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Chief Investment Officer

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JOHN C. LIU  
COMPTROLLER

## MEMORANDUM

TO: Trustees  
Teachers' Retirement System of the City of New York

FROM: Larry Schloss

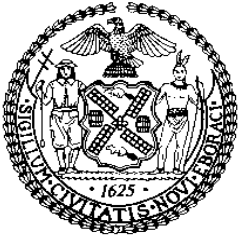
DATE: August 30, 2012

RE: Teachers' Retirement System of the City of New York Investment Meeting –  
September 6, 2012

Enclosed is a copy of the **public agenda** for the September 6, 2012 Investment Meeting. The meeting will be held at 55 Water Street, 16th Floor Conference Room, **beginning at 9:30am**.

Please remember to bring your **Quarterly Performance Overview** book with you to the meeting; it has been mailed to you.

If you have questions about any agenda item, please give me a call at 212-669-8318.



THE CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER  
1 CENTRE STREET  
NEW YORK, N.Y. 10007-2341

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John C. Liu  
COMPTROLLER

# **TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

## **INVESTMENT MEETING**

**SEPTEMBER 6, 2012**

INVESTMENT MEETING

SEPTEMBER 6, 2012

PUBLIC AGENDA

	<u>Page</u>
I. Performance Reviews: (45 Minutes)	
• Quarterly Review/Annual Review – June 30, 2012 (Previously Distributed)	---
➤ ETI Quarterly Report – June 30, 2012	6
➤ Real Estate Quarterly Report – March 31, 2012	13
➤ Private Equity Quarterly Report – March 31, 2012	21
II. July Monthly Performance Review: (30 Minutes)	46
III. General IPS: (30 Minutes)	107
IV. Private Equity IPS: (30 Minutes)	152
V. Infrastructure Education: (1 Hour)	166
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• Liquidity Analysis	205

## PUBLIC AGENDA



## I. Performance Reviews:

Quarterly Review/Annual Review – June 30, 2012  
(To be distributed)

## ETI Quarterly Report

The City of New York - Office of the Comptroller  
Bureau of Asset Management  
TRS Economically Targeted Investments Quarterly Report  
Collateral Benefits as of 06/30/2012

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Public/Private Apartment Rehabilitation Program (PPAR)

Lenders*	CPC		NHS		CCD		CFSB		NCBCI		LIIF		All Lender Totals	
	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units
Contractual Commitments	\$235,000,000	n/a	\$5,000,000	n/a	\$13,200,000	n/a	\$32,900,000	n/a	\$8,250,000	n/a	\$24,900,000	n/a	\$319,250,000	n/a
Current Market Value	\$100,101,903	n/a	\$581,636	n/a	\$4,610,330	n/a	\$1,996,347	n/a	\$833,523	n/a	\$1,622,870	n/a	\$109,746,609	n/a
Commitments 2Q 12 (included in total)														
Bronx	\$5,478,790	203	\$0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$5,478,790	203
Brooklyn	2,981,931	177	0	0	0	0	0	0	0	0	1,154,670	47	4,136,601	224
Manhattan	96,727	24	0	0	0	0	0	0	0	0	0	0	96,727	24
Queens	0	0	0	0	660,000	54	0	0	0	0	0	0	660,000	54
Staten Island	305,500	8	0	0	0	0	0	0	0	0	0	0	305,500	8
Total	\$8,862,948	412	\$0	0	\$660,000	54	\$0	0	\$0	0	\$1,154,670	47	\$10,677,618	513
Delivered 2Q 12 (included in total)														
Bronx	\$856,786	86	\$0	0	\$882,750	76	\$0	0	\$0	0	\$0	0	\$1,739,536	162
Brooklyn	1,871,826	112	0	0	0	0	0	0	0	0	0	0	1,871,826	112
Manhattan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queens	0	0	0	0	660,000	54	0	0	0	0	0	0	660,000	54
Staten Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$2,728,611	198	\$0	0	\$1,542,750	130	\$0	0	\$0	0	\$0	0	\$4,271,361	328
Total Commitments														
Bronx	\$25,131,110	1,813	\$0	0	\$4,170,210	376	\$0	0	\$0	0	\$0	0	\$29,301,320	2,189
Brooklyn	47,685,286	1,498	0	0	2,038,740	128	0	0	302,395	33	1,751,990	118	51,778,411	1,777
Manhattan	19,465,509	1,114	0	0	1,227,683	49	675,644	30	2,581,876	206	3,846,334	246	27,797,046	1,645
Queens	4,628,750	56	0	0	660,000	54	0	0	0	0	0	0	5,288,750	110
Staten Island	305,500	8	0	0	0	0	0	0	0	0	0	0	305,500	8
Total	\$97,216,154	4,489	\$0	0	\$8,096,633	607	\$675,644	30	\$2,884,271	239	\$5,598,325	364	\$114,471,027	5,729
Historical Investments														
Bronx	\$35,030,696	2,285	\$0	0	\$882,750	76	\$0	0	\$0	0	\$0	0	\$35,913,446	2,361
Brooklyn	52,158,601	2,457	330,213	7	1,338,417	124	0	0	0	0	1,785,452	174	55,612,682	2,762
Manhattan	31,580,966	2,085	252,445	15	1,621,585	204	1,977,348	167	845,557	66	0	0	36,277,901	2,537
Queens	21,587,871	887	0	0	660,000	54	0	0	0	0	0	0	22,247,871	941
Staten Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$140,358,133	7,714	\$582,658	22	\$4,502,752	458	\$1,977,348	167	\$845,557	66	\$1,785,452	174	\$150,051,900	8,601

\*Lenders :

The Community Preservation Corporation

Neighborhood Housing Services

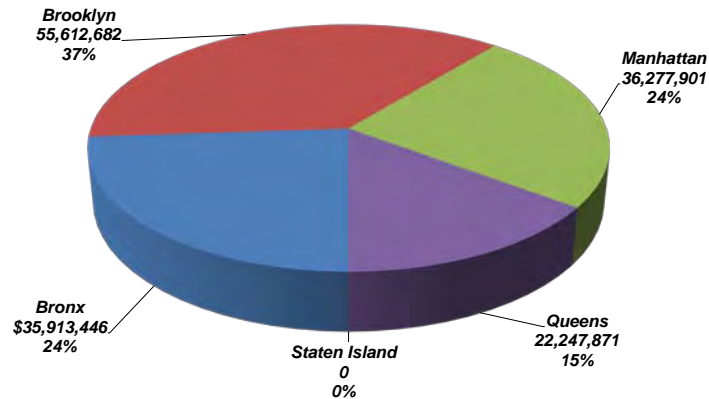
Citibank Community Development

Carver Federal Savings Bank

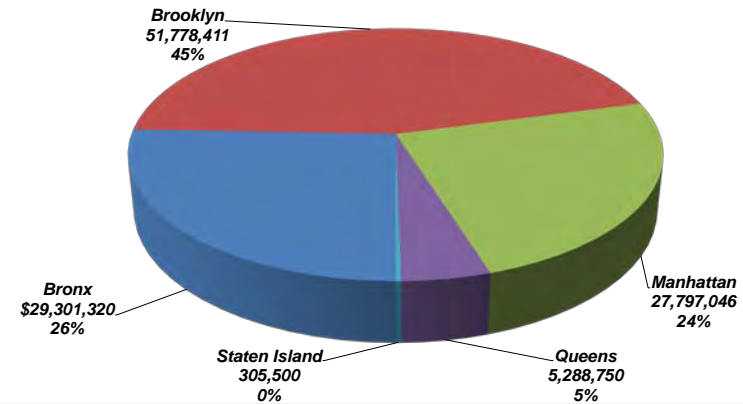
NCB Capital Impact

Low Income Investment Fund

Historical Investments Since Inception All PPAR Lenders



Current Commitments All PPAR Lenders



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Bureau of Asset Management  
TRS Economically Targeted Investments Quarterly Report  
Collateral Benefits as of 06/30/2012

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AFL-CIO Housing Investment Trust (HIT)  
Market Value \$205.7 million\*  
NYC Community Investment Initiative (NYCCII)

**NYCCII PHASE II 2006-2012**

**Multifamily Investments Detail**

Borough	Dollars	Units
Bronx	\$52,827,900	802
Brooklyn	14,890,446	3,033
Manhattan	134,075,200	926
Queens	17,760,000	1,260
Staten Island	6,414,554	693
<b>Total</b>	<b>\$225,968,100</b>	<b>6,714</b>

**Single Family Investments Detail**

	Home Loans	Transactions	Member Loans	Total All NYC PF's
Bronx	\$192,898,759	902	179	272
Brooklyn	776,987,340	3,116	649	1,050
Manhattan	173,004,333	714	210	230
Queens	793,077,043	3,216	572	906
Staten Island	314,019,951	1,260	224	399
<b>Total</b>	<b>\$2,249,987,426</b>	<b>9,208</b>	<b>1,834</b>	<b>2,857</b>

Grand Total NYCCII Phase II \$2,475,955,526

Other-NYC Metro Area\*\* \$100,000,000 137

**NYCCI Phase I 2002 - 2005**

		Units	Member Loans	Total All NYC PF's
Multifamily Investments	\$249,123,500	12,337	n/a	n/a
Single Family Investments	348,300,563	n/a	133	446
<b>Total NYCCII Phase I</b>	<b>\$597,424,063</b>	<b>12,337</b>	<b>133</b>	<b>446</b>

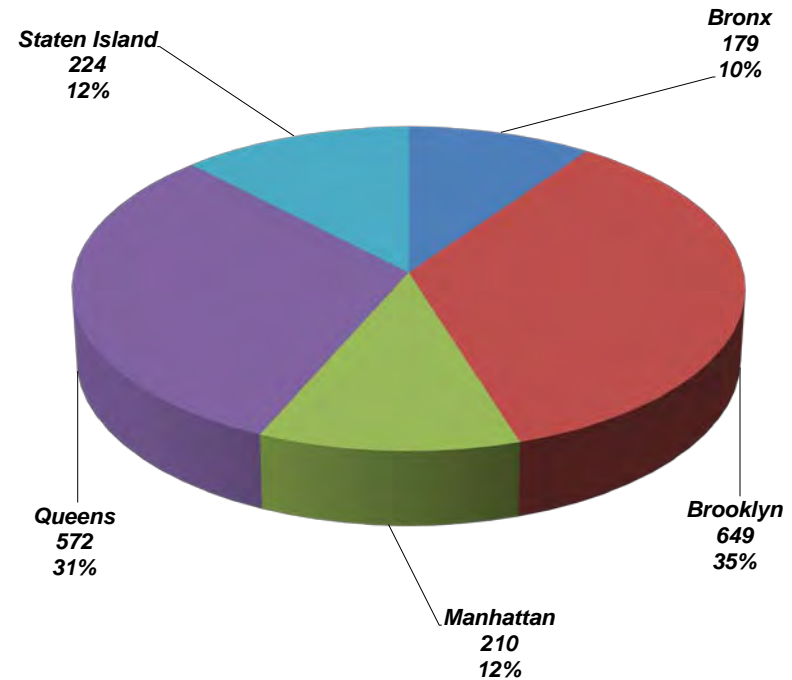
**NYCCI Phases I & II**

		Units	Member Loans	Total All NYC PF's
Multifamily Investments	\$475,091,600	19,051	n/a	n/a
Single Family Investments	2,598,287,989	n/a	1,967	3,303
<b>Grand Total NYCCII Phases I &amp; II</b>	<b>\$3,073,379,589</b>	<b>19,051</b>	<b>1,967</b>	<b>3,303</b>

\*Interest is reinvested

\*\*This investment is for a pediatric nursing facility in Yonkers, approximately 4 miles from the NYC border. It will finance a replacement facility for the Elizabeth Seton Pediatric Center, currently located in Chelsea, which is "one of only two pediatric nursing facilities in downstate New York, and the only one dedicated to long-term care." The new facility will have 137 beds and serve children from NYC, Westchester and Putnam Counties.

**HIT Home Loans To TRS Members Phase II**



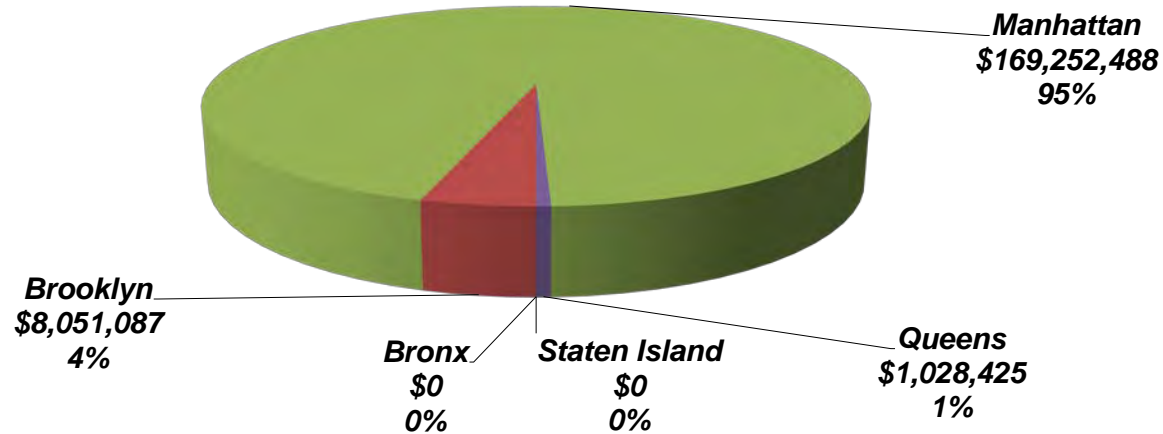
**AFL- CIO Housing Investment Trust (HIT)  
 NYC Workforce Housing Initiative 2009-2014**

**Investments Through 06/30/2012**

**Workforce Investment Detail**

<b>Borough</b>	<b>Dollars</b>	<b>Workforce Housing Units</b>
Bronx	\$0	0
Brooklyn	8,051,087	422
Manhattan	169,252,488	4,627
Queens	1,028,425	208
Staten Island	0	0
<b>Total</b>	<b>\$178,332,000</b>	<b>5,257</b>

***HIT Worforce Housing Initiative***



### CPC Term Loan

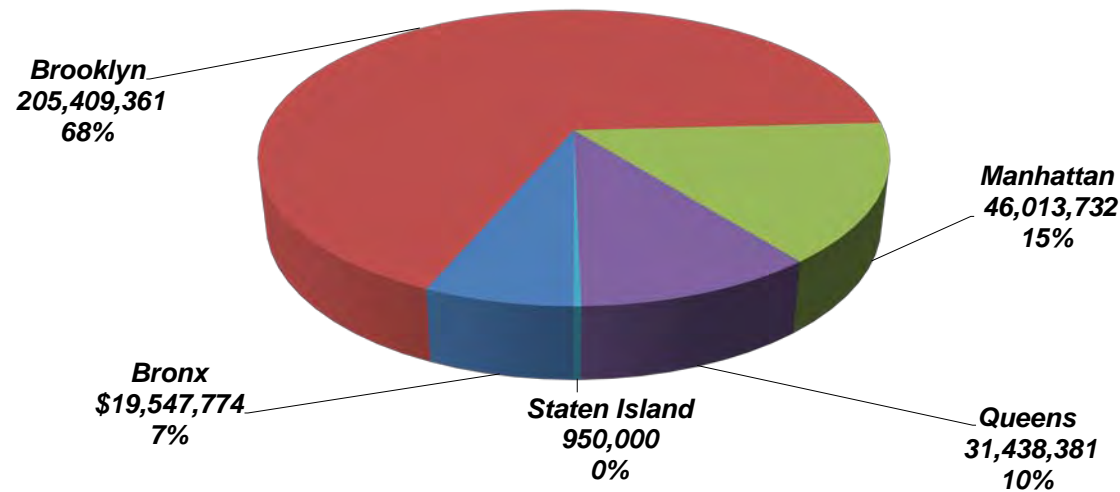
Revolver Current Commitments	\$303,359,248
TRS Commitments Shares	\$18,444,204
TRS Market Value*	\$18,444,204

	# Loans	\$ Committed	# Units Residential	# Units Commercial
Bronx	20	\$19,547,774	550	28
Brooklyn	59	205,409,361	1,772	40
Manhattan	39	46,013,732	849	22
Queens	8	31,438,381	254	10
Staten Island	1	950,000	3	0
Grand Total NYC	127	\$303,359,248	3,428	100

Other NY State	42	\$136,490,225	1,462	21
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\* Equals the amount drawn down. Interest is paid monthly.

### CPC Term Loan NYC Commitments



The City of New York - Office of the Comptroller  
Bureau of Asset Management  
TRS Economically Targeted Investment Quarterly Report  
Collateral Benefits as of 6/30/2012

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

Allocated Amount \$33 million (33% of total account)  
Market Value \$45.1 million

Multifamily Investments Detail

Borough	TRS Investment	Total Units	# of LMI* Units
Bronx	\$5,775,000	508	508
Brooklyn	4,356,000	404	404
Manhattan	19,068,003	2,815	1,677
Queens	3,844,500	762	762
Staten Island	0	0	0
<b>Total TRS Multifamily Investments</b>	<b>\$33,043,503</b>	<b>4,489</b>	<b>3,351</b>
<b>MultifamilyTotal All Systems</b>	<b>\$100,131,826</b>	<b>4,489</b>	<b>3,351</b>

Single Family Investments Detail

Borough	TRS Investment	Total Units	# of LMI* Units
Bronx	\$6,372,598	113	113
Brooklyn	17,272,323	287	287
Manhattan	2,153,634	28	28
Queens	20,178,815	304	304
Staten Island	9,980,063	153	153
<b>Total TRS Single Family Investments</b>	<b>\$55,957,433</b>	<b>885</b>	<b>885</b>
<b>Single Family Total All Systems</b>	<b>\$169,567,980</b>	<b>885</b>	<b>885</b>

Other Investments Detail

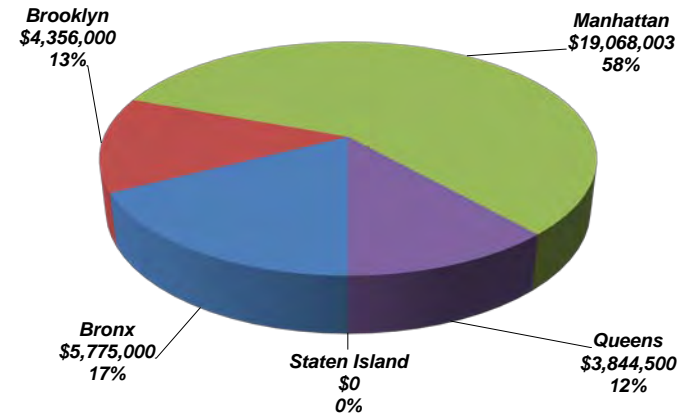
Borough	TRS Investment	# of Loans
Bronx	\$222,750	1
Brooklyn	1,778,833	8
Manhattan	802,859	5
Queens	179,333	3
Staten Island	0	0
<b>Total TRS Other Investments</b>	<b>\$2,983,774</b>	<b>17</b>
<b>Other InvestmentsTotal All Systems</b>	<b>\$9,041,740</b>	<b>17</b>

**Grand Total TRS** \$91,984,710

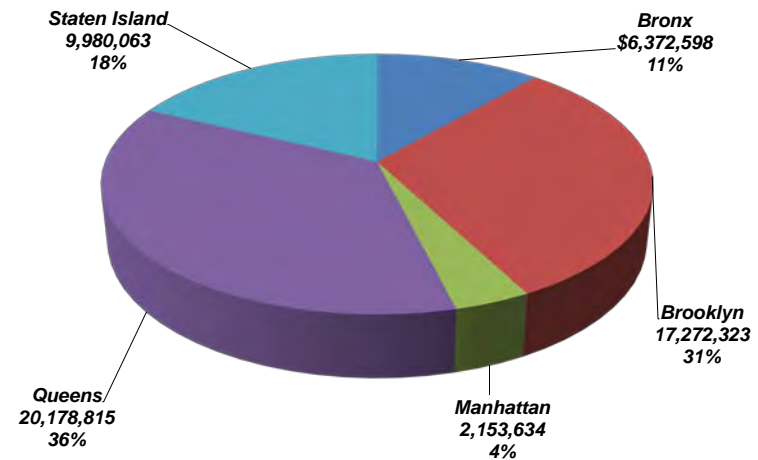
**Grand Total All Systems** \$278,741,546

\* LMI = Low or Moderate Income

**Access Multifamily Investments Since Inception TRS**



**Access Single Family Investments Since Inception TRS**





The City of New York Office of the Comptroller  
Bureau of Asset Management  
TRS Economically Targeted Investment Quarterly Report  
Collateral Benefits as of 06/30/2012

	Assets (\$MM)	Trailing 1 Month	Trailing 3 Months	6/30/2007 6/30/2012	Year To Date	Trailing 1 Year	Trailing* 3 Years	Trailing* 5 Years	Trailing* 7 Years	Trailing* 9 Years	Trailing* 10 Years	Trailing* 11 Years	Trailing* 15 Years	Since Inception	Data Start Date
TEACHERS															
AFL-CIO HOUSING INV TRUST	205.67	0.15	2.42	7.60	2.64	7.60	6.48	6.87	5.60	5.11	****	****	****	5.32	09/30/02
CPC -PPAR	100.10	0.78	2.44	7.16	4.41	7.16	8.13	8.74	8.03	7.99	8.02	****	****	8.06	10/31/01
ACCESS VOYAGEUR	45.13	0.43	1.71	6.57	2.46	6.57	6.18	7.37	****	****	****	****	****	6.86	02/28/07
CPC - TERM LOAN	18.48	0.21	0.63	2.34	1.26	2.34	2.16	3.21	4.25	****	****	****	****	4.25	03/31/04
ERASMUS	14.48	****	****	****	****	****	****	****	****	****	****	****	****	****	10/31/05
CCD-PPAR	4.61	0.95	4.52	8.83	6.07	8.83	9.36	9.54	****	****	****	****	****	8.95	11/30/06
CFSB-PPAR	2.00	1.30	3.13	5.67	4.34	5.67	8.29	8.17	****	****	****	****	****	7.53	09/30/06
LIIF	1.62	0.50	1.58	5.72	3.01	5.72	****	****	****	****	****	****	****	5.54	07/31/09
NCBCI	0.83	0.77	2.34	8.88	3.89	8.88	****	****	****	****	****	****	****	6.64	07/31/09
NHS-PPAR	0.58	0.82	2.64	5.04	4.18	5.04	9.61	****	****	****	****	****	****	8.57	09/30/07
GNMA	0.08	0.84	2.34	1.86	4.83	1.86	4.29	5.41	5.97	5.82	6.09	****	****	6.10	10/31/01
SHORT TERM INVESTMENTS	0.03	0.01	0.03	0.08	0.05	0.08	0.14	1.04	2.18	2.07	2.07	****	****	2.65	11/30/84
TOTAL TEACHERS TARGETED (w/cash)**	379.14	0.37	2.27	7.07	3.04	7.07	6.57	7.04	6.07	5.71	5.96	6.32	6.99	10.08	09/30/81
TOTAL TEACHERS TARGETED (w/o cash)**	379.11	0.38	2.28	7.13	3.08	7.13	6.64	7.09	6.10	5.74	6.02	6.31	7.12	8.89	11/30/84
TEACHERS CUSTOM BENCHMARK (no cash)		0.06	1.72	6.70	2.11	6.70	6.44	6.67	5.67	5.28	5.55	5.89	6.44		
BARCLAYS CAPITAL US AGGREGATE BOND INDEX		0.04	2.06	7.47	2.37	7.47	6.93	6.79	5.58	5.11	5.63	5.90	6.27		

\*Time periods greater than one year are annualized. Historical returns prior to April 2004 provided by Citigroup.

\*\* Returns are net of fees and exclude Erasmus.

## Real Estate Quarterly Report

**Teachers' Retirement System  
of the City of New York**

**Performance Measurement Report  
First Quarter 2012**

The Townsend Group

Cleveland, OH   San Francisco, CA   London, UK   Hong Kong

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Glossary of Terms		Exhibit A
Market Overview		Exhibit B

## The Townsend Group Performance Measurement Report

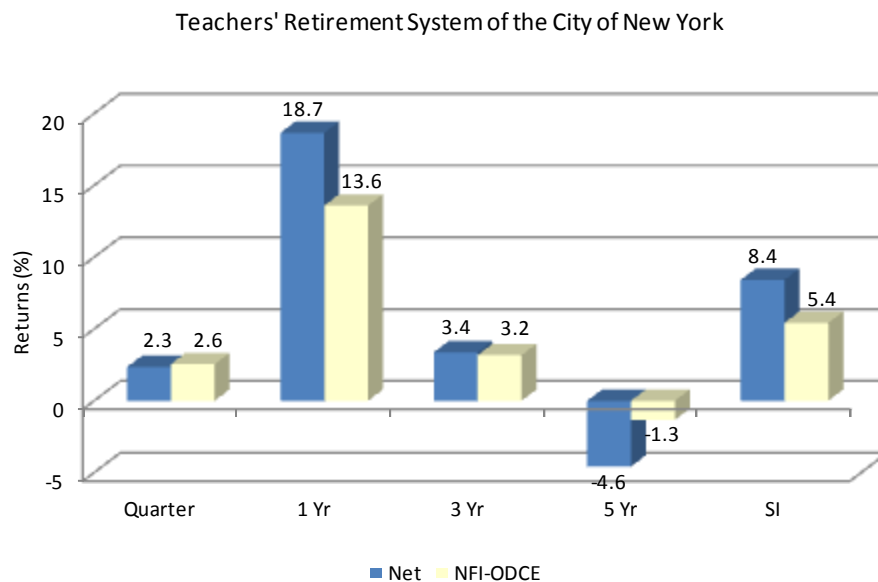
### TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

#### FIRST QUARTER 2012

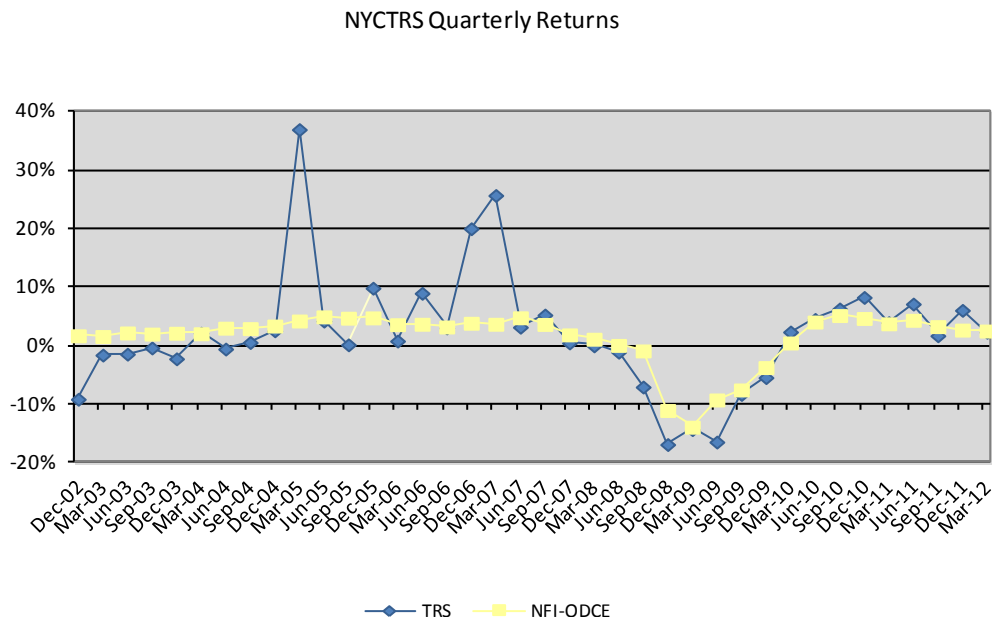
#### I. Performance Summary

At the end of the First Quarter 2012, ("Quarter") The Teachers' Retirement System of the City of New York ("NYCTRS") Real Estate Portfolio ("Portfolio") had a cumulative market value of \$817 million. Total market value plus unfunded commitments was \$1.2 billion, or 45.7% of the real estate allocation. During the Quarter, the Portfolio achieved a total gross return of 2.7% which was comprised of 0.8% income and 1.9% appreciation. The NCREIF Open-end Diversified Core Equity Index ("NFI-ODCE") reported a total net return of 2.6%. In addition, the Portfolio achieved a total net return of 2.3%.

The following chart reflects the total net returns for the NYCTRS' Portfolio compared to the NFI-ODCE. The US economic outlook has improved significantly following the market volatility in the second half of 2011. The recovery in the US appears to be self-sustaining, although growth should be moderate. Job growth has spread from the tech-related markets to other segments as well. The Federal Reserve remains committed to an accommodative monetary policy to boost economic growth. Possible obstacles could arise from the euro zone crisis which continues to pose considerable risk for the US economy. During the Global Financial Crisis, real estate values declined 24% and 38% for the de-levered NCREIF Property Index ("NPI") and the levered NFI-ODCE, respectively. Since the market trough in 2010, both indices have recovered 33% and 36%, respectively, suggesting a market recovery continues. US Transaction volume increased 42.8% in the First Quarter of 2012 compared to the first quarter of 2011, according to RCA Analytics. Transaction activity should grow in 2012, driven by demand for income-producing assets and the slower than expected liquidation of distressed assets. REITs are also on pace for another year of record capital raising as share prices increase, helping fuel the increase in acquisitions. Foreign investors are also flocking to the US for stable cash flows. The benchmark established for the Portfolio is the NFI-ODCE net over rolling five-year periods.



The graph below shows the total net returns for the Portfolio by quarter since inception. NFI-ODCE total net return performance is also included. It is important to note the effects of the “J-curve” whereby fees on committed capital exceed distributions to the Portfolio due to minimal invested capital and the early stages of the value-added/opportunistic process in the underlying investments.



The table below reflects the returns for the Portfolio and the NFI-ODCE during pertinent time periods and segments these returns by their components: income, appreciation, and total return. The Portfolio’s objective is to generate a total net return that exceeds the NFI-ODCE total net return measured over rolling five-year periods.

Returns (%)	Quarter				1 Year				3 Year				5 Year				Inception	
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET
Teachers' Retirement System of the City of New York	0.8	1.9	2.7	2.3	6.6	14.6	21.9	18.7	4.4	1.2	5.7	3.4	3.6	-6.6	-3.2	-4.6	13.6	8.4
NFI-ODCE Value Weighted Index	1.3	1.5	2.8	2.6	5.4	8.9	14.7	13.6	6.1	-1.9	4.1	3.2	5.7	-5.8	-0.4	-1.3	6.4	5.4

## II. Portfolio Composition

Teachers' Retirement System of the City of New York		
Total Plan Assets	3/31/2012	\$44,653
Real Estate Allocation (%)		6.0%
Real Estate Allocation (\$)		\$2,679
Style Sector Allocation		
Core / Core Plus Portfolio	40.0%	\$1,072
Non-Core Portfolio	55.0%	\$1,474
Emerging Managers Portfolio	5.0%	\$134
Uncommitted Core / Core Plus Portfolio		\$601
Uncommitted Non-Core Portfolio		\$759
Uncommitted Emerging Managers Portfolio		\$97
Funded (Market Value) and Committed Statistics		
Core / Core Plus Portfolio		38.5%
Non-Core Portfolio		58.5%
Emerging Managers Portfolio		3.0%
\$ Committed		\$1,223
% Committed on Real Estate Allocation		45.7%
% Committed on Total Plan Assets		2.7%
Funded (Market Value) Statistics		
% Funded (Market Value) of Total Plan Assets		1.8%
% Funded (Market Value) of Total Real Estate Allocation		30.5%

Teachers		
Investment Cash Flow Summary		
	Quarter	To Date
Contributions	\$16.1	\$1,031.8
Distributions	-\$5.0	-\$322.6
Withdrawals	-\$0.3	-\$73.0

Contributions: Includes actual cash funded to the investment for acquisition and capital items during the quarter.

Distributions: Includes actual cash returned during the quarter from the investments which represents distributions of income from operations and profit.

Withdrawals: Includes cash returned from the investment as a result of return of capital.

### III. Portfolio Compliance

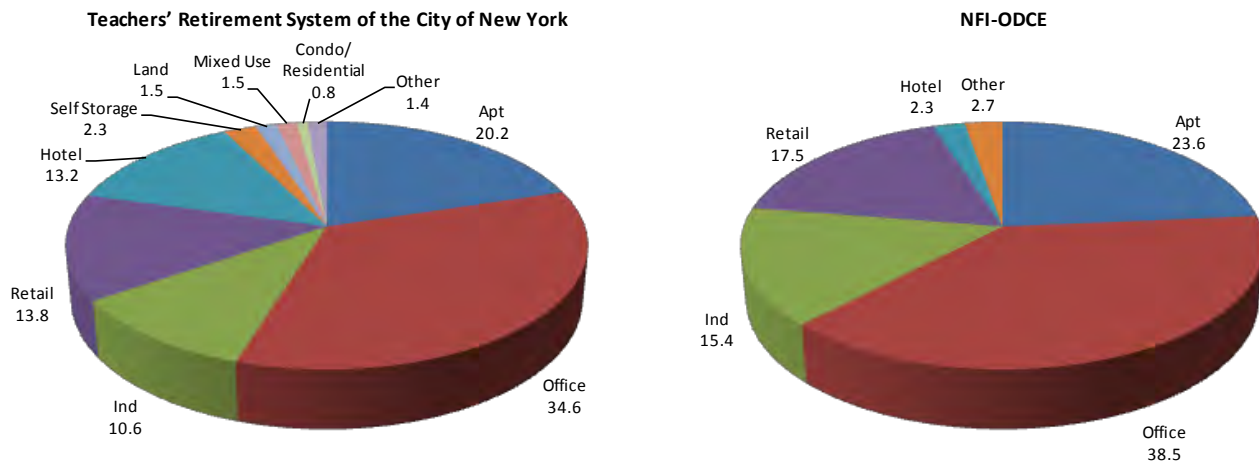
Category	Requirement	Portfolio Status
Benchmark	NFI-ODCE (net) over rolling five-year periods	<i>Portfolio returns underperform benchmark.</i>
Portfolio Composition	Core/Core Plus (minimum of 40%)  Non Core (minimum of 40%)  Non Core Emerging (greater of \$93 million or 5% of the total real estate allocation)	<i>The portfolio is funded (market value) and committed at 45.7% of real estate allocation with a portfolio composition of 38.5% core, 58.5% non-core, and 3.0% emerging.</i>
Real Estate Allocation	Target of 6.0%	<i>Funded (market value) and committed dollars place the portfolio at 2.7% of total plan assets.</i>
	Currently Funded at 1.8%	
Diversification	$\pm 30\%$ of NFI-ODCE  Other property type (0%-15%)	<i>All property types and geographic locations are in compliance.</i>
LTV	50%	<i>Portfolio is in early stages of funding, but is in compliance (45.9%).</i>
Manager Exposure	0%-25% of real estate allocation	<i>Manager exposure is within compliance ranges.</i>



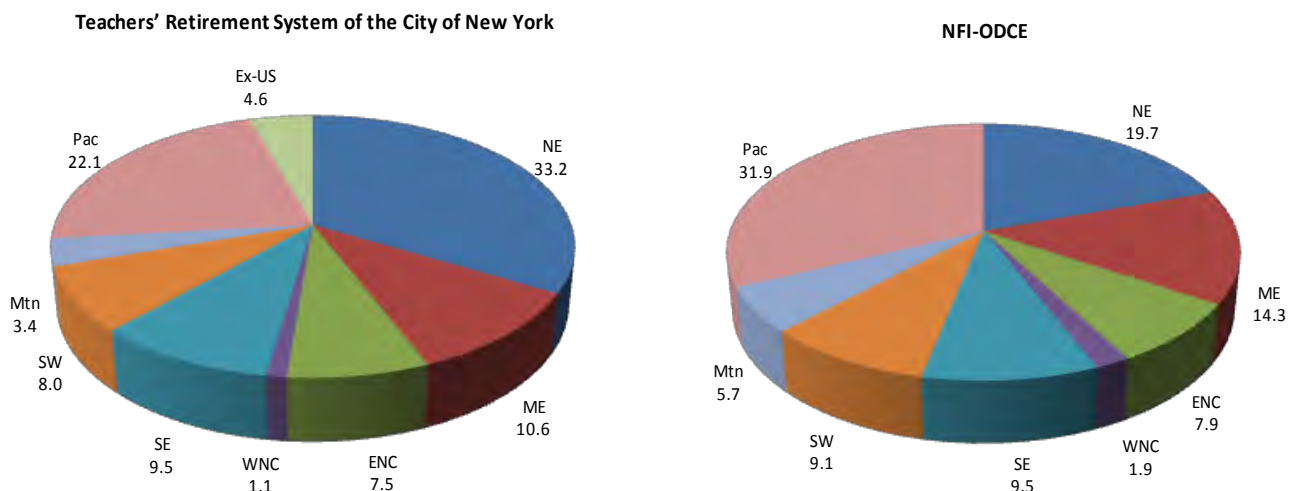
#### IV. Portfolio Diversification

The Investment Policy Statement (IPS) establishes ranges for diversification by property type and geographic region. These ranges are broad based and allow for investment in all major property types and all geographic regions. The diversification of the current portfolio by property type and geographic region is shown below and compared to diversification of the NFI-ODCE at the end of the Quarter.

##### Property Type Diversification (%)



##### Geographic Diversification (%)



## Private Equity Quarterly Report



Hamilton Lane



MARCH 31, 2012

ALTERNATIVE INVESTMENT REPORT

## Teachers' Retirement System of the City of New York

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# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

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# Section 1:

## Market Update

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

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### June 2012

The beginning of 2012 brought recurring macroeconomic themes and uncertainties surrounding the direction of the global markets, which include the effects of economic reform and stagnant growth in Europe, along with the opportunity for investments in the emerging markets. Despite the ongoing uncertainty, global equity markets were resilient with the S&P 500 and FTSE 100 up 12.6% and 1.2% respectively, during the first quarter of 2012.<sup>1</sup> The second quarter of 2012 brought a pullback from first quarter performance across all markets. As of May 31, 2012, the S&P 500 returned 5.2% year-to-date, while the FTSE 100 returned (6.7%).<sup>1</sup>

The European Union ("EU") has enacted several legislative measures in response to the European sovereign debt crisis, one being the Fiscal Compact. This policy will create greater surveillance and require a balanced budget from participating countries with the hope of restoring investor confidence in the EU. In Europe's alternative investment atmosphere, the Alternative Investment Fund Managers Directive will require EU fund managers to be under regulation and supervision by a predetermined regulating body. This Directive is set to be enforced across the EU by July 2013, at which point fund managers will need to be in compliance.

In Emerging Markets, China has continued growth promoting measures from the previous year. This is in reaction to China's gross domestic product growth, which has slowed to 8.1% in the first quarter. As a consequence, the government has cut reserve ratio requirements, promoted subsidies, and employed other stimulus tools to help encourage economic growth in the coming year.

The volatility experienced in the broader markets was present in the private equity markets as well. North American, European, and Global private equity deal volume declined in the first quarter in comparison to the previous quarter. However, fundraising totals exceeded the quarterly average that we have experienced in recent years. More than half of all capital raised during the quarter was in the U.S., representing 54% of commitments. Europe represented 24% of commitments, while Asia and Rest of World continue to gain in importance, representing 21% of the aggregate commitments.<sup>2</sup>

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<sup>1</sup> Bloomberg – FTSE 100 data in GBP

<sup>2</sup> Preqin Private Equity Quarterly

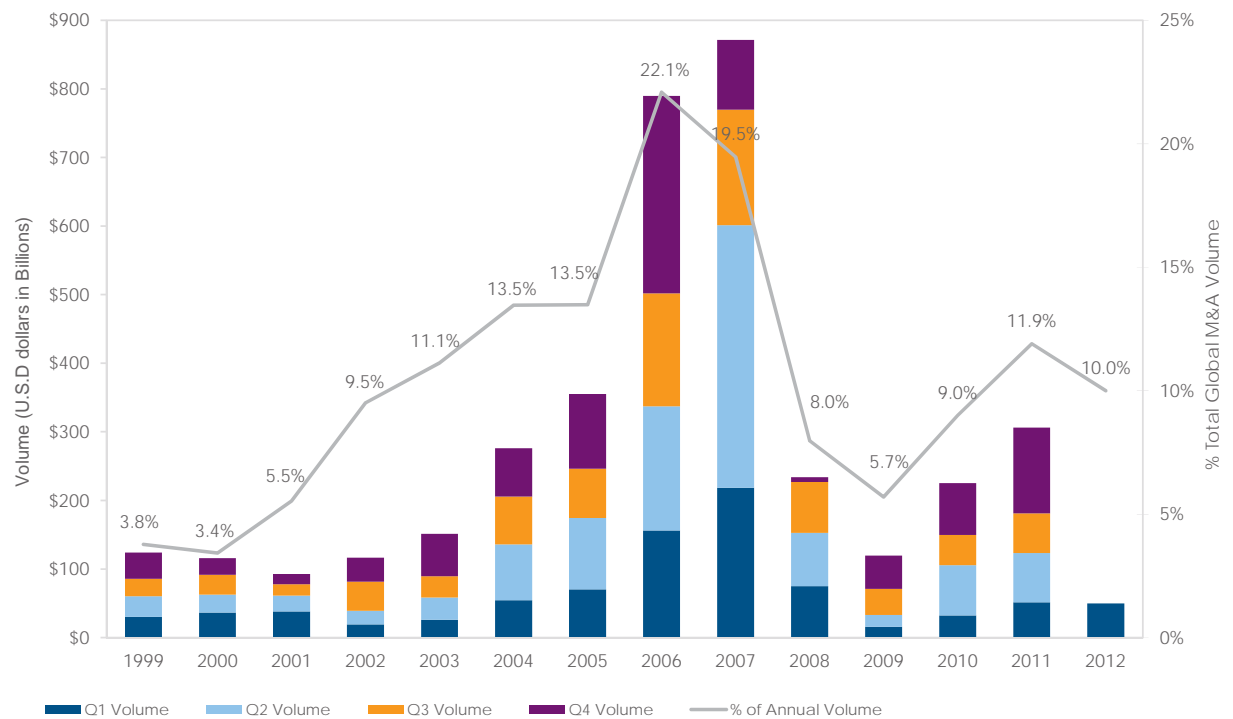
# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

### Transaction Volume

There were 669 private equity deals in the first quarter of 2012, valued at \$46.3 billion.<sup>2</sup> Globally, all regions experienced a decrease in completed aggregate deal value from the prior quarter. While transaction volume is still far below the peak recorded in 2007, deal metrics and volume have returned from the depths of the recession and now resemble those of 2004. Transactions taking place in the industrial sector accounted for 23% of the deals and represented 13% of the global aggregate value in the first quarter of 2012. The Energy & Utilities sector underwent a significant swing in aggregate deal value from 9% in the prior quarter to 26% in the first quarter.<sup>2</sup> This change is largely attributable to the two large energy deals announced in February: the \$7.15 billion acquisition of El Paso Corporation's oil and natural gas exploration and production assets by Apollo Global Management, Riverstone Holdings, Access Industries and Korea National Oil Corporation and the \$2 billion growth capital investment in Cheniere Energy by the Blackstone Group.<sup>2</sup>

### Global LBO Volume



(Source: Thomson Financial)

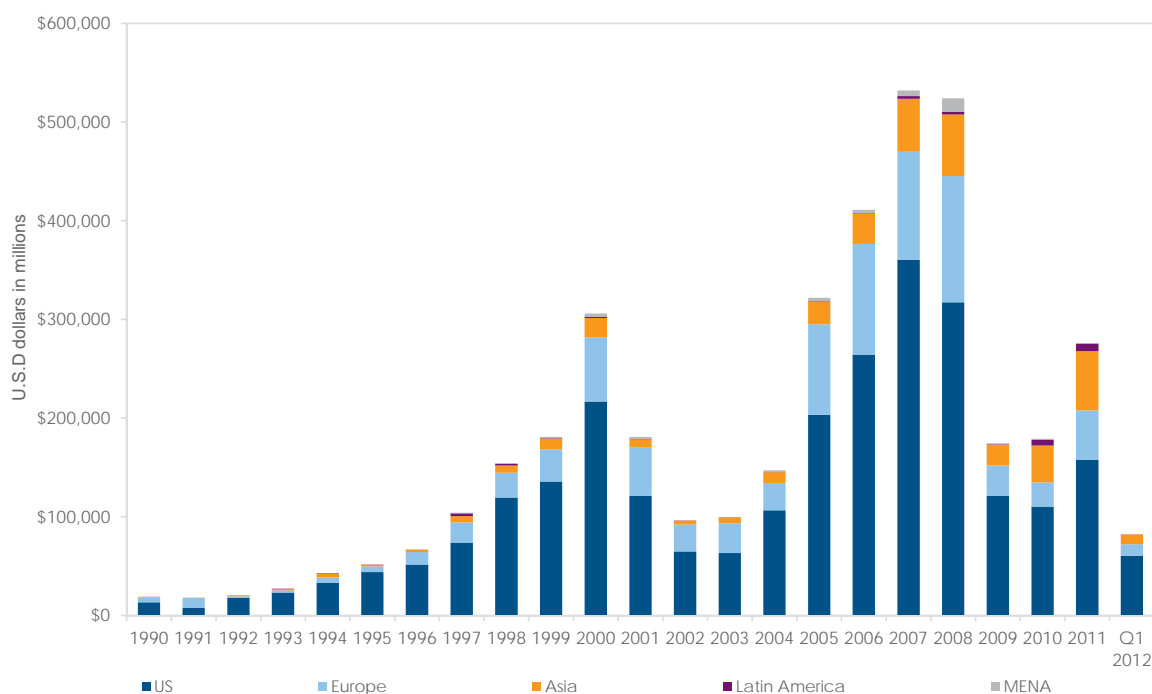
# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

### Fundraising

Although a competitive market continues to make fundraising challenging in 2012, the aggregate capital raised in the first quarter exceeded the quarterly average for 2009 through 2011. Commitments in Asia and Rest of World continue to increase as a percentage of global funds raised. Buyout funds accounted for the largest amount of capital raised in the first quarter of 2012, with 23 funds raising \$18.5 billion, or 30% of total capital raised globally.<sup>2</sup> Venture Capital accounted for the largest number of funds raised in the first quarter of 2012 with 35 funds closing and the second largest share of capital commitments with aggregate commitments of \$9.7 billion.<sup>2</sup> The length of time a fund spent on the road fell slightly from 17.8 months in 2011 to 17.7 months in the first quarter of 2012.<sup>2</sup> Overall, Hamilton Lane continues to experience a high level of funds seeking capital. In January, 76 new PPMs were logged into Hamilton Lane DealManager, far exceeding the 36 received in the prior month and a 41% increase over the average of the prior six months. In total, over 320 new PPMs were logged in the first half of 2012 indicating that fund investment opportunities should be at least as abundant as was experienced in the prior year.

### Global Fundraising Volume by Region



(Source: Thomson Financial)



# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

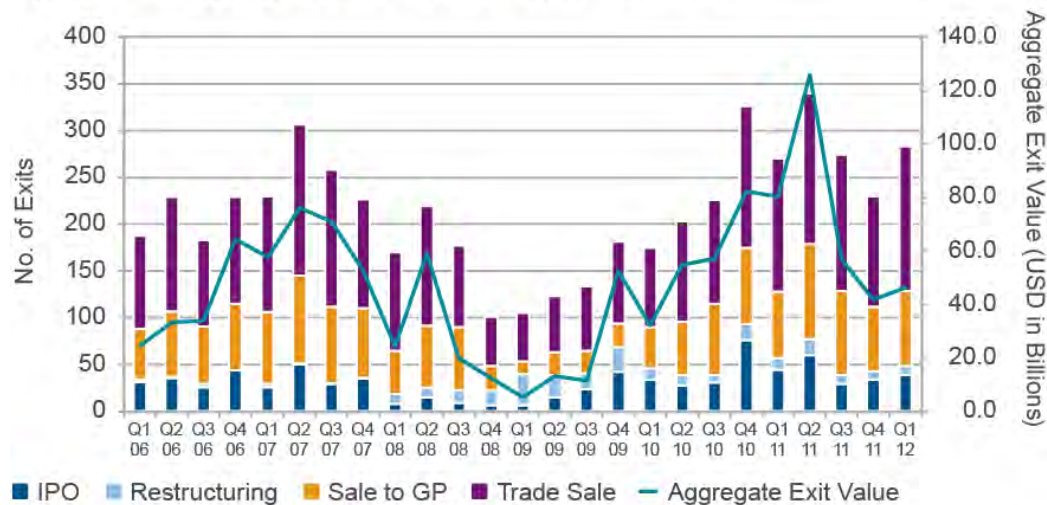
### Exit Activity

The first quarter of 2012 experienced a slight increase in exits from the prior quarter with 283 exits valued at \$46.4 billion, representing a 12.6% increase in value from the fourth quarter.<sup>2</sup> Over the first three months of 2012, private equity-backed IPOs raised \$12.5 million in 46 public offerings.<sup>2</sup> This represents a 66% decrease over the beginning of 2011. During the first quarter, 20 VC-backed companies went public, which represents the highest first quarter by number of companies since 2000. Europe saw a significant gain from virtually 0% to 18% of global IPO proceeds. This gain is attributed to two of the top three deals of the quarter, Ziggo and DKSH Holdings, which went public in late March.<sup>3</sup>

The second quarter 2012 started with Facebook completing its IPO which should prove to be the most notable PE-backed IPO of the year. Facebook raised \$16 billion, making it the third largest U.S. IPO in history. Despite this significant offering, the downward trend of PE-backed exits is expected to continue as the IPO market has now effectively closed and strategic acquirers appear reluctant to buy given market volatility.

### Global Number of PE-backed Exits

By Type and Aggregate Exit Value: Q1 2006 - Q1 2012



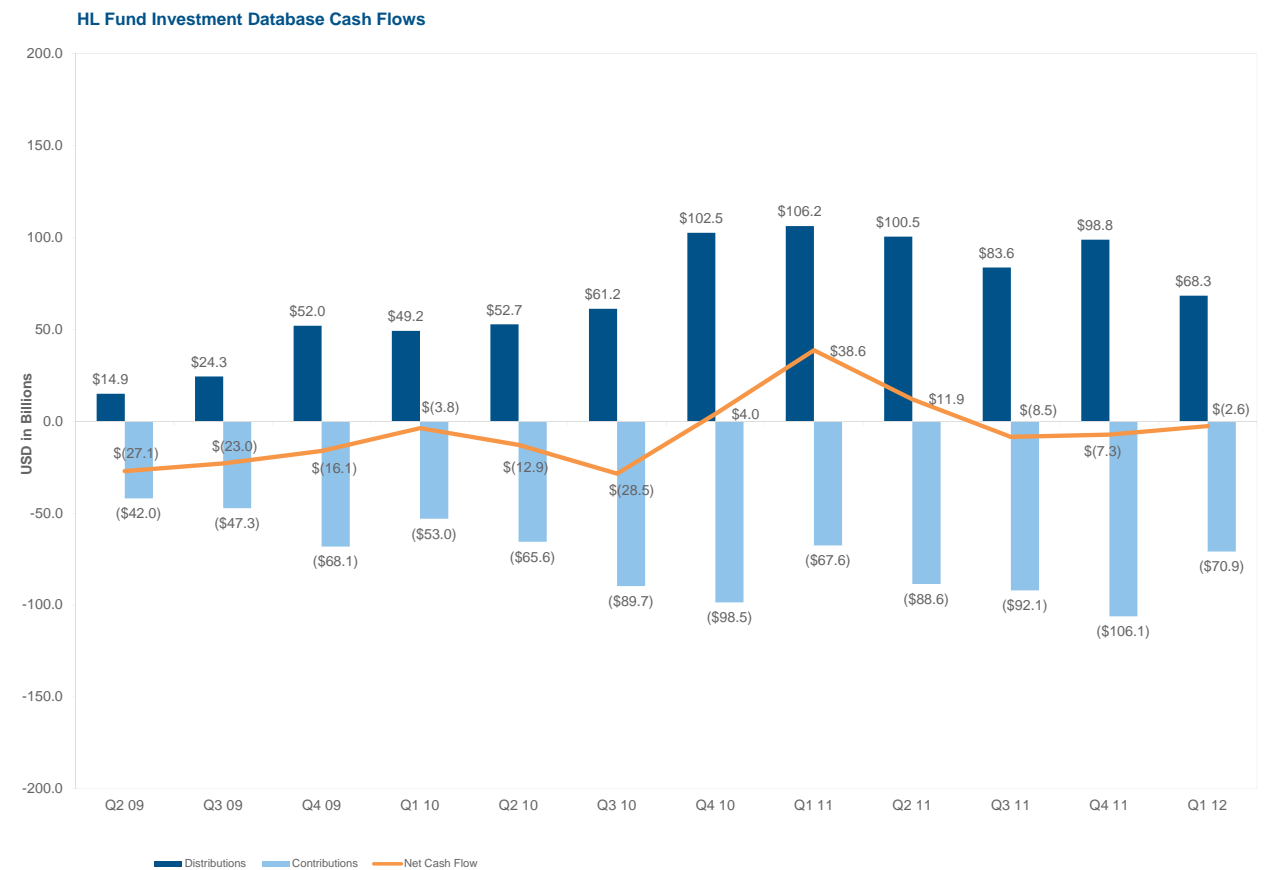
Source: Preqin

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

### Cash Flow Trends

For the third straight quarter, Hamilton Lane's Fund Investment Database shows that quarterly contributions exceeded distributions on an industry-wide basis. This trend can be attributed to volatility in the public markets coupled with reduced exit activity during the third and fourth quarters.



Source: Hamilton Lane quarterly return estimates as of 6/21/2012

\*Fund level cash flow data of all funds in Hamilton Lane database (as of Jun 21, 2012) grouped by vintage year, then multiplied by the ratio of total PE commitments by vintage year (from ThomsonOne) over Hamilton Lane's commitments to generate a proxy for the PE universe

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

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### Outlook

The effects and responses to the European sovereign debt crisis are still unfolding and the European macroeconomic backdrop is likely to remain challenging for the foreseeable future. In this environment, Hamilton Lane retains a generally cautious position towards investments in Europe. In the emerging markets, China has continued to attract foreign interest as PE Investors have committed \$43 billion over the past five years to investments in this country.<sup>3</sup> Overall, investor allocations to Asia have increased considerably and will likely be allotted to the growing number of companies seeking funding. It is unclear how a continued stagnation of GDP growth across Asia will affect PE investment activity in the region. Despite the hurdles managers may face fundraising in 2012, the current trend of deal making is expected to be steady in the near term on an aggregate basis.

During 2011, increased deal activity and slower fundraising resulted in a decrease of dry powder at year end. However, this represented only a slight (6%) decrease from the year end of 2010.<sup>2</sup> Over the next two years, many 2007 and 2008 buyout funds will reach the end of their investment period, but still have \$54 billion and \$80 billion available to invest, respectively.<sup>2</sup> Another major factor to consider when looking forward is the Fed's promise to keep interest rates at record low levels through late 2014, which allows general partners to leverage deals and refinance existing debt under favorable conditions. Considering the slowing rate of exits, the still significant amount of dry power to invest and continued ability to refinance deals done during the bubble years, it seems likely that the broader PE marketplace will continue to experience contributions that exceed distributions in the quarters to come.

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<sup>3</sup> Bain Capital Global Private Equity Report 2012

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# Section 2:

## Portfolio Update

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

### Portfolio Snapshot

Hamilton Lane was engaged by the Teachers' Retirement System of the City of New York ("TRS") in October 2010 to provide alternative investment consulting services in accordance with the investment objectives of the TRS Private Equity portfolio (the "Portfolio"). This report represents the review by Hamilton Lane of TRS's Portfolio and is based upon information made available to Hamilton Lane by the general partners sponsoring each of the partnership investments in the Portfolio as of March 31, 2012, with highlights through June 30, 2012.

**Private Equity Target:** TRS has a target allocation of 6% to Private Equity. As of March 31, 2012, Private Equity constituted 5.1% of NYCTRS plan.

**Performance:** As of March 31, 2012, the Portfolio consists of 119 partnerships and 81 underlying fund managers. The Portfolio has generated a since inception internal rate of return ("IRR") of 8.58% and a total value multiple of 1.2x.

Portfolio Summary			
\$ millions	12/31/2011	3/31/2012	Change
Active Partnerships	126	119	(7)
Active GP Relationships	87	81	(6)
Capital Committed <sup>(1)</sup>	\$3,820.6	\$3,692.4	(\$128.2)
Commitments Sold	\$157.4	\$288.6	\$131.2
Unfunded Commitment	\$1,499.0	\$1,335.9	(\$163.1)
Capital Contributed	\$2,809.2	\$2,955.3	\$146.1
Capital Distributed <sup>(2)</sup>	\$1,386.4	\$1,510.2	\$123.8
Market Value	\$2,076.1	\$2,150.3	\$74.2
Total Value Multiple	1.2x	1.2x	0.0x
Since Inception IRR	8.36%	8.58%	22 bps
Avg. Age of Active Commitments	4.6 years	4.7 years	0.1 years

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

<sup>(2)</sup>Distributions are inclusive of receivable amounts from TRS Secondary Sale.

**Portfolio Exposures:** The Corporate Finance/Buyout strategy represents 59% of the Portfolio's total exposure, Venture Capital accounts for 12%, Growth Equity represents 8%, Secondaries represent 7%, Energy represents 6%, Special Situations/Turnaround represents 5%, Co-Investment represents 2%, and Mezzanine represents the remaining 1%. The Portfolio has significant exposure to North America; with 81% of the underlying company market value based in the region.

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

### Portfolio Overview

#### Commitments

No new or additional commitments were made during the first quarter of 2012.

#### Subsequent Events

The Portfolio completed additional investments totaling \$350.0 million following the quarter end March 31, 2012, detailed below:

Subsequent Closings			
Investment	Investment Strategy	Commitment (\$ in Millions)	Closing Date
Ares Corporate Opportunities Fund IV, L.P.	Corporate Finance/Buyout - Mid	105.0	4/20/2012
Warburg Pincus Private Equity XI, L.P.	Growth Equity	175.0	5/9/2012
Trilantic Capital Partners V, L.P.	Corporate Finance/Buyout - Mid	70.0	7/31/2012
		<b>\$350.0</b>	

**Ares Corporate Opportunities Fund IV, L.P. (\$105.0 million)** the fund will pursue opportunistic majority control or shared-control investments in undercapitalized middle market companies with strong franchises and attractive growth opportunities.

**Warburg Pincus Private Equity XI, L.P. (\$175.0 million)** the fund will seek to invest in growth-oriented companies across a range of venture capital, leveraged buyout and growth equity transactions.

**Trilantic Capital Partners V, L.P. (\$70.0 million)** the fund will seek to invest in U.S.-based middle market companies with a main concentration in the business services, consumer, energy, and financial services industries.

#### Secondary Sale

TRS completed the sale of its ownership in twelve partnerships, detailed below:

TRS Secondary Sale - Tranche I			
Investment	Investment Strategy	Secondary Sale Proceeds (\$ in Millions)	Secondary Sale Date
Clayton, Dubilier & Rice Fund VII, L.P.	Corporate Finance/Buyout - Large	22.3	3/30/2012
Clayton, Dubilier & Rice Fund VIII, L.P.	Corporate Finance/Buyout - Large	18.9	3/30/2012
Silver Lake Partners II, L.P.	Corporate Finance/Buyout - Large	18.1	3/30/2012
Silver Lake Partners III, L.P.	Corporate Finance/Buyout - Mega	15.9	3/30/2012
Thomas H. Lee Equity Fund VI, L.P.	Corporate Finance/Buyout - Mega	15.8	4/2/2012
		<b>\$91.0</b>	

- Proceeds from TRS Secondary Sale – Tranche I have been included in December 31, 2011 and March 31, 2012 cumulative distribution totals throughout the first quarter report.
- TRS sold the above five partnerships at an average discount of 6.6% of NAV.

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

TRS Secondary Sale - Tranche II			
Investment	Investment Strategy	Secondary Sale Proceeds (\$ in Millions)	Secondary Sale Date
AEA Investors 2006 Fund, L.P.	Corporate Finance/Buyout - Mid	16.2	7/2/2012
Ethos Private Equity Fund V, L.P.	Corporate Finance/Buyout - Small	9.7	7/2/2012
HM 2006 Sector Performance Fund, L.P.	Corporate Finance/Buyout - Small	12.1	7/2/2012
NewSpring Ventures II, L.P.	Venture Capital	9.6	7/2/2012
Tailwind Capital Partners, L.P.	Corporate Finance/Buyout - Mid	13.4	7/2/2012
Vitruvian Investment Partnership I (Side Car), L.P.	Corporate Finance/Buyout - Mid	2.6	7/2/2012
Vitruvian Investment Partnership I, L.P.	Corporate Finance/Buyout - Mid	23.0	7/2/2012
		<b>\$86.6</b>	

- Proceeds from TRS Secondary Sale – Tranche II have been included in March 31, 2012 cumulative distribution totals throughout the first quarter report.
- TRS sold the above seven partnerships at an average discount of 9.2% of NAV.

### Competitive Comparisons

The table below details performance of the Portfolio in comparison with two comparable Hamilton Lane clients; the data below represents the most recently available data for Plan A and Plan B.

Competitive Pension Plan Statistics			
	NYC Teachers	Plan A	Plan B
Allocation to Private Equity	6%	10%	10%
Since-Inception Return as of 3/31/2012	8.58%	12.88%	7.59%*

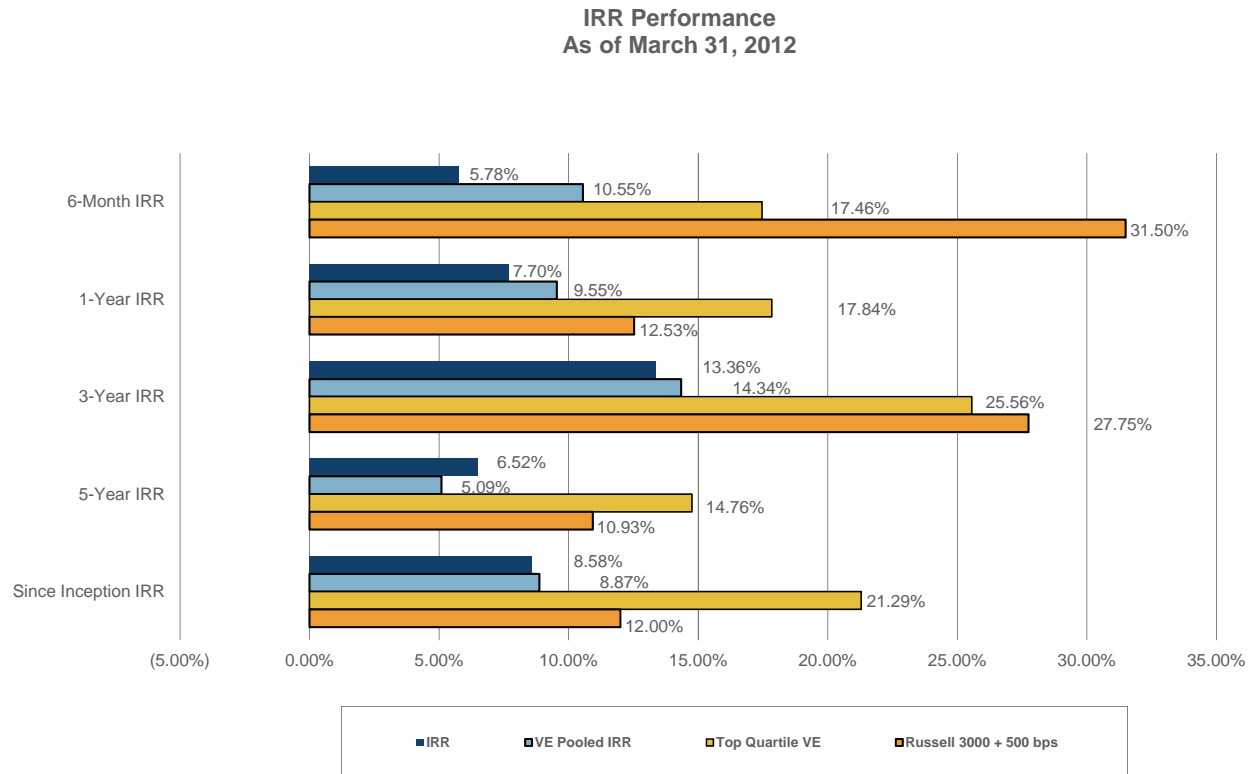
\* Data as of 12/31/2011

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

### Portfolio Performance Summary

The chart below is a graphical depiction of the IRR performance of the Portfolio with respect to 6-Month, 1-Year, 3-Year, 5-Year, and Since Inception time periods. The Portfolio is benchmarked against the VE Pooled IRR, Top Quartile VE and the Russell 3000 plus 500 basis points.



*Note: Since Inception IRR for VE benchmarks represent the returns for funds within latest 10 vintage years, the closest available benchmark to the inception date of NYC Teachers Portfolio. 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 5% premium.*

- As private equity is a long term asset class, the most significant time horizon is since inception time period. Performance on a since inception basis for the first quarter of 2012 increased 22 basis points from the prior quarter, with the Portfolio generating an IRR of 8.58%.
  - Relative to the benchmarks, the since inception IRR is underperforming the VE Pooled IRR by 29 basis points, the Top Quartile VE by 1,271 basis points, and Russell 3000 plus 500 basis points by 342 basis points.
- Performance on a one-year basis for the first quarter 2012 decreased 130 basis points from the fourth quarter 2011, with the Portfolio generating an IRR of 7.70%.
  - Relative to the benchmarks, the one-year IRR is underperforming the VE Pooled IRR by 185 basis points, the Top Quartile VE by 1,014 basis points, and Russell 3000 plus 500 basis points by 483 basis points.



# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

The table below details quarterly performance of the Portfolio for the year ending March 31, 2012.

Portfolio Summary					
in \$ millions	Quarter Ending				Year Ending
	6/30/2011	9/30/2011	12/31/2011 <sup>(1)</sup>	3/31/2012 <sup>(1)</sup>	3/31/2012 <sup>(1)</sup>
Beginning Market Value	\$1,988.0	\$2,076.0	\$2,112.4	\$2,076.1	\$1,988.0
Paid-in Capital	96.9	142.0	111.2	146.1	496.2
Distributions	(103.0)	(45.9)	(199.3)	(123.8)	(472.0)
<b>Net Value Change</b>	<b>94.1</b>	<b>(59.7)</b>	<b>51.8</b>	<b>51.9</b>	<b>138.1</b>
Ending Market Value	\$2,076.0	\$2,112.4	\$2,076.1	\$2,150.3	\$2,150.3
<b>Unfunded Commitments</b>	<b>\$1,195.6</b>	<b>\$1,336.7</b>	<b>\$1,499.0</b>	<b>\$1,335.9</b>	<b>\$1,335.9</b>
Total Exposure	\$3,271.6	\$3,449.1	\$3,575.1	\$3,486.2	\$3,486.2
Point to Point IRR	4.74%	(2.82%)	2.68%	3.02%	7.70%
Since Inception IRR	9.41%	8.21%	8.36%	8.58%	8.58%

<sup>(1)</sup> Distributions are inclusive of receivable amounts from TRS Secondary Sale.

- Over the past twelve months, the Portfolio has generated an IRR of 7.70% and has experienced a total of \$138.1 million in net value gain.
  - The one-year IRR of 7.70% represents a 110 basis point decrease when compared to the one-year IRR as of March 31, 2011. The decrease can be attributed to the continued volatility across the global markets over the course of the prior year.

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

The table below details IRR performance of the Portfolio with respect to Vintage Year. The Portfolio is benchmarked against the VE Median IRR, Top Quartile VE, and the Russell 3000 plus 500 basis points.

Performance by Vintage Year <sup>(1)</sup>					
Vintage Year	Capital Committed	IRR	VE Median IRR	Top Quartile VE	Russell 3000 + 500bps
1999	\$ 95,000,000	6.83%	(0.28%)	8.74%	8.51%
2000	83,000,000	6.23%	0.16%	7.48%	7.28%
2001	80,000,000	20.73%	2.37%	15.06%	8.11%
2002	150,000,000	14.04%	1.72%	16.61%	9.66%
2003	85,000,000	21.58%	1.80%	11.90%	12.97%
2004	234,000,000	7.86%	3.73%	10.30%	10.46%
2005	300,661,372	4.31%	4.04%	8.31%	9.74%
2006	579,803,676	5.86%	2.08%	8.27%	9.36%
2007	484,143,821	7.36%	0.18%	8.96%	7.32%
2008	799,486,312	11.13%	3.63%	12.89%	6.67%
2009	42,500,000	7.34%	7.22%	15.74%	22.99%
2010	45,000,000	(2.94%)	5.13%	15.49%	18.66%
2011	613,824,592	(2.33%)	(13.94%)	(1.08%)	15.10%
2012	100,000,000	N/A	N/A	N/A	N/A

<sup>(1)</sup> For details regarding Paid-In Capital, Distributions and Market Value by Vintage Year please see Section 3 of the report, Portfolio Assessment.

Note: Commitments in the above table do not include liquidated/sold investments.

- Vintage year 2003 has generated the highest since inception IRR for the Portfolio at 21.58% and is outperforming the VE Median IRR, Top Quartile VE, and Russell 3000 plus 500 basis points benchmarks by an average of 1,269 basis points.
  - The top performing partnership in the vintage year 2003 is Blackstone Capital Partners IV, L.P., a Mega Buyout partnership, which has generated a since inception IRR of 39.03%.
- Vintage year 2001 has generated the second highest since inception IRR at 20.73% and is outperforming the VE Median IRR, Top Quartile VE, and Russell 3000 plus 500 basis points benchmarks by an average of 1,222 basis points.
  - The top performing partnership in the vintage year 2001 is Apollo Investment Fund V, L.P., a Large Buyout partnership, which has generated a since inception IRR of 39.18%.

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

The table below details IRR performance of the Portfolio with respect to Investment Strategy. The Portfolio is benchmarked against the VE Median IRR, and the Top Quartile VE.

Performance by Investment Strategy <sup>(1)</sup>				
Investment Strategy	Capital Committed	IRR	VE Median IRR	Top Quartile VE
Corporate Finance/Buyout	\$ 2,188,461,028	9.27%	7.63%	16.40%
Corporate Finance/Buyout - Mega	530,114,580	8.56%	5.43%	13.40%
Corporate Finance/Buyout - Large	416,435,572	16.94%	9.60%	17.98%
Corporate Finance/Buyout - Mid	774,037,139	7.23%	6.17%	14.64%
Corporate Finance/Buyout - Small	467,873,737	9.21%	3.32%	16.79%
Co-Invest	69,376,798	(1.55%)	N/A	N/A
Energy	217,500,000	4.78%	N/A	N/A
Growth Equity	245,000,000	20.44%	N/A	N/A
Secondary	290,000,000	14.28%	N/A	N/A
Special Situations/Turnaround	165,000,000	17.87%	12.69%	22.41%
Other	517,081,947	2.85%	0.22%	7.70%
Venture Capital	467,081,947	1.97%	(0.40%)	6.48%
Mezzanine	50,000,000	12.38%	7.19%	9.61%

<sup>(1)</sup> For details regarding Paid-In Capital, Distributions and Market Value by Investment Strategy please see Section 3 of the report, Portfolio Assessment.

Note: Commitments in the above table do not include liquidated/sold investments.

- The Growth Equity Strategy has generated the greatest since inception return at 20.44%.
  - The top performing fund within the Growth Equity Strategy is Vista Equity Partners Fund III, L.P., a 2007 vintage year partnership, which has generated a since inception IRR of 29.58%.
- The second best performing strategy is the Special Situations/Turnaround Strategy generating a since inception return at 17.87% and is outperforming the VE Median IRR by 518 basis points and is underperforming the Top Quartile IRR by 454 basis points.
  - The top performing fund within the Special Situations/Turnaround Strategy is Ares Corporate Opportunities Fund III, L.P., a 2008 vintage year partnership, which has generated a since inception IRR of 26.72%.
- The Corporate Finance/Buyout – Large Strategy is the third best performing strategy, generating a since inception IRR of 16.94%. The Corporate Finance/Buyout – Large Strategy is outperforming the VE Median IRR by 734 basis points and is underperforming the Top Quartile IRR by 104 basis points.
  - The top performing fund within the Corporate Finance/Buyout – Large Strategy is Apollo Investment Fund V, L.P., a 2001 vintage year partnership, which has generated a since inception IRR of 39.18%.

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

The table below details IRR performance of the Portfolio with respect to Geographic Focus.

Performance Summary by Region						
Region	Capital Committed	Paid-In Capital	Capital Distributed <sup>(1)</sup>	Reported Market Value	IRR	Total Value Multiple
North America	\$2,523,307,747	\$2,042,481,965	\$983,710,975	\$1,514,002,574	7.64%	1.2x
Western Europe	\$287,700,687	\$175,402,681	\$43,789,286	\$122,263,891	(0.92%)	0.9x
Rest of World	\$881,411,339	\$737,384,963	\$482,713,990	\$513,989,110	13.52%	1.4x
<b>Total</b>	<b>\$3,692,419,773</b>	<b>\$2,955,269,608</b>	<b>\$1,510,214,251</b>	<b>\$2,150,255,575</b>	<b>8.58%</b>	<b>1.2x</b>

<sup>(1)</sup> Distributions are inclusive of receivable amounts from TRS Secondary Sale.

- Western Europe has generated the lowest since inception IRR at (0.92%), an increase of 196 basis points from the prior quarter. It is expected that returns in this segment of the Portfolio will continue to underperform other geographies as its average age of commitments is only 3.1yrs.
- The Rest of World has generated the greatest since inception IRR at 13.52% and the performance has been driven by two of the top performing partnerships in the TRS portfolio, Apollo Investment Fund V, L.P., generating a since inception IRR of 39.18%, and Blackstone Capital Partners IV, L.P., generating a since inception IRR of 39.03%.
  - The top performing "Rest of World" company in Apollo Investment Fund V, L.P. is Intelsat, a Bermuda based provider of fixed satellite services to the media, network services and telecom and government sectors. The company was sold in 2008 with a realized total value of 10.2x cost.
  - The top performing "Rest of World" company in Blackstone Capital Partners IV, L.P. is Kosmos Energy, a U.S. based company that focuses on oil and gas exploration and production in emerging countries. The company is currently being valued at 4.6x cost.

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

### Value Drivers

The table below displays the Portfolio's top five performance drivers by net value change for the quarter ending March 31, 2012.

Top Five Performing Investments for the Quarter Ending March 31, 2012				
Investment Name	Vintage Year	Net Value Change (\$ Millions)	Point-to-Point IRR	Since Inception IRR
Psilos Group Partners III, L.P.	2005	\$6.2	28.37%	8.29%
Apollo Investment Fund VI, L.P.	2006	5.7	17.43%	7.91%
Apollo Investment Fund VII, L.P.	2008	4.4	13.17%	21.89%
Avista Capital Partners II, L.P.	2008	4.3	10.35%	14.72%
Ares Corporate Opportunities Fund III, L.P.	2008	4.0	8.86%	26.72%

- The above five partnerships generated an aggregated net value increase of \$24.6 million in the first quarter 2012.
  - Psilos Group Partners III, L.P., a 2005 Venture Capital partnership, was the top performing investment for the quarter, generating a net value change of \$6.2 million. The net value increase can be attributed to the market value write-up of Extend Health, Inc., a provider of Medicare coordination to American companies. The company is currently being held at 9.6x cost and was previously held at 4.5x cost as of December 31, 2011.
  - Apollo Investment Fund VI, L.P., a 2006 Mega Buyout partnership, generated \$5.7 million in net value change. The main driver for this increase was the write-up of Noranda Aluminum, a U.S.-based producer of value-added primary aluminum products and high quality rolled aluminum coils. The company is currently being valued at 4.0x cost, where it was valued at 3.3x cost at the prior quarter end.
  - Apollo Investment Fund VII, L.P., a 2008 Mega Buyout partnership, generated \$4.4 million in net value change for the first quarter 2012. The bulk of this value change can be attributed to the market value write-up of LyondellBasell Industries, an independent chemical company based in the Netherlands. The company was previously valued at 2.3x cost as of December 31, 2011 and is currently being held at 2.9x as of March 31, 2012.
  - Avista Capital Partners II, L.P., a 2008 Mid-Market Buyout partnership, generated a net value change of \$4.3 million. The main driver of this increase was the write-up of Hi-Crush Proppants, a Texas based developer of raw frac sands used in hydraulic fracturing operations of oil and gas wells. The company is currently being valued at 5.8x cost and was previously held at 4.2x cost as of December 31, 2011.

## Teachers' Retirement System of the City of New York

### First Quarter 2012 Report

- Ares Corporate Opportunities Fund III, L.P. a 2008 Special Situations/Turnaround partnership, generated a net value increase of \$4.0 million. The value increase can be primarily attributed to the market value write-up of LyondellBasell Industries N.V., an independent chemical company based in the Netherlands. The company is currently being valued at 4.1x cost and was previously valued at 3.1x cost as of December 31, 2011.

The table below shows the Portfolio's bottom five performance drivers by net value change for the quarter ending March 31, 2012.

Bottom Five Performing Investments for the Quarter Ending March 31, 2012				
Investment Name	Vintage Year	Net Value Change (\$ Millions)	Point-to-Point IRR	Since Inception IRR
Perseus Partners VII, L.P.	2006	(\$4.2)	(20.96%)	(3.32%)
Leeds Weld Equity Partners IV, L.P.	2003	(3.6)	(18.17%)	8.07%
Yucaipa American Alliance Fund II, L.P.	2008	(3.4)	(3.94%)	16.08%
Celtic Pharmaceutical Holdings, L.P.	2004	(2.6)	(9.47%)	11.26%
FdG Capital Partners II, L.P.	2004	(1.2)	(5.01%)	3.15%

- The above five partnerships generated a net value loss of \$(15.0) million in the first quarter 2012.
  - Perseus Partners VII, L.P., a 2006 Small Buyout partnership, generated the largest net value loss in the fourth quarter, at (\$4.2) million. The key driver for the decrease in net value was the write-down of NanoBio Corporation, a privately held biotechnology company. NanoBio was previously being held at 1.8x cost as of December 31, 2011 and is currently being held at 0.9x cost as of March 31, 2012.
  - Leeds Weld Equity Partners IV, L.P., a 2003 Small Buyout partnership, generated the second most substantial net value loss in the fourth quarter, at (\$3.6) million. The bulk of this value change can be attributed to the write-down of Education Management Corporation, a Pennsylvania based operator of post-secondary schools. The company was previously held at 2.4x cost as of December 31, 2011 and is currently being held at 1.2x cost.
  - Yucaipa American Alliance Fund II, L.P., a 2008 Mid-Market Buyout partnership, generated a net value loss of (\$3.4) million during the quarter. Barneys New York, a leading luxury retailer of apparel and accessories for men and women as well as cosmetics and home furnishings, was a major contributor to this net value loss as the company was held at 2.7x cost as of December 31, 2011 and is being held at 1.9x cost at quarter end.
  - Celtic Pharmaceutical Holdings, L.P., a 2004 Venture Capital partnership, generated a net value loss of (\$2.6) million during the quarter. This change can be attributed to the write-down in several unrealized portfolio investments totaling (\$2.2) million during the first quarter by the General Partner.

## Teachers' Retirement System of the City of New York

### First Quarter 2012 Report

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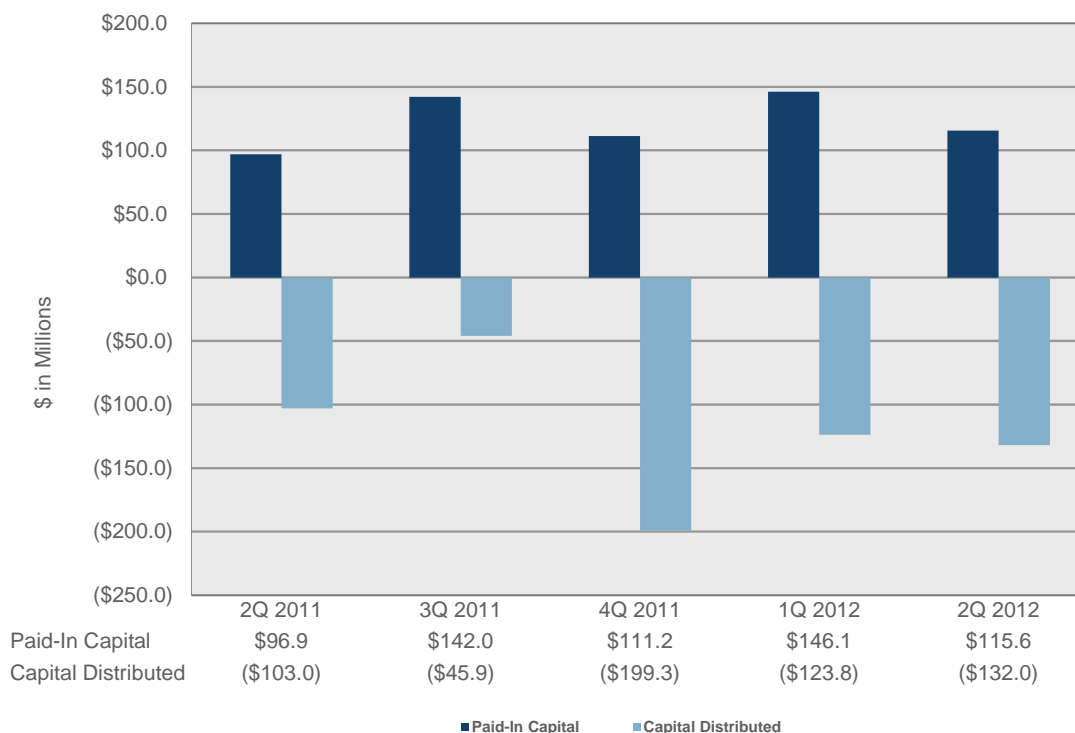
- Fdg Capital Partners II, L.P., a 2004 Small Buyout partnership, generated a quarter net value loss of (\$1.2) million. The key driver for the decrease in net value was the write down of The Hercules Tire & Rubber Company, a marketer and distributor of private-label branded tires and other internationally known independent tire brands to retail and wholesale consumers. The company was previously held at 2.1x cost as of December 31, 2011 and is currently being held at 1.7x cost.

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

### Cash Flow Drivers

The chart below highlights the cash flows of the Portfolio over the past five quarters ended June 30, 2012.



Note: 4Q 2011 & 1Q 2012 Distributions are inclusive of receivable amounts from TRS Secondary Sale.

- For the year ended March 31, 2012, the Portfolio was cash flow negative with contributions outpacing distributions by \$24.2 million.
- Contribution activity increased significantly over the first quarter by 30%, totaling \$146.1 million. Distributions decreased by 38% during the first quarter of 2012 totaling \$123.8 million. The first quarter 2012 had the most substantial contribution activity of the past five quarters.
  - Yucaipa American Alliance Fund II, L.P. called the most capital during the first quarter 2012, calling \$23.4 million for investments in Delltrade Limited, The Soho House Group, Yucaipa Entertainment Holdings, The Great Atlantic & Pacific Tea Company, and YCCM Finance.
  - Ares Corporate Opportunities Fund II, L.P. was the greatest distributor of capital during the first quarter of 2012, distributing \$3.3 million in proceeds from the sale of General Nutrition Centers ("GNC"), a global retailer of health and wellness products.
- Psilos Group Partners III, L.P. distributed the most capital during the second quarter of 2012, distributing \$11.7 million in proceeds from the sale of Extend Health, Inc., a provider of Medicare coordination exchange to American companies.



## Teachers' Retirement System of the City of New York

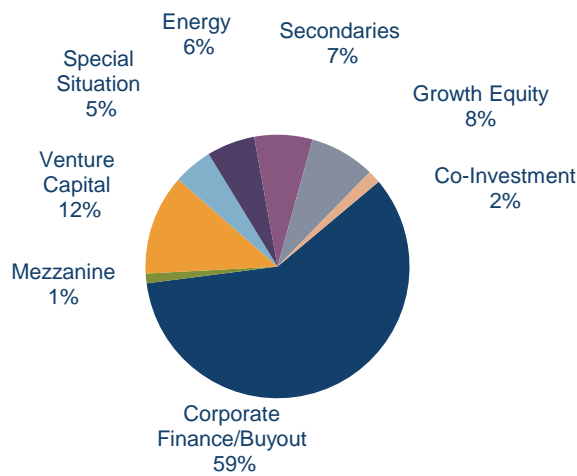
### First Quarter 2012 Report

- Vista Equity Partners IV, L.P. called the most capital during the second quarter of 2012, calling \$17.0 million for an initial investments in Misys and Thomson Reuters Corporation, and for follow-on investments in CDC Software and Sage Software Corporation.

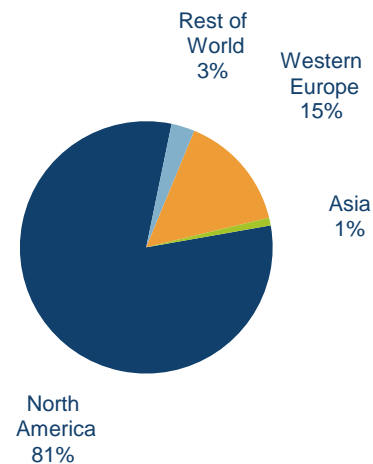
## Portfolio Exposures

The pie charts below represent the strategic and geographic diversification of the Portfolio as of March 31, 2012. 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. Geography is measured by the Portfolio's exposed market value of the underlying portfolio companies.

**Strategic Diversification  
by Total Exposure  
As of March 31, 2012**



**Underlying Investment Diversification  
by Geographic Location  
As of March 31, 2012**



- The Portfolio is focused in the Corporate Finance/Buyout strategy, with 59% of the total exposure attributable to this strategy.
- With respect to geography, the Portfolio is concentrated in North America, with 81% of the Portfolio's underlying market value attributable to this region.
  - The remaining 19% of the Portfolio's exposure is diversified between Western Europe, 'Rest-of-World' and Asia.

# Teachers' Retirement System of the City of New York

## First Quarter 2012 Report

### Private Equity Company Exposure

The table below identifies the top ten underlying companies held by private equity partnerships as measured by exposed market value as of March 31, 2012. As noted in the second column, the values of companies held by several partnerships have been aggregated.

Top 10 Portfolio Holdings by Exposed Market Value March 31, 2012			
Company Name	Partnership	Exposed Valuation (\$ Millions)	% of Total Portfolio
AmeriCold Realty Trust	Yucaipa American Alliance Fund I, L.P. Yucaipa American Alliance Fund II, L.P.	\$43.8	1.8%
ASF Park Acquisition	AXA Secondary Fund V L.P.	34.0	1.4%
LyondellBasell Industries NV	Apollo Investment Fund VII, L.P. Ares Corporate Opportunities Fund III, L.P.	22.0	0.9%
Softlayer	GI Partners Fund II, L.P. GI Partners III, L.P.	20.7	0.9%
PTC Alliance	BDCM Opportunity Fund, L.P.	16.8	0.7%
Annie's, Inc.	Solera Partners, L.P.	16.4	0.7%
Guitar Center, Inc.	Ares Corporate Opportunities Fund II, L.P. Ares Corporate Opportunities Fund III, L.P.	15.5	0.6%
Extend Health, Inc.	Psilos Group Partners III, L.P.	14.3	0.6%
WisdomTree Investments, Inc.	RRE Ventures III, L.P.	13.8	0.6%
HD Supply, Inc.	Ares Corporate Opportunities Fund II, L.P. Ares Corporate Opportunities Fund III, L.P. Carlyle Partners V, L.P. Clayton, Dubilier & Rice Fund VII, L.P.	12.5	0.5%
<b>Total</b>		<b>\$209.8</b>	<b>8.6%</b>

Note: Undisclosed debt securities are not included in this analysis.

- As of March 31, 2012, the top ten companies represent 8.6% of the total Portfolio's market value, or \$209.8 million of market value.
- AmeriCold Realty Trust, a real estate investment trust which operates 102 temperature controlled warehouses, is the Portfolio's largest exposure and is held with one fund manager across two partnerships.
- Five of the ten top holdings are held in multiple partnerships within the portfolio.

## II. July Monthly Performance Review:

# *Monthly Performance Review* *July 2012*

*Prepared for the New York City*  
*Teachers' Retirement System*  
*9/6/2012*

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# **ECONOMIC INDICATORS**

*as of August 2012*

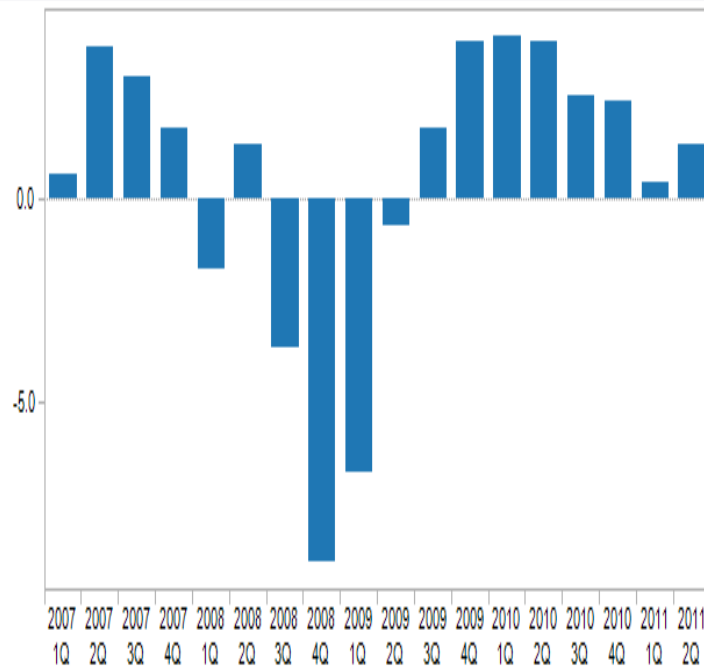


**NYC OFFICE OF THE COMPTROLLER  
BUREAU OF ASSET MANAGEMENT**

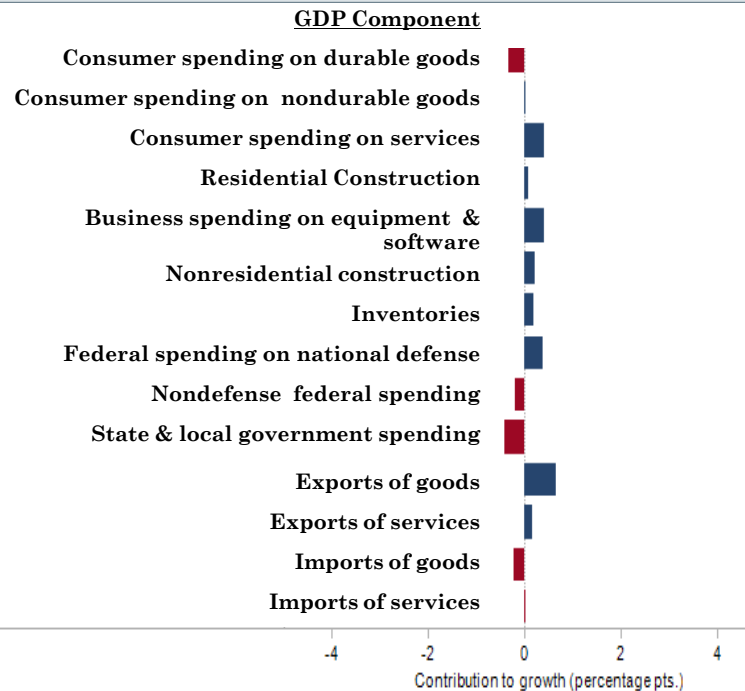
# COMPONENTS OF GDP

2

**ALL SHOW OVERALL % CHANGE FROM PRECEDING QUARTER AT SEASONAL ADJUSTED ANNUAL RATE**



**COMPONENTS WHICH CONTRIBUTED TO GDP GROWTH**



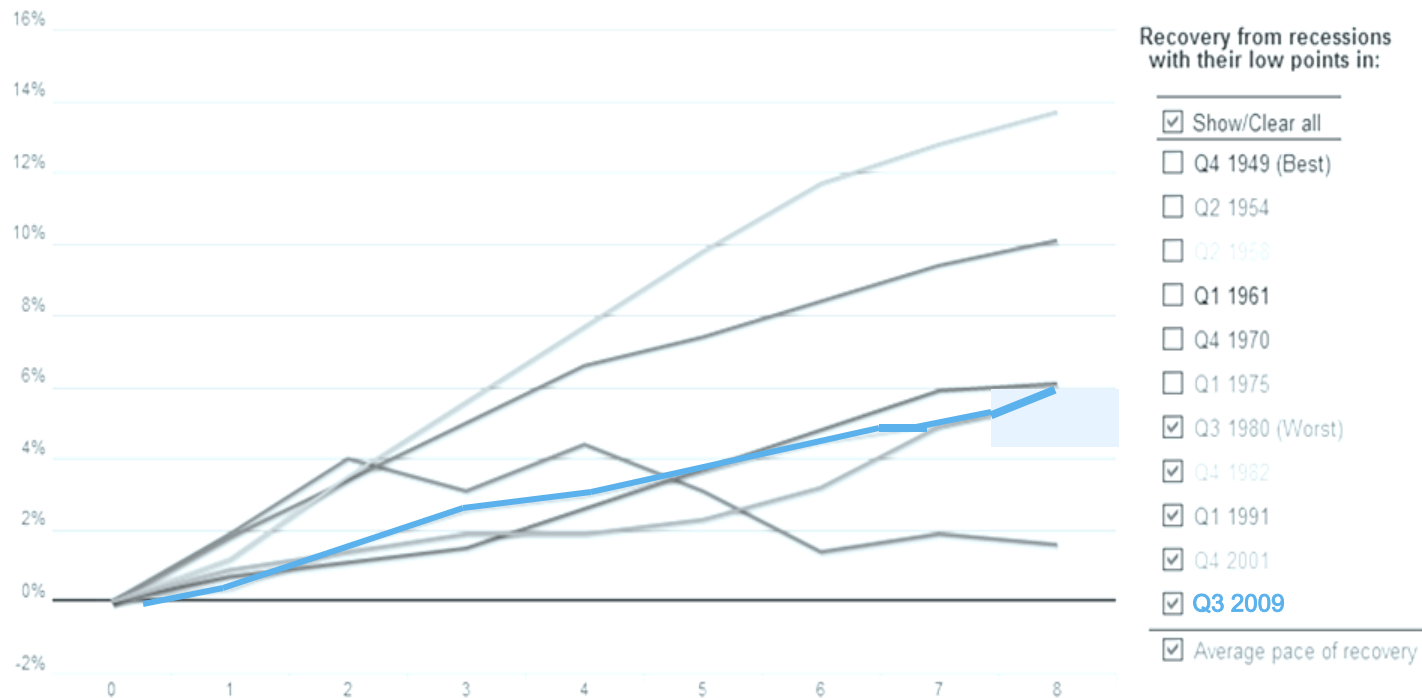
- NOTE: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.

# US GROSS DOMESTIC PRODUCT (INFLATION ADJUSTED)

51

3

US GROSS DOMESTIC PRODUCT, INFLATION ADJUSTED QUARTERLY



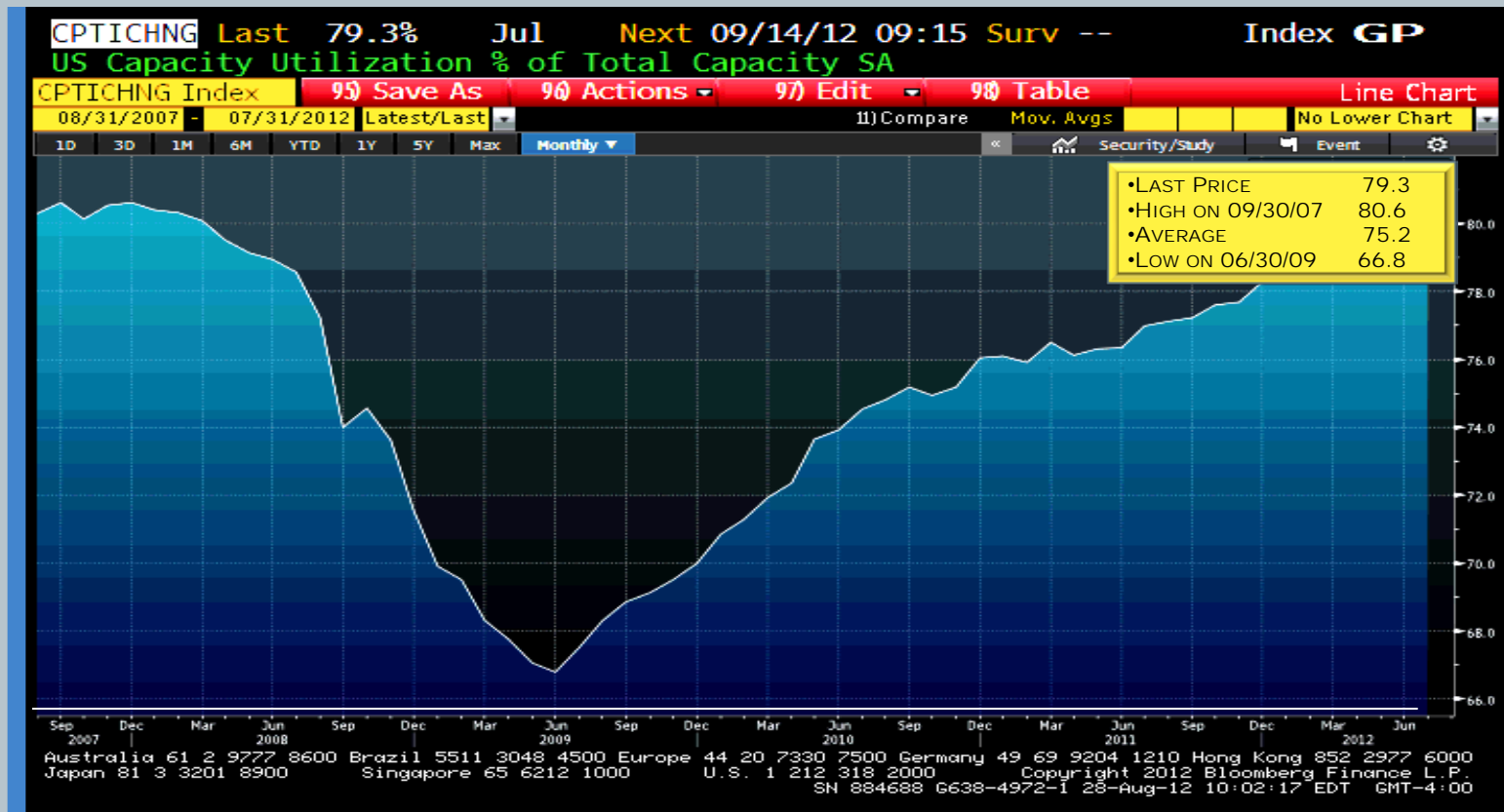
Sources: Commerce Department (corporate profits, income, GDP); Federal Reserve (bank lending); Robert J. Shiller (real home prices); Labor Department (jobs); Federal Reserve Bank of St. Louis (inflation-adjusted exports and consumer spending)

- **NOTES: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.**
- **GDP GROWTH DURING THE CURRENT RECOVERY INCLUDES SECOND-QUARTER FORECAST CALCULATED USING CONSENSUS FORECAST OF 2 % ANNUAL GROWTH.**



# CAPACITY UTILIZATION

4



- NOTE: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.

# ISM MANUFACTURING INDEX

5



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# WEEKLY UNEMPLOYMENT CLAIMS

6



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# UNEMPLOYMENT RATE

7

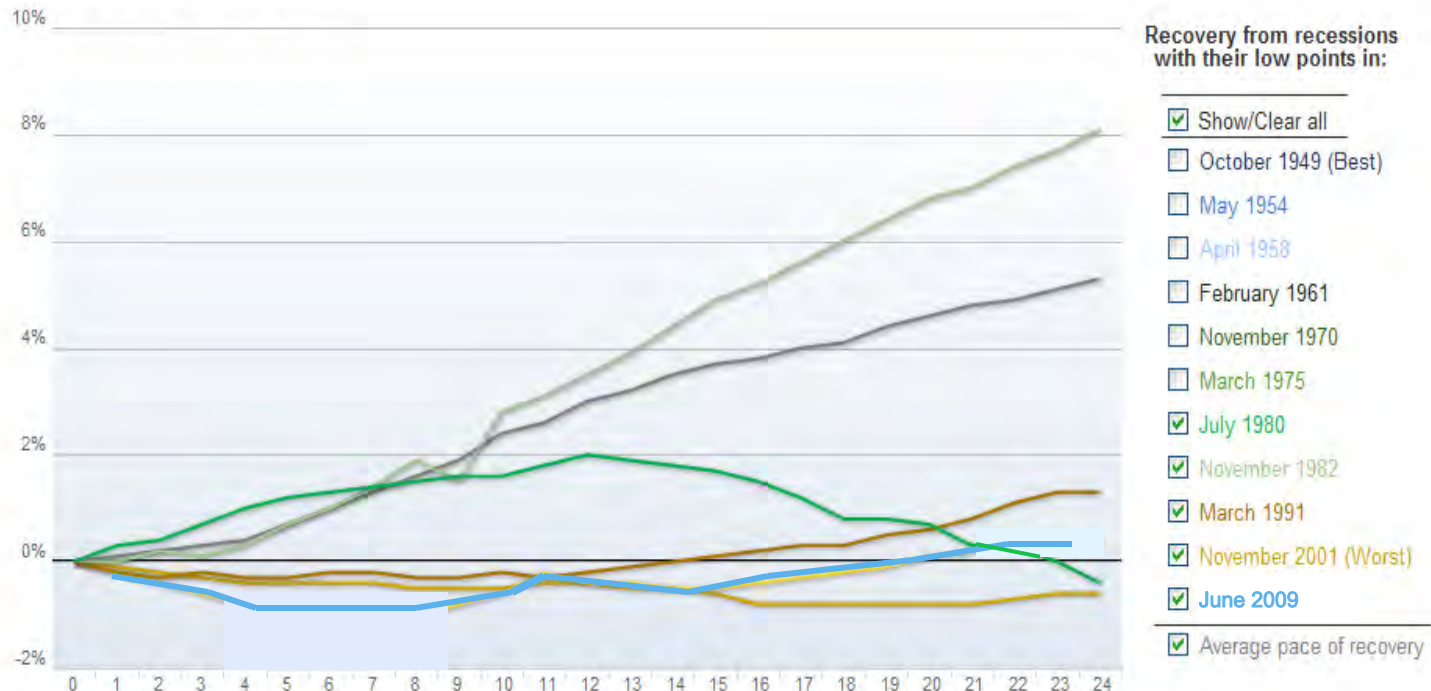


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# US JOBS (NON-AGRICULTURAL PAYROLLS)

8

U.S. non-agricultural payrolls, monthly

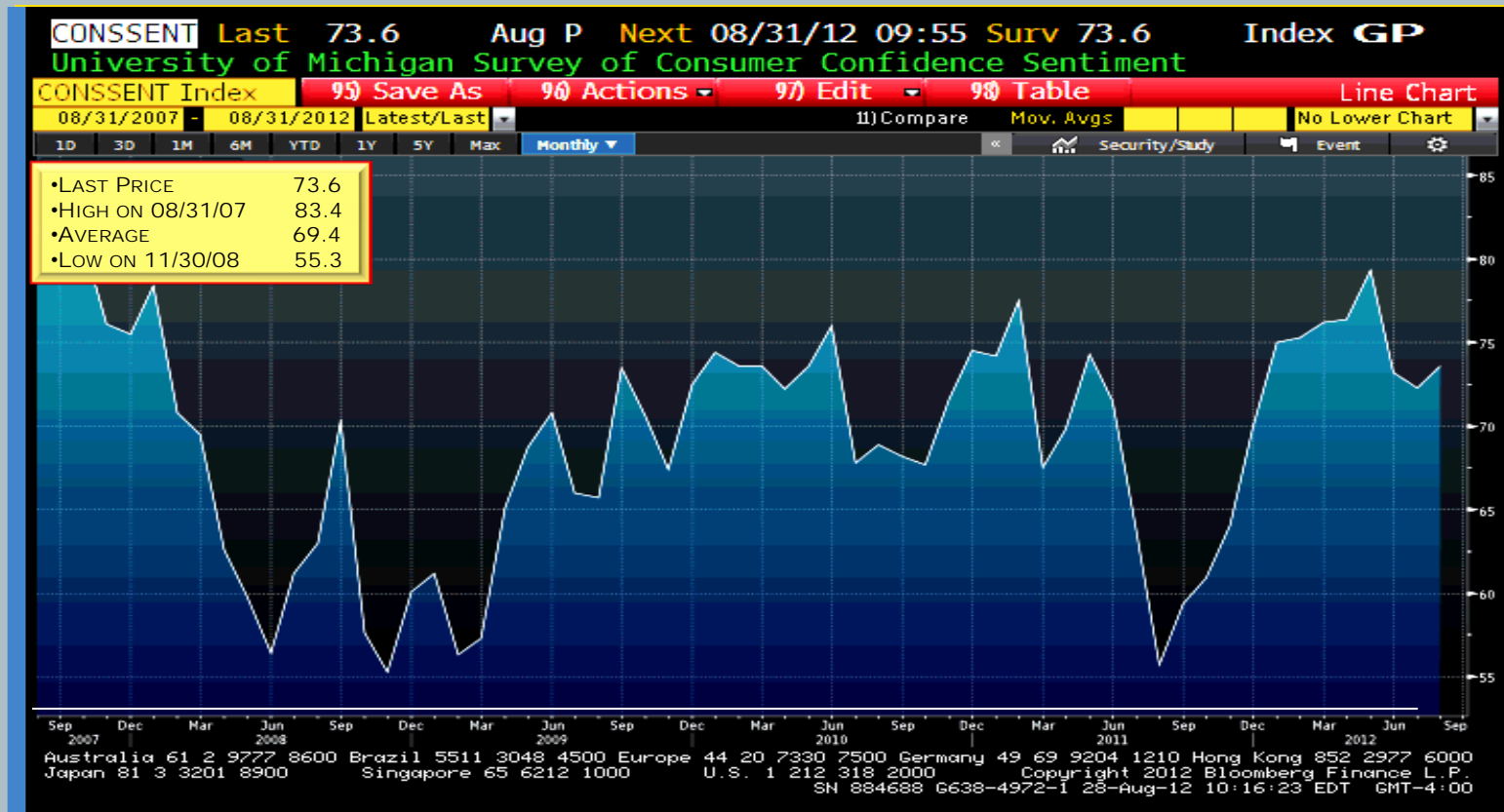


Sources: Commerce Department (corporate profits, income, GDP); Federal Reserve (bank lending); Robert J. Shiller (real home prices); Labor Department (jobs); Federal Reserve Bank of St. Louis (inflation-adjusted exports and consumer spending)

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# CONSUMER SENTIMENT

9

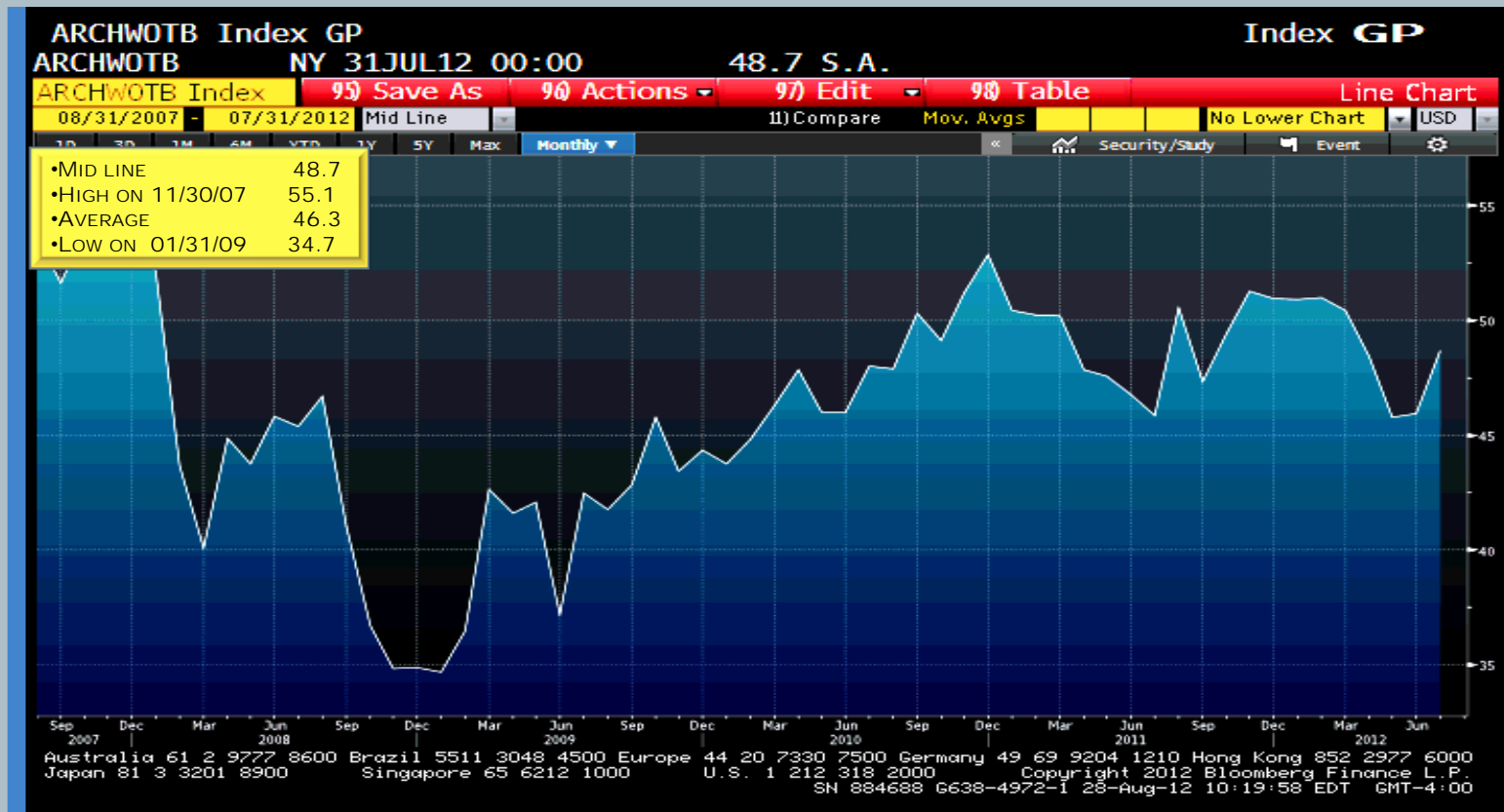


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# ARCHITECTURAL BILLINGS INDEX

10

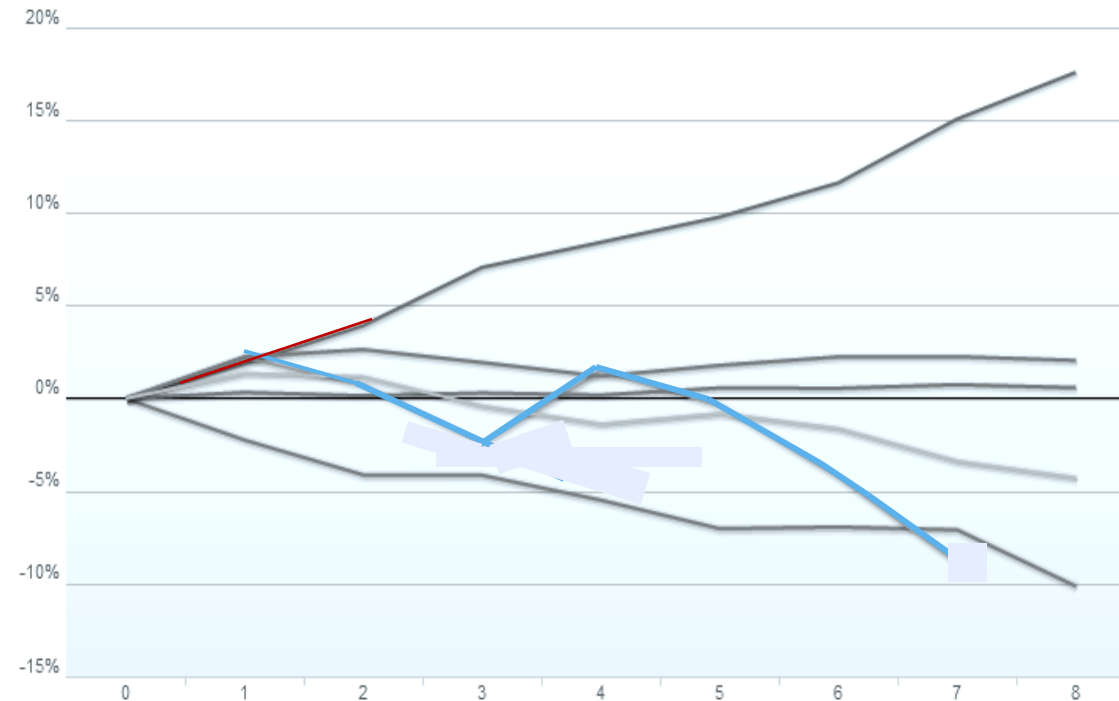


- A SCORE ABOVE 50 INDICATES AN INCREASE IN BILLINGS WHILE A READING BELOW 50 INDICATES A NEGATIVE OUTLOOK
- THIS INDEX IS CONSIDERED A LEADING INDICATOR FOR COMMERCIAL BUILDING CONSTRUCTION WITH A 6-9 MONTH LAG
- NOTE: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.

# US HOUSE PRICES (INFLATION ADJUSTED)

11

U.S. house prices, inflation adjusted, quarterly



Sources: Commerce Department (corporate profits, income, GDP); Federal Reserve (bank lending); Robert J. Shiller (real home prices); Labor Department (jobs); Federal Reserve Bank of St. Louis (inflation-adjusted exports and consumer spending)

- **NOTES: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.**
- **QUARTERLY REAL HOME PRICES DATA BEGAN IN 1953. RECOVERY DATA BEFORE 1953 ARE NOT INCLUDED IN RANKINGS OR AVERAGES**



# EXISTING HOME SALES

12



- NOTE: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.

# NEW HOUSING STARTS

13



- NOTE: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.

# RETAIL SALES

14



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# US AUTO SALES

15



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# INDEX OF LEADING ECONOMIC INDICATORS

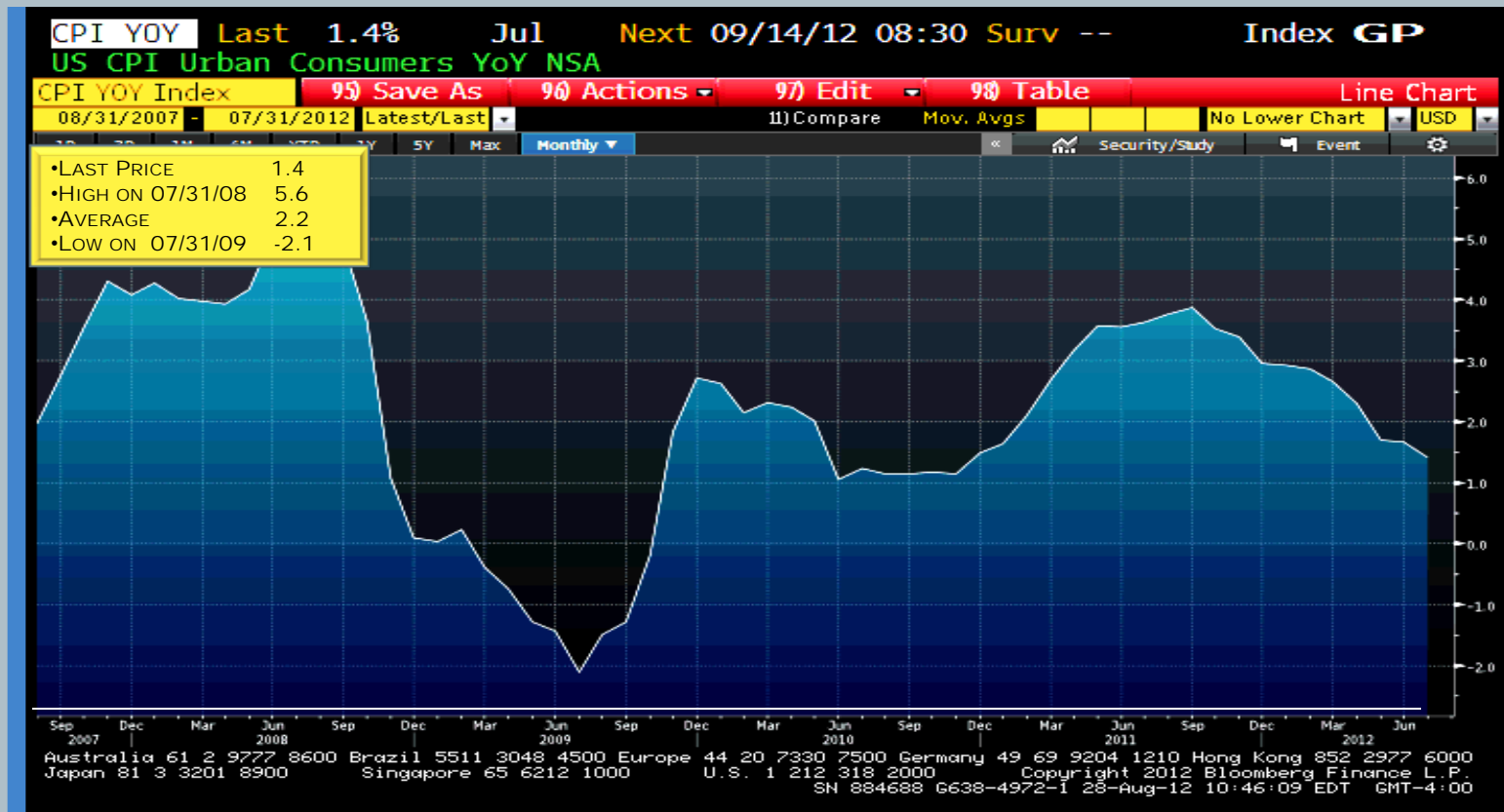
16



- THE INDEX OF LEI IS COMPOSED OF: AVE. WEEKLY MANUFACTURING HRS, AVE. WEEKLY JOBLESS CLAIMS, MANUFACTURERS' NEW ORDERS-CONSUMER & CAPITAL, VENDOR PERFORMANCE, NEW BUILDING PERMITS, STOCK PRICES, MONEY SUPPLY-M2, INT. RATE SPREADS & CONSUMER EXPECTATIONS
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# INFLATION- CPI

17



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# MARKET INDICATORS

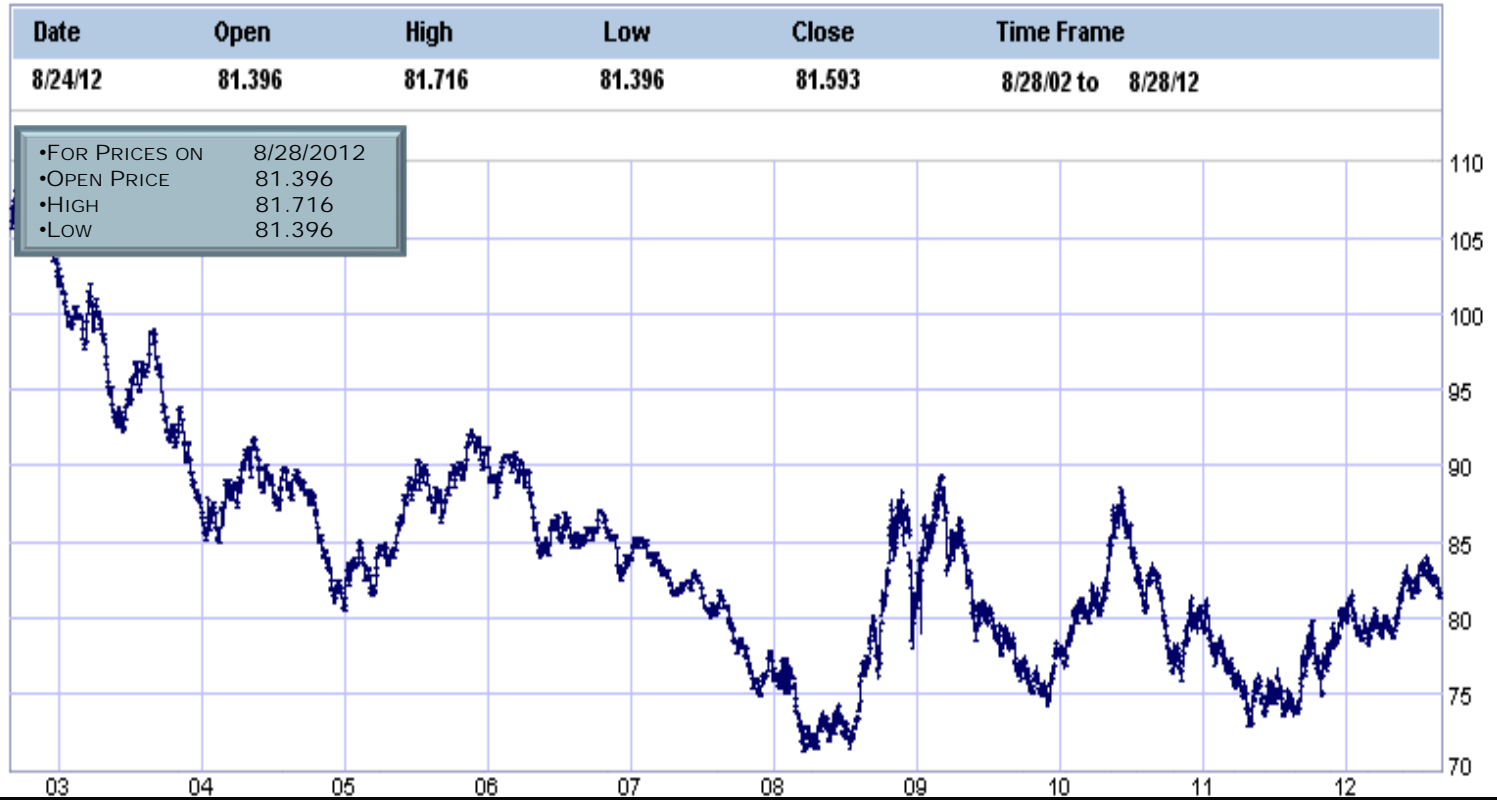
*as of August 2012*



NYC OFFICE OF THE COMPTROLLER  
BUREAU OF ASSET MANAGEMENT

# TRADE WEIGHTED US DOLLAR INDEX

19



- NOTE: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.



# USD/EUR EXCHANGE RATE

20



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# 3-MONTH LIBOR RATES

21



- **NOTE: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.**

# VOLATILITY INDEX (THE "VIX")

70

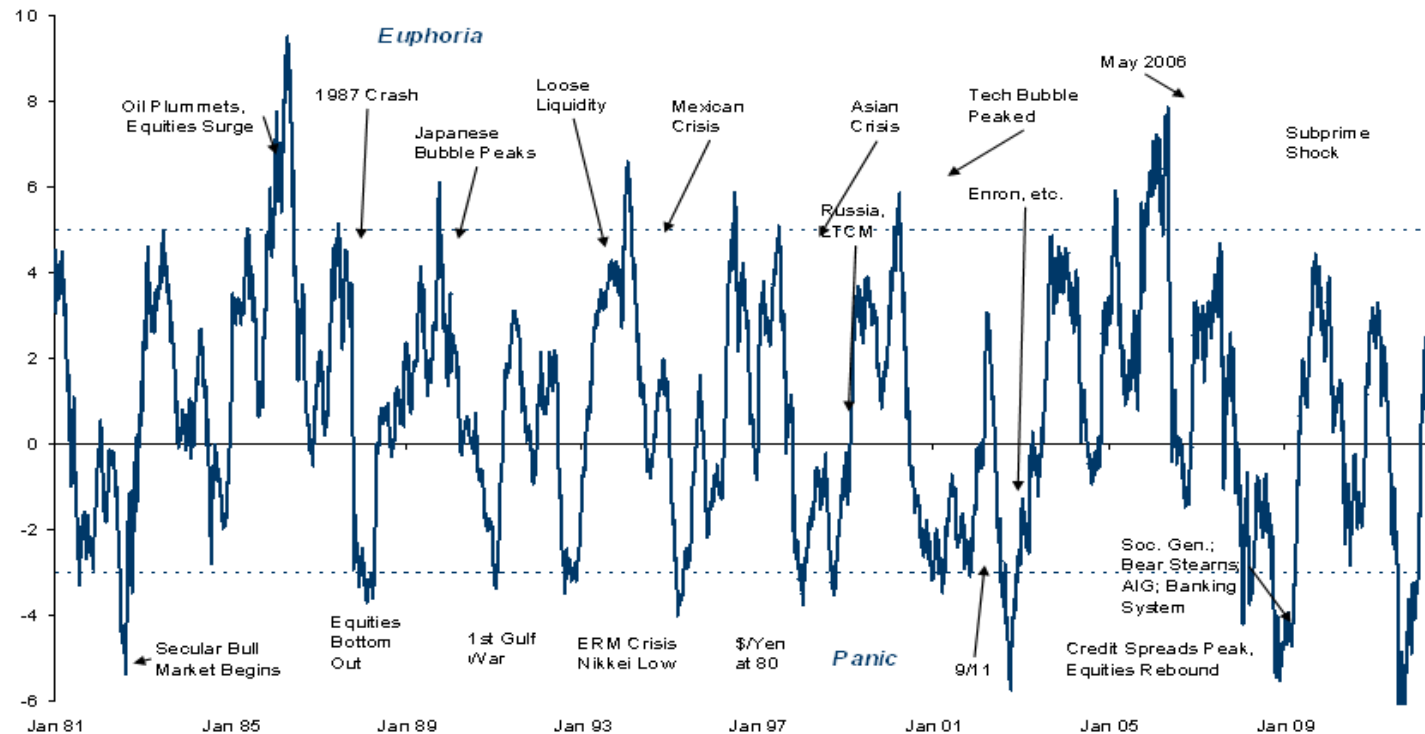
22



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# GLOBAL RISK APPETITE

23

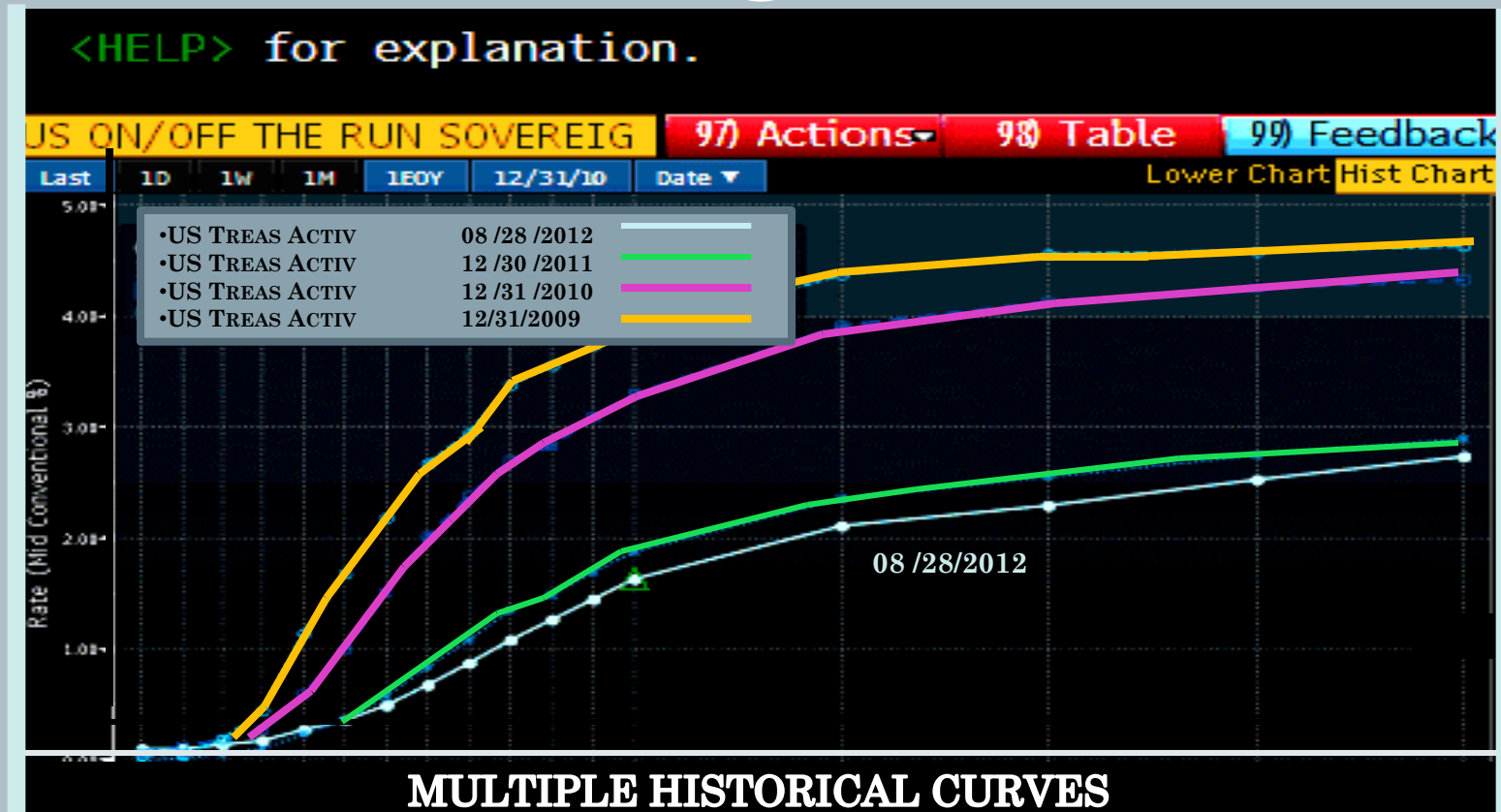


Last Data Point: 08/28/2012

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# US TREASURY YIELD CURVES

24



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# 10 YEAR TREASURY RATES

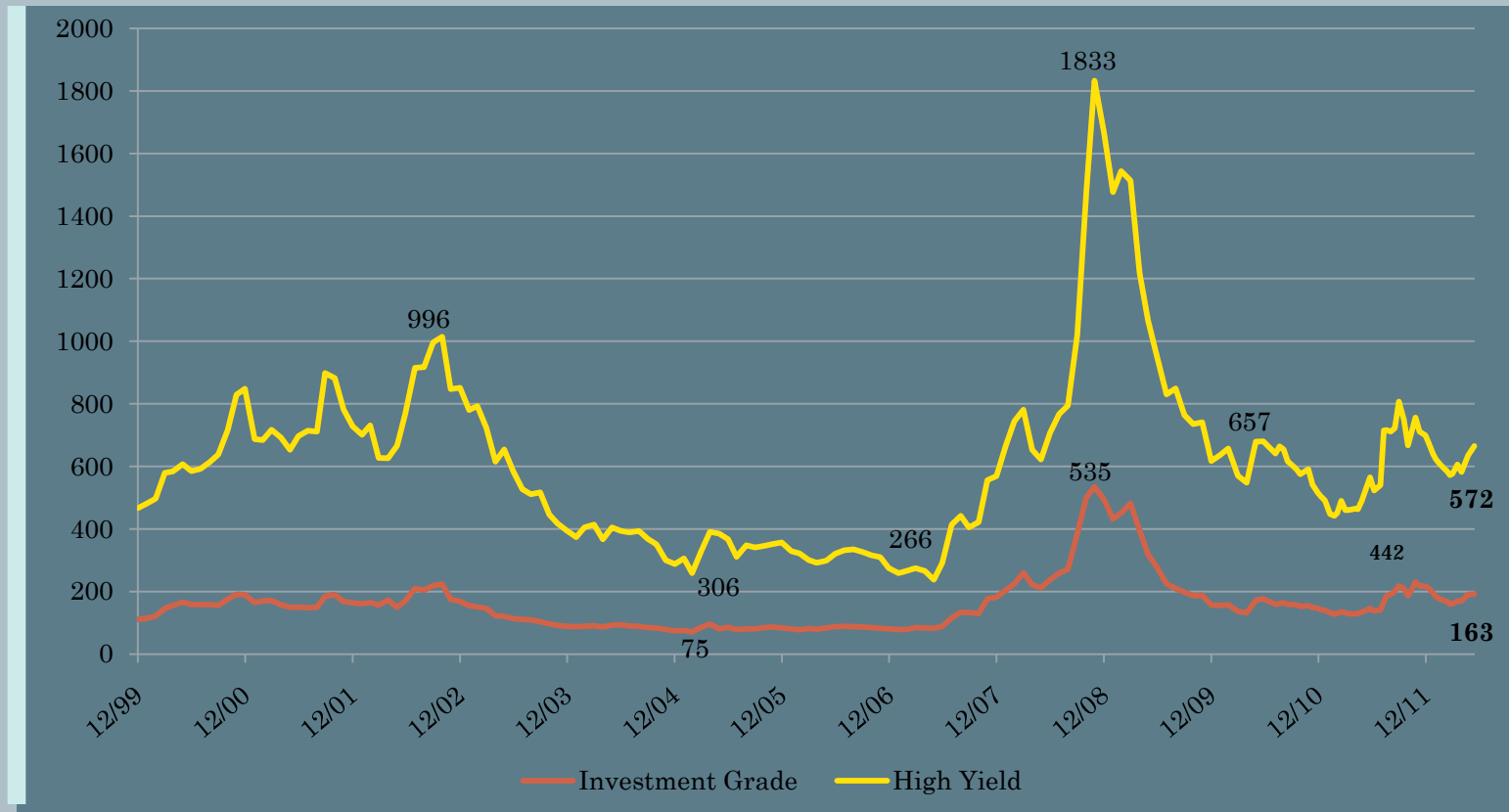
25



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# INVESTMENT GRADE AND HY SPREADS

26



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# CORPORATE EARNINGS

## S & P 500 EARNINGS PER SHARE & P/E RATIO

75

27



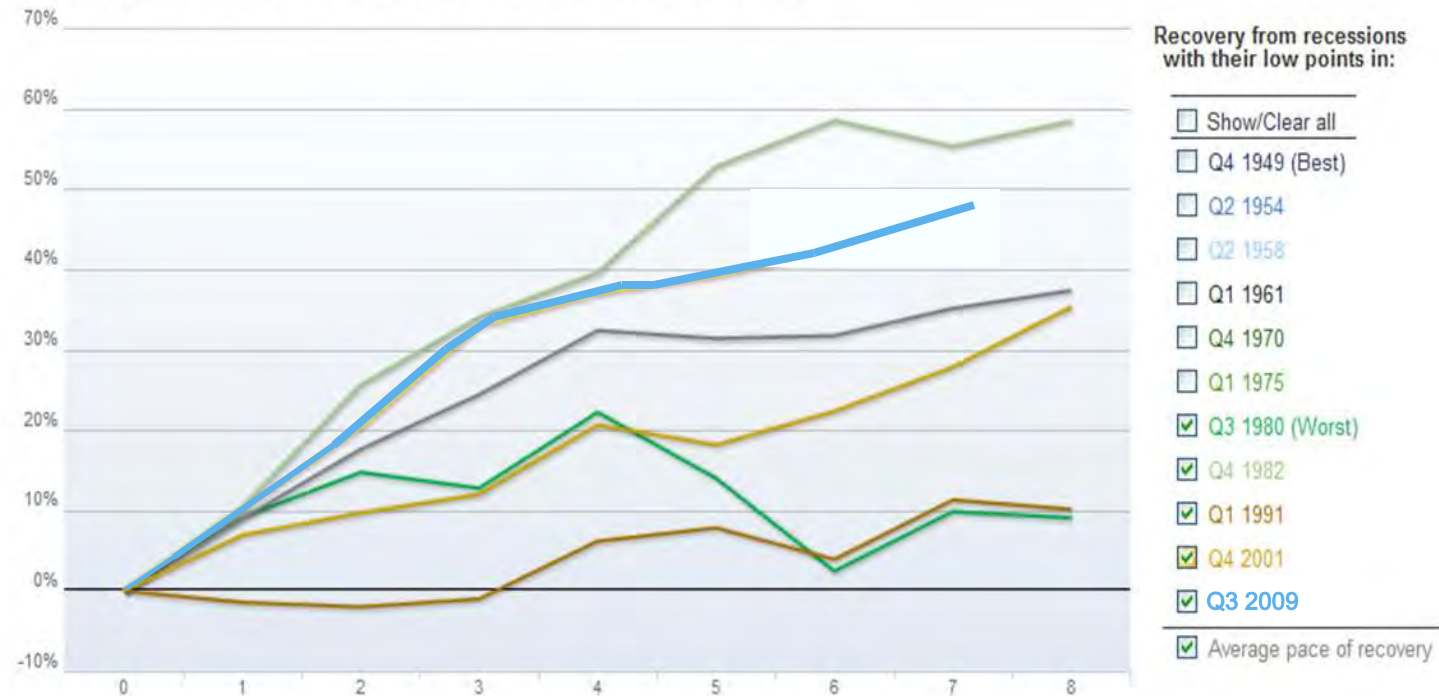
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# CORPORATE PROFITS

28

Corporate profits with inventory valuation and capital consumption adjustments, quarterly



Sources: Commerce Department (corporate profits, income, GDP); Federal Reserve (bank lending); Robert J. Shiller (real home prices); Labor Department (jobs); Federal Reserve Bank of St. Louis (inflation-adjusted exports and consumer spending)

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# PRICE TO EARNING RATIOS INCLUDING ESTIMATES

77

29

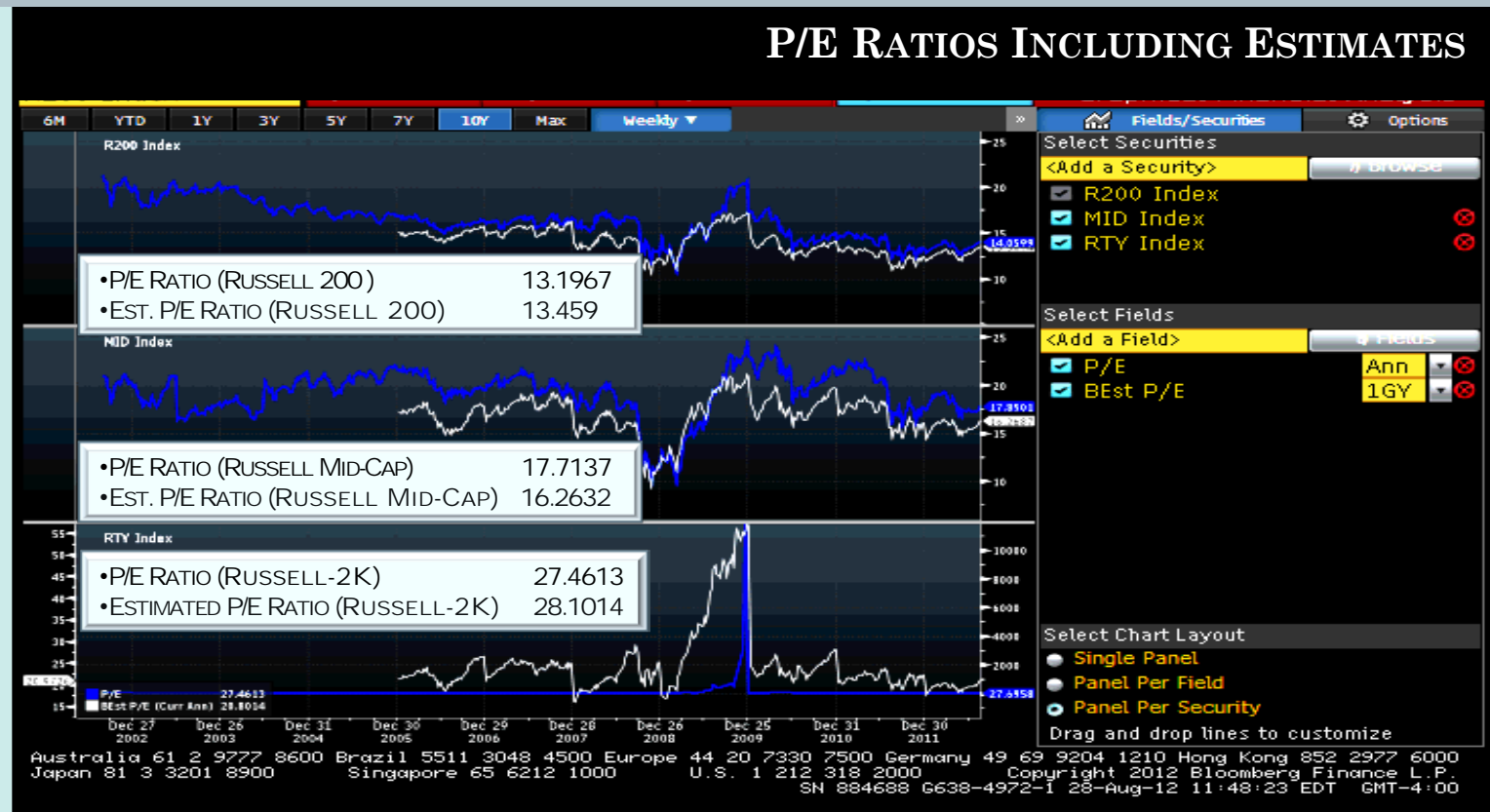
## P/E RATIOS INCLUDING ESTIMATES



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# PRICE TO EARNING RATIOS INCLUDING ESTIMATES

30

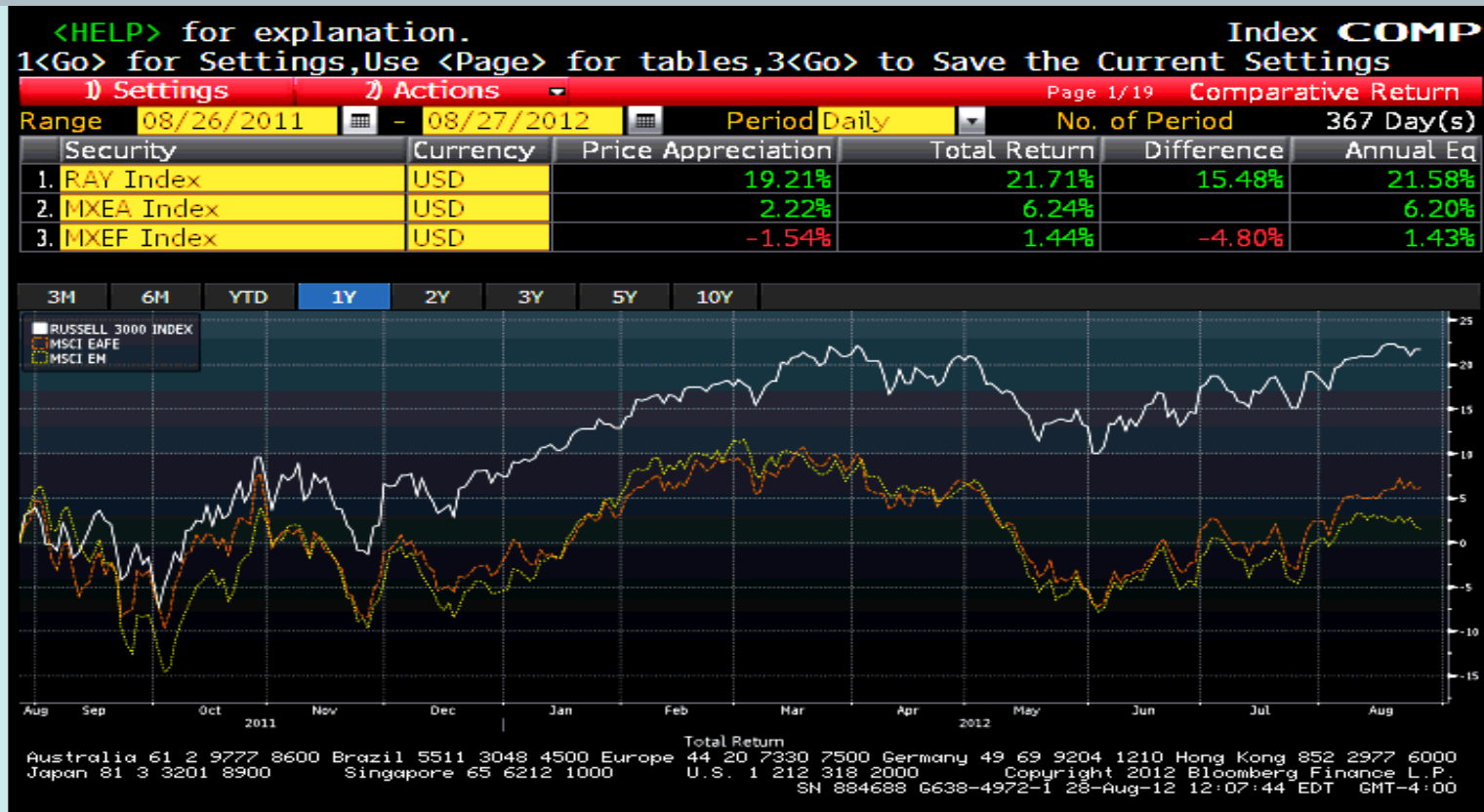


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# RECENT GLOBAL EQUITY MARKET RETURNS

79

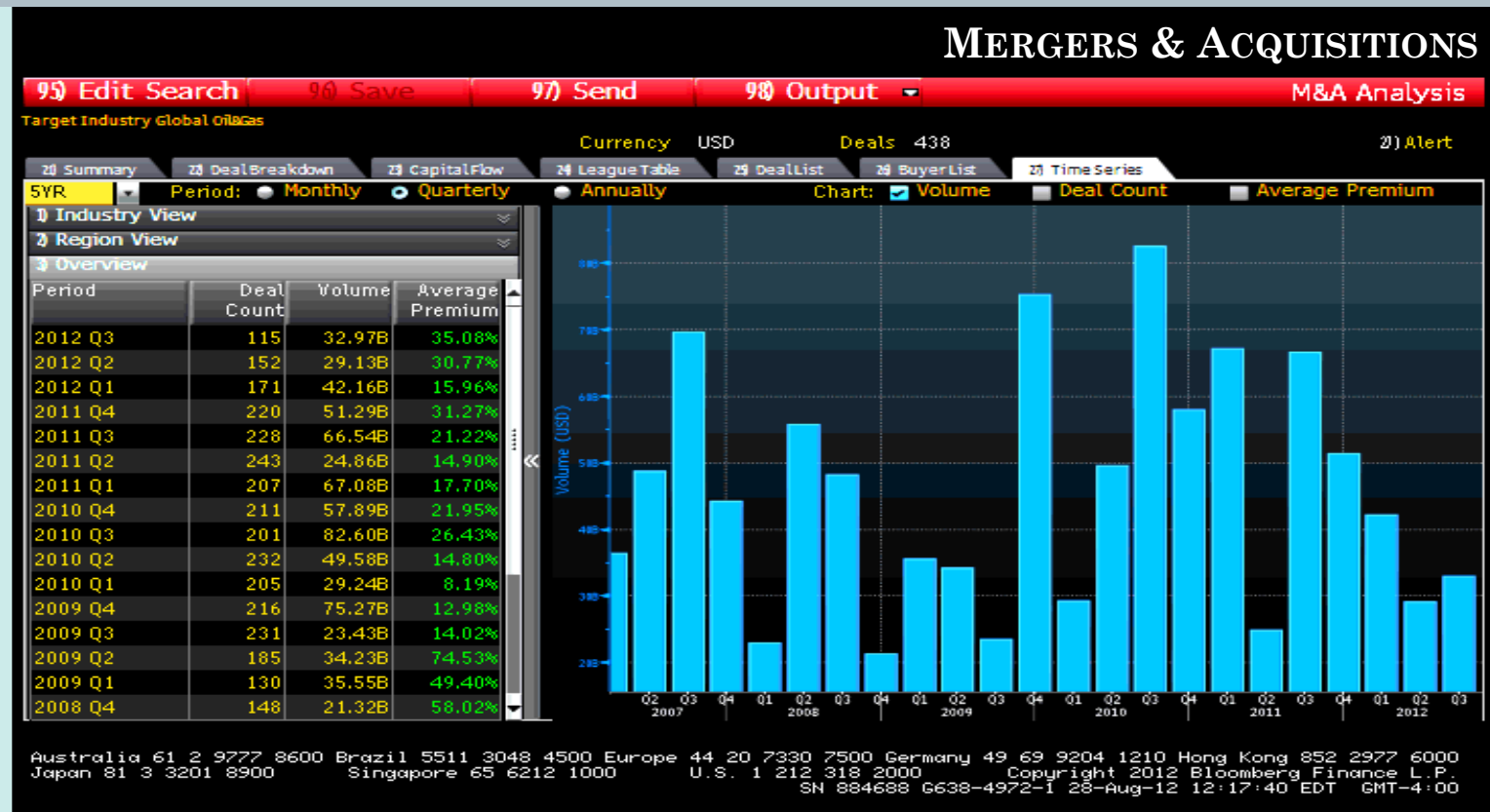
31



- NOTE: THE MARKET INDICATORS CONTAINED IN THE BOARD MATERIALS ARE A SUBSET OF INDICATORS RELEVANT TO FUND PERFORMANCE AND STRATEGIC PLANNING AND ARE NOT INTENDED AS THE EXCLUSIVE INDICATORS.

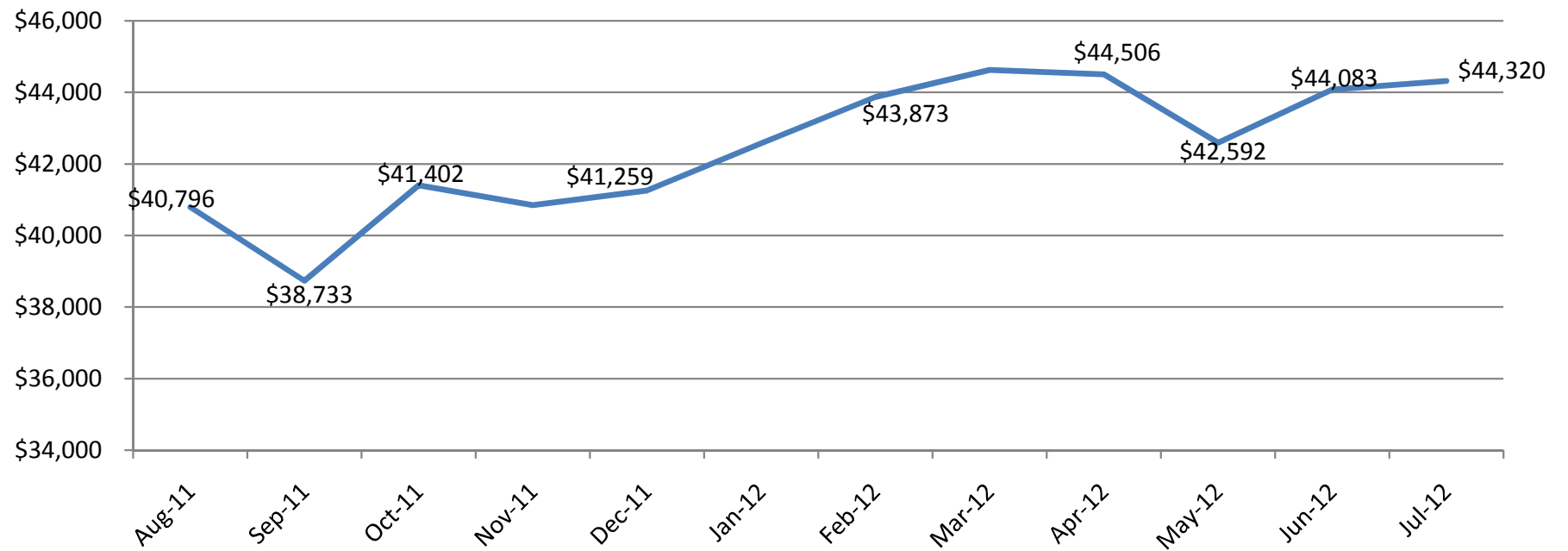
# MERGERS & ACQUISITIONS ACTIVITY

32

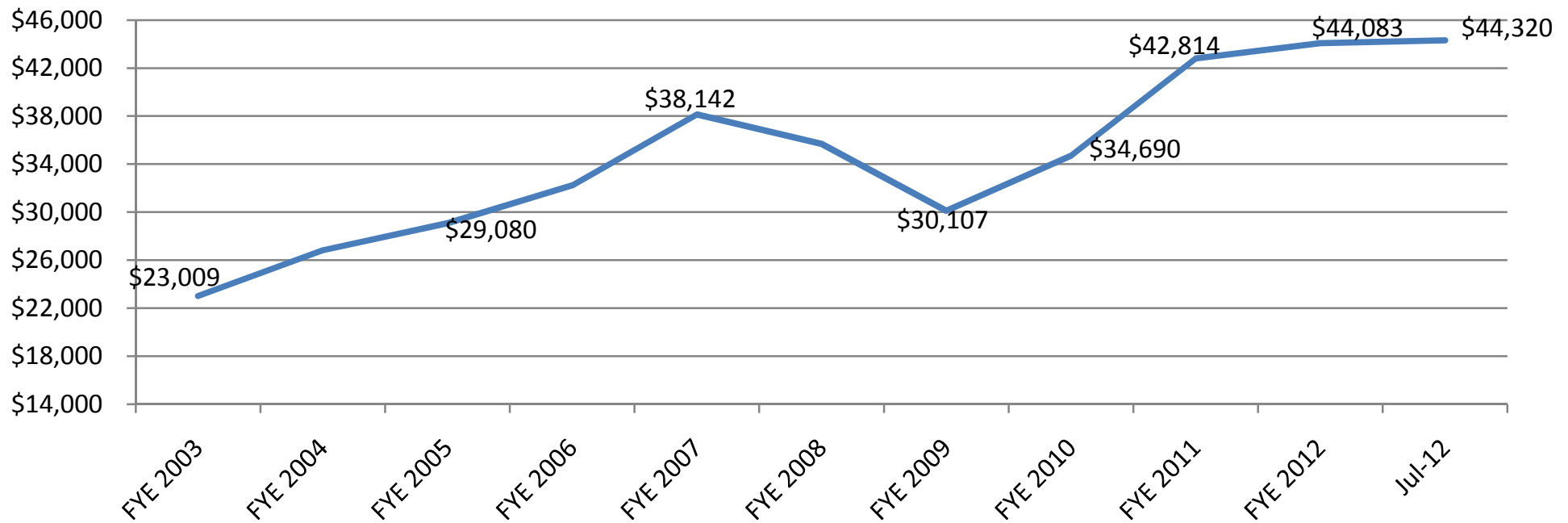


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## TRS - Market Values August 2011 - July 2012



## TRS Market Value 2003 - 2012

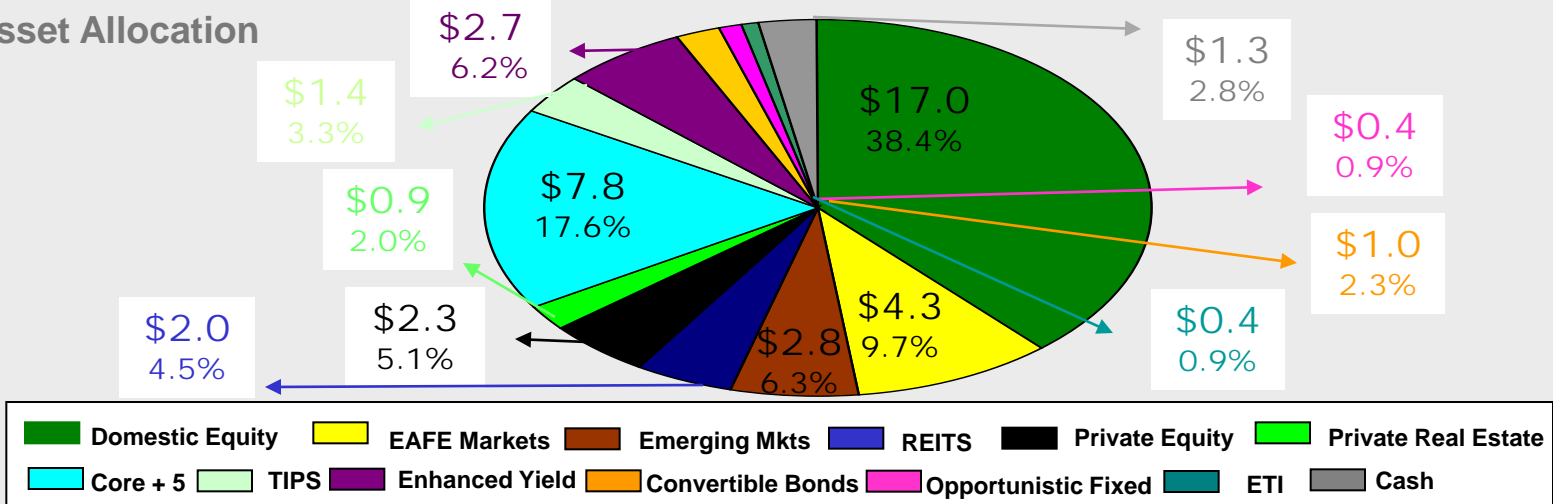


The July 2012 market value of \$44.320 billion is up 1.04% from the June 2012 market value of \$44.083.

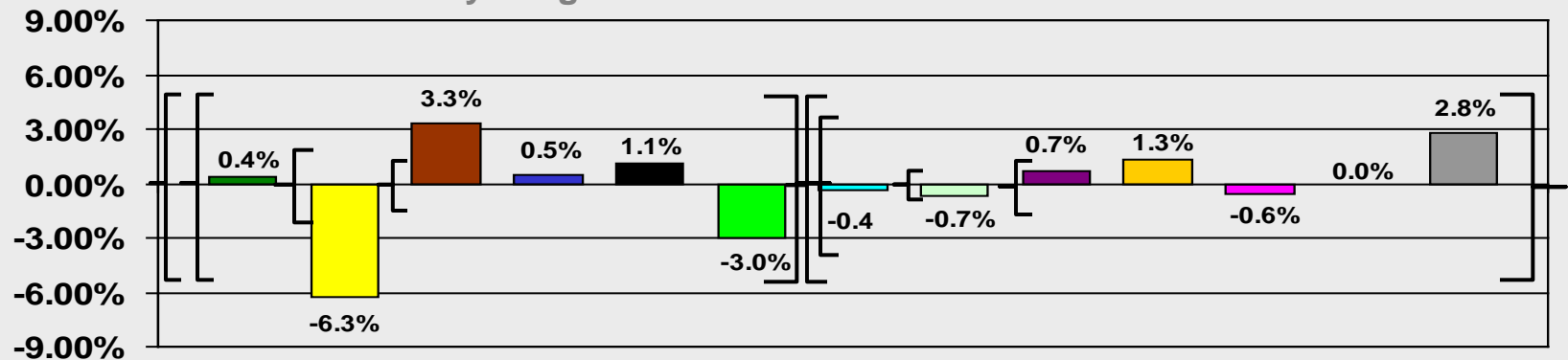
## Portfolio Asset Allocation: July 31, 2012

**\$44.3B** Under Management

### Asset Allocation



### Relative Mix to Old Policy Weights



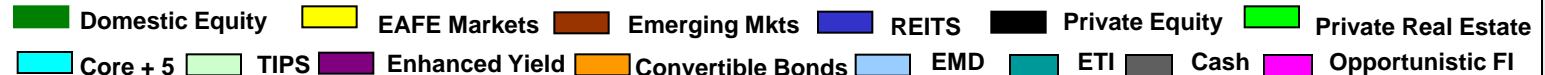
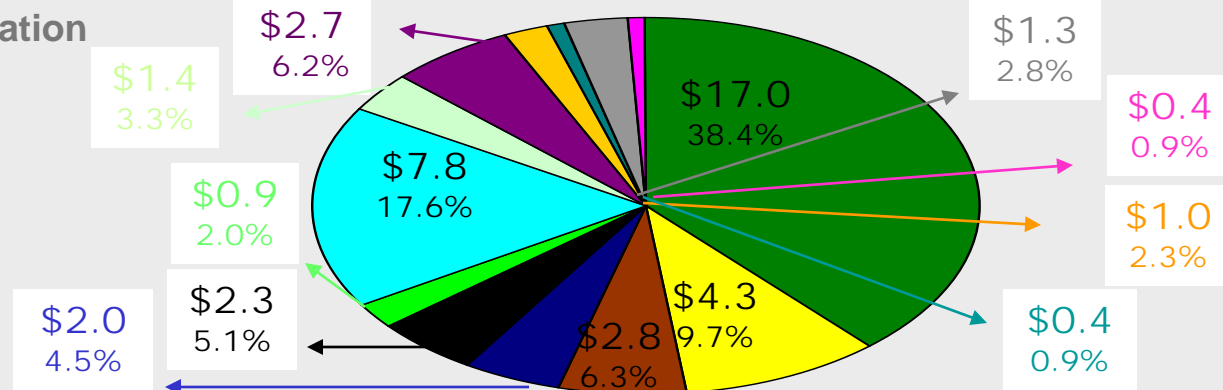
Note: Brackets represent rebalancing ranges versus Policy.



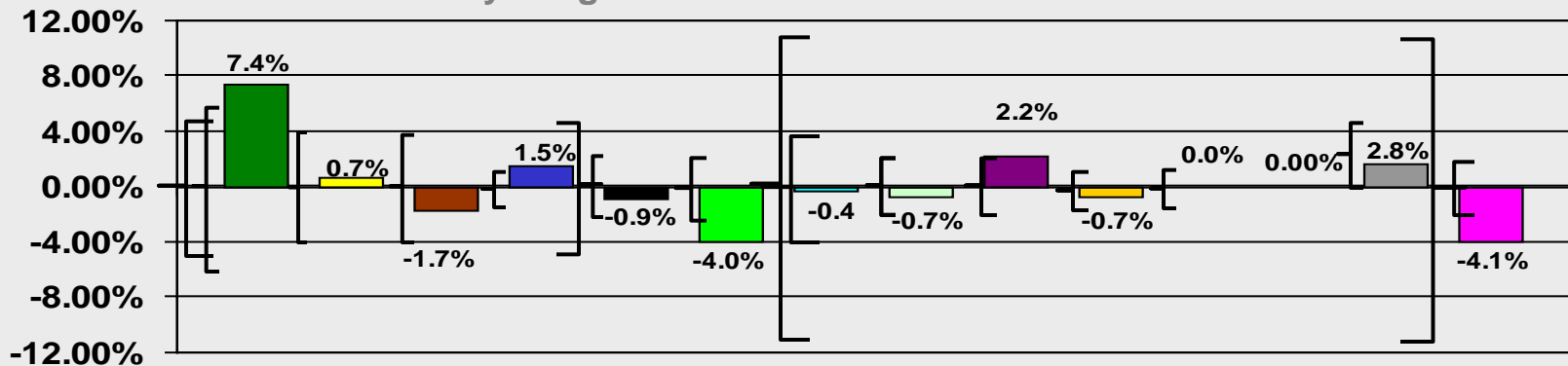
## Portfolio Asset Allocation: July 31, 2012

**\$44.3B** Under Management

### Asset Allocation



### Relative Mix to New Policy Weights

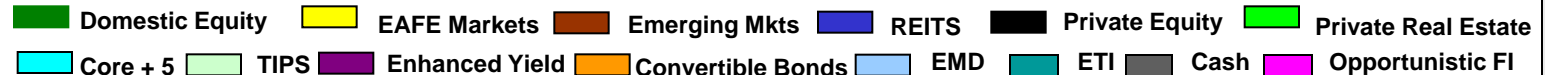
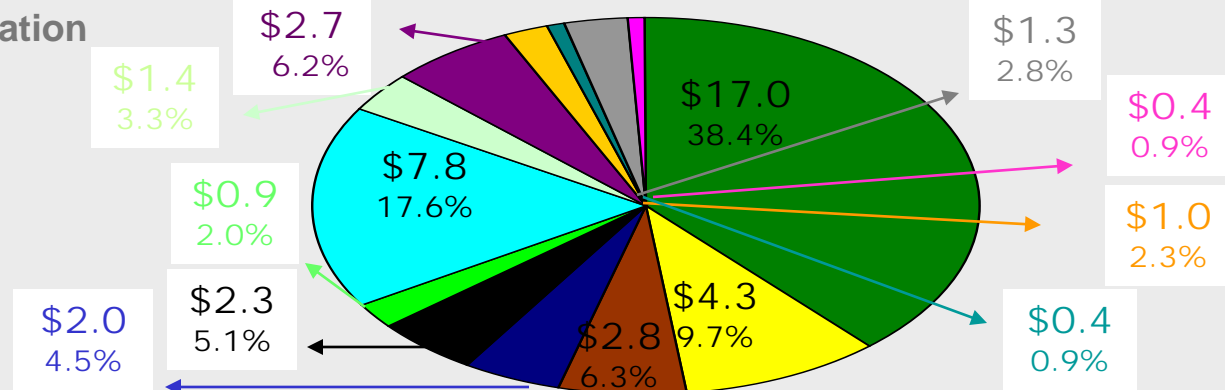


Note: Brackets represent rebalancing ranges versus Policy.

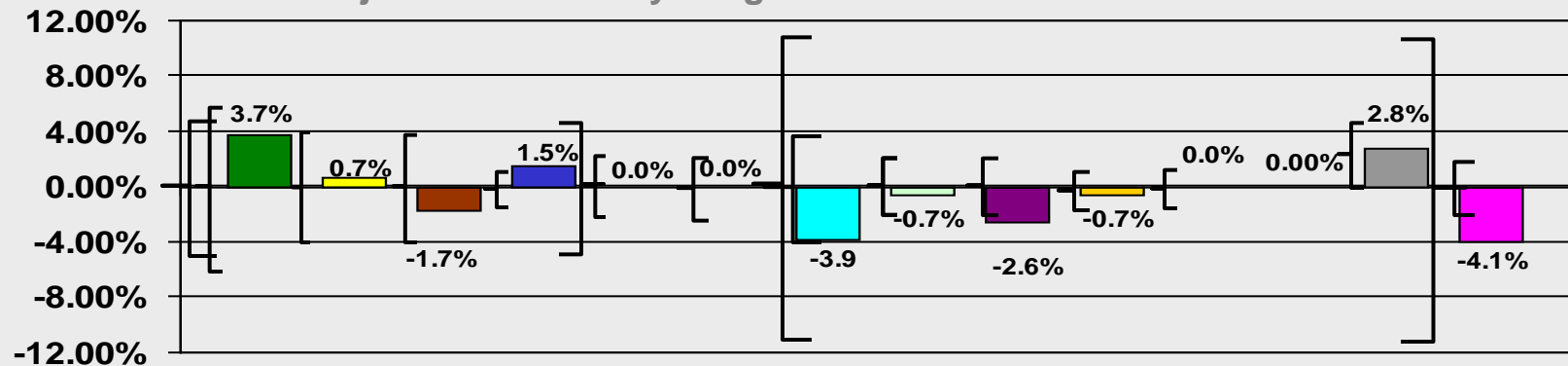
## Portfolio Asset Allocation: July 31, 2012

**\$44.3B** Under Management

### Asset Allocation



### Relative Mix to Adjusted New Policy Weights



Note: Brackets represent rebalancing ranges versus Policy.

# NYC TEACHERS' RETIREMENT SYSTEM

## CLASSIFICATION OF INVESTMENTS

*(as of July 31st 2012)*

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### ASSET CLASS ALLOCATIONS

	In \$MM	Actual	Policy Target	Adjustment	Adjusted Policy
<b>TOTAL EQUITIES</b>	\$29,244.3	66.0%	63.0%	NA	61.8%
<b>TOTAL FIXED INCOME</b>	\$15,075.4	34.0%	37.0%	NA	38.2%
<b>TOTAL ASSETS</b>	\$44,319.7	100.0%	100.0%	NA	100.0%

	In \$MM	Actual %	Policy Target %	Adjustment	Adjusted Policy	Adjusted Target Range****
US Equities	\$16,997.1	38.4%	31.0%	3.7%	34.7%	28.7% - 40.7%
Non-US Equities/EAFE	\$4,288.4	9.7%	9.0%	NA	9.0%	5.0% - 13.0%
Emerging Markets	\$2,775.8	6.3%	8.0%	NA	8.0%	4.0% - 12.0%
Real Estate Investment Trusts	\$2,010.9	4.5%	3.0%	NA	3.0%	1.5% - 4.5%
<b>TOTAL PUBLIC EQUITY</b>	\$26,072.1	58.8%	51.0%	NA	54.7%	49.7% - 59.7%
<b>** PRIVATE REAL ESTATE*</b>	\$898.0	2.0%	6.0%	NA	2.0%	4.0% - 8.0%
<b>** PRIVATE EQUITY*</b>	\$2,274.2	5.1%	6.0%	NA	5.1%	4.0% - 8.0%
<b>TOTAL EQUITIES</b>	\$29,244.3	66.0%	63.0%	NA	61.8%	

	In \$MM	Actual %	Policy Target %	Adjustment	Adjusted Policy	Adjusted Target Range****
Core +5	US - Government	\$1,132.8	2.6%	22.2%	NA	21.5%
	US - Mortgage	\$3,566.1	8.0%	42.1%	NA	
	US - Investment Grade Credit	\$3,008.3	6.8%	35.7%	NA	
	<b>TOTAL CORE + 5</b>	\$7,815.7	17.6%	18.0%	3.5%	21.5%
	TIPS	\$1,445.5	3.3%	4.0%	NA	4.0%
	High Yield	\$2,743.7	6.2%	4.0%	4.7%	8.7%
	Convertible Bonds	\$1,010.3	2.3%	3.0%	NA	3.0%
	Bank Loans	\$0.0	0.0%	0.0%	NA	0.0%
	EMD	\$0.0	0.0%	3.0%	NA	0.0%
	*** ETI	\$382.2	0.9%	*** 2.0%	NA	*** 0.9%
	Cash	\$1,259.4	2.8%	N/A	NA	N/A
	<b>TOTAL PUBLIC FIXED INCOME</b>	\$14,656.8	33.1%	32.0%	NA	37.2%
	<b>** OPPORTUNISTIC FIXED INCOME</b>	\$418.6	0.9%	5.0%	NA	0.9%
	<b>TOTAL FIXED INCOME</b>	\$15,075.4	34.0%	37.0%	NA	38.2%

\* Assumes a 50%/50% weighting to Core and Non-Core Real Estate.

\*\* 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: US Equities: +/-6%; Non-US Equities/EAFE: +/-4%; Emerging Markets: +/-4%; REITs: +/-1.5%; Total Public Equity: +/-5%; Real Estate: +/-2%; Private Equity: +/-2%; Core +5: +/-4%; TIPS: +/-2%; High Yield: +/-2%; Convertible Bonds: +/-1.5%; Bank Loans: up to 1/3 of High Yield; EMD: +/-1.5%; Cash: 0-5%; Total Public Fixed Income: +/-11%; OFI: +/-2%.

# NYC TEACHERS' RETIREMENT SYSTEM

## CLASSIFICATION OF INVESTMENTS

*(as of July 31st 2012)*

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### Adjustments to Long-Term Asset Allocation

#### 1) Private Equity

The amount over/under target will be added/subtracted from the US Equity target allocation.

#### 2) Real Estate

50% of the amount over/under target will be added/subtracted from the Core+5 target allocation and 50% of the amount over/under target will be added/subtracted from the US Equity target allocation.

#### 3) Emerging Markets Debt

50% of the amount over/under target will be added/subtracted from the Core+5 target allocation and 50% of the amount over/under target will be added/subtracted from the High Yield target allocation.

#### 4) Opportunistic Fixed Income

80% of the amount over/under target will be added/subtracted from the High Yield target allocation and 20% of the amount over/under target will be added/subtracted from the US Equities target allocation.

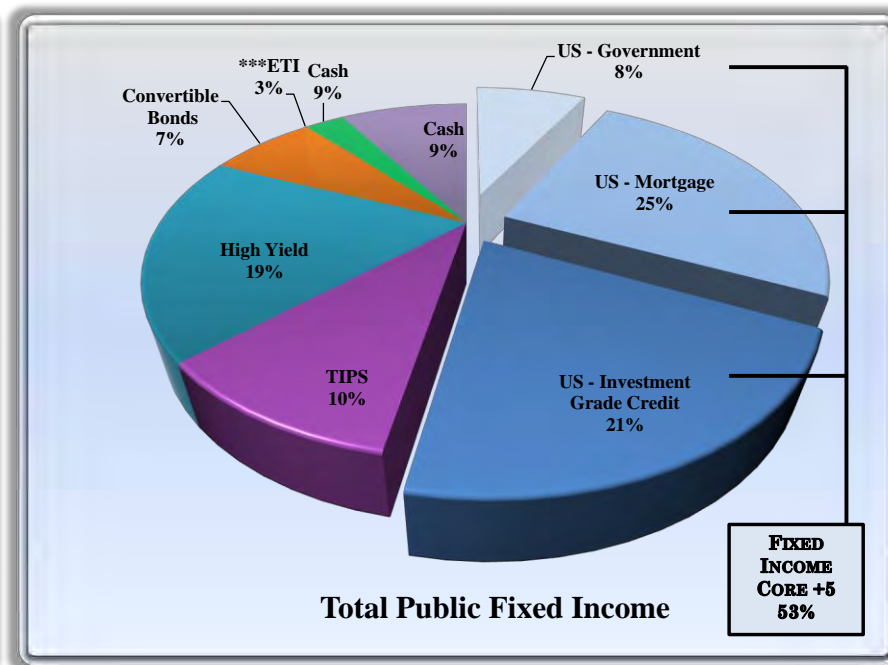
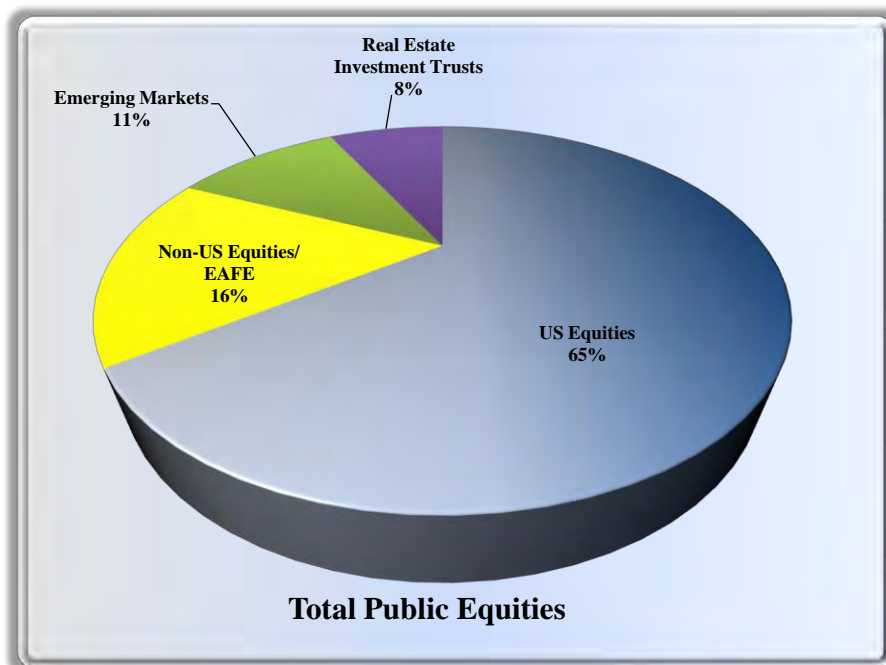
### Impact of Adjustments

<b>1) Core +5 Policy Target %</b>	<b>18.0%</b>
Adjustment: 50% of uninvested Real Estate	2.0%
Adjustment: 50% of uninvested Emerging Markets Debt	<u>1.5%</u>
<b>Adjusted Core+5 Policy Target %</b>	<b>21.5%</b>
 <b>2) High Yield Policy Target %</b>	 <b>4.0%</b>
Adjustment: 50% of uninvested Emerging Markets Debt	1.5%
Adjustment: 80% of uninvested Opportunistic Fixed Income	<u>3.2%</u>
<b>Adjusted High Yield Policy Target %</b>	<b>8.7%</b>
 <b>3) Domestic Equity Policy Target %</b>	 <b>31.0%</b>
Adjustment: 20% of (over)/underallocation of OFI	0.8%
Adjustment: 100% of (over)/underallocation of PE	0.9%
Adjustment: 50% of (over)/underallocation of RE	<u>2.0%</u>
<b>Adjusted Domestic Equity Policy Target %</b>	<b>34.7%</b>

# NYC TEACHERS' RETIREMENT SYSTEM

## CLASSIFICATION OF INVESTMENTS

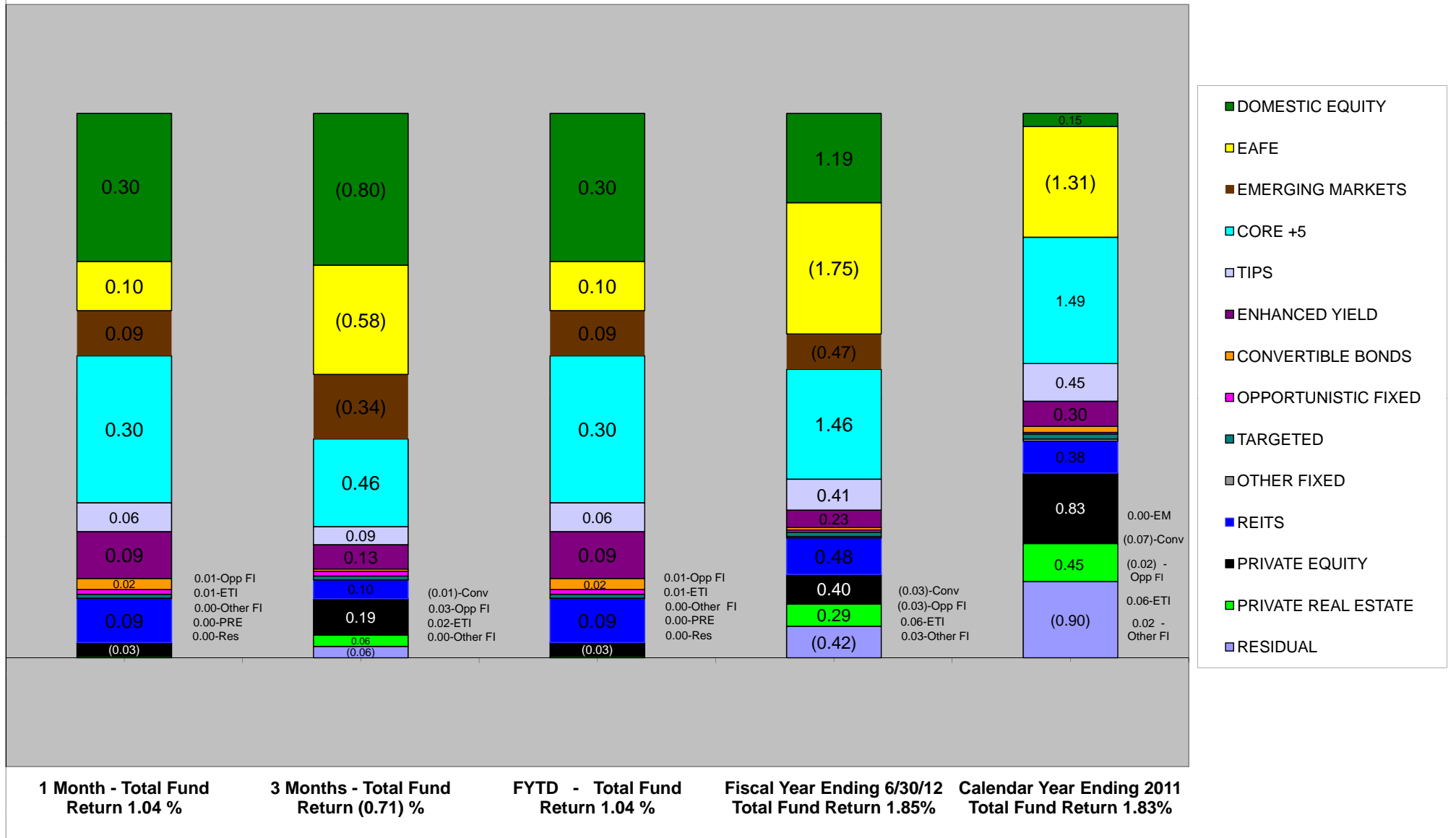
*(as of July 31st 2012)*



**THE BANK OF NEW YORK MELLON**  
**CITY OF NEW YORK**  
**Market Indicator Page \* NYC Teachers' Retirement System**  
**July 31, 2012**

	Trailing 1 Month	Trailing 3 Months	06/30/12 07/31/12	Trailing 1 Year	Trailing* 2 Years	Trailing* 3 Years	Trailing* 5 Years	Trailing* 10 Years
<b><u>MARKET INDICATORS</u></b>								
STANDARD & POORS 500	1.39	-0.78	1.39	9.13	14.26	14.12	1.13	6.33
S&P MIDCAP INDEX 400	-0.04	-4.76	-0.04	1.20	12.81	16.06	3.45	9.31
RUSSELL 1000	1.19	-1.40	1.19	7.96	14.13	14.26	1.25	6.65
RUSSELL 2000	-1.38	-3.31	-1.38	0.19	11.42	13.71	1.69	8.62
RUSSELL 3000	0.99	-1.54	0.99	7.33	13.92	14.22	1.29	6.80
RUSSELL 3000 GROWTH	1.10	-2.69	1.10	7.55	15.99	15.29	3.40	6.92
RUSSELL 3000 VALUE	0.88	-0.35	0.88	7.09	11.88	13.17	-0.93	6.54
MSCI EAFE (NET DIVIDEND)	1.13	-4.20	1.13	-11.45	1.86	3.31	-5.61	6.36
MSCI EMERGING MARKETS FREE	2.02	-5.83	2.02	-13.64	0.86	6.94	-0.43	15.56
FTSE CUSTOM BENCHMARK	2.25	-5.35	2.25	-12.83	2.14	9.40	0.67	****
MSCI WORLD INDEX	1.31	-2.57	1.31	-1.40	8.39	9.06	-1.70	6.81
MSCI EUROPE SMID CAP INDEX	0.83	-6.89	0.83	-14.72	1.76	6.06	****	****
NYC - TREASURY AGENCY PLUS FIVE	1.99	5.27	1.99	17.30	10.89	10.77	10.08	7.55
CITIGROUP MORTGAGE	0.79	1.20	0.79	4.92	4.41	5.51	6.81	5.43
NYC - INVESTMENT GRADE CREDIT INDEX	2.72	3.83	2.72	9.68	7.95	9.41	7.74	6.75
NYC - CORE PLUS FIVE	1.77	3.05	1.77	9.27	7.04	7.99	7.98	6.41
CITIGROUP BROAD INVESTMENT GRADE	1.41	2.37	1.41	7.34	5.77	6.71	7.09	5.78
BARCLAYS CAPITAL AGGREGATE	1.38	2.34	1.38	7.25	5.83	6.85	6.91	5.65
CITIGROUP BB & B	1.89	2.93	1.89	8.94	10.64	13.00	7.32	9.39
BofA MERRILL LYNCH HY MASTER II	1.92	2.73	1.92	7.23	10.03	14.58	9.26	10.59
BARCLAYS CAPITAL GLOBAL US TIPS (INFLATION NOTES)	1.90	3.02	1.90	9.49	10.63	10.31	8.37	7.26
BofA ML ALL CONVERTIBLES EX MANDATORY	0.61	-1.15	0.61	1.06	7.72	11.44	3.63	****
DJ WILSHIRE REAL ESTATE SECURITIES INDEX	1.83	2.46	1.83	12.88	18.88	29.93	3.84	11.20
NCREIF NFI-ODCE NET	0.00	2.29	0.00	11.31	15.25	7.37	-1.81	****
91 DAY TREASURY BILL	0.01	0.03	0.01	0.07	0.10	0.12	0.90	1.85

## NYC Teachers' Retirement System Contribution to Return - July 2012



**THE BANK OF NEW YORK MELLON**

**CITY OF NEW YORK**

**Manager / Benchmark Comparison Report \*NYC Teachers' Retirement System**

July 31, 2012

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	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Months	Fiscal YTD	Calendar YTD	FY Ending 06/30/11	Calendar Yr Ending 2011	Calendar Yr Ending 2010	Calendar Yr Ending 2009	Calendar Yr Ending 2008	Trailing 1 Year	Trailing* 3 Years	Trailing* 5 Years	Trailing* 10 Years	Since Inception
<b>ASSET CLASS SUMMARY</b>																
DOMESTIC EQUITY	\$ 16,997.1	38.35%	0.78%	-2.05%	0.78%	9.97%	32.73%	0.41%	17.33%	28.33%	-37.09%	6.37%	13.94%	1.17%	****	9.39%
INTERNATIONAL EAFE	4,288.4	9.68%	0.94	-4.43	0.94	4.93	31.73	-9.82	11.42	32.77	-42.36	-9.64	5.65	-3.76	****	5.16
EMERGING MARKETS	2,775.8	6.26%	1.47	-5.57	1.47	5.53	****	****	****	****	****	-14.05	****	****	****	-11.25
REAL ESTATE EQUITY SECURITIES	2,010.9	4.54%	1.98	2.04	1.98	16.25	35.33	8.03	32.10	30.86	-41.06	12.26	29.76	3.81	****	13.36
CORE + 5	7,707.2	17.39%	1.72	2.86	1.72	5.28	5.19	8.73	8.58	8.54	2.98	9.06	8.71	7.83	6.46	8.45
CONVERTIBLE BONDS	1,010.3	2.28%	0.97	-0.52	0.97	6.51	18.90	-4.22	13.18	34.16	****	0.08	8.69	****	****	4.76
TIPS MANAGERS	1,445.5	3.26%	1.80	3.01	1.80	5.95	7.17	13.50	6.47	10.14	-0.74	10.07	10.33	8.48	****	6.68
ENHANCED YIELD	2,743.7	6.19%	1.54	2.13	1.54	7.53	14.49	5.55	13.43	38.75	-18.14	6.99	12.18	8.70	9.69	6.22
OPPORTUNISTIC FIXED INCOME^^	418.6	0.94%	1.05	3.46	1.05	11.33	18.21	-3.20	23.88	18.09	-9.68	-0.25	18.06	****	****	10.03
PROGRESS FIXED INCOME	108.5	0.24%	****	****	****	****	****	****	****	****	****	****	****	****	****	****
ECONOMICALLY TARGETED INVESTMENTS	382.2	0.86%	0.91	2.32	0.91	4.01	4.32	6.70	6.61	7.62	6.43	7.08	6.63	7.12	5.99	9.70
PRIVATE EQUITY	2,274.2	5.13%	-0.52	3.77	-0.52	5.64	18.65	15.80	14.04	-4.44	-1.50	7.69	14.11	5.98	****	11.86
PRIVATE REAL ESTATE	898.0	2.03%	-0.15	3.14	-0.15	8.81	24.82	24.55	9.99	-44.20	-7.61	17.73	6.21	-2.71	****	8.35
CASH	1,259.4	2.84%	0.03	0.10	0.03	0.20	0.44	0.50	0.45	1.23	3.70	0.37	0.54	1.69	****	2.63
<b>TOTAL TEACHERS</b>	<b>\$ 44,319.7</b>		<b>1.04%</b>	<b>-0.71%</b>	<b>1.04%</b>	<b>7.31%</b>	<b>23.28%</b>	<b>1.83%</b>	<b>13.92%</b>	<b>21.15%</b>	<b>-26.35%</b>	<b>3.62%</b>	<b>11.18%</b>	<b>2.59%</b>	<b>7.33%</b>	<b>8.40%</b>
TOTAL EQUITY	26,072.1	58.83%	0.97	-2.60	0.97	8.71	32.71	-2.35	16.64	29.37	-38.60	1.38	12.28	-0.11	****	5.01
TOTAL FIXED INCOME	13,816.0	31.17%	1.60	2.45	1.60	5.87	8.04	7.95	9.77	14.75	-2.25	8.16	9.76	8.12	****	6.45
TOTAL PRIVATE EQUITY	2,274.2	5.13%	-0.52	3.77	-0.52	5.64	18.65	15.80	14.04	-4.44	-1.50	7.69	14.11	5.98	****	11.86
TOTAL PRIVATE REAL ESTATE	898.0	2.03%	-0.15	3.14	-0.15	8.81	24.82	24.55	9.99	-44.20	-7.61	17.73	6.21	-2.71	****	8.35
TOTAL CASH	1,259.4	2.84%	0.03	0.10	0.03	0.20	0.44	0.50	0.45	1.23	3.70	0.37	0.54	1.69	****	2.63

^^ overall since inception OFI return is based on IRR calculated from Burgis

\* Returns data throughout the various reports are shown Gross of Fees with the exception of PE, RE, Opp FI, and Hedge Funds.



**THE BANK OF NEW YORK MELLON**

**CITY OF NEW YORK**

**Manager / Benchmark Comparison Report \*NYC Teachers' Retirement System**

July 31, 2012

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	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Months	Fiscal YTD	Calendar YTD	FY Ending 06/30/11	Calendar Yr Ending 2011	Calendar Yr Ending 2010	Calendar Yr Ending 2009	Calendar Yr Ending 2008	Trailing 1 Year	Trailing* 3 Years	Trailing* 5 Years	Trailing* 10 Years	Since Inception
<b>EQUITY ASSET CLASS SUMMARY</b>																
<b>DOMESTIC EQUITY</b>	\$ 16,997.1	38.35%	0.78%	-2.05%	0.78%	9.97%	32.73%	0.41%	17.33%	28.33%	-37.09%	6.37%	13.94%	1.17%	6.73%	9.39%
PASSIVE DOMESTIC EQUITY	16,097.5	36.32%	0.84	-1.96	0.84	10.05	32.54	0.35	17.23	28.40	-37.16	6.51	13.94	1.20	6.75	8.49
RUSSELL 3000			0.99	-1.54	0.99	10.40	32.37	1.03	16.93	28.34	-37.31	7.33	14.22	1.29	6.80	
	+/-		(0.15)	(0.42)	(0.15)	(0.35)	0.17	(0.67)	0.30	0.06	0.15	(0.81)	(0.28)	(0.09)	(0.04)	
TOTAL RUSSELL 3000	13,986.2	31.56%	0.98	-1.53	0.98	10.38	32.58	1.05	17.23	28.40	-37.16	7.35	14.32	1.40	6.86	9.45
RUSSELL 3000			0.99	-1.54	0.99	10.40	32.37	1.03	16.93	28.34	-37.31	7.33	14.22	1.29	6.80	
	+/-		(0.02)	0.01	(0.02)	(0.02)	0.21	0.02	0.30	0.06	0.15	0.03	0.10	0.11	0.06	
TOTAL MID CAP PASSIVE	2,111.3	4.76%	-0.04	-4.74	-0.04	7.88	****	****	****	****	****	1.23	****	****	****	2.63
S&P 400 MIDCAP			-0.04	-4.76	-0.04	7.85	39.38	-1.73	16.71	37.22	-38.43	1.20	16.06	3.45	9.31	
	+/-		0.00	0.02	0.00	0.03	****	****	****	****	****	0.03	****	****	****	
ACTIVE DOMESTIC EQUITY	846.6	1.91%	-0.20	-3.56	-0.20	8.88	33.90	-0.73	17.55	31.51	-38.51	4.06	13.41	0.39	6.30	1.59
RUSSELL 3000			0.99	-1.54	0.99	10.40	32.37	1.03	16.93	28.34	-37.31	7.33	14.22	1.29	6.80	
	+/-		(1.19)	(2.02)	(1.19)	(1.52)	1.53	(1.75)	0.62	3.17	(1.20)	(3.27)	(0.81)	(0.90)	(0.50)	
TOTAL LARGE CAP	437.4	0.99%	1.40	-2.21	1.40	10.18	27.48	-0.78	12.82	****	****	6.90	12.21	****	****	18.28
RUSSELL 1000			1.19	-1.40	1.19	10.68	31.93	1.50	16.10	28.43	-37.60	7.96	14.26	1.25	6.65	
	+/-		0.22	(0.82)	0.22	(0.50)	(4.45)	(2.28)	(3.28)	****	****	(1.05)	(2.05)	****	****	
TOTAL EMERGING MGRS	234.8	0.53%	-0.62	-4.95	-0.62	7.24	36.66	-0.49	21.13	29.70	-37.28	1.60	14.19	****	****	1.19
RUSSELL 3000			0.99	-1.54	0.99	10.40	32.37	1.03	16.93	28.34	-37.31	7.33	14.22	1.29	6.80	
	+/-		(1.61)	(3.41)	(1.61)	(3.16)	4.29	(1.51)	4.20	1.36	0.03	(5.73)	(0.03)	****	****	
TOTAL SMALL CAP ACTIVE	174.4	0.39%	-3.48	-4.96	-3.48	7.87	52.71	0.58	29.21	****	****	0.63	17.30	****	****	22.72
RUSSELL 2000			-1.38	-3.31	-1.38	7.03	37.41	-4.18	26.85	27.18	-33.80	0.19	13.71	1.69	8.62	
	+/-		(2.10)	(1.64)	(2.10)	0.84	15.30	4.76	2.36	****	****	0.44	3.59	****	****	
TOTAL U.S. ENVIRONMENTAL	53.0	0.12%	-1.74	-4.74	-1.74	4.02	35.39	1.20	27.39	31.28	****	0.50	14.80	****	****	4.12
RUSSELL 2000			-1.38	-3.31	-1.38	7.03	37.41	-4.18	26.85	27.18	-33.80	0.19	13.71	1.69	8.62	
	+/-		(0.36)	(1.42)	(0.36)	(3.01)	(2.02)	5.38	0.54	4.10	****	0.31	1.09	****	****	
<b>INTERNATIONAL EQUITY</b>	7,064.2	15.94%	1.13	-4.85	1.13	4.55	31.81	-10.53	11.43	32.77	-42.36	-10.86	5.25	-3.98	7.27	5.88
ACTIVE DEVELOPED MARKETS	3,364.2	7.59%	1.34	-3.92	1.34	5.47	30.77	-9.88	11.12	32.51	-42.05	-8.88	5.65	-3.66	7.45	5.96
MSCI EAFE (NET DIVIDEND)			1.13	-4.20	1.13	4.12	30.36	-12.14	7.75	31.78	-43.39	-11.45	3.31	-5.61	6.36	
	+/-		0.21	0.28	0.21	1.35	0.41	2.26	3.37	0.73	1.34	2.56	2.34	1.95	1.09	
NON-U.S. ENVIRONMENTAL	79.8	0.18%	0.39	-5.10	0.39	9.07	30.14	-6.66	8.67	33.34	****	0.02	6.84	****	****	-3.35
MSCI DEV STD WORLD INDEX GROSS			1.31	-2.57	1.31	7.69	31.19	-5.02	12.34	30.80	-40.33	-1.40	9.06	-1.70	6.81	
	+/-		(0.92)	(2.53)	(0.92)	1.39	(1.05)	(1.64)	(3.67)	2.54	****	1.41	(2.21)	****	****	
NON-U.S. ACTIVIST	83.2	0.19%	-2.85	-16.27	-2.85	-0.67	47.39	-23.39	36.48	42.60	****	-24.82	9.00	****	****	13.56
MSCI EUROPE SMID CAP INDEX			0.83	-6.89	0.83	6.83	42.09	-17.56	16.03	53.23	-52.13	-14.72	6.06	****	****	
	+/-		(3.68)	(9.38)	(3.68)	(7.50)	5.30	(5.84)	20.45	(10.63)	****	(10.10)	2.94	****	****	
ACTIVE EMERGING MARKETS	878.4	1.98%	1.13	-5.40	1.13	****	****	****	****	****	****	****	****	****	****	-6.72
MSCI EMERGING MARKETS FREE			2.02	-5.83	2.02	6.22	28.17	-18.17	16.03	53.23	-52.13	-13.64	6.94	-0.43	15.56	
	+/-		(0.89)	0.42	(0.89)	****	****	****	****	****	****	****	****	****	****	
PASSIVE DEVELOPED MARKETS	760.0	1.71%	0.11	-5.02	0.11	3.41	****	****	****	****	****	-11.91	****	****	****	-12.25
MSCI EAFE (NET DIVIDEND)			1.13	-4.20	1.13	4.12	30.36	-12.14	7.75	31.78	-43.39	-11.45	3.31	-5.61	6.36	
	+/-		(1.03)	(0.82)	(1.03)	(0.72)	****	****	****	****	****	(0.46)	****	****	****	
PASSIVE EMERGING MARKETS	1,897.4	4.28%	1.63	-5.65	1.63	4.96	****	****	****	****	****	-14.52	****	****	****	-11.61
MSCI EMERGING MARKETS FREE			2.02	-5.83	2.02	6.22	28.17	-18.17	19.20	79.02	-53.17	-13.64	6.94	-0.43	15.56	
	+/-		(0.40)	0.18	(0.40)	(1.27)	****	****	****	****	****	(0.87)	****	****	****	

# THE BANK OF NEW YORK MELLON

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### Manager / Benchmark Comparison Report \*NYC Teachers' Retirement System

July 31, 2012

	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Months	Fiscal YTD	Calendar YTD	FY Ending 06/30/11	Calendar Yr Ending 2011	Calendar Yr Ending 2010	Calendar Yr Ending 2009	Calendar Yr Ending 2008	Trailing 1 Year	Trailing* 3 Years	Trailing* 5 Years	Trailing* 10 Years	Since Inception
<b>FIXED INCOME ASSET CLASS SUMMARY</b>																
<b>TOTAL FIXED INCOME</b>	<b>\$ 13,816.0</b>	<b>31.17%</b>	<b>1.60%</b>	<b>2.45%</b>	<b>1.60%</b>	<b>5.87%</b>	<b>8.04%</b>	<b>7.95%</b>	<b>9.77%</b>	<b>14.75%</b>	<b>-2.25%</b>	<b>8.16%</b>	<b>9.76%</b>	<b>8.12%</b>	<b>****</b>	<b>6.45%</b>
<b>CORE + 5</b>	7,707.2	17.39%	1.72	2.86	1.72	5.28	5.19	8.73	8.58	8.54	2.98	9.06	8.71	7.83	6.46	8.45
<i>NYC - CORE PLUS FIVE</i>			1.77	3.05	1.77	4.83	4.15	9.40	7.13	6.28	6.64	9.27	7.99	7.98	6.41	
			+/-	(0.05)	(0.20)	(0.05)	0.45	1.04	(0.67)	1.45	2.26	(3.66)	(0.20)	0.72	(0.15)	0.05
ALL MORTGAGE	3,566.1	8.05%	0.85	1.35	0.85	3.41	4.90	6.32	7.70	8.30	3.09	5.85	6.93	6.72	5.47	7.36
<i>CITIGROUP MORTGAGE INDEX</i>			0.79	1.20	0.79	2.49	3.74	6.38	5.50	5.76	8.49	4.92	5.51	6.81	5.43	
			+/-	0.07	0.15	0.07	0.92	1.16	(0.06)	2.20	2.54	(5.40)	0.93	1.42	(0.09)	0.04
ALL INVESTMENT GRADE CREDIT	3,008.3	6.79%	2.70	3.79	2.70	7.67	6.92	7.79	9.47	19.96	-6.90	9.68	10.11	7.93	7.15	7.71
<i>NYC - INVESTMENT GRADE CREDIT</i>			2.72	3.83	2.72	7.31	5.94	7.80	8.36	16.36	-4.06	9.68	9.41	7.74	6.75	
			+/-	(0.02)	(0.04)	(0.02)	0.36	0.98	(0.01)	1.11	3.60	(2.84)	0.00	0.70	0.19	0.40
ALL TREASURY / AGENCY	1,132.8	2.56%	1.92	5.23	1.92	5.37	2.45	18.21	9.39	-5.89	17.50	17.12	10.90	10.18	7.67	8.47
<i>NYC - TREASURY AGENCY PLUS FIVE</i>			1.99	5.27	1.99	5.32	2.44	18.44	9.24	-7.44	18.91	17.30	10.77	10.08	7.55	
			+/-	(0.07)	(0.03)	(0.07)	0.06	0.01	(0.24)	0.15	1.55	(1.41)	(0.19)	0.13	0.10	0.11
<b>TOTAL TIPS MANAGERS</b>	1,445.5	3.26%	1.80	3.01	1.80	5.95	7.17	13.50	6.47	10.14	-0.74	10.07	10.33	8.48	****	6.68
<i>BARCLAYS CAPITAL US TIPS INDEX</i>			1.90	3.02	1.90	6.01	7.74	13.56	6.37	11.41	-2.35	9.49	10.31	8.37	7.26	
			+/-	(0.09)	(0.01)	(0.09)	(0.06)	(0.57)	(0.06)	0.10	(1.27)	1.61	0.58	0.02	0.12	****
<b>TOTAL ENHANCED YIELD</b>	2,743.7	6.19%	1.54	2.13	1.54	7.53	14.49	5.55	13.43	38.75	-18.14	6.99	12.18	8.70	9.69	6.22
<i>CITIGROUP BB &amp; B</i>			1.89	2.93	1.89	8.73	14.60	6.58	13.35	40.37	-25.10	8.94	13.00	7.32	9.39	
			+/-	(0.34)	(0.81)	(0.34)	(1.20)	(0.11)	(1.03)	0.08	(1.62)	6.96	(1.95)	(0.82)	1.38	0.30
<b>TOTAL CONVERTIBLE BONDS</b>	1,010.3	2.28%	0.97	-0.52	0.97	6.51	18.90	-4.22	13.18	34.16	****	0.08	8.69	****	****	4.76
<i>BoFA ML ALL CONVERTIBLES EX MANDATORY</i>			0.61	-1.15	0.61	7.56	22.79	-3.42	16.52	47.19	-33.02	1.06	11.44	3.63	****	
			+/-	0.37	0.63	0.37	(1.05)	(3.89)	(0.81)	(3.34)	(13.03)	****	(0.98)	(2.76)	****	****
<b>TOTAL OPPORTUNISTIC FIXED</b>	418.6	0.94%	1.05	3.46	1.05	11.33	18.21	-3.20	23.88	18.09	-9.68	-0.25	18.06	****	****	10.03
<i>JP MORGAN HY PLUS 3%</i>			2.05	2.89	2.05	10.68	18.79	8.73	18.05	61.90	-23.83	11.20	18.16	12.67	****	
			+/-	(1.00)	0.57	(1.00)	0.66	(0.58)	(11.93)	5.83	(43.81)	14.15	(11.45)	(0.10)	****	****
^^ overall since inception OFI return is based on IRR calculated from Burgis																
<b>TOTAL PROGRESS FIXED</b>	108.5	0.24%	1.43	****	1.43	****	****	****	****	****	****	****	****	****	****	1.49
<i>BARCLAYS CAPITAL AGGREGATE</i>			1.38	2.34	1.38	3.78	3.90	7.84	6.54	5.93	5.24	7.25	6.85	6.91	5.65	
			+/-	0.06	****	0.06	****	****	****	****	****	****	****	****	****	****
<b>ECONOMICALLY TARGETED INVESTMENTS</b>	382.2	0.86%	0.91	2.32	0.91	4.01	4.32	6.70	6.61	7.62	6.43	7.08	6.63	7.12	5.99	9.70
<i>TEACHERS CUSTOM BENCHMARK (NO CASH)</i>			1.12	1.92	1.12	3.25	4.13	7.51	6.31	5.12	6.62	6.46	6.39	6.73	5.54	
			+/-	(0.20)	0.40	(0.20)	0.76	0.19	(0.81)	0.30	2.50	(0.19)	0.62	0.25	0.38	0.45
<b>CASH ASSET CLASS SUMMARY</b>																
<b>TOTAL CASH</b>	1,259.4	2.84%	0.03	0.10	0.03	0.20	0.44	0.50	0.45	1.23	3.70	0.37	0.54	1.69	****	2.63
<i>ML 91 DAY TREASURY BILL INDEX</i>			0.01	0.03	0.01	0.05	0.07	0.10	0.13	0.21	2.06	0.07	0.12	0.90	1.85	
			+/-	0.02	0.07	0.02	0.16	0.37	0.40	0.32	1.02	0.30	0.42	0.78	****	****

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July 31, 2012

	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Months	Fiscal YTD	Calendar YTD	FY Ending 06/30/11	Calendar Yr Ending 2011	Calendar Yr Ending 2010	Calendar Yr Ending 2009	Calendar Yr Ending 2008	Trailing 1 Year	Trailing* 3 Years	Trailing* 5 Years	Trailing* 10 Years	Since Inception
<b>US EQUITY</b>																
TOTAL RUSSELL 3000	13,986.2	31.56%	0.98	-1.53	0.98	10.38	32.58	1.05	17.23	28.40	-37.16	7.35	14.32	1.40	6.86	9.45
RUSSELL 3000			0.99	-1.54	0.99	10.40	32.37	1.03	16.93	28.34	-37.31	7.33	14.22	1.29	6.80	
			+/-	(0.02)	0.01	(0.02)	(0.02)	0.21	0.02	0.30	0.06	0.15	0.03	0.10	0.11	0.06
STATE STREET R3000	6,880.1	15.52%	0.97	-1.53	0.97	10.37	****	1.20	****	****	****	7.42	****	****	****	12.76
BLACKROCK R3000	7,106.2	16.03%	0.98	-1.53	0.98	10.39	32.14	0.89	16.92	****	****	7.29	14.17	****	****	17.61
			0.99	-1.54	0.99	10.40	32.37	1.03	16.93	28.34	-37.31	7.33	14.22	1.29	6.80	
STATE STREET R3000			+/-	(0.02)	0.01	(0.02)	(0.02)	****	0.17	****	****	0.09	****	****	****	
BLACKROCK R3000			+/-	(0.01)	0.01	(0.01)	(0.01)	(0.23)	(0.13)	(0.01)	****	(0.03)	(0.05)	****	****	
TOTAL SMALL CAP	174.4	0.39%	-3.48	-4.96	-3.48	7.87	52.71	0.58	29.21	****	****	0.63	17.30	****	****	22.72
RUSSELL 2000			-1.38	-3.31	-1.38	7.03	37.41	-4.18	26.85	27.18	-33.80	0.19	13.71	1.69	8.62	
			+/-	(2.10)	(1.64)	(2.10)	0.84	15.30	4.76	2.36	****	0.44	3.59	****	****	
TOTAL SMALL CAP ACTIVE	174.4	0.39%	-3.48	-4.96	-3.48	7.87	52.71	0.58	29.21	****	****	0.63	17.30	****	****	22.72
RUSSELL 2000			-1.38	-3.31	-1.38	7.03	37.41	-4.18	26.85	27.18	-33.80	0.19	13.71	1.69	8.62	
			+/-	(2.10)	(1.64)	(2.10)	0.84	15.30	4.76	2.36	****	0.44	3.59	****	****	
TOTAL SMALL CAP GROWTH ACTIVE	174.4	0.39%	-3.48	-4.96	-3.48	7.87	52.71	0.58	29.21	****	****	0.63	17.30	****	****	22.72
BROWN AM (D)	174.4	0.39%	-3.48	-4.96	-3.48	7.87	52.71	0.58	29.21	****	****	0.63	17.30	****	****	22.72
RUSSELL 2000 GROWTH			-1.74	-4.04	-1.74	6.92	43.50	-2.91	29.09	34.47	-38.53	-0.51	14.51	2.72	9.00	
TOTAL SMALL CAP GROWTH			+/-	(1.74)	(0.92)	(1.74)	0.96	9.21	3.49	0.12	****	1.14	2.79	****	****	
BROWN AM			+/-	(1.74)	(0.92)	(1.74)	0.96	9.21	3.49	0.12	****	1.14	2.79	****	****	
TOTAL MID CAP	2,111.3	4.76%	-0.04	-4.74	-0.04	7.88	****	****	****	****	****	1.23	****	****	****	2.63
RUSSELL MIDCAP			0.23	-3.86	0.23	8.22	38.47	-1.55	26.85	27.18	-33.80	2.28	16.20	1.87	9.59	
			+/-	(0.27)	(0.88)	(0.27)	(0.34)	****	****	****	****	(1.05)	****	****	****	
TOTAL MID CAP PASSIVE	2,111.3	4.76%	-0.04	-4.74	-0.04	7.88	****	****	****	****	****	1.23	****	****	****	2.63
SSGA S&P 400	2,111.3	4.76%	-0.04	-4.74	-0.04	7.88	****	****	****	****	****	1.23	****	****	****	2.63
S&P 400 MIDCAP			-0.04	-4.76	-0.04	7.85	39.38	-1.73	16.71	37.22	-38.43	1.20	16.06	3.45	9.31	
TOTAL MID CAP PASSIVE			+/-	0.00	0.02	0.00	0.03	****	****	****	****	0.03	****	****	****	
SSGA S&P 400			+/-	0.00	0.02	0.00	0.03	****	****	****	****	0.03	****	****	****	
TOTAL LARGE CAP GROWTH	149.0	0.34%	1.68	-2.86	1.68	11.22	27.52	2.98	9.54	****	****	11.08	12.79	****	****	16.52
PROFIT INV MGMT (D)	149.0	0.34%	1.68	-2.86	1.68	11.22	27.52	2.98	9.54	****	****	11.08	12.79	****	****	16.52
RUSSELL 1000 GROWTH			1.34	-2.58	1.34	11.55	35.01	2.64	16.71	37.22	-38.43	8.26	15.35	3.47	6.77	
TOTAL LARGE CAP GROWTH			+/-	0.34	(0.28)	0.34	(0.33)	(7.49)	0.34	(7.17)	****	2.82	(2.56)	****	****	
PROFIT INV MGMT			+/-	0.34	(0.28)	0.34	(0.33)	(7.49)	0.34	(7.17)	****	2.82	(2.56)	****	****	
TOTAL LARGE CAP CORE	288.4	0.65%	1.26	-1.87	1.26	9.65	29.23	-1.94	15.87	****	****	4.86	12.88	****	****	19.88
SEIZERT CAPITAL PTNRS (D)	148.7	0.34%	0.86	-2.83	0.86	7.11	30.63	-0.02	15.84	****	****	2.83	13.42	****	****	16.36
PIEDMONT INV ADV (D)	139.6	0.32%	1.69	-0.84	1.69	12.50	27.72	-4.01	15.91	****	****	7.11	12.32	****	****	15.26
RUSSELL 1000			1.19	-1.40	1.19	10.68	31.93	1.50	16.10	28.43	-37.60	7.96	14.26	1.25	6.65	
TOTAL LARGE CAP CORE			+/-	0.08	(0.48)	0.08	(1.02)	(2.70)	(3.44)	(0.23)	****	(3.09)	(1.38)	****	****	
SEIZERT CAPITAL PTNRS			+/-	(0.32)	(1.43)	(0.32)	(3.57)	(1.30)	(1.52)	(0.26)	****	(5.12)	(0.84)	****	****	
PIEDMONT INV ADV			+/-	0.50	0.56	0.50	1.82	(4.21)	(5.51)	(0.19)	****	(0.84)	(1.94)	****	****	
TOTAL LARGE CAP	437.4	0.99%	1.40	-2.21	1.40	10.18	27.48	-0.78	12.82	****	****	6.90	12.21	****	****	18.28
RUSSELL 1000			1.19	-1.40	1.19	10.68	31.93	1.50	16.10	28.43	-37.60	7.96	14.26	1.25	6.65	
			+/-	0.22	(0.82)	0.22	(0.50)	(4.45)	(2.28)	(3.28)	****	(1.05)	(2.05)	****	****	

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<b>EMERGING MANAGERS</b>																
TOTAL EMERGING MGRS	234.8	0.53%	-0.62	-4.95	-0.62	7.24	36.66	1.50	16.10	28.43	-37.60	1.60	14.19	****	****	1.19
RUSSELL 2000			-1.38	-3.31	-1.38	7.03	37.41	-4.18	26.85	27.18	-33.80	0.19	13.71	1.69	8.62	
RUSSELL 3000			0.99	-1.54	0.99	10.40	32.37	1.03	16.93	28.34	-37.31	7.33	14.22	1.29	6.80	
ATTUCKS	38.0	0.09%	0.15	-4.11	0.15	6.32	41.37	1.50	16.10	28.43	-37.60	-0.32	15.90	****	****	1.91
CAPITAL PROSPECTS	34.4	0.08%	-1.41	****	-1.41	****	****	****	****	****	****	****	****	****	****	3.18
F.I.S FUND MGMT	82.4	0.19%	-0.48	****	-0.48	****	****	****	****	****	****	****	****	****	****	3.64
PROGRESS EQUITY	79.9	0.18%	-0.77	****	-0.77	****	****	****	****	****	****	****	****	****	****	2.34
RUSSELL 2000			-1.38	-3.31	-1.38	7.03	37.41	-4.18	26.85	27.18	-33.80	0.19	13.71	1.69	8.62	
ATTUCKS +/-			1.53	(0.80)	1.53	(0.71)	3.96	5.68	(10.75)	1.25	(3.80)	(0.51)	2.19	****	****	
CAPITAL PROSPECTS +/-			(0.03)	****	(0.03)	****	****	****	****	****	****	****	****	****	****	
F.I.S FUND MGMT +/-			0.90	****	0.90	****	****	****	****	****	****	****	****	****	****	
PROGRESS EQUITY +/-			0.61	****	0.61	****	****	****	****	****	****	****	****	****	****	
<b>U.S. ENVIRONMENTAL</b>																
TOTAL U.S. ENVIRONMENTAL	53.0	0.12%	-1.74	-4.74	-1.74	4.02	35.39	1.20	27.39	31.28	****	0.50	14.80	****	****	4.12
RUSSELL 2000			-1.38	-3.31	-1.38	7.03	37.41	-4.18	26.85	27.18	-33.80	0.19	13.71	1.69	8.62	
+/-			(0.36)	(1.42)	(0.36)	(3.01)	(2.02)	5.38	0.54	4.10	****	0.31	1.09	****	****	
WALDEN ASSET MGMT	53.0	0.12%	-1.74	-4.74	-1.74	4.02	35.39	1.20	25.69	29.88	****	0.50	14.52	****	****	5.46
RUSSELL 2000			-1.38	-3.31	-1.38	7.03	37.41	-4.18	26.85	27.18	-33.80	0.19	13.71	1.69	8.62	
+/-			(0.36)	(1.42)	(0.36)	(3.01)	(2.02)	5.38	(1.16)	2.70	****	0.31	0.81	****	****	
<b>NON - US EQUITY</b>																
TOTAL INTL GROWTH	1,708.2	3.85%	1.92	-3.45	1.92	8.84	30.49	-9.44	12.52	34.40	-40.92	-5.98	7.07	****	****	-2.00
BAILLIE	867.6	1.96%	1.52	-5.84	1.52	6.12	35.22	-10.27	18.23	41.76	-44.08	-8.86	8.38	****	****	-2.45
WALTER -SCOTT	840.1	1.90%	2.33	-0.84	2.33	11.81	28.62	-6.51	14.30	34.26	-32.07	-2.83	9.72	****	****	2.47
MSCI EAFE GROWTH			1.72	-4.73	1.72	5.97	31.65	-11.82	12.60	29.91	-42.46	-10.12	5.65	-3.76	****	
TOTAL INTL GROWTH +/-			0.20	1.28	0.20	2.87	(1.16)	2.38	(0.08)	4.49	1.54	4.14	1.42	****	****	
BAILLIE +/-			(0.20)	(1.11)	(0.20)	0.14	3.57	1.55	5.63	11.85	(1.62)	1.26	2.73	****	****	
WALTER -SCOTT +/-			0.62	3.89	0.62	5.84	(3.03)	5.31	1.70	4.35	10.39	7.29	4.07	****	****	
TOTAL INTL VALUE	1,099.8	2.48%	0.34	-4.25	0.34	2.58	30.22	-9.34	9.44	31.02	-42.34	-10.58	4.73	-5.10	****	5.14
SPRUCEGROVE (NEW)	872.1	1.97%	0.43	-4.52	0.43	6.25	31.97	-9.15	19.93	35.62	-41.62	-6.90	9.29	****	****	-2.35
MONDRIAN INVESTMENT PARTNERS LTD II	226.8	0.51%	0.01	-3.37	0.01	-0.84	29.90	-2.88	3.16	24.13	****	-9.96	3.98	****	****	-4.64
MSCI EAFE VALUE			0.59	-3.31	0.59	3.10	30.10	-11.65	3.81	35.06	-43.68	-11.91	1.87	-6.58	****	
TOTAL INTL VALUE +/-			(0.25)	(0.94)	(0.25)	(0.51)	0.12	2.31	5.63	(4.04)	1.34	1.33	2.86	1.47	****	
SPRUCEGROVE (NEW) +/-			(0.16)	(1.21)	(0.16)	3.16	1.87	2.50	16.12	0.56	2.06	5.01	7.42	****	****	
MONDRIAN INVESTMENT PARTNERS LTD II +/-			(0.58)	(0.07)	(0.58)	(3.93)	(0.20)	8.76	(0.65)	(10.93)	****	1.95	2.11	****	****	
TOTAL INTL CORE	555.7	1.25%	1.58	-4.47	1.58	5.06	32.41	-11.30	11.45	32.36	-42.17	-10.70	4.99	****	****	-4.88
THORNBURG	340.0	0.77%	2.10	-3.62	2.10	6.92	32.98	-9.59	15.10	30.12	-42.86	-7.36	6.66	****	****	-4.05
BLACKROCK	139.0	0.31%	1.14	-4.45	1.14	4.93	31.95	-12.95	9.01	30.70	****	-12.40	3.84	****	****	-4.45
PHILADELPHIA	76.7	0.17%	0.07	-6.99	0.07	0.42	31.81	-12.66	7.36	40.88	-48.33	-16.07	2.75	****	****	-7.91
MSCI EAFE (NET DIVIDEND)			1.13	-4.20	1.13	4.12	30.36	-12.14	7.75	31.78	-43.39	-11.45	3.31	-5.61	6.36	
TOTAL INTL CORE +/-			0.44	(0.27)	0.44	0.93	2.05	0.85	3.70	0.58	1.22	0.75	1.68	****	****	
THORNBURG +/-			0.97	0.58	0.97	2.80	2.62	2.55	7.35	(1.66)	0.53	4.09	3.35	****	****	
BLACKROCK +/-			0.01	(0.24)	0.01	0.80	1.59	(0.80)	1.26	(1.08)	****	(0.95)	0.53	****	****	
PHILADELPHIA +/-			(1.07)	(2.79)	(1.07)	(3.70)	1.45	(0.52)	(0.39)	9.10	(4.94)	(4.62)	(0.56)	****	****	

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	Assets (\$MM)	% of Total	Trailing 1 Month	Trailing 3 Months	Fiscal YTD	Calendar YTD	FY Ending 06/30/11	Calendar Yr Ending 2011	Calendar Yr Ending 2010	Calendar Yr Ending 2009	Calendar Yr Ending 2008	Trailing 1 Year	Trailing* 3 Years	Trailing* 5 Years	Trailing* 10 Years	Since Inception
TOTAL ACTIVE DEVELOPED MARKETS	3,364.2	7.59%	1.34	-3.92	1.34	5.47	30.77	-9.88	11.14	32.60	-42.05	-8.88	5.65	-3.66	7.45	5.96
MSCI EAFE (NET DIVIDEND)			1.13	-4.20	1.13	4.12	30.36	-12.14	7.75	31.78	-43.39	-11.45	3.31	-5.61	6.36	
+/-			0.21	0.28	0.21	1.35	0.41	2.26	3.39	0.82	1.34	2.56	2.34	1.95	1.09	
TOTAL NON-U.S. ENVIRONMENTAL	79.8	0.18%	0.39	-5.10	0.39	9.07	30.14	-6.66	8.67	33.34	****	0.02	6.84	****	****	-3.35
F&C SGE	79.8	0.18%	0.39	-5.10	0.39	9.08	27.70	-6.66	12.37	38.14	****	0.02	8.86	****	****	1.15
MSCI DEV STD WORLD INDEX GROSS			1.31	-2.57	1.31	7.69	31.19	-5.02	12.34	30.80	-40.33	-1.40	9.06	-1.70	6.81	
TOTAL NON-U.S. ENVIRONMENTAL +/-			(0.92)	(2.53)	(0.92)	1.39	(1.05)	(1.64)	(3.67)	2.54	****	1.41	(2.21)	****	****	
F&C SGE +/-			(0.92)	(2.53)	(0.92)	1.39	(3.49)	(1.64)	0.03	7.34	****	1.42	(0.19)	****	****	
TOTAL NON-U.S. ACTIVIST	83.2	0.19%	-2.85	-16.27	-2.85	-0.67	47.39	-23.39	36.48	42.60	****	-24.82	9.00	****	****	13.56
GOVERNANCE FOR OWNERS	83.2	0.19%	-2.85	-16.27	-2.85	-0.67	47.39	-23.39	36.48	42.60	****	-24.82	9.00	****	****	13.56
MSCI EUROPE SMID CAP INDEX			0.83	-6.89	0.83	6.83	42.09	-17.56	16.03	53.23	-52.13	-14.72	6.06	****	****	
TOTAL NON-U.S. ACTIVIST +/-			(3.68)	(9.38)	(3.68)	(7.50)	5.30	(5.84)	20.45	(10.63)	****	(10.10)	2.94	****	****	
GOVERNANCE FOR OWNERS +/-			(3.68)	(9.38)	(3.68)	(7.50)	5.30	(5.84)	20.45	(10.63)	****	(10.10)	2.94	****	****	
TOTAL ACTIVE DEVELOPED-ENV-ACTIVIST	3,528.4	7.96%	1.21	-4.26	1.21	5.34	31.04	-10.11	11.43	32.77	-42.36	-9.14	5.68	-3.74	****	5.17
MSCI EAFE (NET DIVIDEND)			1.13	-4.20	1.13	4.12	30.36	-12.14	7.75	31.78	-43.39	-11.45	3.31	-5.61	6.36	
+/-			0.08	(0.06)	0.08	1.22	0.68	2.03	3.68	0.99	1.03	2.31	2.37	1.86	****	
TOTAL PASSIVE DEVELOPED MARKETS	760.0	1.71%	0.11	-5.02	0.11	3.41	****	****	****	****	****	-11.91	****	****	****	-12.25
SSGA	760.0	1.71%	0.11	-5.02	0.11	3.41	****	****	****	****	****	-11.91	****	****	****	-12.25
MSCI EAFE (NET DIVIDEND)			1.13	-4.20	1.13	4.12	30.36	-12.14	7.75	31.78	-43.39	-11.45	3.31	-5.61	6.36	
TOTAL PASSIVE DEVELOPED MARKETS +/-			(1.03)	(0.82)	(1.03)	(0.72)	****	****	****	****	****	(0.46)	****	****	****	
SSGA +/-			(1.03)	(0.82)	(1.03)	(0.72)	****	****	****	****	****	(0.46)	****	****	****	
TOTAL DEVELOPED MARKETS	4,288.4	9.68%	0.94	-4.43	0.94	4.93	31.73	-9.82	11.12	32.51	-42.05	-9.64	5.65	-3.76	****	5.16
MSCI EAFE (NET DIVIDEND)			1.13	-4.20	1.13	4.12	30.36	-12.14	7.75	31.78	-43.39	-11.45	3.31	-5.61	6.36	
+/-			(0.20)	(0.23)	(0.20)	0.80	1.37	2.32	3.37	0.73	1.34	1.80	2.34	1.85	****	
ACTIVE EMERGING MARKETS	878.4	1.98%	1.13	-5.40	1.13	****	****	****	****	****	****	****	****	****	****	-6.72
DFA EM	238.0	0.54%	0.66	-7.68	0.66	****	****	****	****	****	****	****	****	****	****	-7.77
EATON VANCE	640.4	1.45%	1.31	****	1.31	****	****	****	****	****	****	****	****	****	****	6.69
MSCI EMERGING MARKETS FREE			2.02	-5.83	2.02	6.22	28.17	-18.17	16.03	53.23	-52.13	-13.64	6.94	-0.43	15.56	
ACTIVE EMERGING MARKETS +/-			(0.89)	0.42	(0.89)	****	****	****	****	****	****	****	****	****	****	
DFA EM +/-			(1.36)	(1.86)	(1.36)	****	****	****	****	****	****	****	****	****	****	
EATON VANCE +/-			(0.71)	****	(0.71)	****	****	****	****	****	****	****	****	****	****	
PASSIVE EMERGING MARKETS	1,897.4	4.28%	1.63	-5.65	1.63	4.96	****	****	****	****	****	-14.52	****	****	****	-11.61
BLACKROCK - EM	1,897.4	4.28%	1.63	-5.65	1.63	4.96	****	****	****	****	****	-14.52	****	****	****	-11.61
MSCI EMERGING MARKETS FREE			2.02	-5.83	2.02	6.22	28.17	-18.17	16.03	53.23	-52.13	-13.64	6.94	-0.43	15.56	
PASSIVE EMERGING MARKETS +/-			(0.40)	0.18	(0.40)	(1.27)	****	****	****	****	****	(0.87)	****	****	****	
BLACKROCK EM +/-			(0.40)	0.18	(0.40)	(1.27)	****	****	****	****	****	(0.87)	****	****	****	
TOTAL EMERGING MARKETS	2,775.8	6.26%	1.47	-5.57	1.47	5.53	****	****	****	****	****	-14.05	****	****	****	-11.25
MSCI EMERGING MARKETS FREE			2.02	-5.83	2.02	6.22	28.17	-18.17	16.03	53.23	-52.13	-13.64	6.94	-0.43	15.56	
+/-			(0.55)	0.25	(0.55)	(0.69)	****	****	****	****	****	(0.40)	****	****	****	
TOTAL INTERNATIONAL EQUITY	7,064.2	15.94%	1.13	-4.85	1.13	4.55	31.81	-10.53	11.43	32.77	-42.36	-10.86	5.25	-3.98	7.27	5.88
MSCI WORLD INDEX			1.31	-2.57	1.31	7.69	31.19	-5.02	12.34	30.80	-40.33	-1.40	9.06	-1.70	6.81	
+/-			(0.18)	(2.28)	(0.18)	(3.14)	0.62	(5.51)	(0.91)	1.97	(2.03)	(9.46)	(3.81)	(2.27)	0.46	

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<b>REITS</b>																
TOTAL REAL ESTATE EQUITY SECURITIES	2,010.9	4.54%	1.98	2.04	1.98	16.25	35.33	8.03	32.10	30.86	-41.06	12.26	29.76	3.81	****	13.36
MS REIT MTA	713.6	1.61%	1.45	1.61	1.45	16.65	36.41	6.91	33.27	34.42	-39.07	11.94	29.68	4.85	****	10.86
EUROPEAN REIT MTA	289.9	0.65%	4.21	3.32	4.21	****	****	****	****	****	****	****	****	****	****	6.37
ADELANTE CAPITAL MANAGEMENT	264.7	0.60%	1.91	2.74	1.91	17.60	34.55	10.19	30.87	29.00	-44.91	14.91	30.26	2.45	****	12.12
SECURITY CAPITAL	253.2	0.57%	1.58	1.80	1.58	16.08	34.70	7.55	31.77	27.56	-39.62	11.85	30.12	4.11	****	9.56
COHEN & STEERS - REITS	243.4	0.55%	1.39	0.80	1.39	****	****	****	****	****	****	****	****	****	****	3.82
URDANG -REITS	246.1	0.56%	2.04	2.53	2.04	****	****	****	****	****	****	****	****	****	****	5.45
DJ U.S. SELECT REAL ESTATE SECURITIES INDEX			1.83	2.46	1.83	17.03	35.23	8.87	28.47	29.01	-39.83	12.88	29.93	3.84	11.20	
TOTAL REAL ESTATE EQUITY SECURITIES +/-			0.15	(0.42)	0.15	(0.78)	0.10	(0.84)	3.63	1.85	(1.23)	(0.62)	(0.17)	(0.03)	****	
MS REIT MTA +/-			(0.38)	(0.85)	(0.38)	(0.38)	1.18	(1.96)	4.80	5.41	0.76	(0.95)	(0.25)	1.02	****	
EUROPEAN REIT MTA +/-			2.38	0.86	2.38	****	****	****	****	****	****	****	****	****	****	
ADELANTE CAPITAL MANAGEMENT +/-			0.08	0.28	0.08	0.57	(0.68)	1.31	2.40	(0.01)	(5.08)	2.03	0.32	(1.39)	****	
SECURITY CAPITAL +/-			(0.25)	(0.67)	(0.25)	(0.95)	(0.53)	(1.32)	3.30	(1.45)	0.21	(1.03)	0.19	0.28	****	
COHEN & STEERS - REITS +/-			(0.44)	(1.67)	(0.44)	****	****	****	****	****	****	****	****	****	****	
URDANG -REITS +/-			0.21	0.06	0.21	****	****	****	****	****	****	****	****	****	****	
<b>FIXED INCOME</b>																
TOTAL STRUCTURED FIXED INCOME	7,707.2	17.39%	1.72	2.86	1.72	5.28	5.19	8.73	8.58	8.54	2.98	9.06	8.71	7.83	6.46	8.45
NYC - CORE PLUS FIVE			1.77	3.05	1.77	4.83	4.15	9.40	7.13	6.28	6.64	9.27	7.99	7.98	6.41	
+/-			(0.05)	(0.20)	(0.05)	0.45	1.04	(0.67)	1.45	2.26	(3.66)	(0.20)	0.72	(0.15)	0.05	
ALL MORTGAGE	3,566.1	8.05%	0.85	1.35	0.85	3.41	4.90	6.32	7.70	8.30	3.09	5.85	6.93	6.72	5.47	7.36
PIMCO	1,158.1	2.61%	0.81	1.23	0.81	2.90	4.61	6.46	7.26	8.47	5.26	5.47	6.65	7.14	5.82	7.63
BLACKROCK	1,177.7	2.66%	0.80	1.41	0.80	4.30	5.18	5.99	8.24	9.46	3.22	6.59	7.32	7.15	5.70	6.45
NEUBERGER BERMAN -MORT	402.4	0.91%	0.89	1.18	0.89	2.65	4.54	6.39	****	****	****	4.90	****	****	****	5.65
GOLDMAN SACHS -MORT	321.0	0.72%	0.81	1.48	0.81	3.09	3.86	6.60	5.82	****	****	6.03	5.89	****	****	5.89
WELLINGTON -MORT	321.9	0.73%	0.79	1.23	0.79	2.38	4.24	7.08	5.90	****	****	5.15	5.77	****	****	5.77
SMITH BREEDEN -MORT	160.6	0.36%	0.76	1.29	0.76	3.04	4.52	6.16	6.31	****	****	5.41	5.96	****	****	5.96
CITIGROUP MORTGAGE INDEX			0.79	1.20	0.79	2.49	3.74	6.38	5.50	5.76	8.49	4.92	5.51	6.81	5.43	
ALL MORTGAGE +/-			0.07	0.15	0.07	0.92	1.16	(0.06)	2.20	2.54	(5.40)	0.93	1.42	(0.09)	0.04	
PIMCO +/-			0.03	0.03	0.03	0.41	0.87	0.08	1.76	2.71	(3.23)	0.55	1.15	0.33	0.39	
BLACKROCK +/-			0.02	0.21	0.02	1.81	1.44	(0.39)	2.74	3.70	(5.27)	1.67	1.82	0.33	0.27	
NEUBERGER BERMAN -MORT +/-			0.11	(0.02)	0.11	0.16	0.80	0.01	****	****	****	(0.02)	****	****	****	
GOLDMAN SACHS -MORT +/-			0.03	0.28	0.03	0.59	0.12	0.23	0.32	****	****	1.12	0.38	****	****	
WELLINGTON -MORT +/-			0.00	0.04	0.00	(0.11)	0.50	0.71	0.40	****	****	0.23	0.27	****	****	
SMITH BREEDEN -MORT +/-			(0.02)	0.09	(0.02)	0.55	0.78	(0.22)	0.81	****	****	0.49	0.46	****	****	

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ALL INVESTMENT GRADE CREDIT	3,008.3	6.79%	2.70	3.79	2.70	7.67	6.92	7.79	9.47	19.96	-6.90	9.68	10.11	7.93	7.15	7.71
BLACKROCK -CREDIT	779.5	1.76%	2.78	4.03	2.78	7.90	6.73	7.93	9.44	17.16	-4.82	10.34	9.98	8.17	7.15	7.49
TAPLIN,CANIDA -CREDIT	750.0	1.69%	2.57	3.57	2.57	7.05	6.94	7.81	9.26	21.33	-12.66	8.67	10.12	6.34	6.67	7.14
T.ROWE PRICE -CREDIT	754.3	1.70%	2.71	3.64	2.71	8.02	7.58	7.97	10.00	18.91	-3.22	9.77	10.62	8.89	7.47	7.98
PRUDENTIAL - CREDIT	424.4	0.96%	2.65	3.86	2.65	7.36	5.71	7.90	8.63	****	****	10.02	9.60	****	****	9.60
BARROW HANLEY - CREDIT	300.1	0.68%	2.87	4.02	2.87	8.22	7.47	6.76	10.00	****	****	9.77	****	****	****	9.73
NYC - INVESTMENT GRADE CREDIT			2.72	3.83	2.72	7.31	5.94	7.80	8.36	16.36	-4.06	9.68	9.41	7.74	6.75	
ALL INVESTMENT GRADE CREDIT +/-			(0.02)	(0.04)	(0.02)	0.36	0.98	(0.01)	1.11	3.60	(2.84)	0.00	0.70	0.19	0.40	
BLACKROCK -CREDIT +/-			0.07	0.20	0.07	0.59	0.79	0.14	1.08	0.80	(0.76)	0.66	0.56	0.43	0.40	
TAPLIN,CANIDA -CREDIT +/-			(0.15)	(0.26)	(0.15)	(0.26)	1.00	0.01	0.90	4.97	(8.60)	(1.01)	0.71	(1.41)	(0.08)	
T.ROWE PRICE -CREDIT +/-			(0.01)	(0.18)	(0.01)	0.71	1.64	0.17	1.64	2.55	0.84	0.10	1.21	1.15	0.72	
PRUDENTIAL - CREDIT +/-			(0.07)	0.03	(0.07)	0.05	(0.23)	0.10	0.27	****	****	0.35	0.19	****	****	
BARROW HANLEY - CREDIT +/-			0.15	0.19	0.15	0.91	1.53	(1.04)	1.64	****	****	0.09	****	****	****	
ALL TREASURY / AGENCY	1,132.8	2.56%	1.92	5.23	1.92	5.37	2.45	18.21	9.39	-5.89	17.50	17.12	10.90	10.18	7.67	8.47
PIMCO	441.3	1.00%	1.92	5.29	1.92	5.59	2.47	17.71	9.90	-4.47	16.19	16.90	11.05	10.36	7.78	8.47
STATE STREET -GOVT	367.6	0.83%	1.93	5.16	1.93	5.23	2.43	18.60	8.96	****	****	17.28	10.87	****	****	10.87
BLACKROCK -GOVT	324.0	0.73%	1.92	5.24	1.92	5.23	2.45	18.44	9.20	****	****	17.22	10.75	****	****	10.75
NYC - TREASURY AGENCY PLUS FIVE			1.99	5.27	1.99	5.32	2.44	18.44	9.24	-7.44	18.91	17.30	10.77	10.08	7.55	
ALL TREASURY / AGENCY +/-			(0.07)	(0.03)	(0.07)	0.06	0.01	(0.24)	0.15	1.55	(1.41)	(0.19)	0.13	0.10	0.11	
PIMCO +/-			(0.07)	0.02	(0.07)	0.28	0.03	(0.73)	0.66	2.97	(2.72)	(0.40)	0.27	0.28	0.23	
STATE STREET -GOVT +/-			(0.06)	(0.10)	(0.06)	(0.09)	(0.01)	0.15	(0.28)	****	****	(0.02)	0.10	****	****	
BLACKROCK -GOVT +/-			(0.07)	(0.02)	(0.07)	(0.08)	0.01	(0.00)	(0.04)	****	****	(0.09)	(0.02)	****	****	
HIGH YIELD																
TOTAL ENHANCED YIELD	2,743.7	6.19%	1.54	2.13	1.54	7.53	14.49	5.55	13.43	38.75	-18.14	6.99	12.18	8.70	9.69	6.22
CITIGROUP BB & B			1.89	2.93	1.89	8.73	14.60	6.58	13.35	40.37	-25.10	8.94	13.00	7.32	9.39	
+/-			(0.34)	(0.81)	(0.34)	(1.20)	(0.11)	(1.03)	0.08	(1.62)	6.96	(1.95)	(0.82)	1.38	0.30	
T.ROWE PRICE ENHANCED	594.7	1.34%	1.76	2.41	1.76	7.60	15.05	5.23	14.00	43.45	-19.90	6.56	12.71	8.96	****	8.38
NEUBERGER BERMAN	567.7	1.28%	****	****	****	****	****	****	****	****	****	****	****	****	****	****
STONE HARBOR INVESTMENT PARTNERS	504.8	1.14%	1.75	2.29	1.75	8.18	14.70	4.34	12.84	40.64	-19.83	6.45	12.11	8.27	****	8.08
LOOMIS	360.9	0.81%	****	****	****	****	****	****	****	****	****	****	****	****	****	****
SHENKMAN	314.4	0.71%	1.44	2.15	1.44	6.98	12.78	5.37	11.77	29.79	-12.75	7.27	10.72	8.25	****	7.65
PENN	172.3	0.39%	****	****	****	****	****	****	****	****	****	****	****	****	****	****
FORT WASHINGTON	172.2	0.39%	****	****	****	****	****	****	****	****	****	****	****	****	****	****
HIGH YIELD TRANSITION	56.6	0.13%	****	****	****	****	****	****	****	****	****	****	****	****	****	****
CITIGROUP BB & B			1.89	2.93	1.89	8.73	14.60	6.58	13.35	40.37	-25.10	8.94	13.00	7.32	9.39	
T.ROWE PRICE ENHANCED +/-			(0.13)	(0.53)	(0.13)	(1.13)	0.45	(1.35)	0.65	3.08	5.20	(2.38)	(0.29)	1.64	****	
NEUBERGER BERMAN +/-			****	****	****	****	****	****	****	****	****	****	****	****	****	
STONE HARBOR INVESTMENT PARTNERS +/-			(0.13)	(0.64)	(0.13)	(0.56)	0.10	(2.24)	(0.51)	0.27	5.27	(2.49)	(0.89)	0.95	****	
LOOMIS +/-			****	****	****	****	****	****	****	****	****	****	****	****	****	
SHENKMAN +/-			(0.45)	(0.79)	(0.45)	(1.75)	(1.82)	(1.21)	(1.58)	(10.58)	12.35	(1.67)	(2.27)	0.93	****	
PENN +/-			****	****	****	****	****	****	****	****	****	****	****	****	****	
FORT WASHINGTON +/-			****	****	****	****	****	****	****	****	****	****	****	****	****	

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<b>TIPS</b>																
TOTAL TIPS MANAGERS	1,445.5	3.26%	1.80	3.01	1.80	5.95	7.17	13.50	6.47	10.14	-0.74	10.07	10.33	8.48	****	6.68
PIMCO-TIPS-MTA	815.4	1.84%	1.78	3.08	1.78	6.14	6.98	13.34	6.57	10.24	-0.88	10.37	10.38	8.51	****	6.61
STATE STREET-TIPS-MTA	363.8	0.82%	1.82	2.91	1.82	5.83	7.64	13.61	6.34	10.00	-0.96	9.44	10.29	8.36	****	6.90
BLACKROCK-TIPS-MTA	266.3	0.60%	1.84	2.94	1.84	5.52	7.13	13.82	6.34	10.02	-0.03	9.97	10.26	8.56	****	7.27
BARCLAYS CAPITAL US TIPS INDEX			1.90	3.02	1.90	6.01	7.74	13.56	6.37	11.41	-2.35	9.49	10.31	8.37	7.26	
TOTAL TIPS MANAGERS +/-			(0.09)	(0.01)	(0.09)	(0.06)	(0.57)	(0.06)	0.10	(1.27)	1.61	0.58	0.02	0.12	****	
PIMCO-TIPS-MTA +/-			(0.11)	0.06	(0.11)	0.13	(0.76)	(0.22)	0.20	(1.17)	1.47	0.88	0.07	0.15	****	
STATE STREET-TIPS-MTA +/-			(0.07)	(0.11)	(0.07)	(0.18)	(0.10)	0.05	(0.03)	(1.41)	1.39	(0.05)	(0.02)	(0.01)	****	
BLACKROCK-TIPS-MTA +/-			(0.06)	(0.09)	(0.06)	(0.49)	(0.61)	0.26	(0.03)	(1.39)	2.32	0.48	(0.05)	0.19	****	
<b>CONVERTIBLE BONDS</b>																
TOTAL CONVERTIBLE BONDS	1,010.3	2.28%	0.97	-0.52	0.97	6.51	18.90	-4.22	13.18	34.16	****	0.08	8.69	****	****	4.76
BofA ML ALL CONVERTIBLES EX MANDATORY			0.61	-1.15	0.61	7.56	22.79	-3.42	16.52	47.19	-33.02	1.06	11.44	3.63	****	
TRS CUSTOM CONVERTIBLE BOND INDEX			1.12	-0.49	1.12	6.97	16.72	-3.73	11.56	36.65	****	0.90	8.60	****	****	
+/-			0.37	0.63	0.37	(1.05)	(3.89)	(0.81)	(3.34)	(13.03)	****	(0.98)	(2.76)	****	****	
+/-			(0.15)	(0.03)	(0.15)	(0.46)	2.18	(0.49)	1.62	(2.49)	****	(0.82)	0.08	****	****	
F&C CONVERTIBLE BONDS	117.8	0.27%	1.91	0.49	1.91	8.06	16.19	-5.89	9.81	37.07	****	0.59	8.37	****	****	7.36
UBS Global Focus Customised			2.09	0.83	2.09	7.80	14.62	-4.94	8.66	27.02	****	1.01	6.60	****	****	
+/-			(0.18)	(0.34)	(0.18)	0.26	1.57	(0.95)	1.15	10.05	****	(0.42)	1.77	****	****	
ADVENT CONVERTIBLE BONDS	311.8	0.70%	1.12	0.27	1.12	6.37	18.53	-1.66	14.97	36.37	****	1.61	10.02	****	****	7.35
BofA ML CONVERTIBLES YIELD ALT. INDEX			0.74	0.26	0.74	5.94	14.93	-1.73	12.98	46.25	****	1.12	9.91	****	****	
+/-			0.38	0.01	0.38	0.44	3.60	0.06	1.99	(9.88)	****	0.49	0.11	****	****	
ADVENT GLOBAL	62.8	0.14%	1.85	0.85	1.85	8.03	16.19	-4.87	13.43	****	****	1.33	7.97	****	****	7.97
BofA ML GLOBAL CONVERTIBLES INDEX (VG00)			1.21	-0.19	1.21	7.13	16.30	-5.66	11.73	36.34	-29.35	0.17	7.72	1.63	5.59	
+/-			0.64	1.04	0.64	0.91	(0.11)	0.79	1.70	****	****	1.16	0.25	****	****	
VICTORY CONVERTIBLE BONDS	210.6	0.48%	0.89	-0.96	0.89	5.95	17.23	-3.05	11.63	27.36	****	0.96	7.95	****	****	2.91
BofA ML CONVERTIBLE BONDS INVST GRADE			1.05	-1.53	1.05	6.86	14.90	-3.14	7.89	25.49	****	1.65	6.89	****	****	
+/-			(0.17)	0.57	(0.17)	(0.91)	2.33	0.09	3.74	1.87	****	(0.68)	1.06	****	****	
LORD ABBETT CONVERTIBLE BONDS	307.4	0.69%	0.35	-1.67	0.35	5.97	24.33	-6.18	16.90	35.38	****	-2.25	9.33	****	****	2.85
BofA ML ALL CONVERTIBLES INDEX			0.60	-1.54	0.60	7.23	22.54	-5.18	16.77	49.13	-35.73	-0.32	10.93	2.64	7.22	
+/-			(0.25)	(0.13)	(0.25)	(1.26)	1.79	(1.00)	0.13	(13.75)	****	(1.92)	(1.61)	****	****	



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<b>TOTAL PROGRESS FIXED</b>																
TOTAL PROGRESS FIXED	108.5	0.24%	1.43	****	1.43	****	****	****	****	****	****	****	****	****	****	1.49
PIM AMBASSADOR MTA	27.0	0.06%	1.49	****	1.49	****	****	****	****	****	****	****	****	****	****	1.48
PIM GIA MTA	21.8	0.05%	1.54	****	1.54	****	****	****	****	****	****	****	****	****	****	1.83
PIM HILLSWICK MTA	10.9	0.02%	1.17	****	1.17	****	****	****	****	****	****	****	****	****	****	1.10
PIM NEW CENTURY MTA	27.1	0.06%	1.48	****	1.48	****	****	****	****	****	****	****	****	****	****	1.47
PIM PUGH CAP MTA	21.6	0.05%	1.34	****	1.34	****	****	****	****	****	****	****	****	****	****	1.37
BARCLAYS CAPITAL AGGREGATE			1.38	****	1.38	****	****	****	****	****	****	****	****	****	****	
TOTAL PROGRESS FIXED +/-			0.06	****	0.06	****	****	****	****	****	****	****	****	****	****	
PIM AMBASSADOR MTA +/-			0.11	****	0.11	****	****	****	****	****	****	****	****	****	****	
PIM GIA MTA +/-			0.16	****	0.16	****	****	****	****	****	****	****	****	****	****	
PIM HILLSWICK MTA +/-			(0.21)	****	(0.21)	****	****	****	****	****	****	****	****	****	****	
PIM NEW CENTURY MTA +/-			0.10	****	0.10	****	****	****	****	****	****	****	****	****	****	
PIM PUGH CAP MTA +/-			(0.04)	****	(0.04)	****	****	****	****	****	****	****	****	****	****	
<b>OPPORTUNISTIC FIXED INCOME</b>																
TOTAL OPPORTUNISTIC FIXED INCOME MANAGERS	418.6	0.94%	1.05	3.46	1.05	11.33	18.21	-2.89	26.12	20.90	-9.68	-0.25	18.06	****	****	10.03
NYC - JP MORGAN HY PLUS 3%			2.05	2.89	2.05	10.68	18.79	8.73	18.05	61.90	-23.83	11.20	18.16	****	****	
+/-			(1.00)	0.57	(1.00)	0.66	(0.58)	(11.62)	8.07	(41.00)	14.15	(11.45)	(0.10)	****	****	
^^ overall since inception OFI return is based on IRR calculated from Burgis																
TOTAL DISTRESSED	418.6	0.94%	1.05	3.46	1.05	11.33	18.21	-2.89	26.12	20.90	-9.68	-0.25	18.06	****	****	10.03
AVE EURO SP SITS FD	8.0	0.02%	18.39	15.05	18.39	68.05	33.83	-1.19	3.70	61.06	****	4.58	16.15	****	****	18.39
AVE SPECIAL SITUATIONS FD V	1.7	0.00%	10.90	-1.10	10.90	10.54	24.47	-5.24	19.07	76.44	****	-26.69	33.24	****	****	10.90
AVE SPECIAL SITUATIONS FD VI	63.2	0.14%	-3.23	-1.20	-3.23	9.93	-2.86	-14.53	****	****	****	-1.42	****	****	****	-3.23
TORCHLIGHT INVESTORS****	52.7	0.12%	1.47	2.60	7.28	****	8.73	0.72	5.43	14.94	****	7.28	****	****	****	8.11
3 MONTH LIBOR PLUS 750BPS			0.64	1.93	0.64	4.58	7.81	7.85	7.85	8.16	10.11	7.97	7.87	****	****	
AVE EURO SP SITS FD +/-			17.75	13.12	17.75	63.47	26.02	(9.04)	(4.15)	52.90	****	(3.39)	8.28	****	****	
AVE SPECIAL SITUATIONS FD V +/-			10.26	(3.03)	10.26	5.96	16.66	(13.09)	11.22	68.28	****	(34.66)	25.37	****	****	
AVE SPECIAL SITUATIONS FD VI +/-			(3.87)	(3.13)	(3.87)	5.35	(10.67)	(22.38)	****	****	****	****	****	****	****	
TORCHLIGHT INVESTORS +/-			0.83	0.67	6.64	****	0.92	(7.13)	(2.42)	6.78	****	(0.69)	****	****	****	
**** GP REPORTED RETURNS 6/30/2012																
ANGELO GORDON PTNRS LP	35.9	0.08%	0.00	****	0.00	****	****	****	****	****	****	****	****	****	****	-0.24
APOLLO PTNRS LP	62.7	0.14%	0.00	0.01	0.00	****	****	****	****	****	****	****	****	****	****	0.01
FORTRESS PTNRS LP	9.8	0.02%	0.00	0.00	0.00	****	****	****	****	****	****	****	****	****	****	0.00
GOLDENTREE OD MTA	96.7	0.22%	1.56	1.65	1.56	8.21	****	****	****	****	****	****	****	****	****	8.21
MARATHON OD MTA	87.8	0.20%	3.27	3.42	3.27	16.57	****	****	****	****	****	****	****	****	****	16.57
JP MORGAN GLOBAL HIGH YIELD BOND INDEX			1.89	2.38	1.89	9.45	****	****	****	****	****	****	****	****	****	
JP MORGAN GLOBAL HIGH YIELD PLUS 3%			2.05	2.89	2.05	10.68	****	****	****	****	****	****	****	****	****	
ANGELO GORDON PTNRS LP +/-			(0.57)	(1.48)	(0.57)	1.15	****	****	****	****	****	****	****	****	****	
APOLLO PTNRS LP +/-			(2.05)	****	(2.05)	****	****	****	****	****	****	****	****	****	****	
FORTRESS PTNRS LP +/-			(2.05)	(2.88)	(2.05)	****	****	****	****	****	****	****	****	****	****	
GOLDENTREE OD MTA +/-			(2.05)	(2.89)	(2.05)	****	****	****	****	****	****	****	****	****	****	
MARATHON OD MTA +/-			(0.48)	(1.24)	(0.48)	(2.46)	****	****	****	****	****	****	****	****	****	

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<b>OTHER FIXED INCOME</b>																
TOTAL ETI	382.2	0.86%	0.91	2.32	0.91	4.01	4.32	6.70	6.61	7.62	6.43	7.08	6.63	7.12	5.99	9.70
TEACHERS CUSTOM BENCHMARK (NO CASH)			1.12	1.92	1.12	3.25	4.13	7.51	6.31	5.12	6.62	6.46	6.39	6.73	5.54	
+/-			(0.20)	0.40	(0.20)	0.76	0.19	(0.81)	0.30	2.50	(0.19)	0.62	0.25	0.38	0.45	
AFL-CIO HOUSING INV TRUST	207.7	0.47%	0.99	2.27	0.99	3.66	4.25	7.86	6.16	6.28	5.26	7.34	6.51	6.93	****	5.37
BARCLAYS CAPITAL AGGREGATE			1.38	2.34	1.38	3.78	3.90	7.84	6.54	5.93	5.24	7.25	6.85	6.91	5.65	
+/-			(0.39)	(0.07)	(0.39)	(0.13)	0.35	0.02	(0.38)	0.35	0.02	0.09	(0.34)	0.03	****	
ACCESS RBC	45.6	0.10%	1.01	1.94	1.01	3.70	3.56	6.78	5.72	10.99	6.67	6.96	6.52	7.57	****	7.24
ACCESS CUSTOM BENCHMARK			0.75	1.25	0.75	2.29	3.39	6.32	5.52	2.89	9.67	4.88	5.24	6.43	****	
+/-			0.26	0.69	0.26	1.41	0.17	0.46	0.20	8.10	(3.00)	2.09	1.28	1.14	****	
CFSB-PPAR	2.0	0.00%	1.11	3.62	1.11	5.50	9.32	3.29	12.80	9.82	5.50	6.01	8.33	8.22	****	7.62
CCD-PPAR	4.6	0.01%	0.85	4.83	0.85	6.97	8.53	5.59	11.58	12.48	6.69	9.39	9.40	9.53	****	8.97
LIIF-PPAR	1.6	0.00%	0.76	2.03	0.76	3.79	0.62	4.96	4.34	****	****	5.93	5.65	****	****	5.65
NCBCI-PPAR	1.1	0.00%	1.56	3.66	1.56	5.51	2.93	8.50	4.10	****	****	9.99	6.99	****	****	6.99
NHS-PPAR	0.6	0.00%	0.88	3.13	0.88	5.10	4.22	3.85	9.95	14.83	5.41	5.79	9.60	****	****	8.30
TARGETED INVESTMENT	100.9	0.23%	0.83	2.80	0.83	5.24	5.19	5.40	9.02	10.00	8.74	7.47	8.01	8.65	7.82	10.31
CPC REVOLVING	18.0	0.04%	0.20	0.63	0.20	1.46	2.09	2.09	2.06	2.19	4.81	2.38	2.17	3.13	****	4.23
<b>CASH</b>																
TOTAL CASH	1,259.4	2.84%	0.03	0.10	0.03	0.20	0.44	0.50	0.45	1.23	3.70	0.37	0.54	1.69	****	2.63
ML 91 DAY TREASURY BILL INDEX			0.01	0.03	0.01	0.05	0.16	0.10	0.13	0.21	2.06	0.07	0.12	0.90	1.85	
+/-			0.02	0.07	0.02	0.16	0.28	0.40	0.32	1.02	1.64	0.30	0.42	0.78	****	
<b>PRIVATE EQUITY</b>																
TOTAL PRIVATE EQUITY	2,274.2	5.13%	-0.52	3.77	-0.52	5.64	18.65	15.80	14.04	-4.44	-1.50	7.69	14.11	5.98	****	11.86
RUSSELL 3000 PLUS 5%			1.36	-0.76	1.36	12.42	37.37	6.03	21.93	33.34	-32.30	12.33	19.23	6.35	11.84	
+/-			(1.88)	4.53	(1.88)	(6.78)	(18.72)	9.77	(7.89)	(37.78)	30.80	(4.64)	(5.11)	(0.38)	****	
<b>PRIVATE REAL ESTATE</b>																
TOTAL PRIVATE REAL ESTATE	898.0	2.03%	-0.15	3.14	-0.15	8.81	24.82	24.55	9.99	-44.20	-7.61	17.73	6.21	-2.71	****	8.35
NCREIF NFI-ODCE NET			0.00	2.29	0.00	4.90	19.58	14.97	15.26	-30.40	-10.70	11.31	7.37	-1.81	****	
+/-			(0.15)	0.85	(0.15)	3.92	5.24	9.58	(5.27)	(13.80)	3.09	6.43	(1.16)	(0.90)	****	
TOTAL TEACHERS	44,319.7		1.04	-0.71	1.04	7.31	23.28	1.83	13.92	21.15	-26.35	3.62	11.18	2.59	7.33	8.40
TEACHERS POLICY BENCHMARK			1.39	-0.20	1.39	8.09	24.53	1.64	14.01	25.01	-28.50	5.27	11.94	2.84	7.41	
+/-			(0.36)	(0.51)	(0.36)	(0.79)	(1.25)	0.20	(0.09)	(3.86)	2.15	(1.65)	(0.76)	(0.25)	(0.08)	

**Teachers' Retirement System of the City of New York**  
(as of March 31, 2012)

Vintage Year	Deal Name	First Drawdown	Capital Committed	Cash Out	Cash In	Market Value	Multiple	IRR
1999	Cypress Merchant Banking Partners II, LP	7/8/1999	\$ 50,000,000	\$ 53,812,460	\$ 40,622,049	\$ 5,190,348	0.85x	(3.66%)
	FdG Capital Partners, L.P.	6/2/1999	30,000,000	34,452,711	51,025,646	6,298,637	1.66x	15.21%
	Lincolnshire Equity Fund II, L.P.	2/26/2001	15,000,000	14,446,100	25,257,218	3,261,030	1.97x	25.07%
2000	Allegra Capital Partners IV, L.P.	7/25/2000	18,000,000	16,000,000	7,650,035	-	0.48x	N/A
	Carlyle Partners III, L.P.	12/22/2000	30,000,000	33,976,329	68,178,514	3,386,500	2.11x	23.30%
	SCP Private Equity Partners II, L.P.	1/19/2001	20,000,000	22,168,428	6,465,475	8,766,434	0.69x	(5.81%)
	Solera Partners, L.P.	7/8/2002	15,000,000	18,372,472	5,627,585	25,772,171	1.71x	9.14%
2001	Apollo Investment Fund V, L.P.	8/23/2001	30,000,000	46,658,872	81,088,574	10,952,763	1.97x	39.18%
	New Mountain Partners, L.P.	7/20/2001	15,000,000	12,977,661	17,043,773	1,705,001	1.44x	12.78%
	Ripplewood Partners II, L.P.	6/30/2002	15,000,000	17,218,764	12,487,111	7,071,227	1.14x	4.12%
	RRE Ventures III, L.P.	6/13/2002	20,000,000	25,541,773	14,921,421	30,252,662	1.77x	11.44%
2002	BDCM Opportunity Fund, L.P.	11/10/2003	25,000,000	54,292,481	72,197,819	19,431,395	1.69x	24.13%
	Collier International Partnership IV, L.P.	11/6/2002	35,000,000	31,020,889	33,359,769	12,003,597	1.46x	15.00%
	Landmark Equity Partners XI, L.P.	9/15/2004	20,000,000	21,111,053	26,029,130	4,650,633	1.45x	24.81%
	Thomas McNerney & Partners, L.P.	11/26/2002	15,000,000	14,175,000	5,252,354	6,680,189	0.84x	(4.43%)
	Yucaipa American Alliance Fund I, L.P.	10/1/2004	55,000,000	80,828,995	59,739,039	38,270,355	1.21x	7.92%
2003	Ares Corporate Opportunities Fund, L.P.	5/4/2004	15,000,000	17,955,181	19,720,487	6,490,071	1.46x	13.44%
	Blackstone Capital Partners IV L.P.	1/10/2003	30,000,000	30,535,872	53,322,038	18,604,220	2.36x	39.03%
	FS Equity Partners V, L.P.	5/30/2003	25,000,000	21,546,553	18,883,966	22,636,572	1.93x	16.33%
	Leeds Weld Equity Partners IV, L.P.	12/13/2004	15,000,000	15,137,731	5,755,134	16,225,845	1.45x	8.07%
	Aurora Equity Partners III, L.P.	5/19/2005	20,000,000	21,673,586	11,238,707	20,185,776	1.45x	13.80%
2004	Celtic Pharmaceutical Holdings, L.P.	7/10/2006	15,000,000	15,241,256	241,256	25,212,433	1.67x	11.26%
	FdG Capital Partners II, L.P.	8/30/2004	35,000,000	36,298,300	18,266,678	23,163,320	1.14x	3.15%
	Lincolnshire Equity Fund III, L.P.	12/23/2004	25,000,000	20,641,702	27,327,369	13,803,523	1.99x	38.72%
	Markstone Capital Partners, L.P.	7/21/2004	35,000,000	32,746,485	11,728,225	19,272,926	0.95x	(1.51%)
	New York/Fairview Emerging Managers (Tranche A), L.P.	10/21/2004	24,000,000	20,100,000	4,035,918	15,574,307	0.98x	(0.70%)
	Paladin Homeland Security Fund (NY), L.P.	10/1/2004	15,000,000	15,918,730	2,553,242	5,872,260	0.53x	(12.63%)
	Palladium Equity Partners III, L.P.	8/10/2005	35,000,000	33,833,089	15,721,721	33,305,736	1.45x	14.92%
	Silver Lake Partners II, L.P.	7/28/2004	-	32,595,961	46,467,810	-	1.43x	9.14%
	Trilantic Capital Partners III (fka LBMB III), L.P.	9/22/2005	30,000,000	23,456,956	25,825,699	9,587,798	1.51x	13.17%
	Blackstone Mezzanine Partners II, L.P.	5/26/2006	20,000,000	19,135,802	13,514,906	10,982,315	1.28x	8.30%
2005	Bridgepoint Europe III, L.P.	12/6/2005	31,435,572	26,996,441	6,311,425	23,994,346	1.12x	2.68%
	Clayton, Dubilier & Rice Fund VII, L.P.	4/28/2006	-	31,065,395	31,869,630	-	1.03x	2.93%
	Erasmus New York City Growth Fund, L.P.	8/16/2005	30,000,000	26,117,536	6,448,809	16,405,603	0.88x	(3.23%)
	Ethos Private Equity Fund V, L.P.	6/28/2006	-	14,426,901	16,588,047	-	1.15x	6.14%
	GI Partners Fund II, L.P.	6/19/2006	25,000,000	24,834,618	9,233,999	22,987,757	1.30x	5.79%
	JP Morgan Fleming (Tranche A), L.P.	12/21/2005	31,000,000	24,101,006	5,322,232	23,111,799	1.18x	5.95%
	New Mountain Partners II, L.P.	1/12/2005	23,225,800	21,107,897	16,319,027	15,950,872	1.53x	10.50%
	Prism Venture Partners V-A, L.P.	7/14/2005	20,000,000	19,423,087	5,113,674	9,371,601	0.75x	(9.44%)
	Psilos Group Partners III, L.P.	10/17/2007	25,000,000	23,124,059	1,110,029	28,747,282	1.29x	8.29%
	Quadrangle Capital Partners II, L.P.	2/28/2006	35,000,000	28,115,338	11,082,049	22,201,972	1.18x	4.79%
	Snow Phipps Group, L.P.	8/2/2007	15,000,000	15,303,954	6,326,181	13,914,899	1.32x	12.81%
	USPF II Institutional Fund, L.P.	11/23/2005	35,000,000	42,777,922	21,376,240	30,258,873	1.21x	5.90%
	VSS Communications Partners IV, L.P.	6/2/2006	10,000,000	10,361,111	1,669,413	6,785,404	0.82x	(5.14%)
	AEA Investors 2006 Fund, L.P.	6/30/2008	-	15,460,872	20,249,567	-	1.31x	12.96%
	Aisling Capital II, L.P.	1/12/2006	4,500,000	4,084,546	895,075	2,753,287	0.89x	(3.42%)
2006	Ampersand 2006, L.P.	7/6/2007	15,000,000	12,600,000	3,540,241	12,180,704	1.25x	6.85%
	Apollo Investment Fund VI, L.P.	5/10/2006	35,000,000	42,819,614	16,061,738	38,573,405	1.28x	7.91%
	Ares Corporate Opportunities Fund II, L.P.	5/23/2006	30,000,000	31,712,135	27,194,233	22,502,086	1.57x	13.81%
	Arsenal Capital Partners II, L.P.	12/19/2006	13,500,000	14,183,407	1,047,942	18,898,721	1.41x	14.32%
	Avista Capital Partners, L.P.	8/11/2006	30,000,000	36,793,979	24,495,381	23,564,465	1.31x	8.25%
	BDCM Opportunity Fund II, L.P.	12/28/2006	25,000,000	29,618,944	10,572,757	24,327,009	1.18x	7.87%
	Blackstone Capital Partners V, L.P.	4/13/2006	75,600,000	73,505,809	10,403,479	68,499,160	1.07x	1.93%
	Catterton Partners VI, L.P.	12/14/2006	30,000,000	25,036,045	4,095,033	35,486,073	1.58x	12.78%
	CCMP Capital Investors II, L.P.	5/22/2007	20,000,000	15,154,272	4,293,096	18,064,492	1.48x	15.01%
	Cinven Fourth Fund	1/22/2007	44,991,005	38,923,150	9,089,723	40,532,063	1.27x	7.36%
	Fairview Ventures Fund III, L.P.	7/13/2007	20,000,000	13,749,472	953,144	15,392,807	1.19x	8.91%
	First Reserve Fund XI, L.P.	12/22/2006	30,000,000	31,504,005	10,901,065	24,913,904	1.14x	4.62%
	GF Capital Private Equity Fund, L.P.	3/20/2008	15,000,000	12,918,595	-	18,343,187	1.42x	16.61%
	GSC Recovery III, L.P.	5/4/2006	10,000,000	10,431,013	5,562,914	4,642,306	0.98x	(0.75%)
	InterMedia Partners VII, L.P.	6/8/2006	25,000,000	26,272,273	3,223,123	30,478,485	1.28x	6.37%
	Landmark Equity Partners Fund XIII, L.P.	5/15/2006	25,000,000	21,653,040	10,859,927	12,858,274	1.10x	2.84%
	MidOcean Partners III, L.P.	6/19/2007	40,000,000	32,321,700	4,978,905	24,581,754	0.91x	(3.26%)
	NewSpring Ventures II, L.P.	2/26/2008	-	10,921,315	15,040,796	-	1.38x	23.32%
	Perseus Partners VII, L.P.	8/6/2007	20,000,000	21,025,685	3,063,758	16,244,532	0.92x	(3.32%)
	RRE Ventures IV, L.P.	10/25/2006	25,000,000	23,419,451	2,423,298	29,986,979	1.38x	12.01%
	Terra Firma Capital Partners III, L.P.	2/26/2007	31,212,671	24,647,021	662,055	10,992,131	0.47x	(21.88%)
	Thomas H. Lee Equity Fund VI, L.P.	6/22/2007	-	19,597,463	17,966,708	-	0.92x	(2.59%)
	Thomas, McNerney & Partners II, L.P.	11/30/2006	15,000,000	11,812,500	1,539,679	9,784,547	0.96x	(1.70%)

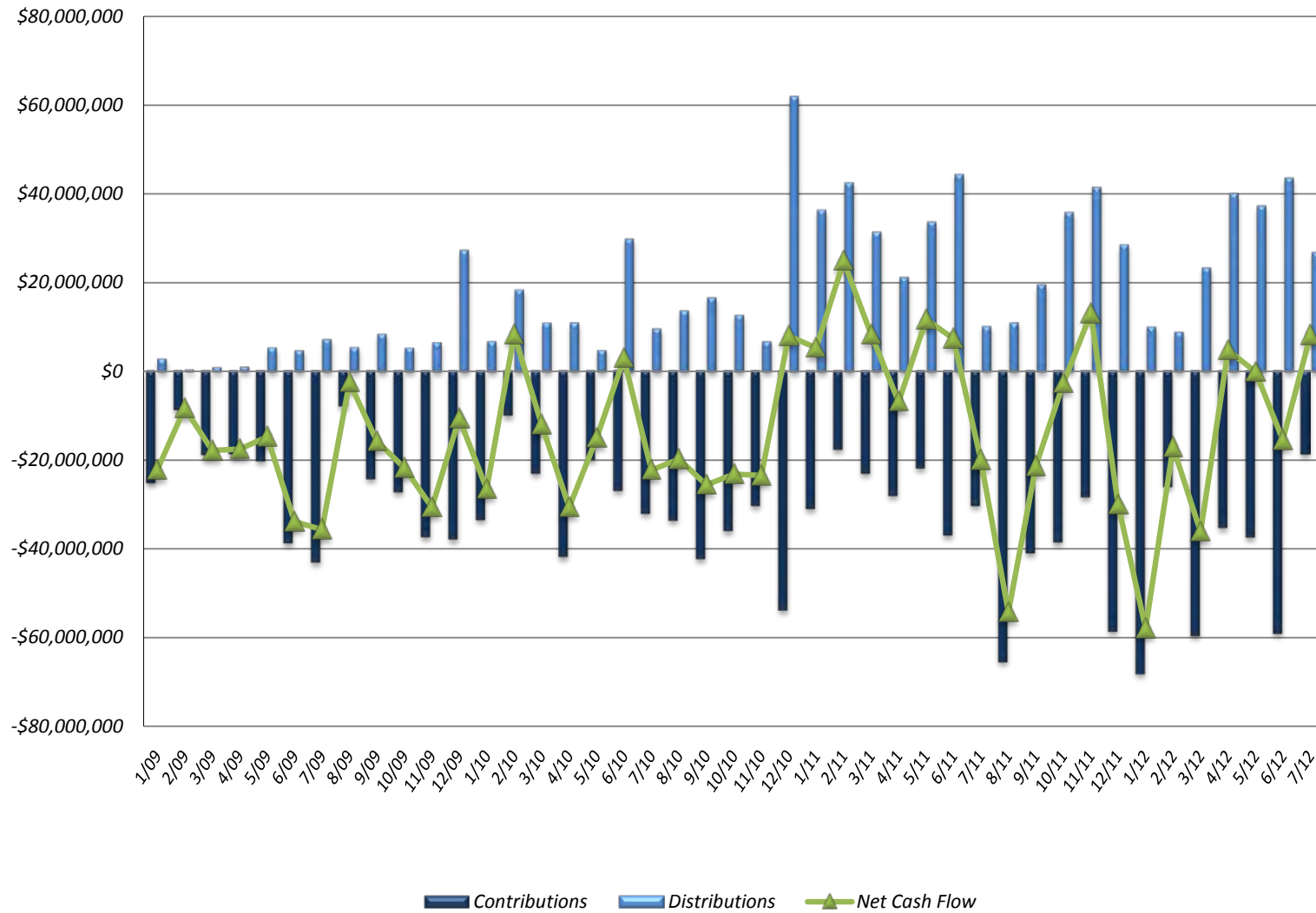
**Teachers' Retirement System of the City of New York**  
(as of March 31, 2012)

Vintage Year	Deal Name	First Drawdown	Capital Committed	Cash Out	Cash In	Market Value	Multiple	IRR
2007	Carlyle Partners V, L.P.	9/28/2007	50,000,000	33,899,558	9,708,744	30,799,058	1.19x	7.58%
	Co-Investment Partners Europe, L.P.	12/5/2008	26,750,535	23,357,599	1,924,639	19,759,133	0.93x	(3.51)%
	Constellation Ventures III, L.P.	11/20/2008	15,000,000	13,499,157	-	12,153,321	0.90x	(5.54)%
	Craton Equity Investors I, L.P.	3/11/2008	10,000,000	8,526,015	6,094	7,399,031	0.87x	(6.57)%
	FTVentures III, L.P.	3/1/2007	14,081,947	12,661,018	2,326,273	15,251,826	1.39x	12.22%
	GSO Capital Opportunities Fund, L.P.	8/15/2008	30,000,000	37,822,313	21,632,951	26,937,498	1.28x	17.04%
	Halyard Capital Fund II, L.P.	11/2/2007	15,000,000	9,410,214	452,137	8,101,717	0.91x	(3.23)%
	HM 2006 Sector Performance Fund, L.P.	4/15/2008	-	20,940,748	14,471,447	-	0.69x	(8.79)%
	Montreux Equity Partners IV, L.P.	3/27/2007	15,000,000	12,030,000	5,046,902	11,289,039	1.36x	12.91%
	Nautic Partners VI, L.P.	6/30/2008	20,000,000	18,028,806	28,223	18,548,393	1.03x	1.53%
	New Mountain Partners III, L.P.	9/25/2007	35,000,000	24,168,932	5,335,363	21,584,704	1.11x	5.64%
	PCG Clean Energy & Technology Fund East, L.P.	4/25/2008	60,000,000	43,261,829	3,352,781	36,713,687	0.93x	(3.62)%
	Pegasus Partners IV, L.P.	10/9/2007	20,000,000	21,393,307	9,342,175	28,345,266	1.76x	21.62%
	Quaker BioVentures II, L.P.	4/18/2008	15,000,000	9,643,332	1,478,300	7,284,079	0.91x	(4.94)%
	RLJ Equity Partners Fund I, L.P.	4/14/2009	15,000,000	8,010,628	471,052	9,425,139	1.24x	12.94%
	SCP Vitalife Partners II, L.P.	1/10/2008	15,000,000	10,424,774	1,184	8,683,917	0.83x	(8.16)%
	Silver Lake Partners III, L.P.	8/13/2007	-	25,187,251	34,697,614	-	1.38x	17.04%
	StarVest Partners II, L.P.	12/8/2008	20,000,000	11,738,725	5,245	9,695,043	0.83x	(10.94)%
	Tailwind Capital Partners, L.P.	4/28/2008	-	19,364,136	20,038,031	-	1.03x	8.50%
	Trilantic Capital Partners IV L.P.	10/22/2007	53,311,339	48,201,967	18,839,314	43,148,393	1.29x	14.39%
	USPF III Institutional Fund, L.P.	7/10/2007	30,000,000	26,206,549	5,107,320	21,628,741	1.02x	0.74%
2008	Vista Equity Partners Fund III, L.P.	11/30/2007	25,000,000	22,032,214	12,197,250	34,257,787	2.11x	29.58%
	Vitruvian Investment Partnership I (Side Car), L.P.	1/31/2008	-	3,264,332	2,559,955	-	0.78x	(3.81)%
	Vitruvian Investment Partnership I, L.P.	1/31/2008	-	29,387,345	23,040,117	-	0.78x	(3.82)%
	Aisling Capital III, L.P.	11/20/2008	10,500,000	3,432,669	175,677	2,653,737	0.82x	(16.23)%
	Apollo Investment Fund VII, L.P.	4/16/2008	50,000,000	43,131,499	19,758,740	39,017,277	1.36x	21.89%
	Ares Corporate Opportunities Fund III, L.P.	7/30/2008	60,000,000	49,383,359	24,940,019	48,528,176	1.49x	26.72%
	Avista Capital Partners II, L.P.	12/31/2008	50,000,000	50,077,215	15,775,510	46,862,278	1.25x	14.72%
	Blue Wolf Capital Fund II, L.P.	11/14/2008	20,000,000	15,234,871	5,690,674	12,425,456	1.19x	16.31%
	Bridgepoint Europe IV, L.P.	9/30/2008	26,986,312	16,599,721	-	16,807,519	1.01x	1.07%
	Carpenter Community BancFund-A, L.P.	6/5/2008	15,000,000	11,963,964	174,916	13,406,616	1.14x	5.48%
	CS TRSCNY Emerging Manager Co-Investment Fund, L.P.	8/22/2008	12,626,263	6,947,182	1,260,216	8,001,518	1.33x	13.16%
	CS TRSCNY Emerging Manager Fund, L.P.	8/22/2008	59,373,737	24,637,700	6,507,515	17,886,986	0.99x	(0.81)%
	First Reserve Fund XII, L.P.	11/14/2008	30,000,000	20,568,909	1,267,898	21,004,474	1.08x	3.90%
	GI Partners III, L.P.	7/29/2008	30,000,000	25,840,998	3,536,784	28,305,837	1.23x	15.93%
	Landmark Equity Partners XIV, L.P.	9/19/2008	50,000,000	20,373,940	5,018,588	19,060,791	1.18x	18.01%
	Lee Equity Partners, L.P.	4/23/2008	30,000,000	13,671,604	2,882,816	9,055,441	0.87x	(5.43)%
	Leeds Equity Partners V, L.P.	7/28/2008	40,000,000	17,758,608	3,169,908	16,942,644	1.13x	9.76%
	Levine Leichtman Capital Partners IV, L.P.	9/22/2008	25,000,000	19,727,181	5,651,228	21,009,106	1.35x	26.57%
	New York/Fairview Emerging Managers (Tranche B), L.P.	5/28/2008	35,000,000	12,089,000	411,011	13,493,572	1.15x	8.41%
	NGN BioMed Opportunity II, L.P.	10/31/2008	15,000,000	9,188,866	17,765	6,591,092	0.72x	(13.47)%
2009	Onex Partners III, L.P.	3/31/2009	40,000,000	22,156,128	3,787,523	17,368,335	0.95x	(3.86)%
	Paladin III (HR), L.P.	1/8/2008	20,000,000	13,304,653	5,152,121	9,408,244	1.09x	4.13%
	Pine Brook Capital Partners, L.P.	4/7/2008	22,500,000	16,558,645	6,753,687	13,990,936	1.25x	14.82%
	Relativity Fund, L.P.	1/17/2008	15,000,000	7,379,664	161,968	3,269,752	0.47x	(32.15)%
	Riverstone/Carlyle Global Energy & Power Fund IV	9/29/2008	32,500,000	25,436,564	8,165,597	29,224,290	1.47x	20.69%
	Yucaipa American Alliance Fund II, L.P.	3/28/2008	75,000,000	87,891,636	20,356,214	92,614,410	1.29x	16.08%
	Yucaipa Corporate Initiatives Fund II, L.P.	6/23/2008	35,000,000	23,088,244	1,047,161	11,323,654	0.54x	(40.01)%
	Clayton, Dubilier & Rice Fund VIII, L.P.	9/30/2008	-	24,636,554	26,545,907	-	1.08x	10.35%
	Lincolnshire Equity Fund IV, L.P.	8/7/2009	12,500,000	2,773,100	-	1,956,767	0.71x	(23.54)%
	Welsh, Carson, Anderson & Stowe XI, L.P.	2/10/2009	30,000,000	15,312,605	-	16,968,525	1.11x	7.48%
2010	JP Morgan Fleming (Tranche B), L.P.	3/31/2008	10,000,000	3,004,381	838	3,214,043	1.07x	6.02%
	Trident V, L.P.	12/30/2010	35,000,000	10,603,497	240,933	9,803,111	0.95x	(6.62)%
2011	Ampersand 2011, L.P.	3/31/2009	17,500,000	7,000,000	-	6,554,400	0.94x	(9.77)%
	Blackstone Capital Partners VI, L.P.	1/24/2011	60,000,000	7,594,590	-	6,559,219	0.86x	(30.80)%
	EQT VI, L.P.	8/1/2011	55,000,000	4,477,306	139,212	3,280,048	0.76x	(53.69)%
	BC European Capital IX, L.P.	9/19/2011	71,324,592	7,749,767	62,160	6,898,651	0.90x	(11.53)%
	AXA Secondary Fund V L.P.	8/11/2011	160,000,000	26,069,080	65,321	30,435,245	1.17x	16.03%
	Pegasus Partners V, L.P.	8/16/2011	50,000,000	3,355,721	-	2,732,639	0.81x	(43.14)%
	Green Equity Investors VI, L.P.	10/28/2011	100,000,000	-	-	-	0.00x	N/A
	Vista Equity Partners IV, L.P.	10/27/2011	100,000,000	14,855,692	172	14,193,928	0.96x	(7.48)%
2012	American Securities Partners VI, L.P.	12/21/2011	100,000,000	17,160,985	-	16,460,264	0.00x	(4.08)%
	Ares Corporate Opportunities Fund IV, L.P. <sup>(1)</sup>	4/20/2012	105,000,000	-	-	-	0.00x	N/A
	Warburg Pincus Private Equity XI, L.P. <sup>(1)</sup>	5/9/2012	175,000,000	-	-	-	0.00x	N/A
	Trilantic Capital Partners V, L.P. <sup>(1)</sup>	7/31/2012	70,000,000	-	-	-	0.00x	N/A
<b>Grand Total(s)***:</b>			<b>\$ 4,042,419,773</b>	<b>\$ 2,955,269,608</b>	<b>\$ 1,510,214,251</b>	<b>\$ 2,150,255,575</b>	<b>1.2x</b>	<b>8.58%</b>

\* Where available, March 31, 2012 reported valuations were used. In the absence of March 31, 2012 reported values, market values have been adjusted forward using interim cashflows through March 31, 2012. 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, 2012.

<sup>(1)</sup> Investment Close date is subsequent to March 31, 2012

### NYC Teachers Monthly PE Cash Flow Summary



## Teachers' Retirement System of the City of New York

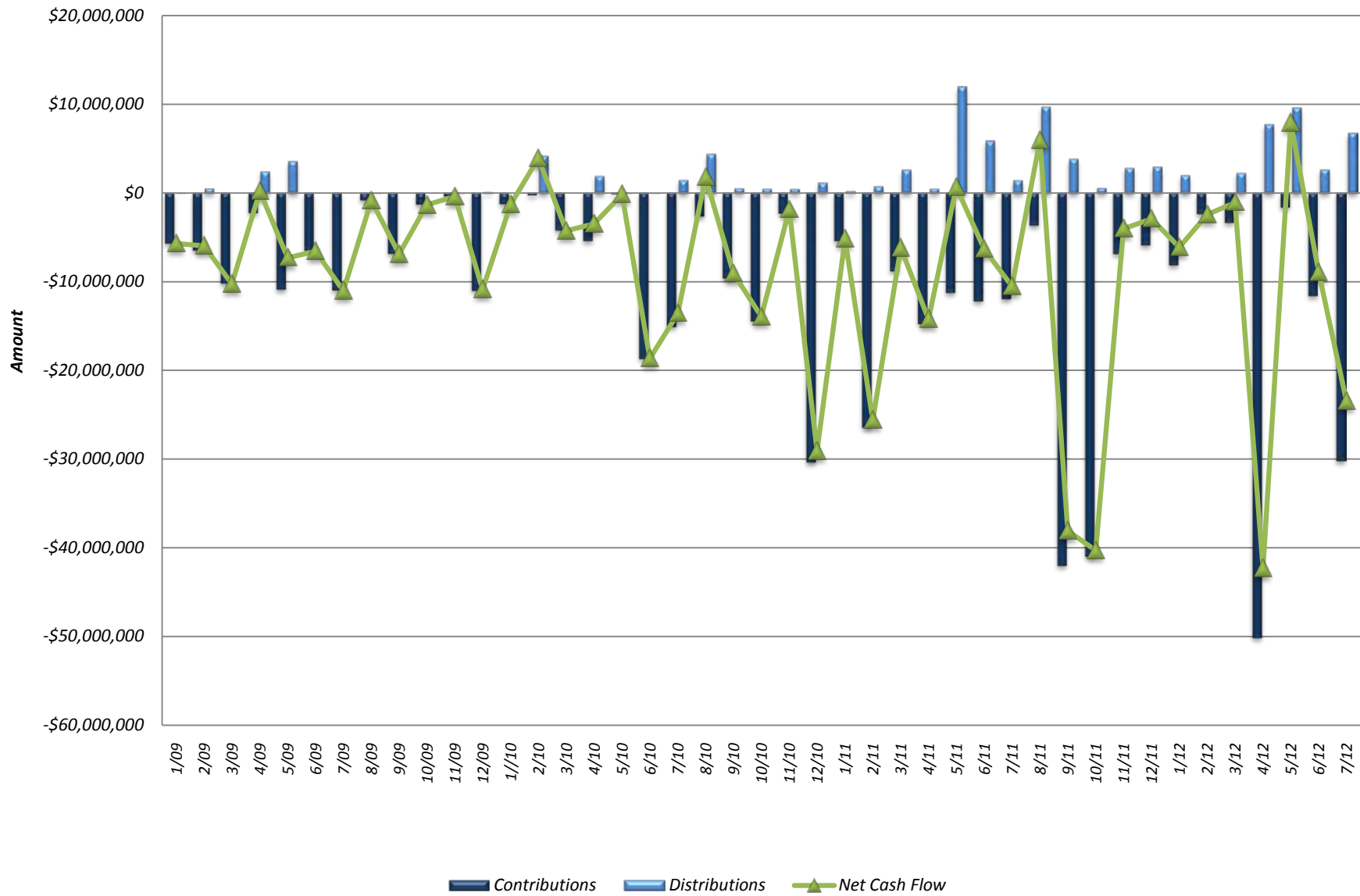
Vintage Year	Fund Name	First Draw Down	Capital Committed	Contributions	Distributions	Market Value	Equity Multiple	Net IRR
2003	Canyon Johnson Urban Fund	12/6/2002	\$15,000,000	\$13,456,450	(\$15,403,730)	\$315,044	1.2	10.2%
2003	OCM Real Estate Opportunities Fund IIIA	5/30/2003	\$15,000,000	\$15,000,000	(\$15,000,000)	\$9,645,219	1.6	11.1%
2004	Blackstone Fund IV	5/10/2004	\$25,000,000	\$31,783,314	(\$27,130,452)	\$13,941,465	1.3	11.9%
2004	The City Investment Fund I	3/16/2004	\$120,000,000	\$118,337,757	(\$67,151,873)	\$51,179,377	1.0	0.0%
2004	Tishman Speyer Separate Account (TRS)	8/5/2004	\$100,000,000	\$72,402,952	(\$185,099,124)	\$70,804,993	3.5	59.4%
2005	Canyon Johnson Urban Fund II	5/11/2005	\$30,000,000	\$26,966,112	(\$18,000)	\$16,018,268	0.6	-11.3%
2006	PRISA	9/29/2006	\$36,000,000	\$37,493,747	(\$2,705,602)	\$33,452,173	1.0	-0.7%
2006	Prologis Targeted U.S. Logistics Fund	10/1/2006	\$10,000,000	\$11,357,225	(\$1,485,565)	\$6,983,993	0.7	-6.1%
2006	RREEF America REIT II	10/1/2006	\$36,000,000	\$47,527,452	(\$13,220,628)	\$34,053,989	1.0	-0.1%
2006	UBS Trumbull Property Fund ("UBS-TPF")	9/28/2006	\$106,000,000	\$78,377,681	(\$5,703,663)	\$78,922,702	1.1	2.7%
2006	AREA Real Estate Fund V	6/15/2006	\$5,000,000	\$5,000,001	(\$1,210,801)	\$2,208,885	0.7	-10.7%
2007	Colony Realty Partners II	12/20/2006	\$15,000,000	\$16,065,058	(\$499,580)	\$7,582,600	0.5	-14.3%
2007	Heitman HART	3/29/2007	\$48,000,000	\$54,432,996	(\$6,432,996)	\$53,554,792	1.1	3.2%
2007	JP Morgan Special Situation Property Fund	1/2/2007	\$15,000,000	\$16,132,719	(\$2,014,984)	\$11,384,377	0.8	-4.0%
2007	JP Morgan Strategic Property Fund	12/4/2006	\$86,000,000	\$88,281,099	\$0	\$97,011,274	1.1	3.3%
2007	PRISA II	6/30/2007	\$63,374,139	\$65,120,675	(\$3,365,185)	\$54,885,298	0.9	-3.1%
2007	RREEF America REIT III - 1410	10/1/2007	\$15,000,000	\$15,000,000	(\$100,040)	\$5,263,733	0.4	-20.6%
2007	Blackstone Real Estate Partners VI	9/27/2007	\$50,000,000	\$48,622,240	(\$4,141,806)	\$57,545,274	1.3	9.2%
2007	Carlyle Realty Partners V	8/27/2007	\$15,000,000	\$16,402,523	(\$5,978,997)	\$12,185,727	1.1	3.7%
2007	Metropolitan Workforce Housing Fund	7/13/2007	\$10,500,000	\$10,350,870	(\$228,592)	\$9,564,772	0.9	-3.9%
2007	UrbanAmerica II	1/30/2007	\$11,000,000	\$10,218,031	\$0	\$6,361,177	0.6	-11.3%
2008	Capri Urban Investors	6/3/2008	\$40,000,000	\$34,042,543	\$0	\$19,977,870	0.6	-20.9%
2008	Silverpeak Legacy Partners III (Lehman)	5/28/2008	\$30,000,000	\$11,748,148	(\$2,701,541)	\$3,710,254	0.5	-22.8%
2008	Stockbridge Real Estate Fund III	9/9/2008	\$22,500,000	\$13,931,153	\$0	\$10,680,411	0.8	-11.2%
2008	American Value Partners Fund I	10/18/2007	\$25,000,000	\$15,324,417	(\$2,538,538)	\$10,008,479	0.8	-10.0%
2009	Carbon Capital III	7/2/2009	\$40,000,000	\$43,757,162	(\$9,259,300)	\$39,874,120	1.1	8.7%
2009	JP Morgan Urban Renaissance Property Fund	12/18/2008	\$16,360,625	\$4,206,523	(\$4,206,523)	\$0	1.0	0.0%
2009	Thor Urban Property Fund II	10/30/2008	\$12,500,000	\$10,584,565	(\$4,549,506)	\$4,510,392	0.9	-14.5%
2010	LaSalle Property Fund	7/1/2010	\$50,000,000	\$22,834,719	(\$770,341)	\$25,519,747	1.2	14.9%
2010	Blackstone Real Estate Partners Europe III (USD Vehicle)	10/24/2008	\$50,000,000	\$15,094,083	\$0	\$17,074,590	1.1	13.1%
2010	Canyon Johnson Urban Fund III	3/29/2010	\$25,000,000	\$14,480,165	(\$1,490,673)	\$12,683,658	1.0	-2.4%
2010	Westbrook Real Estate Fund VIII	12/28/2009	\$50,000,000	\$29,231,237	(\$13,177,133)	\$20,872,259	1.2	20.9%
2011	Carlyle Realty Partners VI	9/14/2011	\$70,000,000	\$10,351,770	(\$37,787)	\$9,961,726	1.0	-9.1%
2011	H/2 Special Opportunities Fund II	1/31/2011	\$40,000,000	\$7,844,263	\$0	\$9,299,054	1.2	23.7%
2012	Taconic New York City Investment Fund LP	n/a	\$70,000,000	\$0	\$0	(\$162,380)	n/a	n/a
<b>Teachers' Retirement System of the City of New York</b>			<b>\$1,368,234,764</b>	<b>\$1,031,759,649</b>	<b>(\$395,622,960)</b>	<b>\$816,875,311</b>	<b>1.2</b>	<b>6.6%</b>

## Funds Closed Subsequent to Quarter

Vintage	Fund Name	First Draw Down	Capital Committed	Contributions				
2012	Almanac Realty Securities VI	6/6/2012	\$135,000,000	-	-	-	-	-
2012	Brookfield Strategic Real Estate Partners		\$125,000,000	-	-	-	-	-
<b>Grand Total</b>			<b>\$260,000,000</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, 2012. 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.

### TRS Monthly Real Estate Cash Flow Summary



### III. General IPS:



# **INVESTMENT POLICY STATEMENT**

## **TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

### **QUALIFIED PENSION PLAN AND TAX DEFERRED ANNUITY PLANS\***

**Adopted: June 15, 2006**

**Amended: August 27, 2012**

**\*Does not include the Variable Annuity Programs**

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## Section I. **PURPOSE OF THE INVESTMENT POLICY STATEMENT**

The Teachers Retirement Board (“Board”) of the Teachers’ Retirement System of the City of New York (“TRS”) herein establishes a written, comprehensive and integrated Investment Policy Statement (IPS) in furtherance of the management and investment of the assets of the Qualified Pension Plan and Tax Deferred Annuity Assets (the “Fund”). This Fund does not include the assets of the Variable Annuity Programs.

The Investment Policy Statement sets forth the investment objectives and philosophy of the TRS investment program, as well as its major components and policies relating to risk management, liquidity needs, asset allocations, and rebalancing ranges. The Statement sets forth policies to oversee and evaluate the overall performance of the Fund. The Statement further provides a procedural framework for the Board of Trustees, with the advice and assistance of the Comptroller’s Bureau of Asset Management (“BAM”), to select, retain, monitor and evaluate the performance of Investment Managers, Consultants and others.

Separate Investment Policy Statements for Private Equity, Real Estate, Opportunistic Fixed Income, and Economically Targeted Investments are made a part of this overall Policy by reference (see Appendices).

## Section II. **INVESTMENT POLICY ROLES**

### **A. Teachers' Retirement Board**

Pursuant to the New York City Administrative Code, TRS is administered by the Board of Trustees, which is comprised of seven voting members, as described below.

1. Two Board members are appointed by the Mayor, each of whom is entitled to cast one vote. One of these members must also be a member of the Department of Education.
2. The Comptroller is entitled to cast one vote.
3. Three Teacher-Members are elected to the Board by the members of TRS, each of whom is entitled to cast one vote.
4. The Chancellor of the Department of Education is entitled to one vote.

A Board member may designate alternate representatives to serve in his or her place as authorized by applicable law.

The Board shall elect from its membership a chair.

Each act of the Board requires the concurrence of the Comptroller or of one member appointed by the Mayor, as well as a member elected by the TRS membership and at

least two other members of the Board.

The Board, as a fiduciary, is responsible for the management of the Fund. The Fund is managed for the exclusive benefit of plan participants and their beneficiaries, and in accordance with all applicable laws, including requirements of prudence. Activities of the Board include the following:

- Establish and adopt written investment policies, including delegations of authority, desired risk levels, investment time horizons, and proxy voting policies. The written investment policies will guide the management of the Fund consistent with the Fund's investment goals and objectives.
- Adopt an appropriate asset allocation strategy that diversifies assets in a manner consistent with the Board's risk/return objectives.
- Consider and approve appropriate investment strategies.
- Determine the Investment Manager structure for implementation of investment strategies, including such factors as manager style and active vs. passive (indexed) management approaches.
- Select Consultants and Investment Managers to implement the investment strategies.
- Approve the commencement of securities litigation, its strategy, and settlement.
- Monitor the performance of Plan assets as well as the investment activities of all Investment Managers and Investment Consultants as they affect Plan assets.
- Approve reasonable and necessary investment expenses to acquire, manage and protect Plan assets.

## **B. Comptroller**

Under the New York City Administrative Code, the Comptroller serves as a trustee of the Board and as custodian for TRS assets. As custodian, the Office of the Comptroller, by and through the Bureau of Asset Management (BAM), performs activities including:

- Selection of one or more custody banks, including a Master Custodian, for the safekeeping of TRS' assets and monitoring of the performance of the custodians.
- Reconciliation of the monthly accounting statements rendered by the Master

Custodian with (a) daily position information of publicly traded securities provided by Investment Advisors; and (b) periodic information provided by Managers and Consultants regarding illiquid securities. The reconciled statements are provided to TRS' Chief Accountant and form the basis for the investment performance sections of TRS financial statements.

- Review, audit and processing of payments to Investment Advisors, Investment Counsel, and Consultants.

By delegation, which is reviewed quarterly by the Board, the Comptroller also serves as Investment Advisor to the Fund.

In its role as Investment Advisor, the Office of the Comptroller provides investment advice, implements Board decisions, and reports on investment performance. In carrying out these functions, BAM:

- Advises the Board on all investment issues, including:
  - Investment policy and strategy
  - Asset allocation
  - Manager structure
  - Manager selection
  - Financial and economic developments that may affect the Plan.
- Evaluates and recommends to the Board potential investment partners, Managers and Consultants for TRS' assets pursuant to established procedures and Board policies.
- Provides the Board with an analysis of proxy issues and votes recommendations, votes proxies of domestic equity securities, and recommends and implements TRS' annual ownership initiatives.
- Informs the Board of significant developments regarding TRS' assets.
- Implements Board investment decisions.
- Rebalances the portfolio within ranges established by the Board.
- Implements portfolio transitions to effectuate Board decisions.
- Negotiates, enters into, renews, administers and terminates agreements with Investment Managers, Consultants and investment partners on behalf of the Board.
- Directs Investment Managers to sell assets to meet TRS liquidity needs, and transfers cash to TRS accounts.

- Adopts detailed investment guidelines for Investment Managers and monitors compliance with these guidelines.
- Monitors the performance of Investment Managers who have been selected by the Board, and reports regularly to the Board on potential issues requiring Board attention.
- Provides regular reports to the Board on the performance of Plan assets.

In executing these responsibilities, BAM works closely with Consultants selected by the Board where appropriate.

### **C. Executive Director**

The TRS Executive Director is responsible for the internal administration of the Retirement System. The Board appoints the Executive Director. He or she oversees the internal processes necessary for the accurate and timely payment of all benefits and the proper accounting of all financial transactions. He or she is further responsible for the establishment, monitoring and safeguarding of TRS' internal records and satisfying TRS' external reporting requirements.

The Executive Director organizes Board meetings and reports to the Board on operational issues, benefit payments, and service levels. He or she ensures that TRS maintains efficient operating procedures consistent with the statutory structure of the Fund in compliance with federal, state and local legislation.

### **D. Actuary**

In its determination of an Investment Policy, the Board of Trustees incorporates information and advice from the Actuary.

In particular, the Actuary provides such insight and guidance as requested with respect to future cash flows, liabilities, risks and the impact of Investment Policy on the funding of TRS.

The Actuary advises the Board regarding funding issues, including the level of the Actuarial Interest Rate ("AIR") assumption that the Actuary would support for a given Investment Policy. The Actuary for TRS periodically recommends to the Board an AIR assumption, which is currently set at [8.0%] per annum, gross of expenses. The AIR assumption is ultimately codified in the New York City Administrative Code.

### **Section III. INVESTMENT OBJECTIVE**

The overall investment objective of TRS is to achieve a competitive market rate of return compatible with its risk tolerance and with prudent investment practices, and which, together with employee and employer contributions, will allow it to meet current and future benefit obligations and plan expenses.

TRS maintains a long-term perspective in formulating and implementing its Investment Policy, and in evaluating its investment performance because of the long-term nature of its liabilities.

In implementing its investment objective, the Board considers capital market assumptions on projected returns and risk of a variety of asset classes, as well as the current AIR assumption.

The AIR assumption is a key actuarial assumption affecting future TRS funding rates and pension liabilities. Based on the actuarial assumptions and methods recommended by the Actuary and adopted by the Board, an [8.0%] per annum return on assets, together with employee and annual employer contributions, is expected to fully fund the Plan over time in order to allow it to meet current and future benefit obligations. Investment performance that exceeds or underperforms the AIR assumption may materially affect future funding rates. The Board seeks to have long-term investment performance that will equal or exceed its AIR assumption.

### **Section IV. INVESTMENT PHILOSOPHY AND STRATEGY**

The IPS establishes the investment philosophy and strategy of the Board, as well as implementation procedures. The Board may review and revise the IPS from time to time as market conditions or other factors make such revisions advisable.

The Trustees expect asset allocation to be the primary determinant of the Fund's ability to achieve its investment objective. For this reason, equities comprise the largest portion of the System's assets. The Board also strives to diversify the portfolio. Diversification is achieved by investing in a wide mix of asset classes such as Non-US Equities, Emerging Markets Equities, Fixed Income, Real Estate, Emerging Markets Debt, and Private Equity – asset classes in which price movements are less correlated with the price movements of U.S. Equities. Moreover, the Board seeks to diversify its portfolio by capitalization, geography, currency, economic sector, and other relevant factors.

Additionally, the investment of the Fund's assets is governed by certain statutory provisions. A copy of the Eligible Investments is appended hereto as Appendix 2.

Expected returns for asset allocation purposes are calculated based on long-term, capital market expectations. Return expectations are consistent with Modern Portfolio



Theory in that, for example, equities are expected to generate a higher return than fixed income instruments over the long run, commensurate with their higher expected risk.

The Fund maintains a long-term investment focus implemented through a policy of rebalancing assets to policy weights on a regular basis. Although the Board reviews performance of the Fund, and of individual Managers, as appropriate, and compares them to established benchmarks, the Board establishes long-term strategy through asset allocation studies conducted at least every five years (or more frequently if the Board deems appropriate). These studies assess long-term expected capital market returns, and include reviews of the Manager structure used to implement the asset allocation policy. The Board may also conduct an asset/liability study when, in its discretion, it believes such a study could assist in the asset allocation process.

## Section V. **ASSET ALLOCATION AND REBALANCING**

When the Board desires to conduct an asset allocation review, BAM works with TRS' General Consultant (the "Consultant") to present the Board with alternative structures reflecting different risk and return scenarios and asset class diversification strategies. In recommending capital market assumptions and considering asset classes, BAM and the Consultant coordinate their efforts with those of the General Consultants to the other New York City Retirement Systems. The Board establishes an asset allocation based on the analyses and recommendations of BAM and the Consultant (in particular, on a mean-variance optimization model) and on the input provided by the Actuary. Any resulting changes in asset allocation are incorporated into the Investment Policy Statement.

TRS adopted its current target Long Term Strategic Allocation (asset allocation) in June 2011. The Table below shows the adopted allocation.

Subsequent to the AA adoption in June 2011, the TRS Board approved new rebalancing ranges and interim asset class holding places (parking places) for unfunded commitments. The unfunded allocation to Non-Core Private Real Estate and Private Equity should be temporarily invested in Domestic Equity; while unfunded allocations to Core Private Real Estate are temporarily allocated to Core +5 Fixed Income. The unfunded allocation to Emerging Market Debt should be temporarily allocated half to Core +5 Fixed Income and half to Enhanced Yield Fixed Income. For the allocation to Opportunistic Fixed Income, 80% of the unfunded amounts should be held in Enhanced Yield Fixed Income, while the remaining 20% is to be held in Domestic Equities.

	<b>Long Term Strategic Allocation</b>	<b>Rebalancing Range</b>
<b>Equity Securities</b>		
Domestic Equity	31%	+/-6
Non-U.S. Equity	9	+/-4

Emerging Markets Equity	8	+/-4
REITs	3	+/-1.5
Private Equity	6	+/-2
Private Real Estate	6	+/-2

**Total Equity 63%**

**Fixed Income Securities**

Core +5 Fixed-Income	18	+/-4
Enhanced Yield	4	+/-2
Emerging Markets Debt	3	+/-1.5
Opportunistic Fixed	5	+/-2
TIPS	4	+/-2
Convertible Bonds	3	+/-1.5

**Total Fixed-Income 37%**

N.B. The rebalancing ranges (as noted above) were also adopted by the Board in December of 2011.

Capital market expectations associated with this asset allocation embody a forecast that this asset allocation will achieve an average annualized return over a market cycle of 7.7% (gross of expenses). Because markets are volatile, actual investment returns, even in a broadly diversified portfolio, will likely fall in a range around the expected return in any given year. While the Board intends diversification and rebalancing to reduce the volatility of the total portfolio, volatility cannot be eliminated. Based on the assumptions used in establishing this asset allocation, in any given year, the Board expects the standard deviation of its returns to be within 11.2% of the average annualized returns noted above.

Assets are rebalanced to ensure that the System's actual investment mix remains consistent with its asset allocation policy (the "Policy") and legal restrictions on Eligible Investments. Volatility in the capital markets and/or over- or under-performance of a particular asset class or pension funding needs drives the need to rebalance. The Board periodically reviews its asset mix. This range is designed to constrain the extent to which changes in capital markets result in long-term divergences between asset allocation policy and actual investment mix. Significant or extended divergences from policy must have the approval of the Board.

BAM implements the Board's rebalancing policy. BAM monitors the actual investment mix and compares it with the asset allocation policy on a monthly basis, a tool for controlling asset class exposure can be the payment of pension benefits and expenses from Fund assets. As funds are needed for these payments, BAM seeks to liquidate assets in overweight classes. Assets are liquidated with a goal of maintaining the Board's allocation decisions to asset classes, and to portfolio structure targets within asset classes.

In implementing the rebalancing policy, maximizing the alignment of actual and policy asset allocation is not the sole consideration. BAM is authorized to take into account factors which a prudent investor might reasonably consider in purchasing or selling securities such as, but not limited to, the size of the asset class, liquidity constraints of each asset class, and relative transaction costs and fees, and the then current market and economic environment.

Other rebalancing interventions may occur when benefit and expense payments are insufficient to keep asset class exposures within the target or in response to a change in asset allocation policy.

In the event that payments of benefits and expenses are insufficient to keep the System's actual investment mix within the established ranges for the policy's asset classes, or where rebalancing is necessitated by a change in asset allocation policy, BAM implements a plan for liquidating assets in the over-weighted asset class(es) and transferring assets to the underweighted asset class(es). In constructing the plan, BAM considers the size of the asset class, the liquidity constraints of each asset class and the transaction costs and fees connected with any such liquidation and transfer and the then current market and economic environment.

Coincident with the asset allocation study, the Board reviews with its Consultant the rebalancing ranges for each asset class and class component, and makes any revisions to those ranges as determined appropriate given changes in capital market conditions.

## **Section VI. GUIDELINES**

BAM develops detailed investment guidelines for Investment Managers. Managers are responsible for certifying their compliance with guidelines on a quarterly basis. BAM also monitors guideline compliance through the Master Custodian's data reporting system.

Investments in securities of any one issuer shall not, at the time of investment, exceed five (5) percent of the Fund's total market value, with the exception of the US Government and its agencies, or unless otherwise approved by the Board of Trustees.

## **Section VII. LIQUIDITY**

The Fund's asset allocation policy does not include a specific allocation to cash, though some level of cash should be maintained to meet liquidity requirements, including benefit payments, rebalancing requirements, and to assist with implementing the Board's target asset allocation. As such, BAM shall have discretion to raise cash in furtherance of the Fund's liquidity requirements, or for other reasons determined appropriate by the Chief Investment Officer. BAM shall report to the Board in the event

that cash exceeds or is expected to exceed 5% of the Fund's total market value.

Managers are generally expected to be fully invested but may maintain limited cash balances – as specified in the liquidity expectations for each sub-asset class - to manage duration of bond portfolios, or to implement the purchases or sales of assets.

## **Section VIII. ROLES AND RESPONSIBILITIES OF SERVICE PROVIDERS**

The Board retains service providers to assist in the management of the Fund. Such providers include, but are not limited to, Investment Advisors, general and specialist Consultants, and attorneys. The providers perform in a fiduciary capacity and must exercise the requisite duties of care and loyalty to TRS. The Office of the Comptroller retains the Master Custodian and sub-custodians for the Fund.

### **A. Investment Managers**

Fund assets generally are managed externally by Investment Managers retained by the Office of the Comptroller, acting on behalf of and with authorization from the Board. See Section X for more information on Investment Managers.

### **B. Master Custodian**

By statute, the Comptroller is the custodian of the assets of TRS, as well as the assets of other New York City Retirement Systems. Assets include cash (in any currency), securities, any other investments and earnings and profits thereon.

As Custodian of TRS' assets, the Comptroller retains by agreement a Master Custodian to safeguard the property of the funds that the Custodian or its agents, representatives or sub-custodians may receive from time to time for deposit, and for other purposes. (In the case of certain assets such as international equities in commingled accounts, other custodians may be retained to serve as custodians of particular accounts.)

The Master Custodian acts as a fiduciary to the Comptroller, TRS, and other Systems and Funds.

The Master Custodian provides many services, including:

- holding the Fund's Accounts
- effecting purchases and sales of the securities
- collecting income that becomes due and payable on property held in the

accounts

- making payments from the accounts at the Comptroller's direction and
- maintaining books and records to clearly identify cash, securities and other property.

Except for specific accounts in which another custodian assumes some of these responsibilities, the Master Custodian is responsible for the safekeeping of all assets, transaction processing, reporting, performance measurement and compliance.

### **C. General Consultant**

The Board employs a General Consultant, which performs as a fiduciary to the Board. The responsibilities of the Consultant include:

- Assisting the Board to create and maintain the Investment Policy Statement.
- Advising the Board on the investment of TRS' assets.
- Advising the Board regarding strategies for the allocation of assets across capital markets that will generate a long-term return consistent with the Board's investment objectives and risk tolerance.
- Developing cost-effective structures for the implementation of the Board's asset allocation that will maximize excess returns by Managers while minimizing the volatility of the returns.
- Assisting BAM in identifying potential Investment Managers, in conducting research in screening Managers and in negotiating Investment Manager contracts.
- Monitoring the Investment Managers employed by TRS and providing reports and analyses to the Board and BAM relating to material events such as, but not limited to, relative performance, material changes to senior personnel, investment process and organization.
- Preparing presentations or position papers on topical issues and specific projects.
- Attending meetings as required.

## **SECTION X. INVESTMENT MANAGERS**

### **A. Manager Selection - Public Markets**

The Board selects Investment Managers to manage TRS' assets. The Board seeks Managers that will provide superior investment management performance. In selecting Managers, the Board evaluates investment management and decision making capabilities, organizational characteristics, including ownership, management and regulatory issues, the performance of potential Managers in specific investment mandates, and fees.

Managers selected to manage publicly traded assets for NYCBERS must be registered investment advisers under the Investment Advisers Act of 1940 or a bank or trust company as defined in the Act – (unless otherwise stated in another appended asset class IPS).

External Investment Managers, for the Public Markets, are identified through an RFP process, or such other process as may be determined appropriate and in conformance with applicable regulations and best practices. All External Investment Managers are required to enter into an investment advisory contract or other appropriate agreement.

The Board selects Managers, and with the assistance of BAM and the Consultant, allocates assets to each firm. At its discretion, the Board may, but is not required to, interview managers prior to selection. In making its final selection, the Board may consider such factors as:

- The quality and depth of the Manager's investment team,
- The Manager's clear articulation of its investment strategy, and
- The Manager's successful execution of its strategy over time, as evidenced by, for example:
  - Analysis of the Manager's historical quarterly performance calculated on a time-weighted basis, compared to a Global Investment Performance Standards (GIPS) compliant composite of all fully discretionary accounts of similar investment style.
  - Performance evaluation reports prepared by BAM, with the assistance of the Consultant that illustrates the risk/return profile of the Manager relative to other Managers.
  - Significant or adverse regulatory issues.
- The Manager's compliance and information systems.

BAM then negotiates the contracts with selected firms. BAM funds the Managers' portfolios in accordance with the Board's mandate.

## **2. General Requirements**

Managers selected to manage publicly traded assets for TRS must be registered investment advisers under the Registered Investment Advisers Act of 1940 or a bank or trust company as defined in the Act (unless otherwise stated in another appended asset class IPS). Managers shall not be the subject of regulatory or enforcement actions, pending or threatened litigation, or legal judgments that (in the Board's judgment) would impair the Managers' ability to provide expert investment management services to TRS.

## **3. Contract Renewal Policy**

Contracts with Investment Managers, Consultants, and other service providers are generally awarded for nine (9) years, with an initial term of three years, and two renewal terms of three years each; although longer or shorter contract terms are permitted as approved by the Board, and subject to applicable regulation.

Contracts will provide that the Board may terminate a service provider on 30 days' notice.

## **B. Emerging Managers – Public and Private Markets**

The Fund seeks to employ Emerging Managers. Emerging Managers are asset managers that the Board believes will add significant value to the Fund through implementation of investment strategies consistent with the Board's asset allocation and other policies, but which, because of size, length of track record, or other similar factors, have not been awarded contracts through the Board's Manager Selection process. Smaller Emerging Managers are typically retained pursuant to a Manager of Managers arrangement, while larger Emerging Managers (also referred to as Developing Managers) may be retained directly.

## **C. Brokerage**

The Board delegates discretion over placement and execution of securities transactions to its Investment Managers. It is the intention of the Board that all securities transactions be effected to the best advantage of the System regarding price and execution. The Board recognizes that "soft dollar" commissions are allowed under Section 28(e) of the Securities and Exchange Act of 1934 (commonly referred to as the "safe harbor" provisions). Investment Managers are required to report information on soft dollar transactions involving securities of the System. These reports shall be provided periodically upon request to BAM.

The Board supports diversity among brokers providing securities transaction services to its Investment Managers. Managers are encouraged, to the greatest extent possible consistent with best execution, to use minority- and women-owned brokerage firms (MWBE). The Board approves, at the recommendation of BAM, a pool of MWBE Brokers for Investment Managers to use in this process. Investment Managers report the use of minority- and women-owned brokerage firms to BAM.

## **SECTION XI. PERFORMANCE MONITORING AND EVALUATION**

### **A. Benchmarks**

The Board monitors Fund performance against a variety of applicable benchmarks.

#### **1. Policy Benchmark**

To monitor the Fund, the Board adopts a Policy Benchmark which reflects the performance of the markets to which the Board has allocated assets. Because of the allocations to new asset classes in June 2011, the Policy Benchmark was adjusted and will continue to be adjusted as the allocations to emerging markets debt, opportunistic fixed income, emerging markets, real estate and private equity are funded. The Policy Benchmark serves as a minimum performance objective for the Fund, and allows the Trustees to evaluate the implementation of its asset allocation strategy. The Policy Benchmark will be included in all quarterly evaluation reports of TRS. As of May 31, 2012, the composition of the Policy Benchmark was:

- 34.39% Russell 3000 Index
- 9.00% Morgan Stanley Capital International EAFE Index
- 8.00% MSCI Emerging Markets Free Index
- 0.00% Emerging Markets Debt Index (TBD)
- 21.49% NYC Core +5 Fixed Income Index
- 8.83% Citigroup BB & B Fixed Income Index
- 4.00% Lehman US TIPS Index
- 3.00% Merrill All US Convertibles Index
- 0.84% NYC Core +5 Fixed Income Index + 200 bps
- 3.00% Wilshire RESI Index (REITs)
- 5.43% Russell 3000 Index + 500 bps (Private Equity)
- 2.02% NFI - ODCE Index (net)

#### **2. Asset Class Benchmarks**

As noted above, the Policy Benchmark is composed of benchmarks which have been



established for each individual asset class. The current benchmark for each asset class is reported in the attached [Appendix I](#) which specifies the Board's policies as it relates to the asset classes. The Board will review performance of each asset class relative to its selected benchmark on a quarterly basis.

### **3. Investment Manager Benchmarks**

Each Investment Manager is evaluated relative to an Investment Manager Benchmark composed of a market index plus an active management premium reflecting the Manager's particular style or tactical role in TRS' investment program. Each Investment Manager Benchmark will be representative of the asset class and desired exposure within that asset class, clearly specified, measurable (with widely available historical data), and, for liquid securities, investable. Benchmarks may be customized for a particular style or styles. The appropriate Investment Manager Benchmark and expected active management premium shall be determined in advance of funding by mutual agreement between the Investment Manager, BAM and the Consultant. The performance expectation for each investment manager shall be documented as part of the investment management agreement

### **4. Peer Group Analysis**

The Board reviews the performance of the Fund relative to a peer group of other major public pension funds on a quarterly basis. However, due to differences in asset allocation, time horizon, and risk tolerance between public pension funds, comparisons of Fund performance to the AIR assumption and Policy Benchmark are the primary evaluation methods used by the Board.

## **B. Investment Information**

The Board monitors the performance of the Fund and of individual Managers through ongoing monthly and quarterly reviews of performance, market developments, and Manager reviews. The Board uses various reports to monitor investment information, including the monthly and quarterly performance reports, monthly economic reports, and the monthly flash report. In addition, the Board may monitor individual Managers through the Watch List. BAM and the Consultant also report to the Board periodically on issues identified by BAM, the Consultant, or the Board as requiring additional review.

On a quarterly basis, the Board reviews a performance report that includes a commentary prepared by BAM, the Custodian and the Consultant summarizing portfolio developments and performance. The quarterly performance report also provides detailed quantitative information regarding the risk and performance of Plan assets. Performance is evaluated relative to appropriate market benchmarks, peer comparison universes, and a variety of relevant time periods.

In addition, the Board reviews a flash performance report and a monthly performance report at each investment meeting. The flash performance report includes asset class and policy benchmark returns for the prior fiscal year and estimated fiscal year-to-date returns.

Managers provide daily and monthly reports regarding portfolio holdings and transactions to BAM. Managers also complete a detailed quarterly questionnaire regarding portfolio holdings and organizational developments. Responses to the questionnaire are reviewed by the Consultant and BAM. Material developments affecting the Fund are reported to the Board.

## C. Manager Watch List

The Board monitors the performance of its Investment Managers on an ongoing basis, through its monthly and quarterly reporting process.

The Board may terminate a Manager at any time. It may also place a Manager on the watch list. BAM and the Board may take both qualitative and quantitative factors into account in considering whether to place a Manager on the watch list or whether to terminate a Manager. Examples of qualitative factors include concerns regarding personnel, organizational changes, and ethical, legal or regulatory issues. Examples of quantitative factors are lagging performance or indicators that the investment mandate is not being implemented as negotiated in the Manager's agreement.

### 1. Watch List Guidelines - Qualitative Factors

The table below sets forth some of the *qualitative* factors that the Board may consider in determining whether to place a Manager on the watch list or to terminate a Manager.

FACTOR	EVALUATION TECHNIQUE	ACTION STEPS
Changes in ownership	Require immediate notification of any pending changes in ownership.	Assess risk that change may negatively affect investment performance.
Turnover of key personnel	Require immediate notification of any changes in personnel involved in the management of the System's assets, or the senior officers of the Manager.	Assess risk that change may negatively affect investment performance.
Litigation	Require immediate notification if the Manager, a	Evaluate nature, seriousness and likely impact of charges

	parent, or affiliate is involved in any material litigation, regulatory or enforcement action.	on the investment process and take appropriate action.
Conflicts of interest	Require Manager to provide immediate written disclosure.	Review to determine if conflict was material and should have been known by Manager and reported to the Board.
Failure to disclose material information which could affect Manager evaluation	Require Manager to provide immediate written disclosure.	Review information to determine materiality and reasons for failure to disclose.

## 2. Watch List Guidelines - Quantitative Factors

Active Managers are expected to exceed their Investment Manager Benchmark (which is composed of a market index plus an active management premium) net of fees over rolling three to five-year periods; while Index Managers are expected to achieve their stated benchmark in order to achieve the returns of the comparable Index. Investment performance is measured on a monthly and quarterly basis in order to gauge shorter term progress toward long term goals. Failure to outperform or, in the case of index Managers, to match the market index over time will typically result in placement on the watch list or in the Manager's termination. Failure to outperform the Investment Manager Benchmark (net of fees) may result in placement on the watch list after consideration of tracking error, information ratio, and other quantitative and qualitative factors.

Managers are expected to maintain their stated investment style and philosophy. Quantitative measures of investment style and philosophy include style mapping, style attribution analysis, and tracking error relative to a benchmark. The Consultant monitors these factors on a quarterly basis and advises BAM of potential deviations. Indications that a Manager is not maintaining its investment style and philosophy will typically result in the Board placing the Manager on the watch list. BAM and the Consultant will then present to the Board an evaluation of the Manager's consistency with the Board's asset allocation policy and the Manager's stated investment approach.

## SECTION XII. RISK MANAGEMENT

The Trustees recognize the inevitability of the assumption of risk in the management of the Fund's portfolio. The issue of risk is considered during many phases of the investment decision and implementation process. Risk will be analyzed during the asset allocation strategy and decision making phase using such analytic tools as optimization, risk budgeting, value at risk, volatility analysis, and tracking error analysis. The portfolio is diversified across both the public and private capital markets in order to achieve the

optimal balance of risk and return among asset classes. Managers are required to have internal controls and risk management systems appropriate to their investment disciplines. Managers selected by the Board shall provide information adequate in quantity, quality and timeliness to permit BAM, the Custodian and the Consultant to monitor risk and compliance.

## **SECTION XIII. PORTFOLIO TRANSITIONS**

Transition management is an integral part of portfolio management. When the Board terminates a Manager and re-allocates assets to another Manager, or funds a new mandate, the portfolio must be transitioned. In accordance with public procurement regulations and using the Board's approved transition management pool, BAM selects and works with transition Managers to implement each transition.

Transitions are to be completed in a cost-efficient manner given the characteristics of the portfolios and market conditions, with such cost-efficiency being measured in accordance with market standards (currently measured by an analysis of total implementation shortfall).

## **SECTION XIV. SECURITIES LENDING**

The Board has authorized the Comptroller to enter into agreements establishing participation in securities lending programs. Securities lending enables the Fund to use its asset base to augment investment income. It involves the temporary exchange of securities owned by the Fund for other securities or cash of a greater value, with an obligation of the borrower to pay a fee to the Fund, and to return a like quantity of the borrowed securities at a future date. The fee paid by the borrower is agreed in advance, while the Fund has contractual rights similar to those it would have as the beneficial owner of the securities except that the Fund does not retain voting rights on loaned equity securities.

The objective of securities lending is to earn income through a conservatively operated and well controlled program. There is no absolute return expectation; rather, income is expected to be commensurate with the market demand for the securities made available by the Fund and the return earned on the investment of cash collateral. Cash collateral received will be invested in a high-quality investment program that emphasizes the return of principal, maintains required daily liquidity, and ensures diversification across approved investment types. Those objectives are pursued within the parameters governing the program as outlined in the securities lending agreements with agent banks. Each agent bank is required to act as a fiduciary with respect to the Fund, and to have systemic and procedural controls in place to ensure adherence to guidelines for operating the securities lending program on behalf of the Fund. The results of the securities lending program are reported to the Board on a regular basis.

## **SECTION XV. SECURITIES LITIGATION PROTOCOL**

The objectives of the TRS Board of Trustees in choosing to take an active role in securities litigation include the following:

- Preservation of Plan assets and collection of all amounts due to TRS;
- Maximizing the net recovery in individual and class actions; and
- Effecting corporate governance reforms, when appropriate.

TRS will use the process outlined in the Securities Litigation Protocol, (set forth in Appendix 11), in evaluating and acting on any situation in which securities litigation may be appropriate.

## **SECTION XVI. INVESTMENT EXPENSES**

It is the policy of the Board that expenses such as consultants' and investment advisors' fees, attorneys' fees and costs, funding for Personal and Other Than Personal Services resources for BAM and other costs that may necessarily be incurred in acquiring, managing and protecting the Fund's investments may be paid from any income, interest or dividends derived from the Fund's deposits or investments. The Board adopts a budget for the incurrence of consultants' and investment advisors' fees, attorneys' fees and other costs. BAM reviews the expenses and costs and arranges for their payment by the custodian bank. Pursuant to a budget, the Board also funds the expenditures of additional resources of Personal Services and Other Than Personal Services for BAM, which will report at least annually to the Board regarding the additional resources.

## **SECTION XVII. PROXY VOTING POLICY AND SHAREHOLDER INITIATIVES**

The duty of pension fund fiduciaries to exercise the voting rights attached to the shares of stock owned by their funds has long been established. In the early 1980s, top officials of the Labor Department's Pension and Welfare Benefits Administration (PWBA) (renamed Employee Benefits Security Administration (EBSA), which enforces fiduciary standards for plan sponsors and Managers, repeatedly stated that the right to vote shares owned by a pension plan is, in itself, an asset of the plan, and, therefore, the fiduciary's responsibility to manage the assets includes voting proxies on issues that may affect the value of the shares.

While official pronouncements and guidance on proxy voting rights primarily have been directed to the private sector institutions which have established Plans governed by Employee Retirement Income Security Act of 1974 (ERISA), or to the mutual funds

industry, many public pension funds, religious and tax-exempt institutions have followed this guidance. Many private and public pension funds have established proxy committees and guidelines for voting their proxies, and exercise their voting rights in accordance with these policies and guidelines.

This general acceptance of the proxy vote as a plan asset is the primary basis on which TRS established a Proxy Sub-Committee. The Sub-Committee promulgates proxy voting policies and procedures, and oversees TRS sponsorship of shareholder proposals to improve corporate governance and corporate social responsibility of companies in which TRS invests. TRS adopted a “Statement of Procedures and Policies for Voting Proxies” in 1987, which was last amended in 2005. The Proxy Sub-Committee seeks to ensure that companies follow sustainable business practices which advance their long-term economic value.

The Proxy Subcommittee is composed of members of the Board. The operations of this Committee are described in the Section on Proxy Voting Procedures, in the attached Appendix, and in accordance with the above-mentioned “Statement of Procedures and Policies for Voting Proxies.”

## **SECTION XVIII. ETHICS AND COMPLIANCE POLICY**

In furthering the Board’s fiduciary duty to manage and invest the assets of the Fund, the Board of Trustees has adopted an Ethics and Compliance Policy (appended hereto as Appendix 3) establishing a comprehensive set of written requirements for the investment consultants (Consultants) and investment managers (Managers) who do or seek to do business with the Fund.

## **SECTION XIX. THE PRINCIPLES FOR RESPONSIBLE INVESTMENT**

The Trustees, acknowledging a duty to act in the best long-term interest of TRS’ beneficiaries, adopted the UNEP Principles for Responsible Investment. It is believed that environmental, social and corporate governance (ESG) issues can affect the performance of investment portfolios over time and that applying these Principles may better align TRS’ investments with the broader interests of society.

A copy of the Principles is appended hereto. As stated in those principles, it is the intent of the Trustees, where consistent with their fiduciary duties, to:

- Incorporate ESG issues into investment analysis and decision-making processes;
- Be active owners and incorporate ESG issues into ownership policies and practices;

- Seek appropriate disclosure on ESG issues by the entities in which TRS invests;
- Promote acceptance and implementation of the Principles within the investment industry;
- Work with other adopters of the Principles to enhance the effectiveness of their implementation; and
- Share information on our activities and progress towards implementation of the Principles.

## SECTION XX. REVIEW AND MODIFICATION OF THE IPS

The Board of Trustees reserves the right to amend the Investment Policy Statement at any time it deems such amendment to be necessary or to comply with changes in Federal, State or City Laws or regulations as these changes may affect the investment of Fund assets. In any event, a review and update of this Investment Policy Statement shall be undertaken no less frequently than every three years allowing the Board the opportunity to propose changes or consider changes proposed by BAM or other related parties.

The date and a summary description of amendments or modifications to the IPS are recorded below:

Date	Summary of Amendment or Modification
January 2008	The Board adopted a 1% allocation to Convertible Bonds from Core+ 5 Fixed Income.
June 2008	The Board adopted a 1.5% allocation to Opportunistic Fixed Income from Core+ 5 and Enhanced Yield.
June 2011	Adopted the Hedge Fund IPS and the Opportunistic FI IPS, approving an allocation to each of those asset classes as well.
Sept. 2011	Updated Asset Allocation to reflect new AA approved by the Board in July 2011 including the addition of certain other asset classes, and to update the Board's policy expectations in general and within asset classes.
Oct. and Dec 2011	Adopted new "parking places" and rebalancing ranges for unfunded commitments

## **APPENDIX I - ASSET CLASS POLICIES**

- 1. U.S. Equities**
- 2. International Equities – Developed Markets**
- 3. International Equities – Emerging Markets**
- 4. Fixed Income – NYC Core +5 Program**
- 5. Fixed Income – Enhanced Yield**
- 6. Fixed Income – TIPS**
- 7. Fixed Income – Convertible Bonds**
- 8. Fixed Income - Emerging Markets Debt**
- 9. U.S. Real Estate Equity Securities**
- 10. Securities Litigation Protocol**
- 11. Shareholder Initiatives & Proxy Voting Procedures**

**APPENDIX II – ELIGIBLE INVESTMENTS**

**APPENDIX III – ETHICS & COMPLIANCE POLICY**

**APPENDIX IV – PRIVATE EQUITY POLICY**

**APPENDIX V – REAL ESTATE POLICY**

**APPENDIX VI - ETI POLICY**

**APPENDIX VII – OPPORTUNISTIC FIXED INCOME POLICY**

**APPENDIX VIII – THE PRINCIPLES FOR RESPONSIBLE INVESTING**

**APPENDIX IX – SECURITIES LITIGATION PROTOCOL**



# 1. U.S. EQUITY POLICY

## Definition and Purpose

U.S. Equity is defined as common and preferred stock of U.S. and foreign corporations, denominated in U.S. dollars and traded on a U.S. exchange. With a strategic policy weight of 31%, U.S. Equity is the largest asset allocation of the Fund. At the total fund level it is the primary driver of risk and return for the Fund.

## Philosophy and Strategy

The U.S. Equity portfolio is structured to capture exposure to the broad U.S. Equity market as represented by the Russell 3000 Index. The U.S. Equity portfolio is diversified across industries, economic sectors and other appropriate investment characteristics.

The Board primarily employs passive management (index funds) in market sectors that it views as efficient, such as large capitalization stocks. Index funds provide broadly diversified market exposure with controlled market risk and minimal cost.

The Board employs active Managers for a portion of its investments in less efficient sectors of the U.S. Equity Markets and/or when the Board believes that Managers possess skill identifying companies that may be undervalued or have substantial growth potential that will enable them to capture excess returns relative to the sector benchmark, adjusted for risk and fees.

## Style Allocation:

The US Equity portfolio may take certain tilts based on current market conditions, typically in the direction of small cap and mid cap stocks, and these are reviewed periodically. Assets allocated to active management may be invested in passive index funds until active managers are selected and funded.

The table below reflects the Fund's Sub-Asset Allocation.

Style	TRS Policy
Large Cap Active	4.0%
<u>Large Cap Passive</u>	<u>96.0%</u>
<b>Large Cap Total</b>	55.0%
Mid Cap Active	4.0%
<u>Mid Cap Passive</u>	<u>96.0%</u>
<b>Mid Cap Total</b>	37.0%

Small Cap Active	18.2%
<u>Small Cap</u>	
<u>Passive</u>	<u>81.8%</u>
<b>Small Cap Total</b>	8.0%
Subtotal Active	5.2%
<u>Subtotal Passive</u>	<u>94.9%</u>
<b>Total</b>	100.0%

### US Equity Strategic Sub-Allocation

The US Equity sub-allocations are periodically reviewed and adjusted. The following table shows the expected active return, benchmark and comparison universe for the various U.S. equity account types.

	Benchmark	Comparison Universe
<b>Passive</b>		
Russell 3000	Russell 3000 Index	None
S&P 500	S&P 500 Index	None
S&P 400	S&P 400 Index	None
Russell 2000	Russell 2000 Index	None
<b>Fundamental Index</b>		
Large Cap	Russell 1000 Index S&P 500 Index	TUCS Large Cap Managers
Small Cap	Russell 2000 Index	TUCS Small Cap Managers
<b>Active</b>		
Mid Cap	Russell Mid-Cap Index	TUCS Mid-Cap Managers
Small Cap	Russell 2000 Index	TUCS Small-Cap Managers
Developing Managers	Russell 1000 Index	TUCS Large-Cap Managers

Emerging Managers	Varies by Manager	TUCS (Style specific for each Manager)
<b>Total U.S. Equity</b>	Russell 3000 Index	TUCS US Equity

### Use of External Managers

Managers are to be evaluated through at least a formal annual account review process conducted by the Bureau of Asset Management's staff. Managers exhibiting under-performance, excessive personnel turnover and/or other issues may be monitored more closely through the "Watch List" process.

### Proxy Voting

The Board retains Proxy Voting rights, which are exercised by BAM in accordance with the TRS Proxy Voting policy.

### Asset Class Objectives:

Trustees review Manager and portfolio performance monthly, quarterly, and annually. The total U.S. Equity portfolio is expected to marginally outperform the Russell 3000 Index Fund over a full market cycle (typically 7-9 years). Individual Manager performance will be evaluated monthly, quarterly and annually in the short-term, and over a full manager market cycle (typically 3-5 years) using benchmarks appropriate to capitalization and style characteristics.

### Liquidity:

Managers are expected to be fully invested. Index funds are managed with cash levels below 1%. Active Managers are limited to a maximum of 5% cash for trading purposes.

## **2. INTERNATIONAL EQUITIES – EAFE MARKETS**

### Definition and Purpose

EAFE Equity is defined as common and preferred stock of foreign corporations domiciled in developed markets, denominated in foreign currency and traded on foreign exchanges.

### Philosophy and Strategy

The EAFE Equity portfolio is structured to capture exposure to the broad non-U.S. Equity market as represented by the MSCI EAFE (Europe, Australasia & Far East)

Index. The EAFE Equity portfolio is to be diversified across countries, industries, economic sectors and other appropriate investment characteristics.

Historically, over long periods of time, active EAFE Equity Managers have outperformed the EAFE index adjusted for risk and fees. Therefore, the Board has allocated a larger proportion of the allocation to active Managers.

EAFE Index funds provide broadly diversified market exposure with controlled market risk and minimal cost. The Index fund provides a core EAFE Equity exposure.

#### Style Allocation:

The EAFE Equity portfolio, in the aggregate, is managed in a style-neutral basis.

#### Proxy Voting

Proxies are voted by the Managers.

#### Asset Class Objectives:

Trustees review portfolio performance monthly, quarterly, and annually. The active EAFE Equity portfolio is expected to outperform the EAFE index over a full market cycle (typically defined as 7-9 years). Individual Manager performance will be evaluated monthly, quarterly and annually in the short-term and over a full Manager Market Cycle - typically defined as 3-5 years using benchmarks appropriate to capitalization and style characteristics.

#### **Sector Benchmarks**

	<b>Benchmark</b>	<b>Comparison Universe</b>
<b>Passive</b>		
EAFE Index Fund	MSCI EAFE Index	None
<b>Total Active</b>	MSCI EAFE Index (Core, Growth and Value, as appropriate)	Top Half of TUCS Non-U.S. Equity Managers
<b>Total EAFE Equity</b>	MSCI EAFE Index	None

#### Liquidity:

The EAFE Equity portfolio is not a source of liquidity for the Fund, although benefits may be paid out of the portfolio as required. Managers are expected to be fully invested. Index funds are managed with cash levels below 1%. Active Managers are limited to a maximum allocation of 5% to cash for trading purposes.

Currency Hedging:

Managers are permitted to hedge a portion of their currency exposure. Hedging may only be used for defensive purposes and not as a form of leverage.

Emerging Equity Markets:

Managers are permitted limited exposure to emerging equity markets.

### **3. INTERNATIONAL EQUITIES – EMERGING MARKETS**

#### **A. Emerging Markets - General**

Definition and Purpose

Emerging Markets Equity is defined as common and preferred stock of foreign corporations domiciled in countries included in the MSCI Emerging Markets Index, denominated in foreign currency and traded on foreign exchanges. It may also include emerging market American Depositary Receipts (ADRs) or Global Depositary Receipts (GDRs) denominated in U.S. dollars.

Philosophy and Strategy

In making the decision to invest in Emerging Markets, the TRS Board of Trustees was guided by the principle that a well-diversified portfolio will, over time, add value to the portfolio while reducing overall portfolio risk. Emerging markets currently represent approximately 86% of the world's population and approximately 35% of its GDP. Over the long-term, these markets are expected to generate attractive returns and grow in importance in the world's economy. These returns, however, are expected to continue to be subject to greater volatility than in more mature economies.

The Emerging Markets Equity portfolio is structured to capture broad exposure to the high growth economies of developing countries. In addition to higher expected returns and higher volatility (as measured by standard deviation) from this investment, the Fund will also benefit from the low return correlation with the U.S. Equity portfolio.

The Board has adopted an Investable Country policy. The policy is described below in the "Emerging Markets Policy Statement." The policy provides for a screen of the universe of emerging markets in order to select countries with positive investment attributes, and requires Managers to individually justify investments in companies based in countries excluded by the screen.

Historically over long periods of time Emerging Equity Managers have outperformed the MSCI Emerging Equity Market Index adjusted for risk and fees. The Board will look for exposure to emerging markets equities through both active and passive managers.

Assets allocated to active management may be invested in custom passive index funds until appropriate active managers are selected and funded.

#### Style Allocation:

The Emerging Markets Equity portfolio, in the aggregate, is managed in a style-neutral basis.

#### Proxy Voting

Proxies are voted by the Managers.

#### Asset Class Objectives:

The Board reviews portfolio performance monthly, quarterly, and annually. The total Emerging Markets Equity portfolio is expected to outperform an index of countries included in the investable universe under TRS Emerging Market policy index over a full market cycle. Individual Manager performance will be evaluated monthly, quarterly and annually in the short-term and over a full Manager Market Cycle.

#### **Sector Benchmarks**

	<b>Benchmark</b>	<b>Comparison Universe</b>
<b>Active</b>	TRS Custom Emerging Markets Index	None

#### Liquidity:

The Emerging Markets Equity portfolio is not a source of liquidity for the Fund, although benefits may be paid out of the portfolio as required. Active Managers are limited to a maximum of 5% cash for trading purposes, while passive managers should maintain cash levels below 1%.

#### Currency Hedging:

Managers are permitted to hedge a portion of their currency exposure. Hedging may only be used for defensive purposes and not as a form of leverage.

### **B. Emerging Markets Policy Statement – Adopted October 2010**

In October 2010, the Teachers Retirement Board (TRS) allocated a portion of the System's investments to emerging markets.

Emerging markets often lack the political, social and economic structures necessary for a stable investment environment. Many of these structures, such as legal protections, liquidity and transparency in the securities markets, democratic institutions, including an

independent judiciary and a free press, as well as labor rights, worker health, safety, and environmental protections, are still being developed in many emerging market countries.

Accordingly, TRS' Board of Trustees has developed this Policy Statement to increase the likelihood that the System's emerging markets investments will generate added value while helping to reduce the higher levels of risk associated with this investment class.

### **Active Management**

Emerging market countries often suffer from relatively weak democratic institutions, limits on the free flow of information, and political manipulation of financial markets. In addition, informed investment decisions in emerging markets require a significant level of research and monitoring. Therefore, TRS has concluded that it would be more effective and prudent to invest in emerging markets through active management pursuant to this Policy Statement. Assets allocated to active management may be invested in custom passive index funds until appropriate active managers are selected and funded.

### **Country Screens**

TRS believes that a number of variables should be considered prior to an emerging market country being considered investable. Taken together, these variables would help to define the emerging market investable universe, and to set the parameters for investment in companies that operate in these countries.

The country variables should include:

- Market liquidity and volatility.
- Transparency.
- Market regulation.
- Investor protections/corporate governance.
- Investment restrictions.
- Political stability/rule of law/independent judiciary.
- Economic stability/wealth-income distribution.
- Settlement proficiency.
- Transaction costs.

- Existence and enforcement of worker health & safety protection, labor and environmental statutes/codes at the country level, including ILO Core Conventions.

The Board utilizes an outside Consultant to develop and implement a screening process to determine the investability of emerging market countries. The list of investable countries will be updated at least annually, and adopted by resolution of the Board. The most recent such resolution is attached to, and forms a part of, this Policy Statement.

Emerging Equity Markets Investment Managers shall only invest in countries determined to be investable pursuant to the rating system, unless the Manager, after due diligence, concludes that substantial, overriding reasons exist for a particular investment. Before making an investment in any emerging market company, a Manager must document that the company being considered for investment implements reasonable health and safety, labor rights, and environmental standards and protections for its workers.

### **Proxy Voting and Shareholder Proposals**

TRS has long been active as a shareholder pursuing a wide-range of initiatives on corporate governance and corporate responsibility. To the degree necessary and practicable, such activity should be continued and expanded as part of the Board's decision to invest in emerging markets. TRS therefore plans to strengthen its shareholder activity concerning U.S. corporations doing business in emerging markets countries. In particular, this shareholder activity should focus on the implementation of workplace health and safety, labor and environmental standards and protections.

## **4. FIXED INCOME: NYC CORE +5 PROGRAM**

### Definition and Purpose

Fixed income securities are bonds and other debt securities such as mortgage-backed securities, most paying interest on a current basis. The TRS Fixed Income allocation consists of the Core + 5 Portfolio, the Enhanced Yield Portfolio, the Opportunistic Fixed Income Portfolio, the Convertible Bond Portfolio, the Emerging Markets Debt Portfolio, the TIPS Portfolio, and the Fixed Income portion of the ETI Program. The Core +5 Program is the dominant TRS Fixed Income Program, the second largest investment program after U.S. Equity. It is a driver of return and diversification at the total fund level. While the explicit objective is total return, given the fundamental nature of fixed income – relatively predictable income and principal payouts – it also extends the duration of the total fund to better match liabilities, and may be used to provide cash for benefit payments if the portfolio is otherwise within rebalancing ranges.

Most of the securities of the Fixed Income Programs are registered in the U.S. 144A



securities, Global bonds, and Eurodollar bonds may be permitted investments.

### Philosophy and Strategy

The Core +5 Program is benchmarked to a customized version of the Citigroup U.S. Broad Investment Grade Index (the “BIG Index”), known as the **NYC Core +5 Index**. The NYC Core +5 index comprises sub-indices for three sectors: (1) U.S. Treasury and Agency issues excluding one to five-year maturities; (2) mortgage backed securities; and (3) Investment Grade Credit. The total allocation to each sector mirrors that sector’s proportion of the custom NYC Core +5 Index, which is revised by Citigroup monthly to reflect market changes.

Concurrent with the implementation of the results of an RFP, the Investment Grade Credit Sector was created by combining the previously existing Corporate and Yankee sectors.

The Core + 5 Program is implemented through a sector specialist program, in which Managers are selected for mandates benchmarked to one of the sub-indices. Managers may employ index-like, enhanced index, or active approaches within their sector. Major characteristics of the three sectors are:

- **U.S. Government:** Consists primarily of U.S. Treasury and Agency debt. Does not include mortgage-backed securities. Managers are permitted to invest in Supranationals to a very small degree. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within a range of -1.0 and +0.5 year of the Citigroup Core +5 Treasury/Agency Index., which includes only those securities with a maturity in excess of five years.
- **Mortgage-Backed Securities (MBS):** Consists primarily of Agency mortgage pass-throughs and Agency and non-agency securities collateralized by mortgage pass-throughs. Managers are permitted to invest in certain non-benchmark sectors and security types. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within +/- 0.75 year of Citigroup's standard Mortgage Index, which includes GNMA, FNMA and FHLMC mortgage pass-throughs.
- **Investment Grade Credit:** U.S.-dollar denominated debt securities of domestic corporations and foreign and Supranational entities rated BBB- or higher. Managers are permitted to invest in certain non-benchmark securities to a limited degree, including 10% in high yield securities. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within +/- 0.5 years of the customized Citigroup Investment Grade Credit Index (which combines the former Domestic Corporate Index and Yankee Index), and includes industrial, utility, financial, asset-backed and credit-enhanced securities.

Subject to constraints contained in guidelines issued by the Comptroller pursuant to Board mandates, value may be added through:

- Duration management, within stated constraints
- Sub-sector weights (within specified ranges of the benchmark weights)
- Security selection, including certain securities/issuers not specifically included in the benchmark

#### Asset Class Objectives:

Trustees review Manager and portfolio performance at least quarterly. The total Core +5 Program is expected to outperform the custom index over a full market cycle, as indicated below. Individual Manager performance expectations vary, as each employs a distinct approach that may be categorized as index-like, enhanced index or active.

Each Manager will be evaluated at least quarterly, annually and over a full Manager Market Cycle.

#### Market Sector Allocations

<b>Core + 5 Program</b>	<b>Percent of Program (as of 6/30/11)</b>
Treasury/Agency	20.74%
Mortgage-Backed	44.02%
Investment Grade Credit	35.24%
<b>Total Core +5</b>	<b>100%</b>

Market sector allocations are adjusted monthly by the benchmark provider, Citigroup, to reflect market weight. The Fund policy is to be neutral to the benchmark/market. )

#### Liquidity and Cash Management:

As a fixed income alternative, cash equivalents (or “*short-term fixed income*”) are integral to managing risk in fixed income portfolios through portfolio duration. Fixed Income Managers, unlike the Equity Managers, are given wider latitude to use cash equivalents. Government Sector Managers have no explicit limits on cash; however the relatively long duration requirements for this sector indirectly limit the Managers’ use of cash equivalents. Investment Grade Credit managers are allowed to invest up to 10% in cash. MBS Sector Managers are also allowed to invest up to 10% in cash; however, they may hold significantly more cash to back a widely used MBS instrument (“TBA”). These large cash balances, nonetheless, are not considered an immediate source of liquidity.

## 5. FIXED INCOME: ENHANCED YIELD PROGRAM

### Definition and Purpose

Fixed income is defined as bonds and other debt securities, most paying interest on a current basis. While most securities are registered in the U.S., the NYC Fixed Income Programs allow for use of 144 A securities, Global bonds, and Eurodollar bonds. In the Enhanced Yield Program (traditionally referred to as “high yield,” or “non-investment grade”), most securities are denominated in \$U.S, while a small allocation is permitted for \$Canada-denominated issues. Additionally, deferred-interest securities that do not pay interest on a current basis (such as zero-coupon bonds) are permitted. A limited allocation to Bank Loans is permitted. The high yield sector has equity-like features, including convertible securities, preferred stocks, and warrants. Common stock may appear in traditional high yield portfolios as a result of debt restructuring. The characteristics of the high yield sector may be viewed as a cross between traditional bonds and stocks. The objective of the Enhanced Yield Program is total return with a current policy weight of 4%.

### Philosophy and Strategy

The Enhanced Yield Program employs a variety of external Managers with active management approaches. The Program benchmark and the benchmark for most of TRS’ Managers is the Citigroup BB & B Index. It is a subset of the widely-used Citigroup High Yield Index and excludes securities with ratings of only CCC or lower. The index includes only securities of U.S. and Canadian corporations. A secondary Program Benchmark is the CitiGroup BB & B Capped Index. As appropriate, an individual Manager’s benchmark may be different from the Program benchmark, depending on the Manager’s investment approach.

Subject to guideline limitations (which may vary modestly by Manager due to stylistic differences), value may be added through:

- Industry / sector allocation
- Quality sector allocation
- Security selection, including certain securities/issuers not specifically included in the benchmark, such as convertibles and investment-grade.
- Cash equivalents (used on a limited basis). Duration decisions are not expected to be a notable contributor to performance.

Managers are monitored through the Watch List process.

### Asset Class Objectives:

Trustees review portfolio performance quarterly. The total Program is expected to

outperform the Citigroup BB& B Index over a full market cycle. Individual Manager performance expectations vary, as each employs a distinct approach. Each Manager will be evaluated quarterly, annually and over a full Manager Market Cycle.

#### Liquidity and Cash Management:

The Enhanced Yield Program is not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Typically, cash equivalents are integral to managing the interest rate risk in fixed income portfolios. However, for high yield, interest rate risk is less of a consideration than for investment-grade bond portfolios like those in TRS' main Core + 5 Program. Nevertheless, as the high yield asset class is heavily dependent on new security issuance and may be characterized by extended periods of relative illiquidity (as compared to the U.S. equity market), the Enhanced Yield Managers have been given more latitude to hold cash.

## **6. FIXED INCOME: U.S. TIPS PROGRAM**

#### Definition and Purpose

Fixed income investments consist of bonds and other debt securities, most paying interest on a current basis. In the U.S. TIPS Program, U.S. Treasury Inflation-Protected Securities will be the predominant holding, and most other securities will also be denominated in \$U.S. The securities have a combination of a fixed coupon and an adjustable premium based upon domestic inflation rates. Limited use of inflation linked bonds (ILBs) of foreign developed-market sovereigns is permitted. The primary purpose of the program is to hedge inflation (as measured by the CPI - U) and, secondarily, to provide diversification. The allocation of the Fund to this sub-asset class is 4% of the value of the total Fund.

#### Philosophy and Strategy

The U.S. TIPS Program will be managed using a combination of index and active management approaches. The policy mix is 25% passive/75% active. The Program and individual Managers' benchmark is the Barclays Capital U.S. TIPS Index, which comprises all eligible TIPS of the U.S. Treasury.

The Program is implemented through the use of external Managers. Managers are selected in compliance with a competitive RFP process, or other appropriate process, designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the Comptroller's Bureau of Asset Management that outlines the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. The portfolio of the passive (or index) Manager mirrors the benchmark index with minimal tracking error; value may be added through trading strategies. Subject to constraints contained in guidelines issued by the Comptroller, which may change over time, the

active Managers may add value through:

- Duration and yield curve management
- Individual U.S. TIPS weightings that vary from the benchmark
- Use of nominal U.S. Treasury and inflation-indexed U.S. Agency securities
- Use of inflation linked bonds (ILBs) of foreign developed-market sovereigns. However, the position must be hedged back to the \$U.S. Foreign inflation linked corporate and agency bonds are not permitted.
- Cash equivalents (may be used on a limited basis)

### Asset Class Objectives

Trustees review portfolio performance at least quarterly. The total U.S. TIPS Program is expected to exceed the inflation rate and to outperform the Barclays Capital U.S. TIPS Index over a full market cycle. Individual Manager performance expectations vary, as each employs a distinct approach that may be categorized as index or active. Each Manager will be evaluated quarterly, annually and over a full Manager Market Cycle.

### Market Sector Policy Allocations

<b>U.S. TIPS Program</b>	<b>Percent of Program</b>
Active Managers	70%
Passive (Indexed) Managers	30%
<b>Total U.S. TIPS Program</b>	<b>100%</b>

### Liquidity and Cash Management:

The U.S. TIPS Program is not usually a source of liquidity for the Fund, although benefits may be paid out of the portfolio as required. As a fixed income alternative, cash equivalents are integral to managing risk in fixed income portfolios through portfolio duration. Active Fixed Income Managers, unlike Equity Managers, are given wider latitude to use cash equivalents. The U.S. TIPS Passive (Indexed) Manager will be permitted to hold up to 2% cash and the Active Managers will be permitted to hold up to 20%.

## 7. FIXED INCOME: CONVERTIBLE BONDS - GLOBAL

### Definition and Purpose

A convertible bond has the characteristics of two types of securities: a bond and an equity option. Convertible bonds are issued by publicly held companies and come in a variety of forms. At the simplest level, they combine a corporate bond paying a fixed interest rate with an equity warrant (a long term equity call option) on the issuer's common stock. The bonds are senior to equity in a company's capital structure. The allocation of the Fund to this sub-asset class is 1% of the value of the total Fund.

Convertible bonds have higher expected returns and higher risk than conventional corporate bonds. The link to equity volatility through the equity option adds an extra return driver that is not available from a portfolio of stocks and bonds alone. The convertible bond market can be relatively inefficient and therefore provides opportunities for total return oriented investors such as the Fund. The primary purpose of the program is to provide a higher total return than the corporate bond market with less volatility than the equity market, in addition to providing diversification.

### Philosophy and Strategy

The Convertible Bond Program employs a variety of external Managers with active management approaches. The Program benchmark is the Bank of America Merrill Lynch All U.S. Convertibles ex-Mandatory Index. As appropriate, an individual Manager's benchmark may be different from the Program benchmark, depending on the Manager's investment approach.

Subject to guideline limitations (which may vary modestly by Manager due to stylistic differences), value may be added through:

- Industry / sector allocation
- Quality sector allocation
- Security selection, including certain securities/issuers not specifically included in the benchmark

Cash equivalents may be used on a limited basis. Duration decisions are not expected to be a notable contributor to performance.

### Asset Class Objectives:

Trustees review portfolio performance at least quarterly. The total Program is expected to outperform the Bank of America Merrill Lynch All U.S. Convertibles ex-Mandatory Index over a full market cycle. Individual Manager performance expectations vary, as

each employs a distinct approach. Each Manager will be evaluated quarterly, annually and over a full Manager Market Cycle.

#### Liquidity and Cash Management:

The Convertible Bond Program is not typically a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Typically, cash equivalents are integral to managing the interest rate risk in fixed income portfolios. However, for convertibles, interest rate risk is less of a consideration than for investment-grade bond portfolios like those in the Fund's main Core + 5 Program. Nevertheless, as the asset class is heavily dependent on new security issuance and may be characterized by extended periods of relative illiquidity (as compared to the U.S. equity market), the Convertible Bond Managers have been given more latitude to hold cash – the maximum is 5%.

## **8. FIXED INCOME – EMERGING MARKETS DEBT**

#### Definition and Purpose

As part of the recently adopted asset allocation, The TRS adopted a 3% allocation to emerging market debt, as part of the Fixed Income allocation. As the asset class is currently being created, there currently are no specific details – as with the other asset classes included herein.

## **9. FIXED INCOME: LEVERAGED LOANS**

#### Definition and Purpose

Fixed income is defined as bonds and other debt securities, most paying interest on a current basis. While most securities are registered in the U.S., the NYC Fixed Income Programs allow for use of 144 A securities, Global bonds, Eurodollar bonds and Leveraged Loans. In the Leveraged Loans Program (also referred to as “Bank Loans”), most securities are denominated in \$US. Common stock may appear in traditional Leveraged Loans portfolios as a result of debt restructuring. The characteristics of the Leveraged Loans sector may be viewed as a cross between Core +5 and High Yield and securities are typically non-investment grade and senior debt obligations in an entity's capital structure. Typically, Leveraged Loans are floating rate debt obligations. The objective of the Leveraged Loans Program is total return.

#### Philosophy and Strategy

The Leveraged Loans Program employs a variety of external Managers with active management approaches. The Program benchmark is the Credit Suisse Leveraged Loans Index, which includes mostly BB, B, CCC and non-rated securities. The index

includes only securities denominated in US dollars. As appropriate, an individual Manager's benchmark may be different from the Program benchmark, depending on the Manager's investment approach which could include securities denominated in currencies other than the US dollar.

Managers are selected in compliance with a competitive RFP or search process designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the Comptroller's Bureau of Asset Management pursuant to the Board's mandate that outlines the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives.

Subject to guideline limitations (which may vary modestly by Manager due to stylistic differences), value may be added through:

- Industry / sector allocation
- Quality sector allocation
- Security selection, including certain securities/issuers not specifically included in the benchmark
- Cash equivalents may be used

Managers are monitored through the Watch List process. Direct purchase of defaulted securities and securities of bankrupt companies is generally prohibited. Duration decisions are not expected to be a notable contributor to performance.

### Asset Class Objectives

At a minimum, Trustees review portfolio performance quarterly. The total Program is expected to outperform the Credit Suisse Leveraged Loan Index over a full market cycle by a minimum 100 basis points (gross). Individual Manager performance expectations vary, as each employs a distinct approach. Each Manager will be evaluated quarterly, annually and over a full market cycle (typically 3-5 years).

### Liquidity and Cash Management

The Leveraged Loans Program is generally not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Typically, cash equivalents are integral to managing the interest rate risk in fixed income portfolios. However, for Leveraged Loans, interest rate risk is less of a consideration than for investment-grade bond portfolios like those in NYCRS' main Core + 5 Program due to the floating rate nature of most of the securities. Nevertheless, as the Leveraged Loans asset class is heavily dependent on new security issuance and may be characterized by



extended periods of relative illiquidity (as compared to the U.S. equity market), the Leveraged Loans Managers have been given more latitude to hold cash. As necessary, BAM may direct Managers to sell securities to fund benefit payments and certain other eligible System expenses, or as otherwise appropriate for rebalancing purposes.

## **10. REAL ESTATE EQUITY SECURITIES (REES)**

### Definition and Purpose

The Real Estate Equity Securities (REES) program is dedicated to equity and convertible securities of real estate companies, defined as: (i) real estate investment trusts organized under the laws of any state of the United States (“REITS”) or under the laws of a developed market non- U.S. country; (ii) entities organized under the laws of any state of the United States, province of Canada, or developed market non- U.S. country that, directly or indirectly, are self-managed operating companies (REOCs”), that at the time of purchase: (x) derive at least 50% of their revenue or profits from the ownership, construction, management, financing or sale of residential, commercial or industrial real estate, or (y) have at least 50% of the fair market of their assets invested in residential, commercial or industrial real estate.

The strategic policy weight for the REES program is 3%.

### Philosophy and Strategy

The REES program is structured to capture exposure to the REIT and REOC markets as represented by the Dow Jones U.S. Select Real Estate Securities Index. The REES program is diversified across property types and sectors, geographical regions, and other appropriate investment characteristics. Additionally, equity securities of Developed market non-U.S. real estate companies may be purchased to a limited degree.

Historically over long periods of time, managers of real estate securities have outperformed the Dow Jones U.S. Select Real Estate Securities Index adjusted for risk and fees. Therefore, the Board has allocated the entire REES portfolio to active Managers.

### Proxy Voting

The Board retains proxy voting rights, which are exercised by OTC in accordance with the TRS proxy voting policy.

### Asset Class Objectives

Trustees review manager and portfolio performance quarterly. The total REES program is expected to outperform the Dow Jones U.S. Select Real Estate Securities Index over a full market cycle. Individual manager performance will be evaluated quarterly, annually, and over a full Manager Market Cycle (typically 3-5 years). Managers are monitored through the Watch List process. Each Manager will be evaluated quarterly, annually and over a full Manager Market Cycle.

### Liquidity

The REES program is generally not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Managers are expected to be fully invested, and are limited to a maximum of 5% cash for trading purposes.

## **11. SHAREHOLDER INITIATIVES & PROXY VOTING PROCEDURES**

In fulfilling the Proxy Voting Policy of the Board, the following procedures shall be used.

Generally, the Board favors proposals that further disclosure and increase access to information about a company in which the System has an ownership interest. The Board also supports proposals that encourage management to pursue socially desirable goals that do not negatively affect the System's investments. The Board generally does not favor proposals to require immediate discontinuation of a particular business or product that is lawful, although certain exceptions to this rule exist as set forth in the TRS Proxy Voting Guidelines ("Guidelines").

### **PROXY SUBCOMMITTEE AUTHORITY**

The Sub-Committee consists of three parties Teacher Representative, Comptroller Representative and Mayoral Representative. All actions of the Subcommittee must be subsequently ratified by the full Board. The Subcommittee recommends for Board approval shareholder resolutions to be filed at various companies. The Subcommittee considers the Comptroller's recommendations for voting proxy issues that are not covered by TRS' Proxy Voting Guidelines.

Each year, the Proxy Sub-Committee, on behalf of the Board, reviews the Comptroller's recommendations for shareholder proposals and target companies, and decides which proposals and companies will comprise TRS' annual shareholder proposal program. The Sub-Committee considers the Comptroller's recommendations for voting proxy issues that are not covered by TRS' proxy voting policies and procedures and, on behalf of the Board, promulgates voting policies and procedures on such issues.

The Chair, or the Office of the Comptroller with notification of the Chair, shall call all

committee meetings. If time does not allow a meeting to be called, the Chair or the Office of the Comptroller shall set up a conference call among the committee members and the Comptroller's staff. If a conference call is not feasible, the Chair or the Comptroller's Office shall conduct a telephone or an e-mail poll of committee members. If a Trustee is not available his/her vote shall be recorded as an abstention.

In voting proxies, the Comptroller shall follow the following guidelines:

#### Vote Action – For Proposal

The Comptroller shall vote FOR a proposal if such proposal is consistent fully with the provision(s) stipulated in the resolutions/policies promulgated by the TRS Proxy Committee.

#### Vote Action – Against Proposal

The Comptroller shall vote AGAINST a proposal if such proposal is inconsistent with, or contrary to, the philosophy, intent and spirit of resolutions/policies promulgated by the TRS Proxy Committee.

#### Vote Action - Abstain

Absent enabling TRS resolutions/policies and past history, or the availability of adequate information, the Comptroller shall ABSTAIN. If time does not permit the Comptroller's Office to present to the Proxy Committee, for its review and voting decision, a proposal with voting-policy recommendation and adequate background information, the Comptroller shall ABSTAIN.

#### Review of New Issues

Each spring, the Comptroller's Office and the Proxy Committee shall meet to review new proxy issues. The Proxy Committee may review and revise existing policies and procedures.

#### Proposal not Covered by Existing Board Resolution – Time Permitting

If time permits, the Comptroller shall present to the Proxy Committee, for review, deliberation and vote decision, proposals pertaining to issues which are not covered by past practice or existing policies. To facilitate this process, the Comptroller's Office shall provide the Board the full text of such proposals, supporting and opposing statements, and other available background information that would represent fairly the views of proponents and opponents of issues.

#### Proposal not Covered by Existing Board Resolution – Time Limited

In the event that the distribution of proxy statements is delayed through

corporate, postal, or other setback, particularly as it relates to issues not covered by past practice or existing policy, the Comptroller's Office or the Chair shall conduct a telephone conference call of the members of the Proxy Committee and the Comptroller's Staff and obtain the votes of the members on the proposal). If a conference call is not feasible, the Chair or the Comptroller's Office shall conduct a telephone poll or an e-mail poll of committee members. The Comptroller's Office shall be guided by the consent of a simple majority. In the event of a deadlock, the Comptroller's Office shall ABSTAIN.

#### Mergers and Acquisitions

The Comptroller's Office casts votes on mergers and acquisitions consistent with the Proxy Voting Guidelines adopted by the Trustees.

#### Reports to the Trustees

The Comptroller's Office shall submit annual summary reports to the Proxy Committee on the results of the TRS shareholder proposal programs, and on votes cast by the Comptroller's Office against management director nominees.

#### IV. Private Equity IPS:

TEACHERS' RETIREMENT SYSTEM  
OF THE CITY OF NEW YORK  
PRIVATE EQUITY INVESTMENT POLICY

Proposed: September 11, 2003  
Adopted: September 11, 2003  
Proposed: September 6, 2012

## **I. SCOPE**

The Private Equity Program Investment Policy Statement (the "IPS") applies to the Private Equity Program assets within the Teachers' Retirement System of the City of New York ("TRS", the "Fund", or the "System").

## **II. PURPOSE**

The IPS provides the broad strategic framework for managing the Systems' Private Equity assets. The design of the IPS ensures that Managers, Advisors, Consultants and other participants selected by the System adhere to the investment principles and guidelines of TRS. Additionally, the use of the IPS assures sufficient flexibility in managing investment risks and returns associated with the Private Equity Program (the "Program").

## **III. INVESTMENT PHILOSOPHY**

The Private Equity program seeks superior equity returns with individuals and Managers who have a consistent record of producing top quartile returns. Private equity assets also allow TRS to invest in the portion of the global economy which is not publicly-traded as well as to access strategies which benefit from longer holding periods.

## **IV. STRATEGIC OBJECTIVE**

The System has mandated investments in Private Equity Assets<sup>1</sup> as part of its strategic asset allocation to:

- A. Increase the diversification of its assets.
- B. Take advantage of the ability to accept illiquidity in exchange for an illiquidity premium.
- C. Make investments that have less correlation to public markets.
- D. Invest with Managers who have demonstrated the ability to or have the potential to outperform Russell 3000+300 or Performance Objective returns as compared to similar investments.
- E. Reduce the volatility and increase the risk-adjusted returns of the overall portfolio of the System.

The System also expects that commitments to and investments in Private Equity Assets will establish, maintain and continually improve the reputation of the System as an investor, and that the System will make both continuous use of and contributions to the best practices of investors in Alternative Investments. TRS will seek investments in which the manager demonstrates a commitment to standards of good conduct, including compliance with all Federal, State and local laws, including, but not limited to, labor, anti-discrimination, environmental, and health and safety laws, and will reject investments that would serve to embarrass investors or bring public or regulatory scrutiny. TRS encourages the submission

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<sup>1</sup> Private Equity Assets are non-traditional investments made with the objective of achieving returns that are greater than those earned in the traditional public equity and debt markets. Alternative asset class components may be broadly categorized as (1) non-marketable, illiquid assets, and (2) marketable, liquid securities managed in a nontraditional format. Special debt, private equity, (including venture capital) real-estate-related investments, oil and gas, as well as timber, are examples of non-marketable assets. Risk arbitrage, commodities and derivatives are examples of the more liquid alternative asset types.

of proposals for review from Managers that demonstrate a strong commitment to diversity in their firms.

The Fund seeks to employ Emerging Managers<sup>1</sup>. Emerging Managers are asset managers the Board believes will add significant value to the Fund through implementation of investment strategies consistent with the Board's asset allocation and other policies, but which, because of size, length of track record, or other similar factors, have not been awarded contracts through the Board's manager selection process<sup>2</sup>.

As part of TRS' continued commitment to drive asset class best practices and support long-term partnerships between Limited Partners and General Partners the Fund will strive to adhere to the Institutional Limited Partner Association's ("ILPA") guiding principles emphasizing alignment of interest, governance and transparency.

The operation of the Program is subject to the exclusive benefit rule and all other applicable laws, including requirements of prudence.

## V. ASSET ALLOCATION

Asset allocation is a critical driver for the long-term success of the private equity program. Since it is not possible to rebalance quickly in private equity, pacing and manager selection have heightened importance as tools to influence allocation. Pursuant to a 2011 asset allocation study performed by the System's general consultant, Rocatton Investment Advisors, LLC ("Rocatton"), the Board has adopted an allocation to Private Equity of **6.0%** of the market value of the total assets of the System **plus** or **minus 2.0%**. Long-term asset allocation targets have been developed with the assistance of the System's Private Equity Consultant, Hamilton Lane, and the strategies are denoted below:

Strategy
Buyout
Growth Equity
Special Situations/Turnaround
Energy
Secondary
Co-Invest
Other

## VI. RESPONSIBILITIES AND DELEGATION

### A. Role of Board of Trustees

The Board of Trustees (the "Board") is responsible for reviewing and approving Policies, including the IPS. In addition the Board shall:

- Review the Program at least annually and approve and adopt the Annual Private Equity Plan.
- Approve the retention of strategic consultants, advisors and other external resources, as needed.

<sup>1</sup> Emerging Managers are sponsors targeting capital raises up to \$750 million and investing through funds I – III. Emerging Managers include Minority & Women-Owned Business Enterprise ("MWBE")

<sup>2</sup> Per TRS' Core IPS dated June 15, 2006



- Oversee performance and risk and BAM's execution of the Program.
- Approve investment recommendations
- Delegate investment approval authority as appropriate.
- Approve and/or ratify exceptions to the Annual Private Equity Plan as triggering events may arise.

**B. Role of Comptroller's Office Bureau of Asset Management ("BAM")**

The duties of BAM's Private Equity Staff (the "Staff") include, but are not limited to:

- Working with the System's Consultants to develop and implement an Annual Private Equity Plan, identifying and evaluating private equity strategies, investment managers and investments appropriate for the Program, and making selection recommendations to the Board.
- Reviewing and recommending changes to the IPS, developing and implementing periodic reviews of the Program, which shall occur at least annually, and managing the operations of the Program.
- As needed, identifying and evaluating strategic consultants and advisors and other external resources for the Program, and making selection recommendations to the Board.
- Overseeing the System's portfolio of Program investments, including management of consultants and advisors and other external resources engaged on the System's behalf in connection with the Program with the objective that the System obtains the maximum value from those relationships.
- Monitoring and reporting on the performance metrics as provided by the Managers with respect to the overall purpose and objectives of the Program; and monitoring and reporting on the performance of the consultants at least annually.
- Recommend the sale of LP interests, in the secondary market, to optimize the Program's performance.

**C. Role of Comptroller's Office General Counsel ("Counsel")**

The duties of Counsel's staff include, but are not limited to:

- Reviewing the IPS and any other policies developed as part of the Program.
- Reviewing Private Equity Investment procedures.
- Participating in procurement of Consultants and other necessary experts.
- Implementing Trustee direction regarding the retention of outside legal counsel and other Consultants.
- Managing retained outside counsel sufficiently experienced and expert in the form of the Investments under consideration.
- Conducting legal due diligence in conjunction with outside counsel, which

diligence shall include a review of proposed investments for statutory and regulatory compliance on a case-by-case basis.

- Working with outside counsel in reviewing and negotiating all contracts.
- Assisting Staff and rendering legal advice regarding any developments occurring during the life of the investment.
- Assisting Staff and rendering general legal advice on the development and implementation of the Program.

#### **D. Role of Private Equity Consultant**

TRS retains a private equity consultant (the "PE Consultant") to assist in the implementation of its strategic allocation to the private equity asset class. The strategic allocation to the asset class is recommended to the Board by Rocaton. The PE Consultant is a fiduciary and advises BAM and TRS on all aspects of its private equity investment program. The responsibilities of the PE Consultant(s) include, but are not limited to:

- Providing strategic advice:
  - Providing advice to the Board and Staff with respect to the development and operation of the Program, including advice on industry developments and portfolio construction.
  - Assisting the Board and Staff in developing the IPS and in periodic reviews of the IPS and the Program.

Together with BAM, provide an annual and a longer-term Private Equity plan for the Program.

- Periodic assessments of industry best practices with regard to policies and procedures.
- Analysis of TRS' existing private equity portfolio.
- Periodic reports on the state of the private equity marketplace.
- Attending meetings of the Board and providing educational seminars for the Trustees.
- Such other strategic advice and services as TRS or BAM may reasonably require.
- New investment identification and evaluation, including:
  - Assisting Staff in identifying, evaluating and recommending investment opportunities and terminations consistent with the IPS and believed to be appropriate for the Program, including conducting due diligence with respect to new investments, as requested.
  - The manager's ability to comply with the Board's investment policies and restrictions.
- Periodic reports on current and anticipated investment opportunities.

- Assisting Staff with the implementation, negotiation and execution of new commitments and/or investments.
- Portfolio monitoring:
  - Assisting Staff with the ongoing review of committed investments, including reports to the Board on significant manager developments, proposed amendments to fund documentation and investment performance.
  - Periodic and real-time reports on developments at and performance of individual partnerships in the TRS portfolio.

**E. Role of Custodian Bank/Alternatives Administrator**

The Custodian Bank and/or Alternatives Administrator shall be responsible for reviewing and certifying all Program cash flow authorizations (such as capital calls and distributions).

**VII. PERFORMANCE OBJECTIVE**

The performance of the Program shall be measured against the following benchmark:

**A. Opportunity Cost:**

The expected long-term performance objective of the Private Equity program shall be measured against the 10-year average of the Russell 3000 Index (one quarter lag) plus a 300 basis point risk premium. The performance objective is net of fees and expenses. Use of the Russell 3000 Index reflects the opportunity cost of investing in Private Equity investments versus publicly traded common stocks. The 10-year average smoothes short-term volatility and is intended to cover at least one complete market cycle, consistent with the anticipated average term of the partnership investments. The index shall be modified to reflect the Program's actual cash flows.

Staff shall report regularly to the Board on performance of individual investments and of the Program as a whole in comparison to an appropriate sector based benchmark (e.g. Thompson One, etc.).

**VIII. INVESTMENT OPERATIONS**

**A. General Approach**

The Staff shall review and manage investments using a disciplined but opportunistic management strategy. Guided by the Annual Private Equity Plan (see below), Staff shall use a "top-down" approach to making assessments as to appropriate strategic weightings within the portfolio. Staff then shall seek to identify the most attractive investment opportunities available consistent with the Annual Private Equity Plan and with the goal to be diversified prudently across strategies, industries, partnerships and geography.

**B. Annual Plan**

Investments made under the Program shall be made in accordance with the Annual Private Equity Plan (the "Annual Plan"). Staff along with the Consultant shall present the Annual Plan to the Board, no later than 90 days after the previous calendar year

end, for the Board's approval, which will provide guidance to the Staff and Consultant in the management, operations and investments of the Program. The Annual Plan shall include an elaboration of a target strategic allocation within the Private Equity asset class.

**C. Pacing**

The Annual Plan shall recommend commitment ranges to be made by the System within each strategy as well as a total target commitment for the System (the "Pacing Analysis") in order to achieve both the target strategic allocation and the overall allocation to the private equity asset class. The Pacing Analysis shall take into account the System's overall allocation to and investments in the Private Equity asset class, within each strategy, across industries and geography, and by vintage as well as the market environment and such other considerations as are appropriate. The Program shall strive to avoid inappropriate concentrations in strategies, industries, geographic areas, funds, managers or vintage years.

**D. Investment Guidelines**

**1. Investment Types**

This IPS authorizes commitments to private equity partnerships, fund of funds partnerships and separate accounts investing in private equity partnerships. These investments may be in any type of security throughout the capital structure. This IPS also allows for structures which may not conform precisely to the previous list but whose intent is to capture private equity exposure and returns while insulating the System from liability in excess of the amounts invested.

**2. Co-Investment and Direct Secondaries**

Investment rights may include opportunities for additional capital participation through co-investment or other side-by-side direct investment opportunities. Secondary investments include the purchase of LP interests, co-investments or other pooled investment vehicles.

**3. Emerging Equity Markets**

TRS will only participate in private market investments that are located and/or are organized or principally operating in Permissible Markets. Permissible Markets are defined as countries in which "Gross National Income per Capita," as reported in the most recent "World Development Indicators" published by the World Bank, is at or above the threshold established by the World Bank for countries to be categorized as "High Income." The current list of Permissible Markets is attached as Exhibit A.

Staff shall ensure that Managers and the PE Consultant (s) are provided with TRS' permissible markets list, including any updates to the list.

The Board recognizes that in order to comply with the investment restrictions, Staff will negotiate an opt-out right in respect of the restrictions. Therefore, the application of the investment restrictions may affect the Fund's access to certain private equity funds that do not permit its investors to opt out and be excused from making particular fund investments. In addition, the investment restrictions may require that, from time to time, the Fund opt out of certain investments made by the funds to which capital is committed. This may affect the overall

performance of the investment in such particular funds, but the Board has determined that investing absent such policies poses a greater investment and reputational risk overall.

Staff, with the assistance of the Consultant, is hereby delegated the authority to evaluate and determine whether individual investments proposed by a fund to which TRS has committed capital violate the investment restrictions. Staff will apply their good faith judgment in cases where the applicability of an investment restriction is unclear in order to comply with the intent of the restriction.

#### **4. Separate Managed Accounts**

The Program may, from time to time, use funds of funds or Managers with discretionary mandates to accomplish investment strategies and activities.

#### **E. Exceptions to the IPS**

From time to time, the Program may require exceptions to this IPS. In the event that an exception is required, the following procedures shall be followed:

1. Non-Urgent<sup>1</sup> matters requiring an exception to this IPS will be addressed at the next scheduled TRS investment meeting. The Board shall be provided a detailed written summary and rationale warranting a potential exception to the IPS. Exceptions will only be granted with Board approval (vote, motion, etc.).
2. For urgent matters<sup>2</sup> (time-sensitive) requiring an exception to this IPS, the Staff will notify the Board, in writing or via electronic mail, as soon as practicable of the matter requiring the need for an exception to the IPS. A documented phone vote granting the exception may be obtained and the Board will ratify the decision at the next scheduled monthly investment meeting.

### **IX. RISK MANAGEMENT**

Private Equity does not lend itself to traditional quantitative measures of risk such as standard deviation and benchmark tracking error. Rather, risk is managed through a combination of quantitative and qualitative constraints. The following sections identify the most significant risks with private equity investments and the method of control. The Program will only consider investment structures that provide limited liability to the System.

#### **A. Liquidity**

Private equity investments are illiquid and typically have expected holding periods of 10-12 years. Investments are typically held until maturity and selling prior to maturity generally results in a discount to fair market value. Asset allocation exposure is controlled through the investment pacing described in the Annual Plan. The Board recognizes that lowering the private equity target allocation may result in forced sales and increased exposure to liquidity risk.

#### **B. Vintage Risk**

Vintage refers to the year of first capital draw and vintage risk refers to the variability of private equity commitments over time. The Annual Plan controls the short and long-term investment pacing that minimizes vintage risk while achieving targeted exposure.

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<sup>1</sup> Non-Urgent matters are defined as those not requiring an affirmative decision prior to the next scheduled TRS investment meeting.

<sup>2</sup> Urgent matters are defined as those requiring an affirmative decision prior to the next scheduled TRS investment meeting.

**C. Manager Risk**

Manager risk is the impact that a general partner has on the selection of investments to put in the portfolio. It is usually manifested in two ways: the size of the Program's exposure to a particular partnership, and the number of general partners in the private equity portfolio. Partnership exposure is controlled through careful selection and by limiting the commitment size to a partnership. The maximum commitment to a partnership is limited to the lesser of **15%** of a fund-raise, or **\$300** million. The **15%** limit does not apply to a fund of funds manager or a separate account.

The optimum number of general partners in the portfolio varies with time and is controlled by the Annual Plan.

Firm risk is the exposure to a private equity manager or general partner and is controlled by limiting the total exposure (defined as unfunded commitments plus net asset value) to pooled investment vehicles operated by a general partner and/or its affiliates. The Program's maximum total exposure to a general partner and its affiliates is limited to **15%** of the total exposure of the Private Equity Program.

**D. Currency**

The Private Equity Program accepts the currency risks consistent with the geographic constraints. Private equity partnerships generally do not hedge currency risk and the Private Equity Program will not implement currency hedges.

**E. Industry**

Typically, private equity partnerships are permitted to invest in a wide variety of industries with limited controls. Industry risk is controlled primarily through appropriate diversification across classes and subclasses.

**F. Leverage**

General partners invest capital from private equity partnerships throughout the capital structure of firms. The capital markets control the maximum leverage available to the general partners and limited partners control leverage exposure through partnership selection and portfolio construction.

**G. Market Value**

Market value refers to portfolio company market value.

**X. INVESTMENT / EVALUATION CRITERIA**

Staff shall develop and maintain selection guidelines for Private Equity investments to include the following minimum requirements:

- The principals shall demonstrate relevant experience and expertise in the strategy they propose to execute and the market in which they propose to operate.
- The principals shall demonstrate requisite skills and experience necessary to execute the proposed strategy, including evidence from similar prior accomplishments.
- The principals shall demonstrate an ability to cooperate and to work well together over the long term and to manage a stable organization.
- The principals shall dedicate a sufficient proportion of their time and effort to the proposed investment vehicle.

- The principals shall make a meaningful personal financial commitment to the proposed investment.
- The principals shall be individuals of high character and solid professional reputation.
- The proposed strategy and business plan shall be set forth in sufficient detail as to permit substantive and meaningful review of the investment opportunity, verification of the investment concept and evaluation of the appropriate risk factors.
- TRS will not entertain investments in Funds that would serve to embarrass investors or bring public or regulatory scrutiny.
- TRS will not entertain proposals that have the potential of eliminating public-sector jobs.
- The proposed strategy and business plan shall provide reasonable assurance that the investment opportunity can produce the target return.
- The risk anticipated in the strategy and market is justified by and compensated for by the proposed investment, based on reasonable assumptions.

Primary emphasis will be on the quality and experience of the general partners, sponsors or managing members (collectively for ease of reference "general partners") and the staff of a proposed investment. Additional factors to be evaluated shall include:

- Fit within the Annual Plan and the System's portfolio.
- Strategy: its uniqueness, the General Partner's access to proprietary deal flow, and the flexibility and likelihood of success of the firm's entry and exit strategy.
- Integrity and reputation of the General Partners, its employees and other investors.
- Depth and breadth of the General Partner's principals' and their employees' experience and expertise.
- Personnel turnover.
- Quality of overall partnership governance and management of the partnership including controls and reporting systems (including audited financials and reports to Limited Partners).
- Relationship with and reputation among existing investors (e.g., re-ups and declines).
- Relationship with existing portfolio companies, including terminated Managers.
- Relationship and reputation among banks and other sources of financing.
- Nature and quality of value-added involvement by General Partners.
- Demonstrated ability of General Partners and their employees.

- Past financial performance.
- Pre-existing commitments of General Partners (with particular emphasis on unrealized investments in previous funds).
- Alignment of employee interests with those of Principals.
- Alignment of General Partners interests with investors (General Partner investment relative to contemplated commitment, waterfall, treatment of transaction fees, clawbacks and lookbacks, operating budget, etc.).
- Appropriateness of terms and conditions.



## Exhibit A

### TRS Approved Equity Markets

Andorra	Greece	New Zealand
Antigua and Barbuda	Greenland	Norway
Aruba	Guam	Portugal
Australia	Hong Kong, China	Puerto Rico
Austria	Iceland	Qatar
Bahamas, The	Ireland	San Marino
Bahrain	Isle of Man	Saudi Arabia
Belgium	Israel	Singapore
Bermuda	Italy	Slovenia
Brunei Darussalam	Japan	Spain
Canada	Korea, Rep	Sweden
Cayman Islands	Kuwait	Switzerland
Channel Islands	Liechtenstein	United Arab Emirates
Cyprus	Luxembourg	United Kingdom
Denmark	Macao, China	United States
Faeroe Islands	Malta	Virgin Islands (U.S.)
Finland	Monaco	
France	Netherlands	
French Polynesia	Netherlands Antilles	
Germany	New Caledonia	

**Glossary of Terms:**

**Sectors:**

**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.

**Growth Equity:** Partnerships formed to invest and create value in emerging companies with high growth potential.

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

**Energy:** Partnerships that generate long-term capital appreciation through privately negotiated equity and equity-related investments in energy and natural resources companies.

**Secondaries:** A private equity vehicle formed to purchase active partnership interests from an investor.

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

**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.

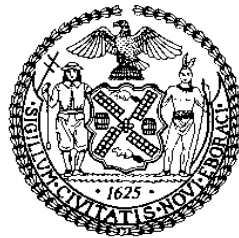
**Fund-of-Funds:** An investment vehicle which invests in other private equity partnerships.

**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.

## V. Infrastructure Education:



# The Global Infrastructure Opportunity

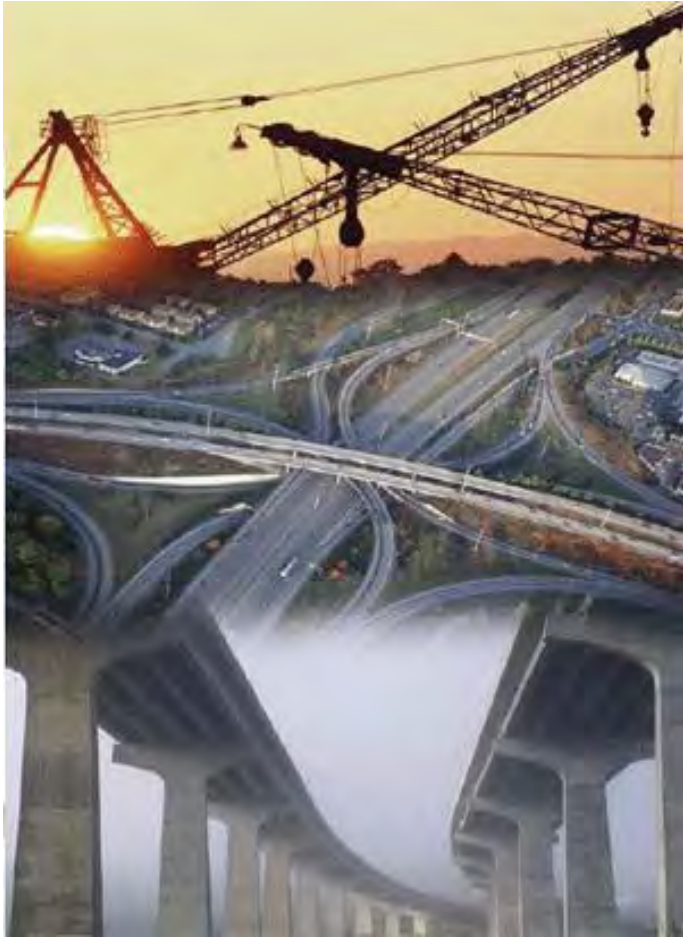


THE CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER

September 6<sup>th</sup>, 2012

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2. Infrastructure Sectors
3. Case Studies
4. Infrastructure Demand and Investors
5. Testing the Investment Thesis
6. Strategies and Targeted Returns
7. Benchmarking
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9. Appendices



- The traditional definition of infrastructure is: The fundamental facilities and systems serving a community
- Infrastructure assets typically display some or all of the following characteristics:
  - Provider of Essential Services
  - Monopolistic/Quasi Monopolistic
  - High Barriers to Entry
  - Extended Asset Life
  - Stable and Predictable Cash Flows

- Infrastructure assets can be classified into two broadly defined categories:
  - Economic infrastructure
    - Provides services that the end user is prepared to pay for (i.e. transportation and utilities)
    - Sourced through privatizations, public-to-private partnerships or private business sales
    - Has potentially higher returns as well as higher risks
  - Social infrastructure
    - Usually is government run or supported
    - Sourced through public-to-private partnerships
    - Generally has lower risk and lower projected returns



- Examples of economic and social infrastructure investments are highlighted below:

Economic Infrastructure			Social Infrastructure
Transportation	Energy & Utility	Communication	
Toll Roads / Tunnels / Bridges	Contracted Power Generation	Cable Networks	Education Facilities
Airports	Regulated Electricity Assets	Communications Towers	Healthcare Facilities
Ports	Oil / Gas / Electric Transmission and Distribution Systems	Select Satellite Systems	Legal / Governmental Facilities
Rail & Mass Transit Networks	Water Treatment / Distribution Facilities		
Parking Facilities	Oil Storage		



- Infrastructure assets can be also classified by the life cycle stage of the asset
  - Greenfield assets are under development/construction and do not generate revenue

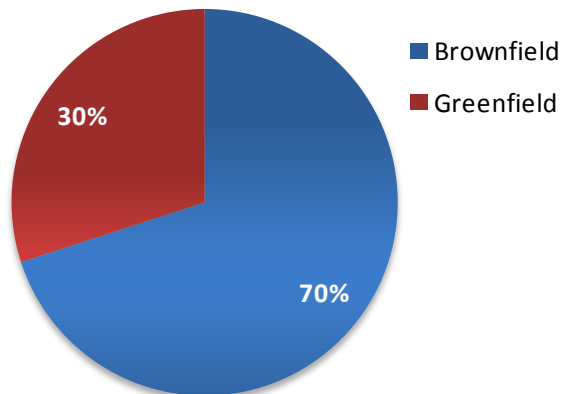


- Brownfield assets are already under operation and generate revenue in one of three phases:
  - Ramp-up phase where usage is just beginning following the completion of construction
  - Growth phase where usage continues to increase towards its long run potential
  - Mature phase where usage levels off and grows at approximately the rate of GDP growth

# Infrastructure Sectors (cont.)

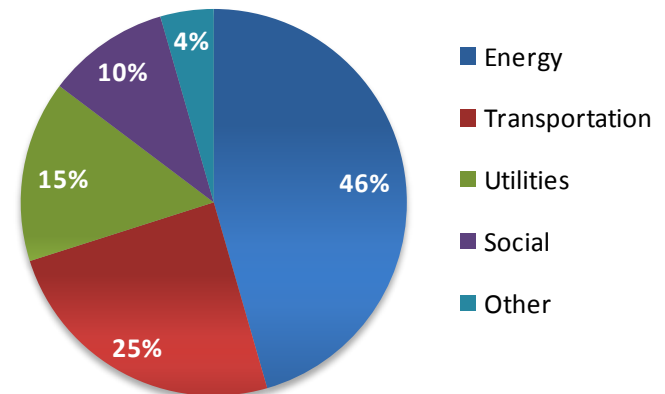
- Of the infrastructure deals completed globally in 2011, 70% were brownfield involving a fully operational asset and 30% were greenfield projects to design, build and maintain a new asset. Similarly, brownfield deals dominated the deal mix in the U.S. representing 89% of the completed deals (see Appendices A and B for a deal list)
- Energy assets represented the largest number of infrastructure deals both globally and in the U.S. accounting for 46% and 64% of the total, respectively. About 25% of the infrastructure deals globally were in transportation while utilities represented 15% of the investments

**Infrastructure Deals by Project Stage**



Source: Preqin. Data for 2011.

**Infrastructure Deals by Sector**



Source: Preqin. Data for 2011.



## Hudson Transmission Partners

*A 660 MW transmission cable development project which will run underground and underwater from northern New Jersey to New York City.*

### ■ Investment Attributes

- Partnered with an experienced developer to fund a greenfield development project to construct an underwater interstate transmission line
- Hudson will bring energy and capacity from a cheaper grid to New York City under a 20 year contract with the New York Power Authority (Moody's: Aa2)

### ■ Value Creation Process

- Negotiated key project agreements including land options, EPC contract and FTCPA during the permitting process
- 20 year project financing secured on advantageous terms in the private placement market with the base rate fully swapped to a fixed rate

### ■ Performance

- Construction proceeding on schedule and budget with commercial operations expected in July 2013. Expect to generate long-term, stable and mostly contracted cash flows once operational
- Exit through sale to a lower discount rate investor such as the local power authority or a public pension fund

### Fund Name: Starwood Energy

Investment Date: May 2011  
Committed Equity: \$66 million  
Leverage: 80%  
Projected IRR: 23.5%  
Projected Multiple: 2.9x





## Berlin Station

*A 75 MW biomass development project currently under construction in Berlin, New Hampshire that will generate electricity using new wood-combustion technology.*

### ■ Investment Attributes

- Partnered with development team by providing a bridge loan to be repaid with proceeds from the project's 1603 Grant
- Project supported by 20 year PPA with the Public Service Company of New Hampshire with a fuel cost pass through
- Construction contracted under a fixed price, turnkey EPC contract with significant warranties

### ■ Value Creation Process

- Purchased 33.3% of the project equity at a substantial discount to the value of the project
- Actively participated in the final development of the project including restructuring ownership structure and negotiation of debt terms

### ■ Performance

- Construction is progressing on schedule and on budget
- Positioned to generate long-term, stable and contracted cash flows once operational

#### **Fund Name: Starwood Energy**

Investment Date: Sept. 2011

Committed Equity: \$57 million

Leverage: 73%

Projected IRR: >20%

Projected Multiple: >2x





## Puget Energy

*Regulated utility in Washington state engaging in electric generation, transmission and distribution, and gas transmission and distribution.*

### ■ Investment Attributes

- Acquisition by a Macquarie Group led consortium of the largest regulated utility in the Washington state providing electric power to 1,080,000 customers and natural gas to 750,000 customers

### ■ Value Creation Process

- Final order issued in relation to general rate case authorizing 3.2% and 1.3% increases in electric and natural gas rates respectively. Higher rates are expected to result in an annual increase of revenue of \$77 million
- The 343 MW Lower Snake River wind project completed ahead of schedule and on budget
- Closed on \$1 billion revolving credit facility which was used to refinance debt maturities

### ■ Performance

- Valuation uplift driven by increase in gas consumption and continued decline of power costs

#### **Fund Name: Macquarie Infrastructure**

Acquisition Date: Feb. 2009

Committed Equity: \$1,063.8 million

Leverage: 60%

Projected IRR: 10.2%

Projected Multiple: ~2x





## London City Airport

*A London airport serving 3 million passengers and connecting to over 30 destinations within the United Kingdom, Europe and United States.*

### ■ Investment Attributes

- Acquired majority control of an unregulated asset incapable of replication with pricing power, inflation-linked revenues and growth potential in a constrained market

### ■ Value Creation Process

- Implemented best practice industrial management techniques to improve service, marketing, price efficiency, cost reduction and expansion capex
- Used Lean techniques to improve security screening capacity

### ■ Performance

- Improved on-time departure rate from 65% at the time of acquisition to 84% leading all London airports
- Growth in revenues as passenger volume increased to over 3 million
- Resilience demonstrated in earnings through the recession with EBITDA improving by 7.7% per annum since acquisition

**Fund Name: Global Infrastructure Partners**  
Acquisition Date: Nov. 2006  
Committed Equity: \$548 million  
Leverage: 46%  
Projected IRR: 15-20%  
Projected Multiple: 2x





## ■ Demand Drivers

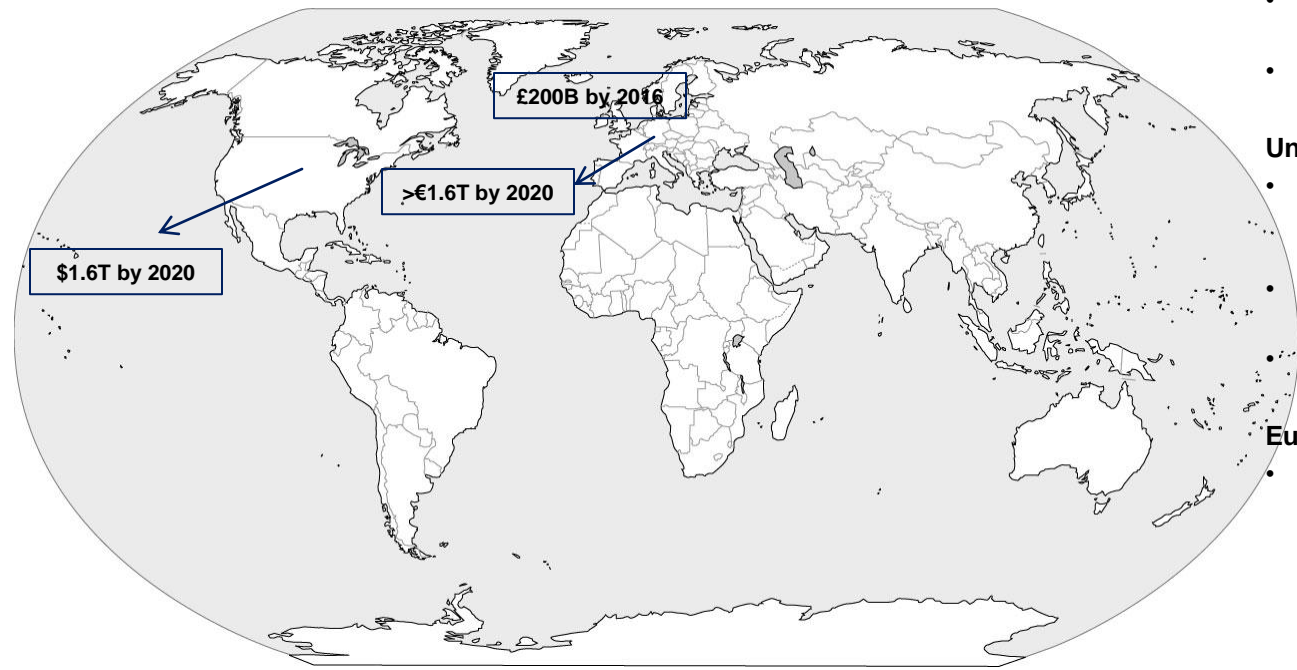
- Population growth and urbanization: 75% urbanization in the Americas and Europe, 53% in Asia by 2030
- Aging Infrastructure: current rate of investment is low at 2% - 4% of GDP while 5.5% - 9% is needed
- Investment limitations due to budget deficits in Europe and the US require involvement of private capital sources of funding and sales of assets to pay down sovereign debt

## ■ Investment Needs

- OECD estimates the annual infrastructure requirements to average 3.5% of world GDP or about \$2 trillion per year
- The American Society of Civil Engineers estimates that the US infrastructure funding gap is \$1 trillion through 2014



- \$50 trillion of investment required globally over the next 20 years to deliver replacement infrastructure in the energy, transport and utility sectors



**United States**

- Energy: \$75 billion from 2011 to 2016; \$2 trillion by 2030
- Airport System: \$94 billion from 2011 to 2015
- Water and Wastewater: \$255 billion from 2011 to 2016

**United Kingdom**

- Infrastructure: £200 billion over the next 5 years of which £160 billion expected to come from the private sector
- Energy: £20 billion to develop UK offshore transmission network
- Water and Wastewater: £10 billion over the next 10 years

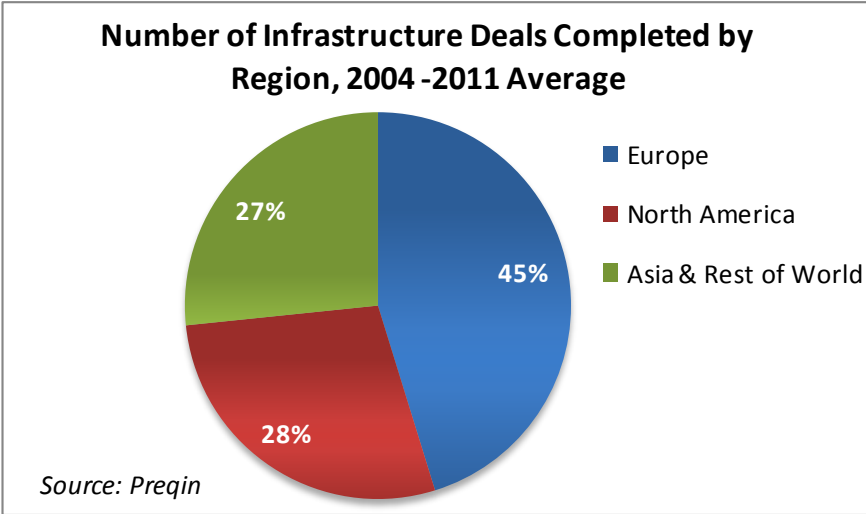
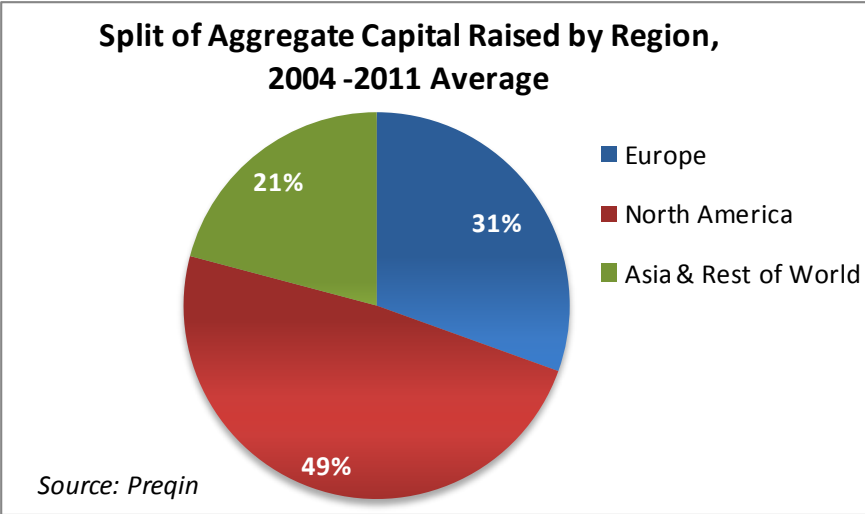
**Europe**

- Energy: €1.1 trillion by 2020 for:
  - €500 billion on distribution networks and grids
  - €200 billion on transmission networks and storage
  - €500 billion on new generation capacity
- Transport: €500 billion by 2020 for implementation of Trans-European Transport Network program

Source: Balfour Beatty Infrastructure Partners, 2011



- OECD countries dominate the aggregate capital raised by infrastructure funds from 2004 to 2011. North America focused infrastructure funds represent 49% of the capital raised on average per year. Europe focused funds account for an average of 31% of the aggregate capital commitments per year
- By region, Europe has historically represented the largest number of infrastructure deals accounting for an average of 45% of all transactions completed from 2004 to 2011. North America contributed 28% to the total while 27% of the deals were in Asia and Rest of World



- Public Private Partnerships (“P3”) in the U.S. have been slower to materialize
  - Questions regarding the viability of the P3 model in the U.S. continue to surround the model. There have been some successes such as the Long Beach Courthouse project in California
  - Failed or publicly scrutinized privatizations (i.e. Pennsylvania Turnpike, Chicago Skyway) still create long-term uncertainty for the market
- The energy sector continues to see more actionable opportunities as private companies look for alternative sources of funding and a significant amount of new capital is required to meet development needs
- The availability of debt is less of a factor in suppressing transaction activity. Well structured projects can obtain financing

## Representative Direct Investors<sup>1</sup>

- CalSTRS (USA)
- CalPERS (USA)
- OTPP (Canada)
- CPPIB (Canada)
- OMERS (Canada)
- Future Fund (Australia)
- QSuper (Australia)
- USS (UK)
- National Pension Service (Korea)
- PFA (Japan)
- ADIA (Abu Dhabi)
- GIC (Singapore)
- TIAA-CREF (USA)
- All State (USA)
- Nationwide Insurance (USA)
- AXA (France)

1) The list includes pension funds, sovereign funds and insurance companies

2) See Appendix C for a comprehensive list of infrastructure funds

## Representative Infrastructure Funds<sup>2</sup>

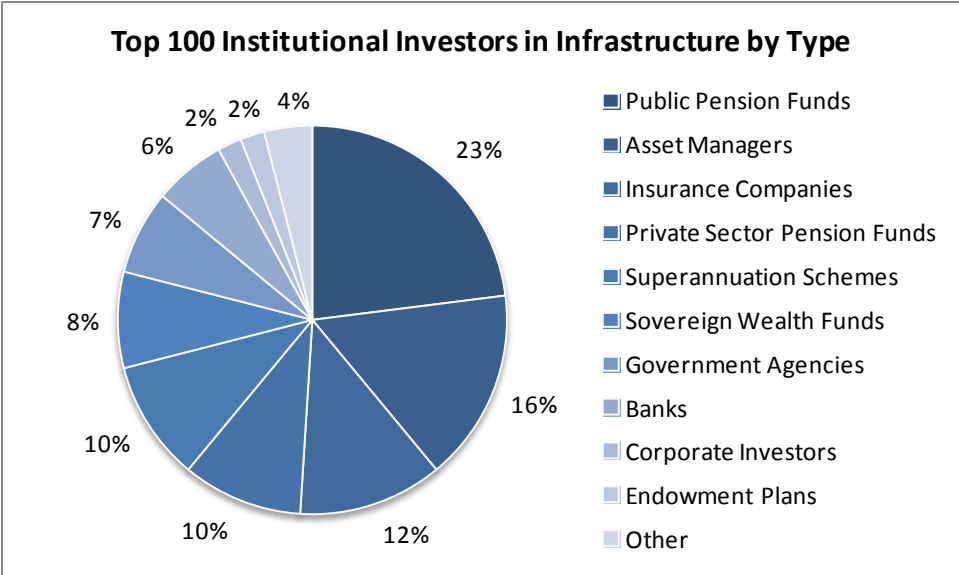
### ➤ Core/Value-Added

- GIP (Global)
- Goldman Sachs (Global)
- Hastings (Global)
- Highstar (Global)
- IFM (Global)
- JPMorgan (Global)
- MSIP (Global)
- QIC (Global)
- SteelRiver (North America)
- UBS (Global)

### ➤ Non-Core

- Actis (Emerging Markets)
- ArcLight (USA)
- BTG Pactual (Brazil)
- EnCap Flatrock (USA)
- First Reserve (Global)
- IFC Global Infrastructure Fund (Emerging Markets)
- Starwood Energy (North America)

- The 100 largest institutional investors in infrastructure (by committed capital) have an aggregate of \$204 billion committed to infrastructure to date through a combination of unlisted funds, listed funds and direct investments
- Public pension plans are the largest investor type accounting for 23% of the total investors
- 72% of the top 100 institutional investors operate a separate infrastructure allocation. The remaining investors allocate capital through a private equity allocation, a real assets allocation or a different source

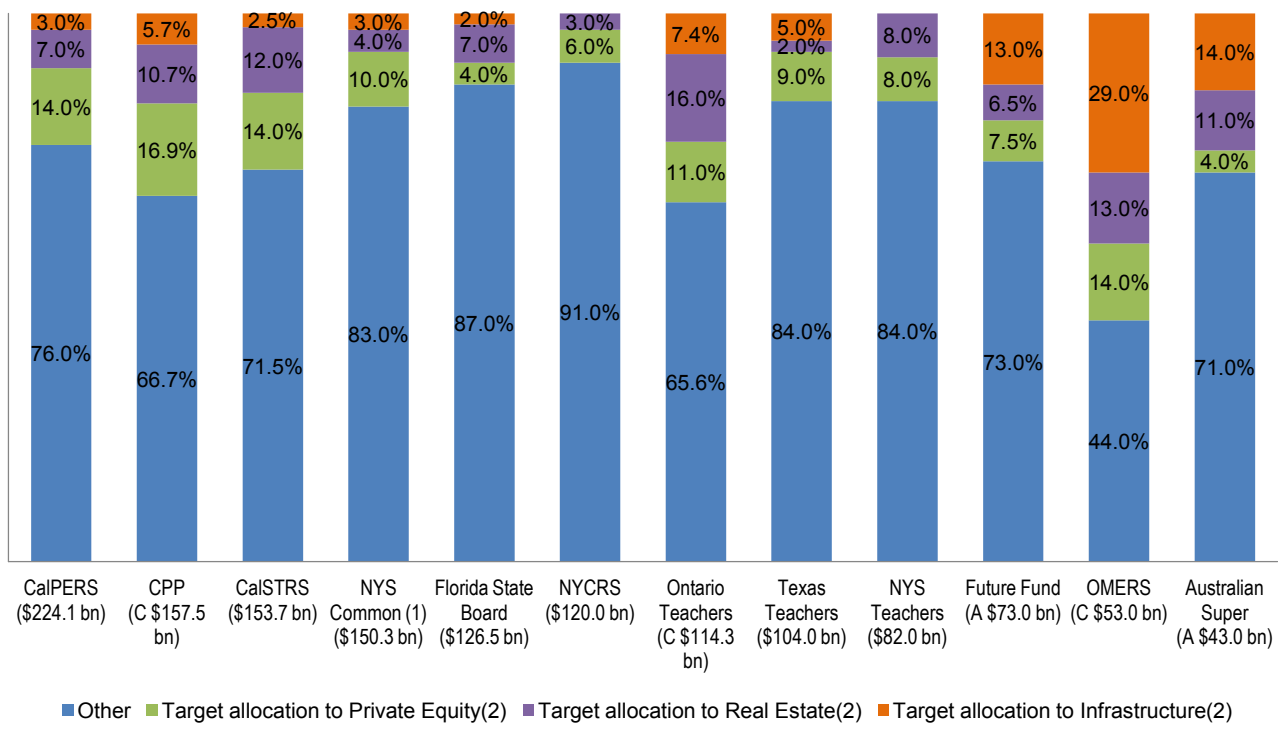


**Largest Infrastructure Investors by Current Commitment to Infrastructure**

Rank	Investor	Currently Committed to Infrastructure (\$bn)	Investor Type	Investor Location
1	OMERS	14.3	Public Pension Fund	Canada
2	CPP Investment Board	9.1	Public Pension Fund	Canada
3	Corporacion Andina de Fomento	8.4	Government Agency	Venezuela
4	Ontario Teachers' Pension Plan	7.8	Public Pension Fund	Canada
5	APG - All Pensions Plans	7.5	Asset Manager	Netherlands
6	TIAA-CREF	6.5	Private Pension Fund	US
7	QIC	6.2	Asset Manager	Australia
8	CDP Capital - Private Equity Group	5.7	Asset Manager	Canada
9	Ping An Trust	5.5	Investment Company	China
10	AustralianSuper	5	Superannuation Scheme	Australia

Source: Preqin

- Australian institutional investors have been investing in infrastructure since the 1990s
- Canadian and European institutional investors have significantly increased their exposure to infrastructure since 2000
- U.S. pension plans have lagged somewhat, but this is changing with the majority of the large plans adopting a target infra allocation between 2% - 3% over the last few years



1) NYS Common target allocation is to real assets, no infrastructure investments have been made up to date  
2) Source: Preqin and pension plan websites

- Infrastructure investments exhibit distinct characteristics that can benefit institutional investors
  - Lower correlation to other asset classes leading to portfolio diversification benefits
  - Competitive total risk adjusted return
  - Inflation protection
  - Less volatility in earnings generating more consistent and attractive cash yields
  - Long duration in line with long term pension liabilities



# Testing The Investment Thesis: Correlation

- The correlation benefit is less apparent in public market data as the impact of the financial crisis increased correlations across asset classes
- Private market data provides some more supportive evidence, with correlations to other asset classes ranging from -0.272 to 0.257

	MSCI World	S&P 500	Barclay's Aggregate Bond Index	EPRA/NAREIT Global Total Return	NPI	Dow Jones Brookfield Global Infrastructure Index	Townsend Infrastructure Composite
MSCI World	1.000						
S&P 500	0.979	1.000					
Barclay's Aggregate Bond Index	-0.263	-0.242	1.000				
EPRA/NAREIT Global Total Return	0.890	0.889	-0.032	1.000			
NPI	0.264	0.268	-0.171	0.253	1.000		
Dow Jones Brookfield Global Infrastructure Index	0.866	0.857	-0.002	0.857	0.335	1.000	
Townsend Infrastructure Composite <sup>1</sup>	0.229	0.257	-0.272	0.244	0.214	0.196	1.000

Source: The Townsend Group, Thomson Reuters

1) The TTG Infrastructure Composite is a value-weighted, client-level return calculation for all client investments in infrastructure funds from 2006 to 2011

- An analysis of public and private market data shows competitive returns relative to other asset classes
- Returns vary depending on asset type and revenue model

As of 12/31/11	Quarter	1-Year	3-Year	5-Year	7-Year
<u>Stocks</u>					
MSCI World Index	7.3%	-7.6%	7.0%	-5.5%	-0.4%
S&P 500	11.2%	0.0%	11.7%	-2.4%	0.5%
<u>Fixed Income</u>					
Lehman Aggregate Bond	1.1%	7.8%	6.8%	6.5%	5.6%
<u>Listed Real Estate</u>					
EPRA/NAREIT Global Total Return	7.4%	-5.8%	16.2%	-5.3%	3.3%
<u>Private Equity</u>					
Cambridge Associates U.S. Private Equity	5.3%	10.9%	15.0%	7.2%	N/A
<u>Listed Infrastructure</u>					
Dow Jones Brookfield Infrastructure*	7.1%	13.8%	17.6%	5.1%	10.0%
<u>Unlisted Infrastructure</u>					
TTG Infrastructure Composite**	1.0%	10.5%	11.8%	7.9%	N/A

Source: The Townsend Group, Thomson Reuters, Cambridge Associates

\*The Index aims to represent companies globally that have at least 70% of estimated cash flow derived from infrastructure assets

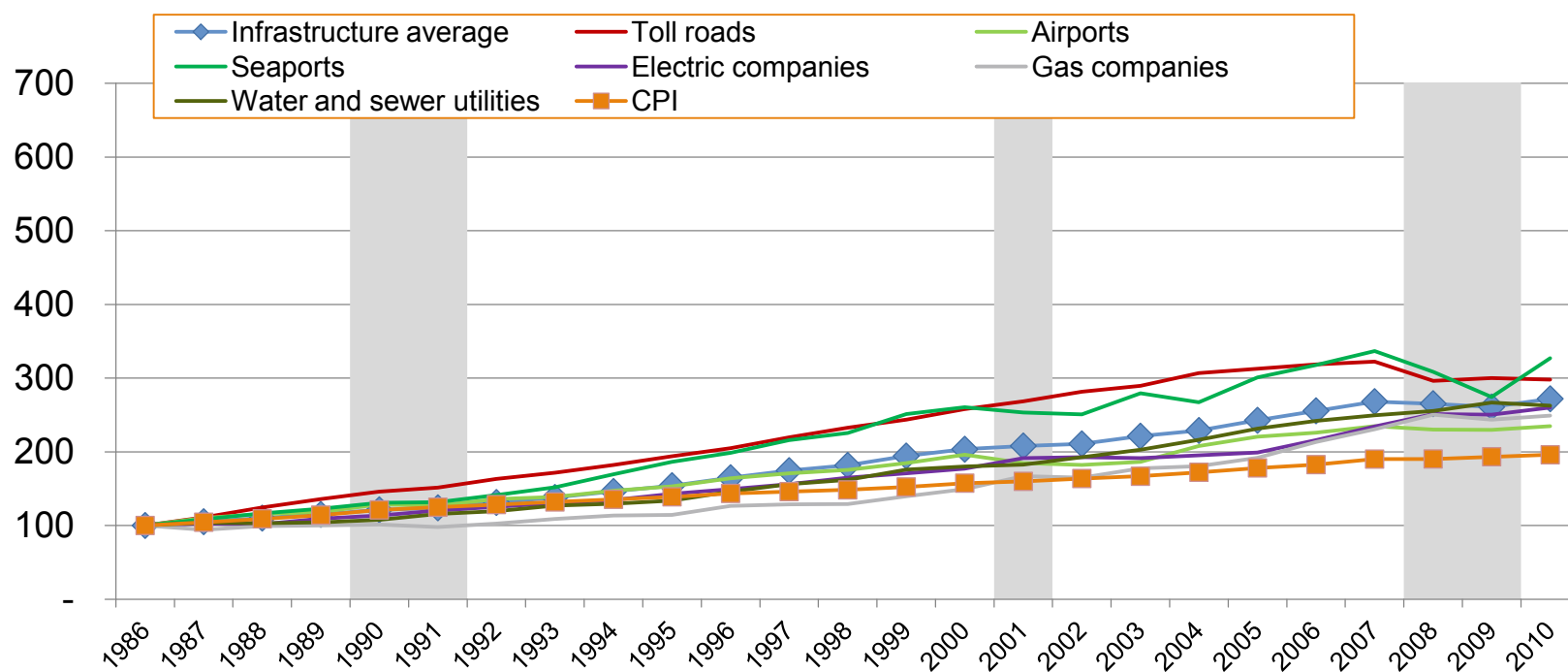
\*\* The TTG Infrastructure Composite is a value-weighted, client-level return calculation for all client investments in infrastructure funds from 2006 to 2011



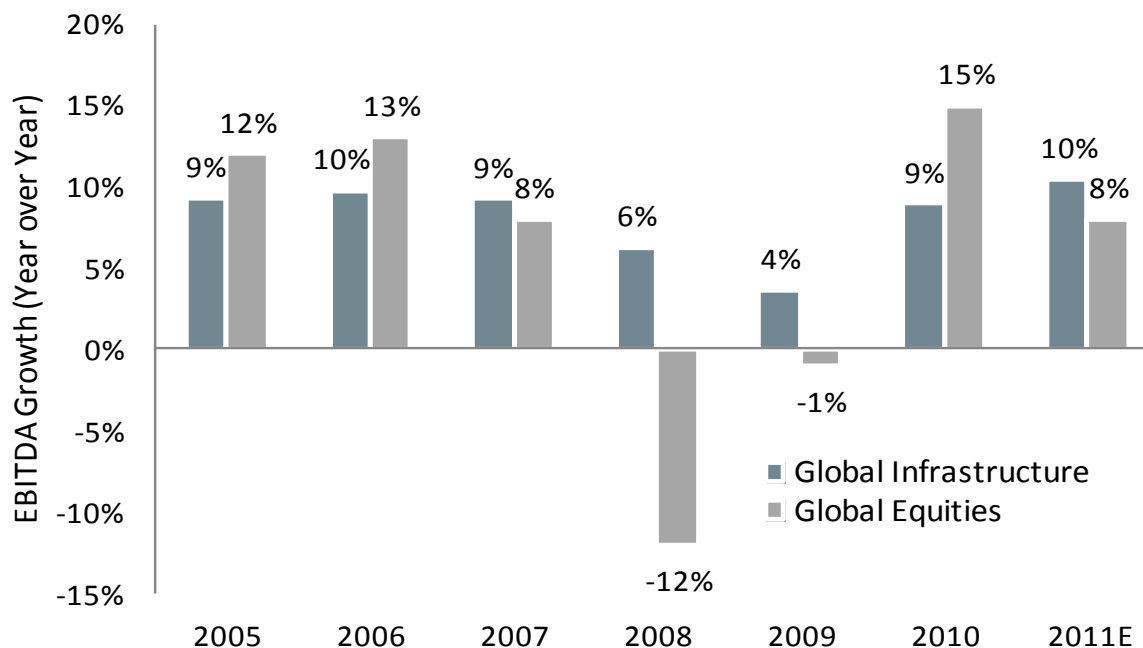
# Testing The Investment Thesis: Inflation

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- Infrastructure cash flows are typically linked to inflation through CPI indexation, regulatory or contractual adjustments
- Annual cash flows (EBITDA indices) for U.S. infrastructure grew faster than CPI



- An analysis of public infrastructure companies earnings growth supports thesis of lower volatility
- Private market data is less robust, but provides similar support



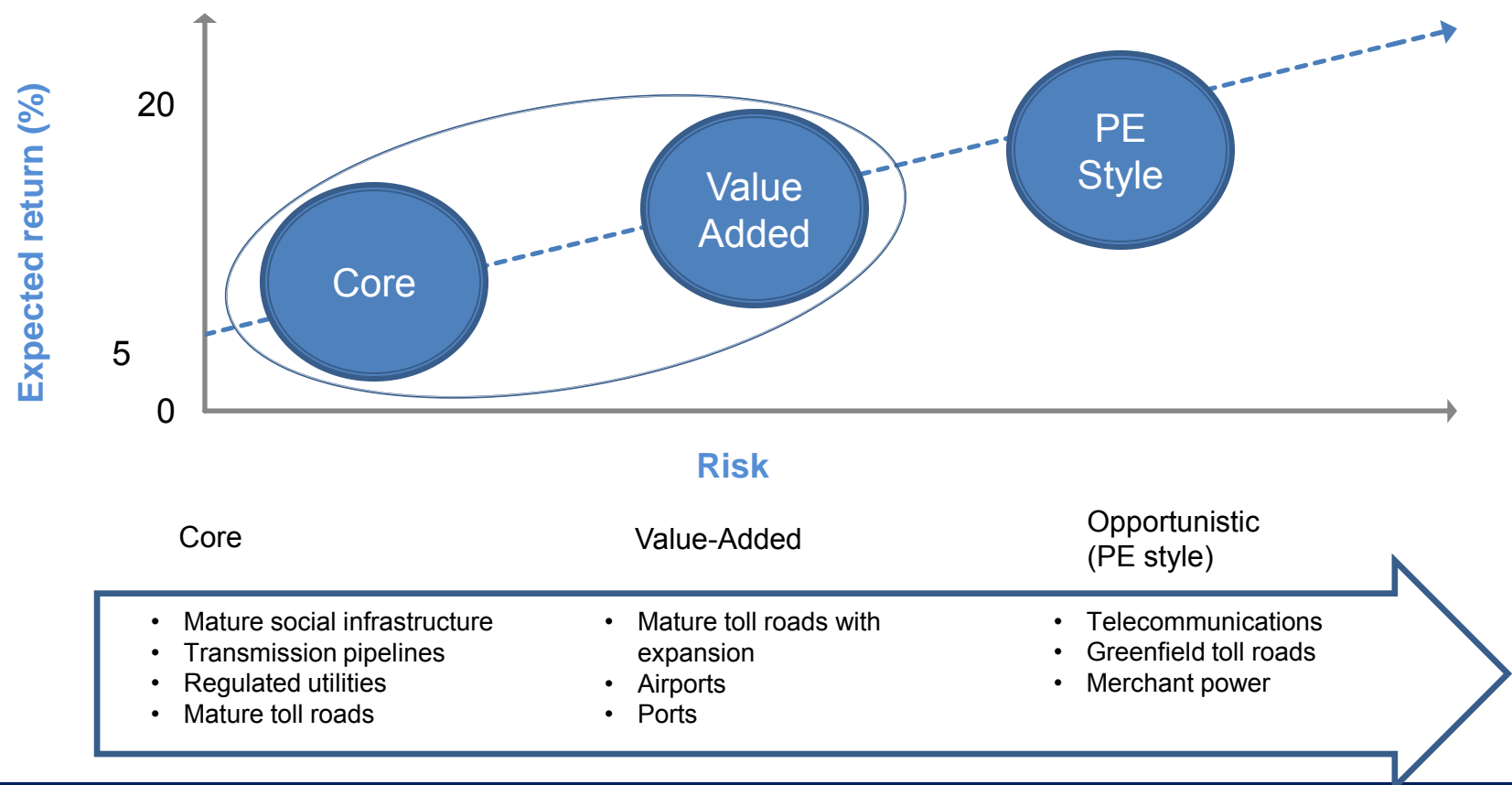
Source: Brookfield Investment Management, Dow Jones Brookfield Global Infrastructure Index, MSCI

# Strategies and Targeted Returns

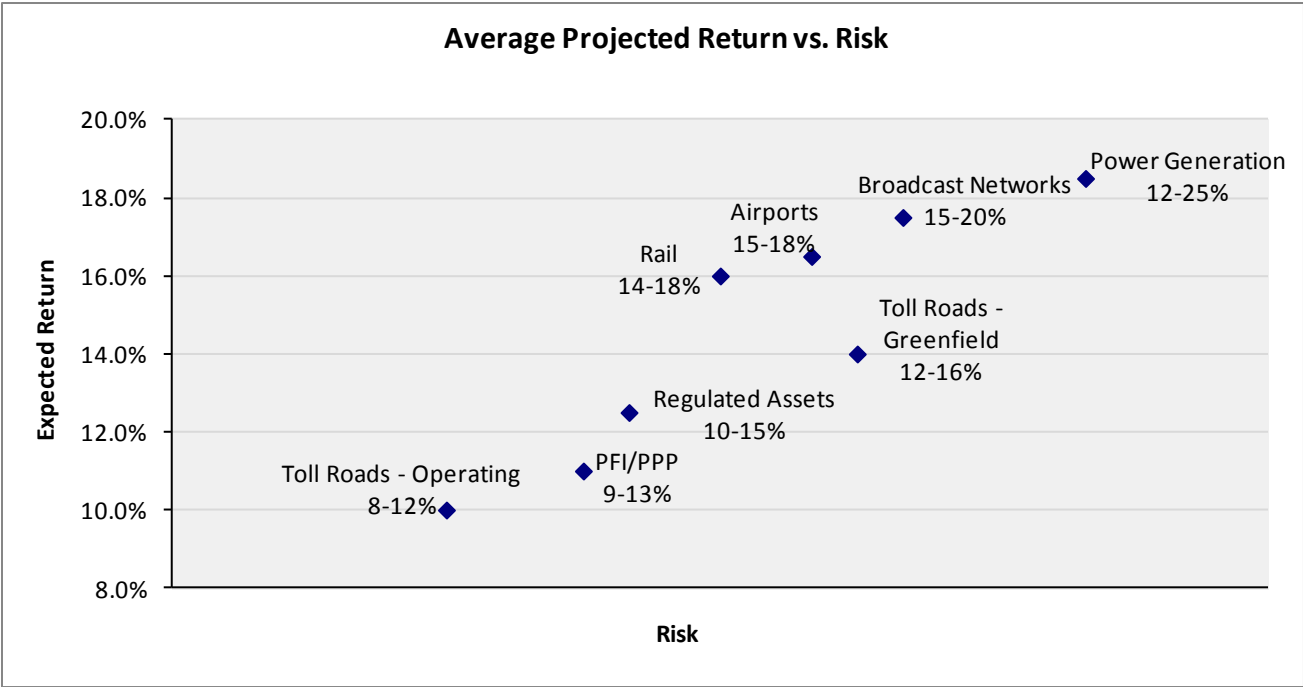
- Infrastructure risk - return profile depends on the strategy
  - Core: expected returns range from 8% - 11%
  - Value-Added: expected returns range from 12% - 14%
  - Opportunistic: expected returns above 15%

Category	Characteristics
<b>Core</b>	<ul style="list-style-type: none"> <li>• Mature OECD infrastructure</li> <li>• Assets governed by regulatory regimes or contracted revenues</li> </ul>
<b>Value-Added</b>	<ul style="list-style-type: none"> <li>• Developing, OECD infrastructure</li> <li>• Assets with revenue growth from increased demand or driven by significant expansion capital expenditure or operating improvements</li> </ul>
<b>Opportunistic</b>	<ul style="list-style-type: none"> <li>• Greenfield, non-OECD Infrastructure</li> <li>• Capital intensive assets operating in competitive market environments</li> </ul>

- The lower risk strategies include Core and Value-Added



- Asset type and revenue model are key determinants of risk and must be considered together
- Potentially wide ranges of expected return for the same asset type
  - Availability payment versus patronage toll roads
  - Contracted versus merchant power generation



# Income vs. Appreciation

- Returns from income vs. appreciation vary depending on the strategy
- The lower risk Core and Value-Added strategies rely on higher income and lower appreciation

Strategy	Expected Income	Expected Appreciation	Expected Total Return	Characteristics
<b>Core</b>	6% to 8%	2% to 5%	8% to 11%	<ul style="list-style-type: none"> <li>• Higher income, lower growth</li> </ul>
				<ul style="list-style-type: none"> <li>• Fixed-income like, inflation-linked or absolute return</li> </ul>
<b>Value-Added</b>	4% to 6%	6% to 10%	12% to 14%	<ul style="list-style-type: none"> <li>• Moderate income, moderate growth</li> </ul>
				<ul style="list-style-type: none"> <li>• Inflation-linked or absolute return</li> </ul>
<b>Opportunistic</b>	0% to 4%	>10%	≥15%	<ul style="list-style-type: none"> <li>• Low or no income, high growth</li> </ul>
				<ul style="list-style-type: none"> <li>• Private equity like returns</li> </ul>

- No industry standard
- Inflation index plus margin is the most widely used due to the inflation linkage of the asset class
- Possible benchmarks include:
  - Inflation index (i.e. CPI) plus margin
  - Total return
  - Indices: S&P Global Infrastructure Index, MSCI World Infrastructure 100 Index, etc.

- Similar to other alternative asset classes, infrastructure has developed where investors must consider the four quadrants of debt and equity, public and private opportunities
- Resources and capital availability may limit a plan sponsor's ability to access all available investment structures

	PROS	CONS
Infrastructure Funds	<ul style="list-style-type: none"><li>■ Access to manager expertise</li><li>■ Relative immediacy of investment</li></ul>	<ul style="list-style-type: none"><li>■ Increased management fees</li><li>■ Lower control over investments</li></ul>
Co-Investments	<ul style="list-style-type: none"><li>■ Reduced management fees</li><li>■ Increased control over investments</li></ul>	<ul style="list-style-type: none"><li>■ Need for specialized in-house expertise</li><li>■ Lower control over the capital structure of the deals</li></ul>
Direct Investments	<ul style="list-style-type: none"><li>■ Eliminated management fees</li><li>■ Increased control over investments</li></ul>	<ul style="list-style-type: none"><li>■ Significant lead time required</li><li>■ Need for in-house expertise and larger staff</li></ul>



# Conclusion and Next Steps

- Infrastructure can provide portfolio diversification, attractive risk adjusted returns and inflation protection in an economic environment of high volatility and low yields
- As next steps, BAM will present to the Board an IPS and a strategic plan for infrastructure investing recommending
  - Pursuing predominantly the lower risk Core/Value-Added strategies
  - U.S./Global mandate
  - Benchmark of CPI + 4%

# Appendix A: Greenfield U.S. deals (2003-2012)

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TRANSACCTION TYPE	SECTOR	SUBSECTOR	AMOUNT
<b>GREENFIELD</b>			
SR 125 South Highway (CALIFORNIA)	Transport	Roads	\$635m
Illinois Central School Bus	Transport	Other	n/a
Freeport LNG	Power	Other	n/a
Astoria Energy I	Power	Energy Generation	\$980m
The Transbay Transit Cente and Caltrain Downtown Extension Programe	Transport	Rail	\$4185m
Canyon Farm Funding	Environment	Waste	n/a
Black Bear Hydro	Renewables	Other	n/a
OFS Holdings	Power	Other	n/a
Hurrikan Power Funding	Renewables	Wind	n/a
Synagro Technologies	Environment	Waste	n/a
I-495 Capital Beltway HOT Lane Project (VIRGINIA)	Transport	Roads	\$1800m
ReNu Power	Power	Energy Generation	\$87m
Trans-Texas Corridor: SH130, Seg 5&6	Transport	Roads	\$1380m
ITS Technologies & Logistics	Transport	Other	n/a
GIM Channelview Cogeneration, LLC	Power	Energy Generation	\$500m
Santa Paula Water Concession	Environment	Water	\$125.5m
Regency Gas Pipeline System	Power	Energy Transmission	n/a
I-595 Corridor Roadway Improvements Project (Florida)	Transport	Roads	\$1760m
Arkoma Connector Pipeline	Power	Energy Transmission	n/a
Astoria Energy II	Power	Energy Generation	\$1000m
Chesapeake Midstream Partners L.P. (CHKM)	Power	Energy Transmission	\$267m
Dallas-Fort Worth (DFW) Connector Project	Transport	Roads	\$805m
Miami Port Tunnel (POMT) Florida	Transport	Bridges and Tunnels	\$651m
Terra-Gen Power Holdings	Renewables	Wind	n/a
Connecticut Service Plazas P3	Transport	Roads	\$178m
North Tarrant Expressway	Transport	Roads	\$2000m
Black Point Petroleum	Power	Other	n/a
JP Energy Partners	Power	Energy Generation	n/a
Seagirt Marine Terminal	Transport	Ports	\$334m
Florida Atlantic University (FAU)	Social Infrastructure	Accommodation	\$63m
Ruby Pipeline Project	Power	Energy Transmission	\$2200m
I-485 Outer Loop - North Carolina	Transport	Roads	\$160m
I-635 (LBJ Freeway) (TEXAS)	Transport	Roads	\$2600m
Denver FasTracks Eagle P3 Light Rail Project	Transport	Light Rail	\$1637m
Enogex	Power	Energy Transmission	n/a
Long Beach Courthouse	Social Infrastructure	Accommodation	\$495m
Hudson Transmission Partners	Power	Energy Transmission	\$869m
Bayonne Energy Centre	Power	Energy Generation	\$650m
Western Group Housing Privatization Project	Social Infrastructure	Accommodation	\$362m
Midtown Tunnel Project (Virginia)	Transport	Bridges and Tunnels	\$2100m
Alta Wind VII and Alta Wind IX Projects (California)	Renewables	Wind	n/a
Presidio Parkway / Doyle Drive Concession, San Fco, Ca.	Transport	Roads	\$365m
I-95 HOV/HOT Lanes Project (VIRGINIA)	Transport	Roads	\$940m

# Appendix B: Brownfield U.S. deals (2003-2012)

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TRANSACTION TYPE	SECTOR	SUBSECTOR	AMOUNT
<b>BROWNFIELD</b>			
13 power plants, total capacity of 1,600MW (Northern Star)	Power	Energy Generation	\$265.4m
Acquisition of SouthWest Water Company Brownfield	Environment	Water	\$427m
Chicago Skyway Toll Bridge Privatisation (Illinois)	Transport	Bridges and Tunnels	\$1800m
Dulles Greenway (VIRGINIA)	Transport	Roads	\$533m
Aquarion Acquisition	Environment	Water	\$860m
Century Campus Finance Package (TEXAS)	Social Infrastructure	Accommodation	\$201.2m
Virginia I-895 / Pocahontas Parkway (VIRGINIA)	Transport	Roads	\$611m
Indiana Toll Road (INDIANA)	Transport	Roads	\$4600m
Chicago Downtown Parking (Chicago Loop Parking)	Transport	Car Parks	\$565m
Colonial Pipeline	Power	Energy Transmission	n/a
RailAmerica	Transport	Rail	\$1100m
Ports America Group	Transport	Ports	\$1300m
Maier Terminals	Transport	Ports	\$1540m
SourceGas	Power	Energy Transmission	\$694m
Duquesne Light Holdings Acquisition	Power	Energy Transmission	\$1600m
Southeast PowerGen (2.5GW Power Portfolio)	Power	Energy Generation	\$620m
Four Container Terminals From Orient Overseas (Global Container Terminals)	Transport	Ports	\$2350m
Carrix Ports (49%)	Transport	Ports	\$3000m
Global Tower Partners (GTP) Acquisition	Other	Other	\$1425m
Northwest Parkway	Transport	Roads	\$600m
Southwest Generation Acquisition	Power	Energy Generation	\$840m
North American Energy Alliance, LLC (NAEA)	Power	Energy Generation	\$1477m
Puget Energy Acquisition	Power	Energy Transmission	\$3200m
Chicago Parking Meters	Transport	Car Parks	\$1160m
Midland Cogeneration Venture	Power	Energy Generation	\$745m
Veolia US Energy-from-Waste Facilities	Environment	Waste	\$450m
GIP Chesapeake JV	Power	Other	\$588m
Gomez Pipelines Acquisition	Power	Energy Transmission	\$78m
Eureka Pipeline Systems Acquisition	Power	Energy Transmission	\$81m
GIP Acquire 40% Stake in Terra-Gen Power Holdings	Renewables	Other	n/a
Medical Area Total Energy Plant (MATEP)	Power	Energy Generation	\$320m
Babcock & Brown Wind Farms	Renewables	Wind	\$352m
Interpark Assets (89 Parking Contracts)	Transport	Car Parks	\$500m

Source: Infranews, 2012

# Appendix B (cont.): Brownfield U.S. deals (2003-2012)

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TRANSACTION TYPE	SECTOR	SUBSECTOR	AMOUNT
<b>BROWNFIELD</b>			
Southern Star Central Corp (40% Stake)	Power	Other	\$838m
Inland Public Properties School Sale	Social Infrastructure	Education	\$61m
Southern Star Central Gas Pipeline	Power	Energy Transmission	n/a
NorTex Gas Storage	Power	Energy Storage	\$505m
Freeport LNG Development (55% sale)	Power	Energy Transmission	\$190m
Parking Corporation of America Airports - PCAA (in receivership)	Transport	Car Parks	\$141m
Southern Natural Gas Pipeline (20% sale)	Power	Energy Transmission	\$492m
BAA USA Sale	Social Infrastructure	Other	\$52.4m
Port of Portland Terminal 6	Transport	Ports	\$120.5m
Acquisition of SouthWest Water Company	Environment	Water	\$427m
Colonial Pipeline Company (23.44% sale)	Power	Energy Transmission	\$845m
Providence and Olinda Landfill Gas Sale	Renewables	Other	\$25m
Indianapolis Parking Meters Concession	Transport	Car Parks	\$30m
SteelRiver acquisition of T.W. Phillips Gas and Oil	Power	Energy Transmission	n/a
InterPark	Transport	Car Parks	n/a
Fixed Base Operations (Portland International and Eugene airports)	Transport	Airports	n/a
EQT Acquisition of Peregrine Midstream Partners (70%)	Power	Energy Transmission	n/a
Macquarie's Sale of 33.3% Stake in Aquarion	Environment	Water	n/a
Duet Group's Sale of 29% stake in Duquesne (DQE Holdings)	Power	Energy Transmission	\$360m
Puerto Rico Highway Package Phase One (PR-22,PR-5)	Transport	Roads	\$1136m
Marcellus Shale Joint Venture	Power	Energy Generation	\$200m
Alinda Acquisition of Houston Fuel Oil Terminal Co (HFOTCO)	Power	Energy Storage	\$1300m
I-595 Acquisition (50%)	Transport	Roads	\$800m
The Parking Spot (Airport Parking Operator)	Transport	Car Parks	\$360m
Park Water Company	Environment	Water	\$102m
Sacramento Municipal Utility District Solar PV Portfolio (88MW)	Renewables	Solar	\$180m
Appalachia Midstream Services Acquisition	Power	Energy Generation	\$865m
Colonial Pipeline Partial Sale (16.6%)	Power	Energy Transmission	\$850m
Mountaineer Gas Company	Power	Energy Transmission	n/a
FREIF North American Power I Acquisition	Power	Energy Generation	n/a
Capistrano Wind Partners (Edison/TIAA-CREF/CIRI JV)	Renewables	Wind	\$460m
Eureka Hunter Part-Acquisition by Arclight (28% Stake)	Power	Energy Transmission	\$106.8m
WCA Waste Corporation	Environment	Waste	\$526m
Alta Wind VI 150MW Acquisition	Renewables	Wind	n/a
Caiman Eastern Midstream Sale	Power	Energy Transmission	\$2400m
El Paso JV - Kinder Morgan 50% Acquisition	Power	Energy Transmission	\$300m

# Appendix C: Infrastructure Funds In Market

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Manager	Fund	Target Capital Raise	Geography
<b>Core / Value-Added</b>			
Alinda Capital Partners	Alinda Infrastructure Fund III	\$3,000,000,000	Global
AMP Capital	AMP Capital Infrastructure Debt Fund	€ 500,000,000	Global
AMP Capital	Strategic Infrastructure Trust of Europe	Open-End Fund	Europe
Antin	Antin Infrastructure Partners II	€ 1,500,000,000	Europe
Aquila	Infrastructure Coalition Program	\$400,000,000	Global
AXA	AXA Infrastructure Fund III	€ 1,500,000,000	Europe
Balfour Beatty	Balfour Beatty Infrastructure Partners, L.P	€ 800,000,000	Global
Brookfield	Brookfield Global Listed Infrastructure Income fund	Public/Listed	Global
Capital Innovations	Listed Infrastructure Fund	Public/Listed	Global
Cohen & Steers	Global Listed Infrastructure Fund	Public/Listed	Global
Colonial First State	First State Investments Global Listed Infrastructure Fund	Public/Listed	Global
CVC Capital Partners	CVC European Infrastructure Fund	€ 1,500,000,000	Europe
Duff and Phelps	Duff & Phelps Global Listed Infrastructure Fund	Public/Listed	Global
Energy Power Partners	Energy Power Partners Fund I	\$300,000,000	Developed Americas
EQT Partners	EQT Infrastructure Fund II	€ 1,500,000,000	Global
First State Investments Fund Management	First State European Diversified Infrastructure Fund	€ 1,500,000,000	Europe
Global Infrastructure Management	Global Infrastructure Partners II	\$7,500,000,000	Global
Hastings Fund Management	UTA	Open-End Fund	Global
Highstar	Highstar IV	\$3,500,000,000	Global
iCon	iCon Infrastructure Partners II	€ 500,000,000	Europe
Industry Funds Management	IFM Global Infrastructure	Open-End Fund	Global
J.P. Morgan Investment Management, Inc.	JP Morgan Infrastructure Investments Fund	Open-End Fund	Global
Lazard Freres	Lazard Global Listed Infrastructure Trust	Public/Listed	Global
Macquarie	Macquarie European Infrastructure Fund IV	€ 1,500,000,000	Europe
Macquarie	Macquarie Global Listed Infrastructure Fund	Public/Listed	Global
Magellan Asset Management Limited	MFG Core Infrastructure	Public/Listed	Global
Morgan Stanley	Morgan Stanley Infrastructure Partners II	\$4,000,000,000	Global
Palmer Capital	UK Solar Income Partnership	€ 27,000,000	Europe
SteelRiver	SteelRiver Infrastructure Fund North America II	\$2,000,000,000	Developed Americas
StonePeak	StonePeak Infrastructure Partners	\$1,000,000,000	Developed Americas
Tiger Infrastructure Partners	Tiger Infrastructure Partners Fund L.P.	\$600,000,000	Global
United Bridge Partners	UBP New American Bridges Fund	\$1,000,000,000	Developed Americas

# Appendix C (cont.): Infrastructure Funds In Market

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Manager	Fund	Target Capital Raise	Geography
<b><i>Opportunistic</i></b>			
3i	India Infrastructure Fund II	\$1,250,000,000	Emerging Markets
Actis	Actis Energy Fund III	\$750,000,000	Emerging Markets
Alterna Capital Partners	Alterna Core Capital Assets II	\$600,000,000	Global
Aviva Investors	Aviva Investors European Renewable Energy Fund	€ 300,000,000	Europe
Black River	Black River Metals & Mining	\$300,000,000	Emerging Markets
BlackRock	BlackRock NTR Renewable Power Fund	\$1,500,000,000	Global
BRZ Investimentos	BRZ Ports and Logistics Assets Fund	\$450,000,000	Emerging Markets
BTG Pactual	BTG Pactual Infrastructure Fund II	\$1,500,000,000	Emerging Markets
Capital Dynamics AG	Clean Energy and Infrastructure Fund	\$500,000,000	Global
Capital Dynamics AG	US Solar Energy Fund	\$300,000,000	Developed Americas
Citi Capital Advisors	Build India Fund II	\$650,000,000	Emerging Markets
EnCap	EnCap Flatrock Midstream Fund II	\$1,250,000,000	Developed Americas
Energy Capital Partners	Energy Capital Partners II	\$3,500,000,000	Developed Americas
Energy Finance Company	Funding Solar Energy Limited Partnership	\$100,000,000	Developed Americas
Equis Funds Group	Equis Asia Fund	\$500,000,000	Emerging Markets
Fortress Investments	Fortress Power Assets Fund	\$350,000,000	Developed Americas
IFC Asset Management Company	IFC Global Infrastructure Fund	\$1,000,000,000	Emerging Markets
Marguerite	2020 European Fund for Energy, Climate Change & Infrastructure	€ 1,500,000,000	Europe
Modoc Capital LLC	Modoc Renewables Infrastructure Fund	\$250,000,000	Developed Americas
Starwood Energy	Starwood Energy Infrastructure Fund II	\$750,000,000	Developed Americas
Swiss Asia	China District Energy Fund	\$500,000,000	Emerging Markets

APPENDICES:

Basket Clause



### TRS - BASKET/NON BASKET SUMMARY

As of July 31st, 2012				Fund Actual (PE & RE on an invested basis)		
Equity	Fund Adjusted Policy					
	Non Basket*	Basket*	Total	Non Basket*	Basket*	Total
<b>Domestic Equity</b>	34.67%	0.00%	34.67%	38.35%	0.00%	38.35%
<b>Non-U.S. Equity</b>	10.00%	7.00%	17.00%	10.00%	5.94%	15.94%
<b>Private Equity</b>	0.00%	5.13%	5.13%	0.00%	5.13%	5.13%
<b>Real Estate</b>	2.03%	0.00%	2.03%	2.03%	0.00%	2.03%
<b>REITS</b>	2.80%	0.20%	3.00%	4.34%	0.20%	4.54%
<b>Total Equity</b>	<b>49.49%</b>	<b>12.33%</b>	<b>61.82%</b>	<b>54.72%</b>	<b>11.27%</b>	<b>65.99%</b>
<b>Fixed Income</b>						
<b>Core+5</b>	21.09%	0.40%	21.49%	17.39%	0.00%	17.39%
<i>U.S. Gov't Sector</i>	5.32%	0.00%	5.32%	2.56%	0.00%	2.56%
<i>Mortgage Sector</i>	6.60%	0.00%	6.60%	8.05%	0.00%	8.05%
<i>Credit Sector</i>	9.56%	0.00%	9.56%	6.79%	0.00%	6.79%
<b>High Yield</b>	7.87%	0.87%	8.74%	5.58%	0.61%	6.19%
<b>Bank Loans</b>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TIPS</b>	3.75%	0.25%	4.00%	2.66%	0.60%	3.26%
<b>Convertibles</b>	2.40%	0.60%	3.00%	1.95%	0.33%	2.28%
<b>Opportunistic</b>	0.00%	0.94%	0.94%	0.14%	0.80%	0.94%
<b>Emerging Market Debt</b>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Other Fixed Income</b>	0.00%	0.00%	0.00%	3.95%	0.00%	3.95%
<b>Total Fixed Income</b>	<b>35.11%</b>	<b>3.06%</b>	<b>38.18%</b>	<b>31.67%</b>	<b>2.35%</b>	<b>34.02%</b>
<b>Total Fund</b>	<b>84.60%</b>	<b>15.40%</b>	<b>100.00%</b>	<b>86.39%</b>	<b>13.62%</b>	<b>100.00%</b>
<b>Remaining Capacity</b>		9.60%			11.38%	

\* Note: Basket amounts are estimates

Liquidity Analysis

# **TRS Liquidity Profile - Static Analysis**

8/23/12

AUM as of June 30, 2012

	<b>Current MV</b>	<b>Liquid Assets</b>		
		<b>Today</b>	<b>1 Year</b>	<b>2 Years</b>
<b>Domestic Equity</b>	\$16,866	\$16,866	\$16,866	\$16,866
<b>International Equity</b>	4,645	4,645	4,645	4,645
<b>Emerging Markets</b>	2,736	2,736	2,736	2,736
<b>Private Equity</b>	2,372	0	0	0
<b>Private Real Estate</b>	874	0	0	0
<b>Core + 5</b>	7,684	7,684	7,684	7,684
<b>TIPS</b>	1,420	1,420	1,420	1,420
<b>Opportunistic Fixed Income</b>	406	305	406	406
<b>Enhanced Yield</b>	2,703	2,703	2,703	2,703
<b>Convertible Bonds</b>	1,001	1,001	1,001	1,001
<b>ETI</b>	379	251	361	379
<b>Cash</b>	1,027	1,027	1,027	1,027
<b>Total Assets</b>	<b>\$44,083</b>	<b>\$40,607</b>	<b>\$40,818</b>	<b>\$40,837</b>
<b>Total Illiquid \$</b>		<b>\$3,476</b>	\$3,264	\$3,246
<b>Total Illiquid %</b>		<b>7.9%</b>	7.4%	7.4%
<b>Unfunded PE Commitments</b>	\$1,535			
<b>Unfunded RE Commitments</b>	666			
<b>Unfunded OFI Commitments</b>	813			
<b>Total commitments \$</b>	<b>\$3,014</b>			
<b>Total commitments %</b>	<b>6.8%</b>			

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

<b>Total Illiquid \$</b>	\$3,476	\$3,264	\$3,246
<b>Total Illiquid %</b>	11.8%	11.1%	11.0%

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

## TRS Liquidity Profile - Static Analysis

8/23/12

AUM as of June 30, 2012

	Current MV	Liquid Assets		
		Today	1 Year	2 Years
Total Assets	<b>\$44,083</b>	<b>\$40,607</b>	<b>\$40,818</b>	<b>\$40,837</b>

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

Unfunded PE Commitments Drawn	\$307	\$614
Unfunded RE Commitments Drawn	133	266
Unfunded OFI Commitments Drawn	407	0
<b>Total commitments \$</b>	<b>\$847</b>	<b>\$881</b>
<b>Total commitments %</b>	<b>1.9%</b>	<b>2.0%</b>

<b>Total Illiquid \$</b>	\$4,111	\$4,126
<b>Total Illiquid %</b>	9.3%	9.4%

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>	\$3,476	\$4,111	\$4,126
<b>Total Illiquid %</b>	11.8%	14.0%	14.0%

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