EMERGING MARKETS			1.93	8.29	1.93	8.19	14.31	-2.60	18.22	-18.42	18.88	15.32	0.40	7.34	12.37	10.65	Apr-01-04
Excess			-0.42	0.43	-0.42	2.16	1.95	-2.10	-0.11	0.57	0.97	2.70	-0.24	0.32	-0.45	0.04	
<b>FIXED INCOME ASSET CLASS SUMMARY</b>																	
BERS-TOTAL FIXED INCOME	1,052.23	25.49	-0.33	1.43	-0.33	4.92	7.10	-0.56	8.55	9.42	9.39	6.08	5.34	7.31	6.29	5.96	Apr-01-04
BERS-TOTAL STRUCTURED	592.19	14.34	-0.22	1.41	-0.22	5.06	5.97	-2.38	6.68	9.23	8.36	5.64	4.43	6.00	5.65	8.17	Jan-01-85
NYC - Core Plus Five			-0.27	1.27	-0.27	4.79	5.54	-2.79	5.41	9.40	7.13	5.15	3.83	5.23	5.47		Jan-01-85
Excess			0.05	0.14	0.05	0.27	0.42	0.41	1.27	-0.17	1.23	0.49	0.60	0.78	0.19		
BERS-TOTAL MORTGAGE	247.52	6.00	-0.44	1.11	-0.44	3.65	4.45	-1.73	4.48	6.30	7.84	4.21	2.89	4.73	5.25	7.25	Apr-01-87
CITIGROUP MORTGAGE INDEX			-0.56	0.90	-0.56	3.48	4.59	-1.52	2.60	6.38	5.50	4.05	2.29	3.68	4.84	6.76	Apr-01-87
Excess			0.12	0.21	0.12	0.17	-0.14	-0.21	1.88	-0.08	2.35	0.16	0.60	1.05	0.41	0.49	
BERS-TOTAL INVESTMENT GRADE CREDIT	253.60	6.14	-0.09	1.59	-0.09	6.01	8.24	-1.07	10.36	8.34	9.02	7.43	5.88	7.55	5.55	7.77	Apr-01-87
NYC - Investment Grade Credit			-0.11	1.41	-0.11	5.28	7.17	-1.85	9.52	7.79	8.36	6.39	4.97	6.68	5.55		Apr-01-87
Excess			0.02	0.18	0.02	0.73	1.07	0.78	0.83	0.55	0.66	1.03	0.91	0.88	0.00		
BERS-TOTAL GOVERNMENT	91.07	2.21	-0.01	1.72	-0.01	6.34	3.97	-7.49	3.95	18.52	8.93	4.70	4.43	5.73	6.03	7.79	May-01-87
NYC - Treasury Agency Plus Five			-0.04	1.72	-0.04	6.46	3.79	-7.48	3.84	18.44	9.24	4.53	4.44	5.71	6.04		May-01-87
Excess			0.03	0.00	0.03	-0.12	0.19	-0.01	0.11	0.08	-0.32	0.17	-0.01	0.02	-0.02		

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# NYC Board of Education Retirement System

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BERS-TOTAL HIGH YIELD	214.83	5.20	-1.02	1.00	-1.02	5.08	12.96	8.39	15.68	6.25	15.01	9.67	8.94	12.49	8.83	6.38	Aug-01-97
CITIGROUP BB & B			-1.31	0.33	-1.31	3.93	10.91	6.17	14.45	6.58	13.35	7.56	8.16	10.88	7.20	6.39	Aug-01-97
Excess			0.29	0.67	0.29	1.15	2.05	2.22	1.23	-0.33	1.66	2.11	0.78	1.61	1.63	-0.01	
BERS-TOTAL BANK LOANS	83.41	2.02	0.18	1.27	0.18	2.72	6.31	6.33				5.32				5.12	Sep-01-12
CSFB LEVERAGED LOAN INDEX			-0.04	1.18	-0.04	2.73	6.11	6.15				4.95					Sep-01-12
Excess			0.22	0.09	0.22	-0.01	0.20	0.18				0.37					
BERS-TOTAL ACTIVE TIPS MANAGERS	141.20	3.42	-0.04	2.29	-0.04	5.79	4.44	-8.52	7.67	13.34	6.57	3.57	2.71	5.71		4.94	Jun-01-05
Barclays Global Inflation Linked: US TIPS (Daily)			0.03	2.45	0.03	5.86	4.44	-8.61	6.98	13.56	6.31	3.71	2.25	5.54		4.76	Jun-01-05
Excess			-0.07	-0.16	-0.07	-0.07	0.01	0.09	0.69	-0.22	0.26	-0.15	0.46	0.17		0.18	
BERS-TOTAL TARGETED	20.60	0.50	-0.38	1.37	-0.38	2.42	3.19	-1.70	4.29	7.10	5.75	2.86	2.72	3.93	5.43	6.75	Dec-01-84
BERS Custom Benchmark (No Cash)			-0.34	0.88	-0.34	3.40	4.20	-1.71	3.74	7.09	5.98	3.74	2.79	4.07			Dec-01-84
Excess			-0.03	0.48	-0.03	-0.98	-1.01	0.01	0.55	0.01	-0.23	-0.88	-0.07	-0.14			
<b>CASH ASSET CLASS SUMMARY</b>																	
BERS-TOTAL CASH	63.29	1.53	0.02	0.05	0.02	0.11	0.75	0.29	0.54	0.59	0.47	0.22	0.38	0.50	2.30	2.26	Apr-01-04
91 DAY TREASURY BILL (DAILY)			0.00	0.01	0.00	0.02	0.05	0.07	0.11	0.10	0.13	0.05	0.08	0.11	1.64	1.62	Apr-01-04
Excess			0.01	0.04	0.01	0.09	0.69	0.22	0.43	0.49	0.34	0.17	0.30	0.39	0.66	0.64	
<b>US EQUITY</b>																	
BERS-TOTAL SMALL CAP	132.74	3.22	-6.33	-0.87	-6.33	-3.87	24.61	44.74	19.91	-10.17	21.37	10.27	13.72	16.11	7.40	6.43	Apr-01-04
RUSSELL 2000 (DAILY)			-6.05	-0.26	-6.05	-3.06	23.64	38.82	16.35	-4.18	26.85	8.56	13.59	16.56	8.78	7.81	Apr-01-04
Excess			-0.27	-0.60	-0.27	-0.81	0.97	5.92	3.56	-5.99	-5.48	1.71	0.13	-0.45	-1.38	-1.38	
BERS-TOTAL SMALL CAP PASSIVE	101.66	2.46	-6.05	-0.26	-6.05	-3.03										5.64	Oct-01-13
RUSSELL 2000 (DAILY)			-6.05	-0.26	-6.05	-3.06										5.40	Oct-01-13
Excess			0.00	0.00	0.00	0.02										0.25	
NYC BERS BLACKROCK R2000 GROWTH	51.50	1.25	-6.06	0.73	-6.06	-3.96										4.22	Oct-01-13
RUSSELL 2000 GROWTH DAILY			-6.06	0.73	-6.06	-3.97										3.87	Oct-01-13
Excess			0.00	-0.01	0.00	0.02										0.35	

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NYC BERS BLACKROCK R2000 VALUE	50.16	1.21	-6.04	-1.26	-6.04	-2.07										7.14	Oct-01-13
RUSSELL 2000 VALUE DAILY			-6.05	-1.27	-6.05	-2.10										7.01	Oct-01-13
Excess			0.01	0.01	0.01	0.03										0.14	
BERS-TOTAL SMALL CAP ACTIVE	31.08	0.75	-7.22	-2.79	-7.22	-6.48	22.21	44.54	19.91	-10.17	21.37	7.11	12.63	15.43	7.09	6.13	Apr-01-04
RUSSELL 2000 (DAILY)			-6.05	-0.26	-6.05	-3.06	23.64	38.82	16.35	-4.18	26.85	8.56	13.59	16.56	8.78	7.81	Apr-01-04
Excess			-1.17	-2.53	-1.17	-3.43	-1.44	5.72	3.56	-5.99	-5.48	-1.45	-0.96	-1.12	-1.69	-1.68	
BERS-TOTAL SMALL CAP CORE	31.08	0.75	-7.22	-2.79	-7.22	-6.48	22.21	44.54	19.91	-10.17		7.11	12.63			13.42	Apr-01-10
RUSSELL 2000 (DAILY)			-6.05	-0.26	-6.05	-3.06	23.64	38.82	16.35	-4.18		8.56	13.59			13.76	Apr-01-10
Excess			-1.17	-2.53	-1.17	-3.43	-1.44	5.72	3.56	-5.99		-1.45	-0.96			-0.34	
Daruma Small Cap-Core	31.08	0.75	-7.22	-2.79	-7.22	-6.48	22.21	44.54	19.91	-10.17		7.11	12.63			13.42	Apr-01-10
RUSSELL 2000 (DAILY)			-6.05	-0.26	-6.05	-3.06	23.64	38.82	16.35	-4.18		8.56	13.59			13.76	Apr-01-10
Excess			-1.17	-2.53	-1.17	-3.43	-1.44	5.72	3.56	-5.99		-1.45	-0.96			-0.34	
BERS-TOTAL MID CAP	201.84	4.89	-4.59	2.22	-4.59	4.70	29.89	37.52	19.12	-5.53		16.27	16.73			17.08	Oct-01-10
RUSSELL MIDCAP (DAILY)			-2.95	2.46	-2.95	5.46	26.85	34.76	17.28	-1.55		16.36	16.36			17.51	Oct-01-10
Excess			-1.63	-0.24	-1.63	-0.77	3.04	2.76	1.84	-3.98		-0.09	0.37			-0.43	
State St GA SP 400	73.91	1.79	-4.26	1.43	-4.26	2.90	25.16	33.46	17.89			12.86	14.97			13.58	Feb-01-11
S&P 400 MIDCAP INDEX (DAILY)			-4.27	1.46	-4.27	2.90	25.24	33.50	17.88			12.89	14.96			13.57	Feb-01-11
Excess			0.01	-0.03	0.01	0.00	-0.08	-0.04	0.01			-0.03	0.01			0.01	
BERS-TOTAL MID CAP ACTIVE	127.92	3.10	-4.77	2.68	-4.77	5.76	32.77	40.05	19.88	-6.79		18.33	17.79			17.73	Oct-01-10
RUSSELL MIDCAP (DAILY)			-2.95	2.46	-2.95	5.46	26.85	34.76	17.28	-1.55		16.36	16.36			17.51	Oct-01-10
Excess			-1.82	0.22	-1.82	0.30	5.92	5.28	2.60	-5.25		1.97	1.43			0.22	
Wellington Mgmt MCC	127.92	3.10	-4.77	2.68	-4.77	5.76	32.77	40.05	19.88	-6.79		18.33	17.79			17.73	Oct-01-10
S&P 400 MIDCAP INDEX (DAILY)			-4.27	1.46	-4.27	2.90	25.24	33.50	17.88	-1.73		12.89	14.96			16.68	Oct-01-10
Excess			-0.50	1.22	-0.50	2.86	7.53	6.54	2.00	-5.06		5.44	2.83			1.05	
BERS-TOTAL RUSSELL 1000	1,260.97	30.54	-1.61	3.28	-1.61	5.32	40.68	62.18	14.87	-1.64	16.72	25.92	22.52	20.90	11.11	10.20	Sep-01-93
RUSSELL 1000 (DAILY)			-1.62	2.93	-1.62	5.53	25.35	33.11	16.42	1.50	16.10	17.06	16.84	17.13	8.40	9.31	Sep-01-93
Excess			0.00	0.34	0.00	-0.21	15.32	29.07	-1.56	-3.14	0.62	8.85	5.68	3.77	2.71	0.89	
BERS-RUSSELL 1000 PASSIVE	1,260.97	30.54	-1.61	2.92	-1.61	5.51										16.32	Oct-01-13
RUSSELL 1000 (DAILY)			-1.62	2.93	-1.62	5.53										16.33	Oct-01-13
Excess			0.00	-0.01	0.00	-0.03										-0.01	

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NYC BERS BLACKROCK R1000 GROWTH	636.43	15.41	-1.52	3.50	-1.52	4.63										15.66	Oct-01-13
RUSSELL 1000 GROWTH - DAILY			-1.53	3.52	-1.53	4.68										15.60	Oct-01-13
Excess			0.01	-0.01	0.01	-0.05										0.06	
NYC BERS BLACKROCK R1000 VALUE	624.53	15.13	-1.70	2.33	-1.70	6.41										16.99	Oct-01-13
RUSSELL 1000 VALUE (DAILY)			-1.70	2.34	-1.70	6.43										17.09	Oct-01-13
Excess			0.00	-0.01	0.00	-0.02										-0.09	
BERS-TOTAL EMERGING MANAGER PROGRAM	146.97	3.56	-3.91	0.81	-3.91	-0.81	24.89	40.84	17.00	-1.75	18.99	12.87	15.14	16.67	8.69	8.15	Apr-01-04
RUSSELL 3000 (DAILY)			-1.97	2.68	-1.97	4.83	25.22	33.55	16.42	1.03	16.93	16.37	16.58	17.08	8.43	7.88	Apr-01-04
Excess			-1.93	-1.87	-1.93	-5.64	-0.33	7.29	0.58	-2.78	2.06	-3.50	-1.45	-0.42	0.26	0.27	
BERS-TOTAL FIS	72.11	1.75	-5.59	-0.75	-5.59	-4.79	22.13	43.42	17.35	-2.62	27.68	7.92	14.57	16.94		6.39	Jan-01-08
RUSSELL 2000 (DAILY)			-6.05	-0.26	-6.05	-3.06	23.64	38.82	16.35	-4.18	26.85	8.56	13.59	16.56		7.43	Jan-01-08
Excess			0.47	-0.49	0.47	-1.73	-1.51	4.60	1.00	1.55	0.83	-0.64	0.98	0.38		-1.04	
BERS-TOTAL PROGRESS	74.87	1.81	-2.23	2.35	-2.23	3.35	27.78	37.64	16.87	-1.43	16.04	18.09	15.72	16.80	8.88	5.81	May-01-99
RUSSELL 3000 (DAILY)			-1.97	2.68	-1.97	4.83	25.22	33.55	16.42	1.03	16.93	16.37	16.58	17.08	8.43	5.02	May-01-99
Excess			-0.26	-0.32	-0.26	-1.48	2.56	4.09	0.45	-2.45	-0.89	1.72	-0.86	-0.28	0.45	0.79	
NON - US EQUITY																	
BERS-TOTAL DEVELOPED VALUE	317.20	7.68	-1.69	0.59	-1.69	4.59	22.45	16.94	17.84	-9.92	18.56	15.54	8.11	11.64	8.38	8.38	Aug-01-04
MSCI EAFE VALUE NET (DAILY)			-1.64	0.82	-1.64	4.27	26.86	22.95	17.69	-12.17	3.25	17.89	8.78	8.85	6.80	6.80	Aug-01-04
Excess			-0.05	-0.22	-0.05	0.32	-4.41	-6.01	0.15	2.26	15.31	-2.35	-0.67	2.80	1.58	1.58	
Sprucegrove MTA (BOE)	317.20	7.68	-1.69	0.59	-1.69	4.59	22.45	16.94	17.84	-9.92	18.56	15.54	8.11	11.64	8.38	8.38	Aug-01-04
MSCI EAFE VALUE NET (DAILY)			-1.64	0.82	-1.64	4.27	26.86	22.95	17.69	-12.17	3.25	17.89	8.78	8.85	6.80	6.80	Aug-01-04
Excess			-0.05	-0.22	-0.05	0.32	-4.41	-6.01	0.15	2.26	15.31	-2.35	-0.67	2.80	1.58	1.58	
BERS-TOTAL DEVELOPED GROWTH	348.47	8.44	-1.67	0.30	-1.67	-1.04	26.44	29.53	18.88	-10.71	17.36	14.42	9.56	12.69		5.29	Aug-01-07
MSCI EAFE GROWTH			-2.29	0.36	-2.29	1.18	20.33	22.55	16.86	-12.11	12.25	12.29	7.10	9.87		1.52	Aug-01-07
Excess			0.62	-0.06	0.62	-2.22	6.11	6.98	2.02	1.40	5.12	2.13	2.46	2.81		3.77	
Baillie Gifford MTA	348.47	8.44	-1.67	0.30	-1.67	-1.04	26.44	29.53	18.88	-10.71	17.36	14.42	9.56	12.69		5.29	Aug-01-07
MSCI EAFE GROWTH			-2.29	0.36	-2.29	1.18	20.33	22.55	16.86	-12.11	12.25	12.29	7.10	9.87		1.52	Aug-01-07
Excess			0.62	-0.06	0.62	-2.22	6.11	6.98	2.02	1.40	5.12	2.13	2.46	2.81		3.77	

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BERS-TOTAL DEVELOPED SMALL CAP	83.21	2.02	-3.84	0.17	-3.84	4.74	34.78					22.78				16.87	May-01-13
S&P EPAC Small Cap Index			-2.43	0.20	-2.43	3.85	29.60					18.92				15.31	May-01-13
Excess			-1.42	-0.03	-1.42	0.89	5.18					3.86				1.56	
Acadian	83.21	2.02	-3.84	0.17	-3.84	4.74	34.78					22.78				16.87	May-01-13
S&P EPAC Small Cap Index			-2.43	0.20	-2.43	3.85	29.60					18.92				15.31	May-01-13
Excess			-1.42	-0.03	-1.42	0.89	5.18					3.86				1.56	
BERS-TOTAL DEVELOPED EQUITY ACTIVE	748.87	18.14	-1.93	0.41	-1.93	1.91	25.59	24.21	18.40	-10.35	17.92	15.77	9.22	12.41	9.73	8.60	Nov-01-92
MSCI EAFE			-1.97	0.59	-1.97	2.72	23.57	22.78	17.32	-12.14	7.75	15.07	7.96	9.40	7.07	6.79	Nov-01-92
Excess			0.04	-0.18	0.04	-0.81	2.02	1.43	1.09	1.79	10.17	0.70	1.26	3.01	2.65	1.81	
EMERGING MARKETS																	
BERS-TOTAL EMERGING (INTL)	198.08	4.80	1.52	8.73	1.52	10.35	16.42	-4.27	18.15	-18.03	19.85	18.03	0.30	7.72	11.94	8.95	Nov-01-97
MSCI EMERGING MARKETS			1.93	8.29	1.93	8.19	14.31	-2.60	18.22	-18.42	18.88	15.32	0.40	7.34	12.37		Nov-01-97
Excess			-0.42	0.43	-0.42	2.16	2.10	-1.67	-0.08	0.39	0.97	2.71	-0.09	0.38	-0.42		
BERS-TOTAL ACTIVE EMERGING MARKETS	198.08	4.80	1.52	8.73	1.52	10.35	16.26	-4.70	18.12	-17.86	19.85	18.02	0.15	7.67	11.91	10.70	Apr-01-04
MSCI EMERGING MARKETS			1.93	8.29	1.93	8.19	14.31	-2.60	18.22	-18.42	18.88	15.32	0.40	7.34	12.37	10.65	Apr-01-04
Excess			-0.42	0.43	-0.42	2.16	1.95	-2.10	-0.11	0.57	0.97	2.70	-0.24	0.32	-0.45	0.04	
ACADIAN	198.08	4.80	1.52	8.73	1.52	10.35	16.26					18.02				4.69	Mar-01-13
MSCI EMERGING MARKETS			1.93	8.29	1.93	8.19	14.31					15.32				3.68	Mar-01-13
Excess			-0.42	0.43	-0.42	2.16	1.95					2.70				1.01	
BERS-TOTAL INTL EQUITY	946.95	22.94	-1.22	2.04	-1.22	3.56	23.68	17.99	18.36	-11.84	18.25	16.23	7.41	11.46	10.06	8.38	Nov-01-92
MSCI AC WORLD ex US (NET)			-0.99	2.63	-0.99	4.51	21.75	15.29	16.83	-13.71	11.15	15.48	5.86	8.84	7.96		Nov-01-92
Excess			-0.23	-0.59	-0.23	-0.95	1.93	2.70	1.52	1.87	7.09	0.75	1.55	2.62	2.10		
FIXED INCOME																	
BERS-TOTAL STRUCTURED	592.19	14.34	-0.22	1.41	-0.22	5.06	5.97	-2.38	6.68	9.23	8.36	5.64	4.43	6.00	5.65	8.17	Jan-01-85
NYC - Core Plus Five			-0.27	1.27	-0.27	4.79	5.54	-2.79	5.41	9.40	7.13	5.15	3.83	5.23	5.47		Jan-01-85
Excess			0.05	0.14	0.05	0.27	0.42	0.41	1.27	-0.17	1.23	0.49	0.60	0.78	0.19		

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# NYC Board of Education Retirement System

## Manager / Benchmark Comparison Report

Rates of Return - Total

Periods Ending July 31, 2014



	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	FYTD	CYTD	FYE 06/30/14	CYE 12/31/13	CYE 12/31/12	CYE 12/31/11	CYE 12/31/10	Trailing 1 Year	Trailing 3 Year	Trailing 5 Year	Trailing 10 Year	ITD	Inception Date
BERS-TOTAL MORTGAGE	247.52	6.00	-0.44	1.11	-0.44	3.65	4.45	-1.73	4.48	6.30	7.84	4.21	2.89	4.73	5.25	7.25	Apr-01-87
CITIGROUP MORTGAGE INDEX			-0.56	0.90	-0.56	3.48	4.59	-1.52	2.60	6.38	5.50	4.05	2.29	3.68	4.84	6.76	Apr-01-87
Excess			0.12	0.21	0.12	0.17	-0.14	-0.21	1.88	-0.08	2.35	0.16	0.60	1.05	0.41	0.49	
PIMCO - Mortgage	247.52	6.00	-0.44	1.11	-0.44	3.65	4.45	-1.73	4.48	6.30	7.84	4.21	2.89	4.73	5.25	7.25	Apr-01-87
CITIGROUP MORTGAGE INDEX			-0.56	0.90	-0.56	3.48	4.59	-1.52	2.60	6.38	5.50	4.05	2.29	3.68	4.84	6.76	Apr-01-87
Excess			0.12	0.21	0.12	0.17	-0.14	-0.21	1.88	-0.08	2.35	0.16	0.60	1.05	0.41	0.49	
BERS-TOTAL INVESTMENT GRADE CREDIT	253.60	6.14	-0.09	1.59	-0.09	6.01	8.24	-1.07	10.36	8.34	9.02	7.43	5.88	7.55	5.55	7.77	Apr-01-87
NYC - Investment Grade Credit			-0.11	1.41	-0.11	5.28	7.17	-1.85	9.52	7.79	8.36	6.39	4.97	6.68	5.55		Apr-01-87
Excess			0.02	0.18	0.02	0.73	1.07	0.78	0.83	0.55	0.66	1.03	0.91	0.88	0.00		
Prudential - Credit	135.31	3.28	-0.17	1.39	-0.17	5.36	7.63	-1.21	9.51	8.00	8.72	6.61	5.39	6.94		6.94	Aug-01-09
NYC - Investment Grade Credit			-0.11	1.41	-0.11	5.28	7.17	-1.85	9.52	7.79	8.36	6.39	4.97	6.68		6.68	Aug-01-09
Excess			-0.06	-0.01	-0.06	0.09	0.45	0.64	-0.01	0.20	0.36	0.22	0.41	0.27		0.27	
Taplin Canida Habacht - Credit	102.60	2.49	0.01	1.91	0.01	7.12	9.44	-1.04	11.51	8.83	9.43	8.85	6.56	8.39	5.84	7.16	Jan-01-93
NYC - Investment Grade Credit			-0.11	1.41	-0.11	5.28	7.17	-1.85	9.52	7.79	8.36	6.39	4.97	6.68	5.55	6.57	Jan-01-93
Excess			0.12	0.50	0.12	1.85	2.27	0.81	1.99	1.04	1.07	2.46	1.59	1.71	0.29	0.58	
Prudential-Privest - Credit	15.68	0.38	0.01	1.15	0.01	4.46	5.92	0.00				5.33				2.80	Jan-01-13
NYC - Investment Grade Credit			-0.11	1.41	-0.11	5.28	7.17	-1.85				6.39				2.09	Jan-01-13
Excess			0.13	-0.25	0.13	-0.81	-1.25	1.85				-1.06				0.71	
BERS-TOTAL GOVERNMENT	91.07	2.21	-0.01	1.72	-0.01	6.34	3.97	-7.49	3.95	18.52	8.93	4.70	4.43	5.73	6.03	7.79	May-01-87
NYC - Treasury Agency Plus Five			-0.04	1.72	-0.04	6.46	3.79	-7.48	3.84	18.44	9.24	4.53	4.44	5.71	6.04		May-01-87
Excess			0.03	0.00	0.03	-0.12	0.19	-0.01	0.11	0.08	-0.32	0.17	-0.01	0.02	-0.02		
State Street Govt	91.07	2.21	-0.01	1.72	-0.01	6.34	3.97	-7.49	3.95	18.52	8.93	4.70	4.43	5.73	6.15	7.19	Jan-01-93
NYC - Treasury Agency Plus Five			-0.04	1.72	-0.04	6.46	3.79	-7.48	3.84	18.44	9.24	4.53	4.44	5.71	6.04	7.09	Jan-01-93
Excess			0.03	0.00	0.03	-0.12	0.19	-0.01	0.11	0.08	-0.32	0.17	-0.01	0.02	0.11	0.10	

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# NYC Board of Education Retirement System

## Manager / Benchmark Comparison Report

Rates of Return - Total

Periods Ending July 31, 2014



	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Month	FYTD	CYTD	FYE 06/30/14	CYE 12/31/13	CYE 12/31/12	CYE 12/31/11	CYE 12/31/10	Trailing 1 Year	Trailing 3 Year	Trailing 5 Year	Trailing 10 Year	ITD	Inception Date
HIGH YIELD																	
BERS-TOTAL HIGH YIELD	214.83	5.20	-1.02	1.00	-1.02	5.08	12.96	8.39	15.68	6.25	15.01	9.67	8.94	12.49	8.83	6.38	Aug-01-97
CITIGROUP BB & B			-1.31	0.33	-1.31	3.93	10.91	6.17	14.45	6.58	13.35	7.56	8.16	10.88	7.20	6.39	Aug-01-97
Excess			0.29	0.67	0.29	1.15	2.05	2.22	1.23	-0.33	1.66	2.11	0.78	1.61	1.63	-0.01	
Loomis Sayles - High Yield	117.54	2.85	-0.73	1.80	-0.73	6.56	14.13	9.95	17.52	7.14	15.79	11.09	10.40	14.39	10.14	8.16	Aug-01-97
NYC-Loomis (BoA MLMSTII 7-03/BB&B PRIOR)			-1.32	0.51	-1.32	4.24	11.80	7.42	15.58	4.38	15.19	8.28	8.34	12.28	8.61	7.26	Aug-01-97
Excess			0.59	1.29	0.59	2.32	2.33	2.54	1.94	2.75	0.60	2.81	2.06	2.11	1.52	0.91	
Shenkman - High Yield	97.29	2.36	-1.36	0.04	-1.36	3.34	11.59	6.63				8.01				7.38	Sep-01-12
CITIGROUP BB & B			-1.31	0.33	-1.31	3.93	10.91	6.17				7.56				7.54	Sep-01-12
Excess			-0.05	-0.29	-0.05	-0.58	0.68	0.46				0.45				-0.16	
BANK LOANS																	
BERS-TOTAL BANK LOANS	83.41	2.02	0.18	1.27	0.18	2.72	6.31	6.33				5.32				5.12	Sep-01-12
CSFB LEVERAGED LOAN INDEX			-0.04	1.18	-0.04	2.73	6.11	6.15				4.95					Sep-01-12
Excess			0.22	0.09	0.22	-0.01	0.20	0.18				0.37					
Babson BL	83.41	2.02	0.18	1.27	0.18	2.72	6.31	6.33				5.32				5.91	Dec-01-12
CSFB LEVERAGED LOAN INDEX			-0.04	1.18	-0.04	2.73	6.11	6.15				4.95				5.80	Dec-01-12
Excess			0.22	0.09	0.22	-0.01	0.20	0.18				0.37				0.11	
BERS-TOTAL ACTIVE TIPS MANAGERS	141.20	3.42	-0.04	2.29	-0.04	5.79	4.44	-8.52	7.67	13.34	6.57	3.57	2.71	5.71		4.94	Jun-01-05
Barclays Global Inflation Linked: US TIPS (Daily)			0.03	2.45	0.03	5.86	4.44	-8.61	6.98	13.56	6.31	3.71	2.25	5.54		4.76	Jun-01-05
Excess			-0.07	-0.16	-0.07	-0.07	0.01	0.09	0.69	-0.22	0.26	-0.15	0.46	0.17		0.18	
PIMCO TIPS MTA	141.20	3.42	-0.04	2.29	-0.04	5.79	4.44	-8.52	7.67	13.34	6.57	3.57	2.71	5.71		4.94	Jun-01-05
Barclays Global Inflation Linked: US TIPS (Daily)			0.03	2.45	0.03	5.86	4.44	-8.61	6.98	13.56	6.31	3.71	2.25	5.54		4.76	Jun-01-05
Excess			-0.07	-0.16	-0.07	-0.07	0.01	0.09	0.69	-0.22	0.26	-0.15	0.46	0.17		0.18	

# NYC Board of Education Retirement System

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OTHER FIXED INCOME																	
BERS-TOTAL TARGETED	20.60	0.50	-0.38	1.37	-0.38	2.42	3.19	-1.70	4.29	7.10	5.75	2.86	2.72	3.93	5.43	6.75	Dec-01-84
BERS Custom Benchmark (No Cash)			-0.34	0.88	-0.34	3.40	4.20	-1.71	3.74	7.09	5.98	3.74	2.79	4.07			Dec-01-84
Excess			-0.03	0.48	-0.03	-0.98	-1.01	0.01	0.55	0.01	-0.23	-0.88	-0.07	-0.14			
AFL-CIO Hsg Inv Trust	11.93	0.29	-0.40	1.16	-0.40	3.77	4.45	-2.37	4.27	7.86	6.16	4.10	3.04	4.25		4.82	Dec-01-06
Barclays Aggregate (Daily)			-0.25	0.94	-0.25	3.66	4.37	-2.02	4.21	7.84	6.54	3.97	3.04	4.47		4.89	Dec-01-06
Excess			-0.15	0.22	-0.15	0.11	0.08	-0.35	0.06	0.02	-0.39	0.13	0.00	-0.22		-0.06	
Access RBC	6.79	0.16	-0.53	1.23	-0.53	3.88	4.34	-2.09	4.43	6.99	5.72	4.05	3.09	4.37		5.58	Mar-01-07
Access RBC Benchmark			-0.47	0.73	-0.47	2.84	3.55	-1.50	2.38	6.32	5.52	3.07	2.07	3.40		4.60	Mar-01-07
Excess			-0.06	0.50	-0.06	1.04	0.79	-0.58	2.06	0.66	0.20	0.98	1.03	0.97		0.98	
BERS-TOTAL PPAR																	
GNMA Plus 65bps			-0.49	0.97	-0.49	3.96	5.44	-1.56	2.89	8.70	7.32	5.10	2.88	4.62		5.71	Oct-01-06
Excess			0.82	2.55	0.82	6.81	8.32	8.86	6.39	-3.73	1.19	8.26	6.91	4.30		3.13	
CFSB-PPAR	0.14	0.00	0.43	3.28	0.43	10.02	12.19	4.28	8.16	3.29	12.80	12.12	7.63	8.38		7.84	Oct-01-06
CCD-PPAR	0.34	0.01	0.39	4.42	0.39	10.26	13.62	8.64	11.40	5.59	11.58	13.20	10.92	10.31		9.67	Dec-01-06
NYC BERS CCD-PPAR ETI MTA 2013	0.28	0.01	-0.96	2.26	-0.96	8.27										9.66	Dec-01-13
CPC-PPAR	0.25	0.01	1.49	4.71	1.49	12.78						23.62				23.62	Aug-01-13
JPMC-PPAR	0.24	0.01	0.49	3.75	0.49	9.62										12.71	Sep-01-13
NYC BERS BOA-PPAR ETI MTA 2013	0.10	0.00	0.50	3.77	0.50	10.33										16.87	Dec-01-13
LIIF-PPAR	0.18	0.00	-0.07	2.00	-0.07	6.82	10.56	7.82	6.84	4.96	4.34	9.72	7.89	6.93		6.93	Aug-01-09
NCBCI-PPAR	0.09	0.00	0.39	3.29	0.39	10.41	17.59	12.06	9.46	8.50	4.10	17.31	12.18	9.47		9.47	Aug-01-09
NYC BERS LIIF-PPAR ETI MTA 2013	0.23	0.01	0.50	3.58	0.50	26.86										30.83	Nov-01-13
NYC BERS NCB-CI PPAR ETI MTA 2013	0.02	0.00	0.38	2.90	0.38	9.84										22.06	Nov-01-13
CASH																	
BERS-TOTAL CASH	63.29	1.53	0.02	0.05	0.02	0.11	0.75	0.29	0.54	0.59	0.47	0.22	0.38	0.50	2.30	2.26	Apr-01-04
91 DAY TREASURY BILL (DAILY)			0.00	0.01	0.00	0.02	0.05	0.07	0.11	0.10	0.13	0.05	0.08	0.11	1.64	1.62	Apr-01-04
Excess			0.01	0.04	0.01	0.09	0.69	0.22	0.43	0.49	0.34	0.17	0.30	0.39	0.66	0.64	
BOARD OF ED. SHORT TERM	63.22	1.53	0.02	0.05	0.02	0.11	0.75	0.29	0.53	0.62	0.47	0.21	0.38	0.50	2.22	2.35	Oct-01-00
91 DAY T-BILL			0.00	0.01	0.00	0.02	0.05	0.08	0.11	0.11	0.14	0.04	0.08	0.11	1.62	1.87	Oct-01-00
Excess			0.02	0.04	0.02	0.09	0.70	0.21	0.42	0.51	0.33	0.17	0.31	0.39	0.60	0.48	
C/D - Fail Float Earnings	0.07	0.00															Apr-01-04

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SECURITY LENDING	0.06	0.00															Apr-01-04
PRIVATE EQUITY																	
BERS-TOTAL PRIVATE EQUITY	138.91	3.36	-0.11	12.09	-0.11	12.51	24.58	15.34	7.70	19.15	13.64	24.66	13.43	15.18		3.08	Jul-01-06
NYC R3000 +3% Lagged			0.81	9.19	0.81	18.12	28.84	24.53	35.20	5.55	15.96	29.89	19.90	27.14		12.29	Jul-01-06
Excess			-0.92	2.90	-0.92	-5.61	-4.26	-9.19	-27.50	13.60	-2.32	-5.23	-6.47	-11.96		-9.21	
REAL ASSETS																	
BERS-TOTAL REAL ASSETS	124.51	3.02	1.40	5.69	1.40	9.05	10.22	8.57	14.30	9.43		11.54	10.94			11.31	Dec-01-10
BERS-TOTAL PRIVATE REAL ESTATE	121.84	2.95	1.43	5.49	1.43	8.95	10.16	8.64	14.30	9.43		11.51	10.94			11.30	Dec-01-10
NCREIF NFI-ODCE NET + 100 BP			0.08	2.94	0.08	5.64	12.85	14.02	10.88	16.09		12.85	12.48			14.16	Dec-01-10
Excess			1.35	2.56	1.35	3.31	-2.69	-5.39	3.41	-6.66		-1.34	-1.54			-2.86	
BERS-TOTAL INFRASTRUCTURE	2.67	0.06	0.00	26.03	0.00	13.59										13.59	Dec-01-13
CPI + 4%			0.42	1.69	0.42	3.76										4.35	Dec-01-13
Excess			-0.42	24.34	-0.42	9.83										9.24	
BERS-TOTAL BOARD OF ED.	4,128.75	100.00	-1.42	2.55	-1.42	4.51	19.47	18.78	13.50	-0.42	14.95	13.42	10.34	12.33	8.11	9.02	Jul-01-87
Board of Education Policy Benchmark			-1.15	2.31	-1.15	4.98	18.30	18.10	14.05	0.47	13.04	13.04	10.79	12.22	7.82		Jul-01-87
Excess			-0.27	0.24	-0.27	-0.47	1.17	0.68	-0.55	-0.89	1.91	0.39	-0.45	0.11	0.28		

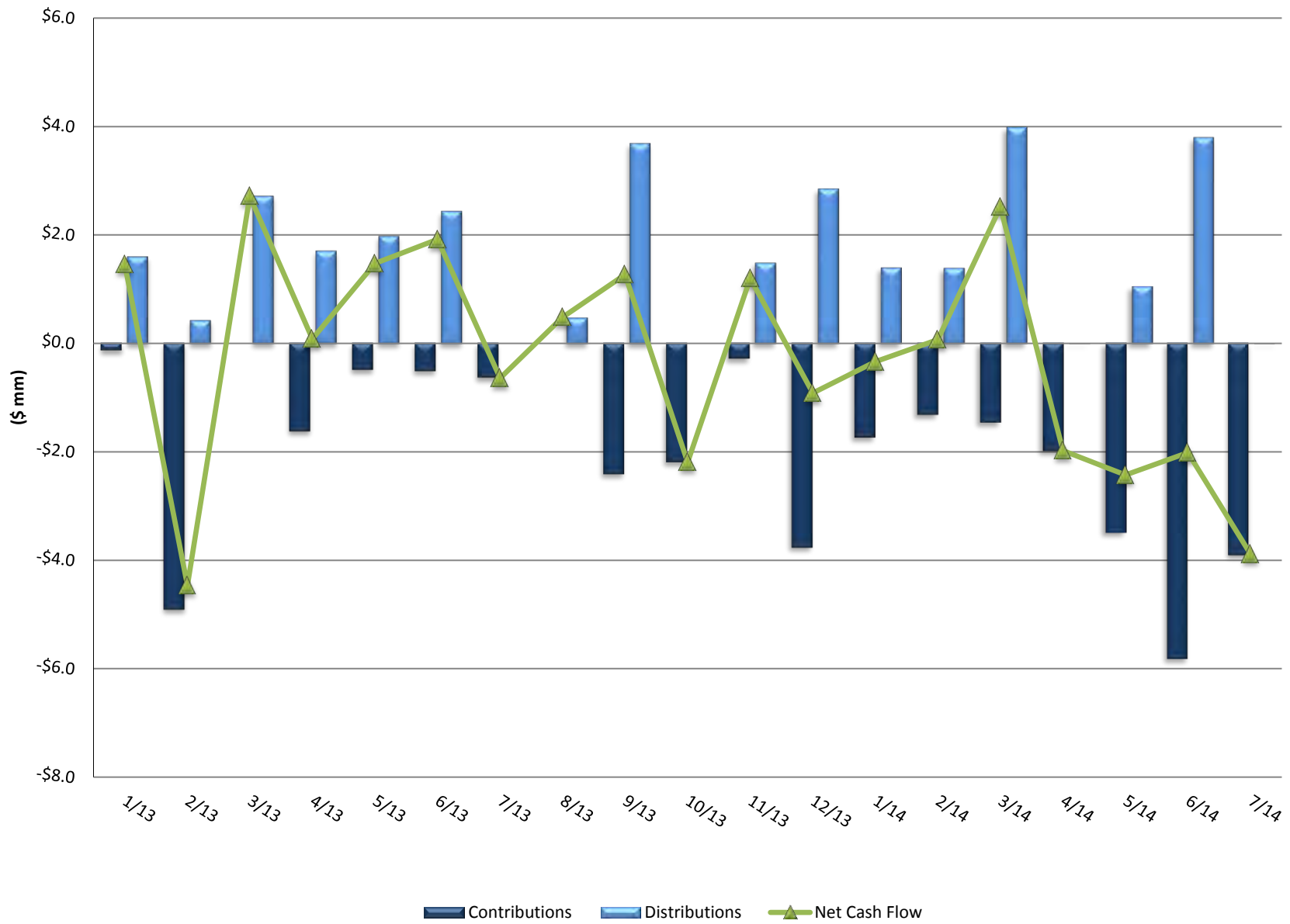
**NYC Board of Education Retirement System**  
**Private Equity Portfolio**  
**As of March 31, 2014 (in USD)**

Vintage Year	Investment	First Drawdown	Committed Capital	Paid-In Capital	Distributed Capital	Market Value	Multiple	IRR
<b>Active Investments</b>								
2005	Mesirow Financial Private Equity Partnership Fund III, L.P.	7/20/2006	\$ 57,000,000	\$ 53,383,273	\$ 28,996,092	\$ 52,238,539	1.52x	8.70%
2006	Mesirow Financial Private Equity Partnership Fund IV, L.P.	3/31/2008	25,000,000	20,217,233	5,753,759	21,813,778	1.36x	9.49%
2006	New York Fairview Private Equity Fund, L.P.	7/14/2006	19,000,000	15,838,013	7,367,694	12,946,467	1.28x	6.29%
2009	Mesirow Financial Private Equity Partnership Fund V, L.P.	3/7/2011	45,000,000	21,614,326	2,033,886	26,728,238	1.33x	16.59%
2012	Warburg Pincus Private Equity XI, L.P.	7/17/2012	25,000,000	7,798,050	796,175	7,964,512	1.12x	N/M
2012	Platinum Equity Capital Partners III, L.P.	1/14/2013	15,000,000	5,760,144	3,643,485	3,596,970	1.26x	N/M
2012	Carlyle Partners VI, L.P.	7/3/2013	20,000,000	868,952	-	628,900	0.72x	N/M
2012	Carlyle Partners VI, L.P. - Side Car	N/A	2,200,000	-	-	-	0.00x	N/M
2013	Landmark Equity Partners XV, L.P.	10/30/2013	19,000,000	2,106,264	-	2,598,084	1.23x	N/M
2013	Landmark Equity Partners XV, L.P. - Side Car	12/24/2013	6,000,000	307,193	-	299,001	0.97x	N/M
2013	Apollo Investment Fund VIII, L.P.	12/11/2013	20,000,000	721,492	12,756	573,356	0.81x	N/M
2013	CVC Capital Partners VI, L.P.	2/18/2014	21,173,924	144,928	-	71,362	0.49x	N/M
2014	Lexington Capital Partners VIII, L.P.	N/A	20,000,000	-	-	-	0.00x	N/M
<b>Total Portfolio</b>			<b>\$ 294,373,924</b>	<b>\$ 128,759,867</b>	<b>\$ 48,603,847</b>	<b>\$ 129,459,207</b>	<b>1.38x</b>	<b>9.25%</b>

Vintage Year	Investment	First Drawdown	Committed Capital	Net Contributed Capital	Net Distributed Capital	Market Value	Multiple	IRR
<b>Commitments Closed Subsequent to as of Date</b>								
2014	ASF VI, L.P.	N/A	\$ 15,000,000	\$ -	\$ -	\$ -	N/A	N/A
2014	ASF VI NYC Co-Invest, L.P.	N/A	5,000,000	-	-	-	N/A	N/A
2014	Crestview Partners III, L.P.	N/A	15,000,000	-	-	-	N/A	N/A
2014	Crestview Partners III (Co-Investment B), L.P.	N/A	5,000,000	-	-	-	N/A	N/A
2014	Vista Equity Partners Fund V, L.P.	N/A	25,000,000	-	-	-	N/A	N/A
<b>Total Commitments Closed Subsequent to as of Date</b>			<b>\$ 65,000,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>N/A</b>	<b>N/A</b>

Note: Where available, March 31, 2014 reported valuations were used. In the absence of March 31, 2014 reported values, market values have been adjusted forward using interim cashflows through March 31, 2014. The IRR calculated in the early years of a fund is not meaningful given the j-curve effect. The aggregate portfolio performance figures for IRR and multiple are as of March 31, 2014.

NYC BERS Monthly PE Cash Flow Summary



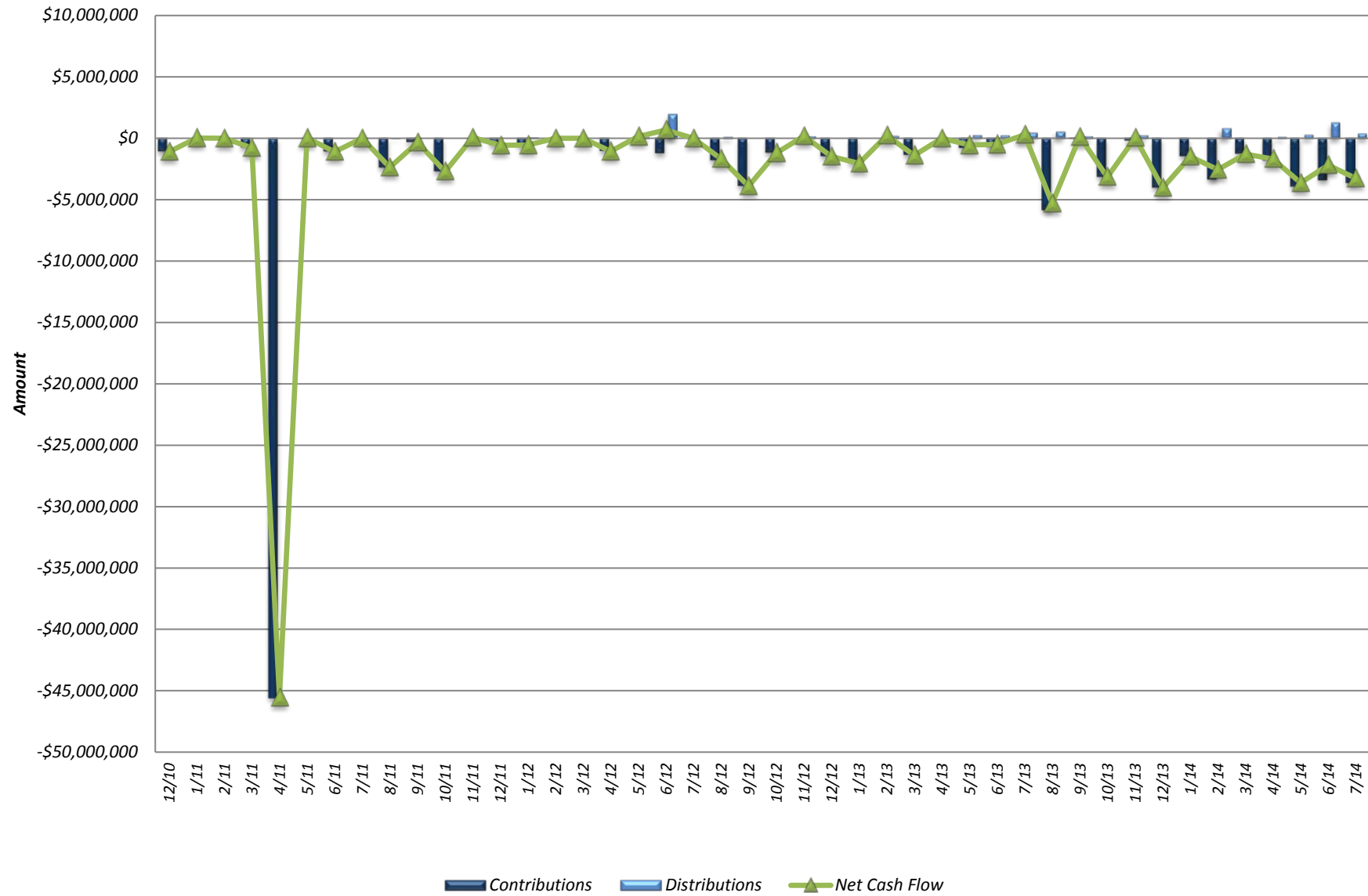
# The Townsend Group®

## New York City Board of Education Retirement System

Vintage Year	Fund Name	First Draw Down	Capital Committed	Contributions	Distributions	Market Value	Equity Multiple	Net IRR
2011	LaSalle Property Fund	12/13/2010	\$27,600,000	\$23,139,430	(\$1,984,025)	\$26,664,282	1.2	12.3%
2013	NYC Asset Investor #2 LLC - Related	7/9/2013	\$11,000,000	\$3,378,516	(\$72,900)	\$3,280,775	1.0	-4.8%
2011	UBS Trumbull Property Fund	4/1/2011	\$41,400,000	\$48,116,729	(\$5,351,145)	\$56,513,741	1.3	9.9%
<b>Core/Core Plus Portfolio</b>			<b>\$80,000,000</b>	<b>\$74,634,675</b>	<b>(\$7,408,069)</b>	<b>\$86,458,799</b>	<b>1.3</b>	<b>10.4%</b>
2014	Blackstone Real Estate Partners Europe IV (USD Vehicle)	12/23/2013	\$25,000,000	\$3,949,087	(\$153,594)	\$3,952,785	1.0	19.6%
2012	Brookfield Strategic Real Estate Partners	9/20/2012	\$10,000,000	\$5,445,701	(\$30,768)	\$5,809,626	1.1	11.0%
2011	Franklin Templeton Private Real Estate Fund	3/31/2011	\$30,000,000	\$10,008,817	(\$2,371,563)	\$10,457,012	1.3	19.1%
2013	NYC Asset Investor #1 LLC - Emmes	6/25/2013	\$10,000,000	\$1,951,994	\$0	\$1,971,693	1.0	2.2%
2013	NYC Asset Investor #3 LLC - Hudson	9/20/2013	\$8,000,000	\$634,978	\$0	\$602,700	0.9	-23.9%
<b>Non-Core Portfolio</b>			<b>\$83,000,000</b>	<b>\$21,990,577</b>	<b>(\$2,555,925)</b>	<b>\$22,793,816</b>	<b>1.2</b>	<b>16.8%</b>
<b>New York City Board of Education Retirement System</b>			<b>\$163,000,000</b>	<b>\$96,625,251</b>	<b>(\$9,963,994)</b>	<b>\$109,252,615</b>	<b>1.2</b>	<b>11.0%</b>
<b>Funds Closed Subsequent to Quarter</b>								
Vintage	Fund Name	First Draw Down	Capital Committed	Contributions				
2014	Carlyle Realty Fund VII		\$25,000,000	-	-	-	-	-
2014	MetLife Core Property Fund		\$15,000,000	-	-	-	-	-
<b>Grand Total</b>			<b>\$40,000,000</b>					

Source: PCG historical cash flow data. TTG cash flow data from Fund Managers, effective 2005. Note: The equity multiples and IRRs contained in this report are interim calculations based upon information provided by the investment managers of the New York City Retirement Systems, including cash flows and quarterly unaudited, or audited, valuations. The IRR calculated in early years of a fund life is not meaningful given the J-curve effect and can be significantly impacted by the timing of cash flows, investment strategy, investment pacing, and fund life. The calculations are not necessarily indicative of total fund performance, which can only be determined after the fund is liquidated and all capital contributed and earnings have been distributed to the investor. All data supplied is as of March 31, 2014. Note: The General Partner of the JPMorgan Urban Renaissance Fund terminated the Fund on February 23, 2010 and all capital contributed, including management fees, was returned to investors.

### BERS Monthly Real Estate Cash Flow Summary





## APPENDICES:

Basket Clause

## BERS- BASKET/NON BASKET SUMMARY

As of July 31st, 2014 <u>Equity</u>	<u>Adjusted Fund Policy</u>			<u>Fund Actual (PE &amp; RE on an invested basis)</u>		
	<u>Non Basket*</u>	<u>Basket*</u>	<u>Total</u>	<u>Non Basket*</u>	<u>Basket*</u>	<u>Total</u>
<b>Domestic Equity</b>	41.6%	0.0%	41.6%	43.7%	0.0%	43.7%
<b>Non-U.S. Equity</b>	10.0%	12.0%	22.0%	10.0%	12.9%	22.9%
<b>Private Equity</b>	0.0%	3.4%	3.4%	0.0%	3.4%	3.4%
<b>Real Assets</b>	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%
<b>Total Equity</b>	<b>54.6%</b>	<b>15.4%</b>	<b>70.0%</b>	<b>56.7%</b>	<b>16.3%</b>	<b>73.0%</b>
<b><u>Fixed Income</u></b>						
<b>Core+5</b>	16.5%	0.5%	17.0%	13.8%	0.5%	14.3%
<i>U.S. Gov't Sector</i>	3.2%	0.0%	3.2%	2.2%	0.0%	2.2%
<i>Mortgage Sector</i>	6.5%	0.0%	6.5%	6.0%	0.0%	6.0%
<i>Credit Sector</i>	6.9%	0.5%	7.4%	6.1%	0.5%	6.6%
<b>High Yield</b>	4.5%	1.0%	5.5%	4.2%	1.0%	5.2%
<b>Bank Loans</b>	0.0%	2.5%	2.5%	0.0%	2.0%	2.0%
<b>TIPS</b>	4.5%	0.5%	5.0%	3.1%	0.3%	3.4%
<b>Other Fixed Income</b>	0.0%	0.0%	0.0%	2.0%	0.0%	2.0%
<b>Total Fixed Income</b>	<b>25.5%</b>	<b>4.5%</b>	<b>30.0%</b>	<b>23.1%</b>	<b>3.9%</b>	<b>27.0%</b>
<b>Total Fund</b>	<b>80.1%</b>	<b>19.9%</b>	<b>100.0%</b>	<b>79.8%</b>	<b>20.2%</b>	<b>100.0%</b>

**Remaining Capacity**

5.1%

4.8%

\* Note: Basket amounts are estimates

## Liquidity Analysis

## BERS Liquidity Profile - Static Analysis

9/2/14

AUM as of July 31, 2014

	Current MV	Liquid Assets		
		Today	1 Year	2 Years
Domestic Equity	\$1,803	\$1,803	\$1,803	\$1,803
International Equity	749	749	749	749
Emerging Markets	198	198	198	198
Private Equity	139	0	0	0
Private Real Estate	125	0	0	0
Core + 5	592	592	592	592
TIPS	141	141	141	141
Enhanced Yield	215	215	215	215
Bank Loans	83	83	83	83
ETI	21	12	19	19
Cash	64	64	64	64
<b>Total Assets</b>	<b>\$4,129</b>	<b>\$3,857</b>	<b>\$3,864</b>	<b>\$3,864</b>
<b>Total Illiquid \$</b>		<b>\$272</b>	<b>\$265</b>	<b>\$265</b>
<b>Total Illiquid %</b>		<b>6.6%</b>	<b>6.4%</b>	<b>6.4%</b>
Unfunded PE Commitments	\$218			
Unfunded RE Commitments	77			
<b>Total commitments \$</b>	<b>\$295</b>			
<b>Total commitments %</b>	<b>7.1%</b>			

## BERS Liquidity Profile - Static Analysis

9/2/14

AUM as of July 31, 2014

### Denominator Effect - Decrease AUM by One-Third

<b>Total Illiquid \$</b>	\$272	\$265	\$265
<b>Total Illiquid %</b>	9.9%	9.6%	9.6%

Note: Assumes zero realizations, no new commitments and a five-year investment period; funded out of liquids

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	Current MV	Liquid Assets		
		Today	1 Year	2 Years
<b>Total Assets</b>	<b>\$4,129</b>	<b>\$3,857</b>	<b>\$3,864</b>	<b>\$3,864</b>

### Private Equity, Real Estate and Opportunistic Fixed Income Stress Case

Unfunded PE Commitments Drawn	\$44	\$87
Unfunded RE Commitments Drawn	15	31
<b>Total commitments \$</b>	<b>\$59</b>	<b>\$118</b>
<b>Total commitments %</b>	1.4%	2.9%

<b>Total Illiquid \$</b>	\$324	\$383
<b>Total Illiquid %</b>	7.9%	9.3%

Note: Assumes zero realizations, no new commitments and a five-year investment period; funded out of liquids

### Denominator Effect - Decrease AUM by One-Third

<b>Total Illiquid \$</b>	\$272	\$324	\$383
<b>Total Illiquid %</b>	9.9%	11.8%	13.9%

Note: Assumes zero realizations, no new commitments and a five-year investment period; funded out of liquids