Real Estate Update

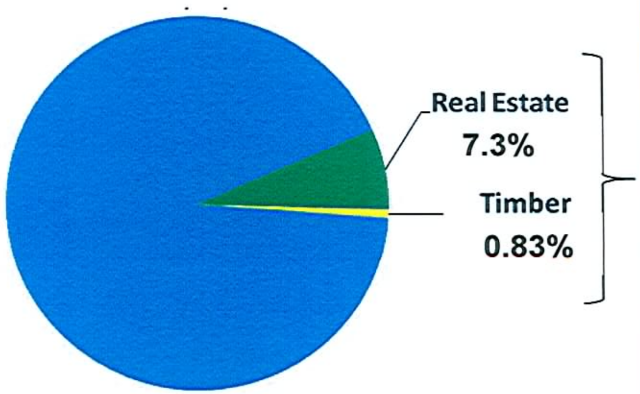
September 18, 2013

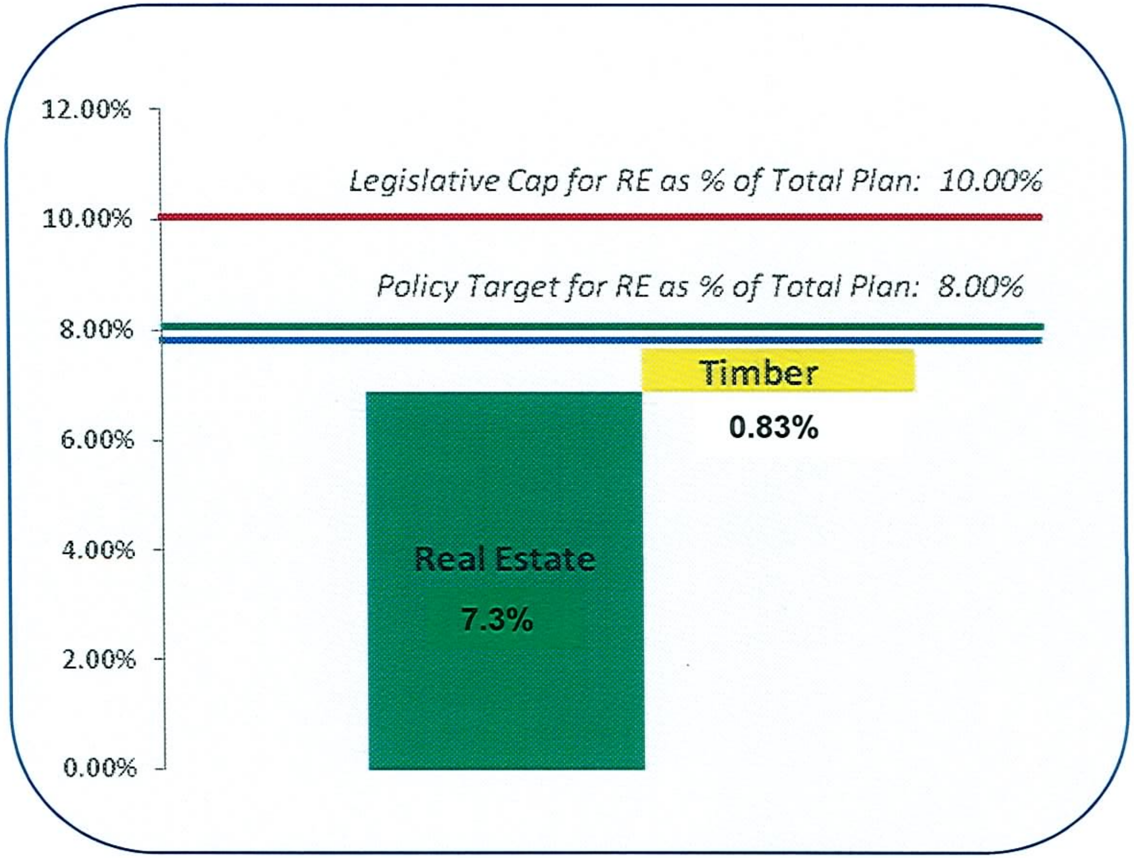
Agenda

Real Estate Allocation

Real Estate represents 8.13% of the Total NCRS Plan, slightly above its Policy Target of 8%.

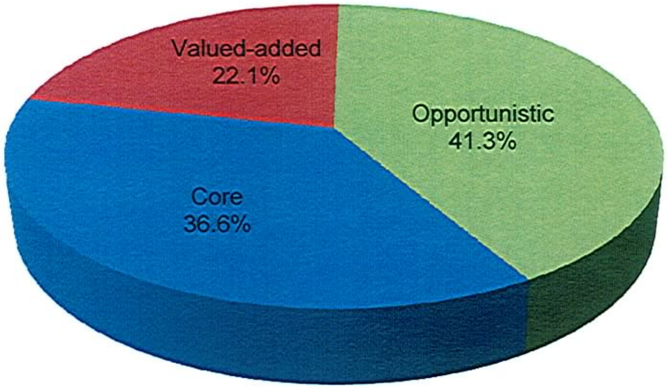
NCRS Asset Allocation
based on 6/30/2013 MV





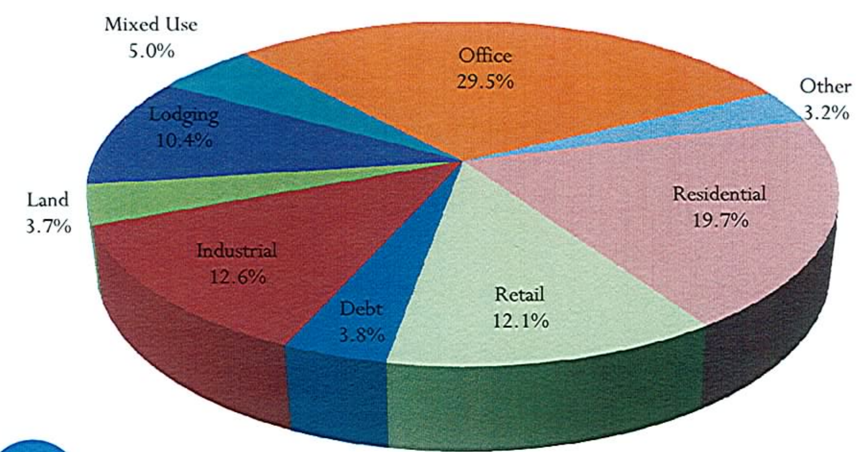
Real Estate Allocation

Strategy Allocation (based on valuation)*

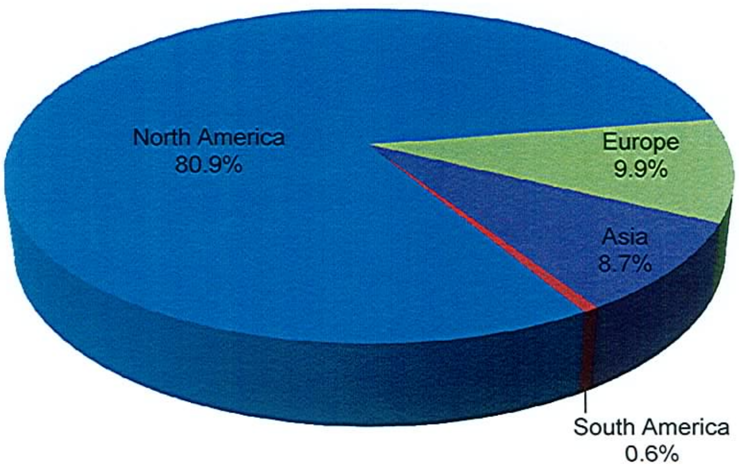


	Policy Range			Actual
Strategy:	Min	Max	Target	FMV
Core	20%	60%	40%	36.6%
Value-added	10%	50%	30%	22.1%
Opportunistic	10%	50%	30%	41.3%

Sector Allocation (based on valuation)*



Geographic Allocation (based on valuation)*



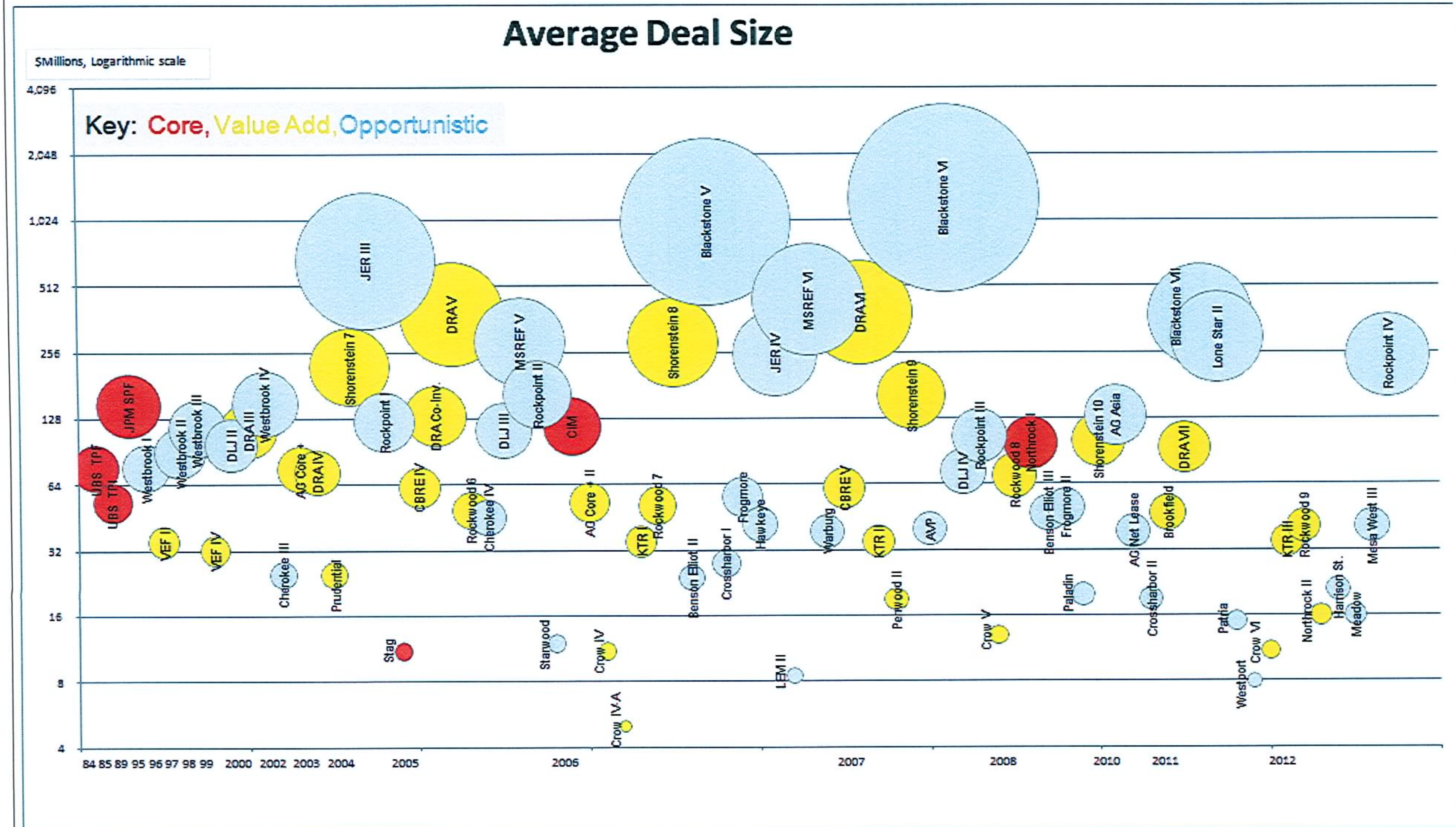
* = as of 6/30/2013

Real Estate Allocation

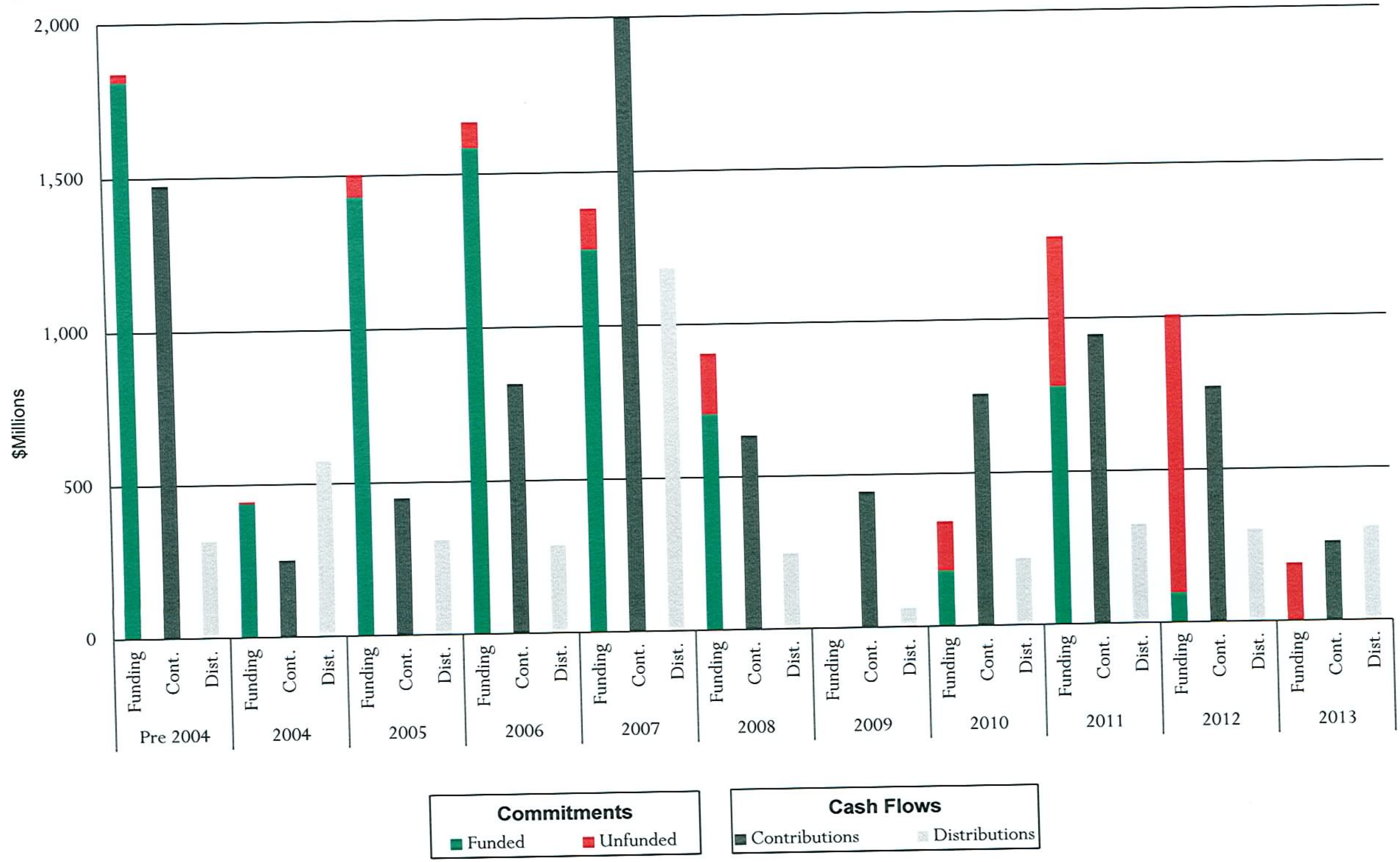
Investment Leverage Review

Core	$2,056,385,506	20.0%
Value	$1,375,350,194	55.9%
Opportunistic	$2,373,282,176	46.3%
Total	$5,805,017,876	39.2%

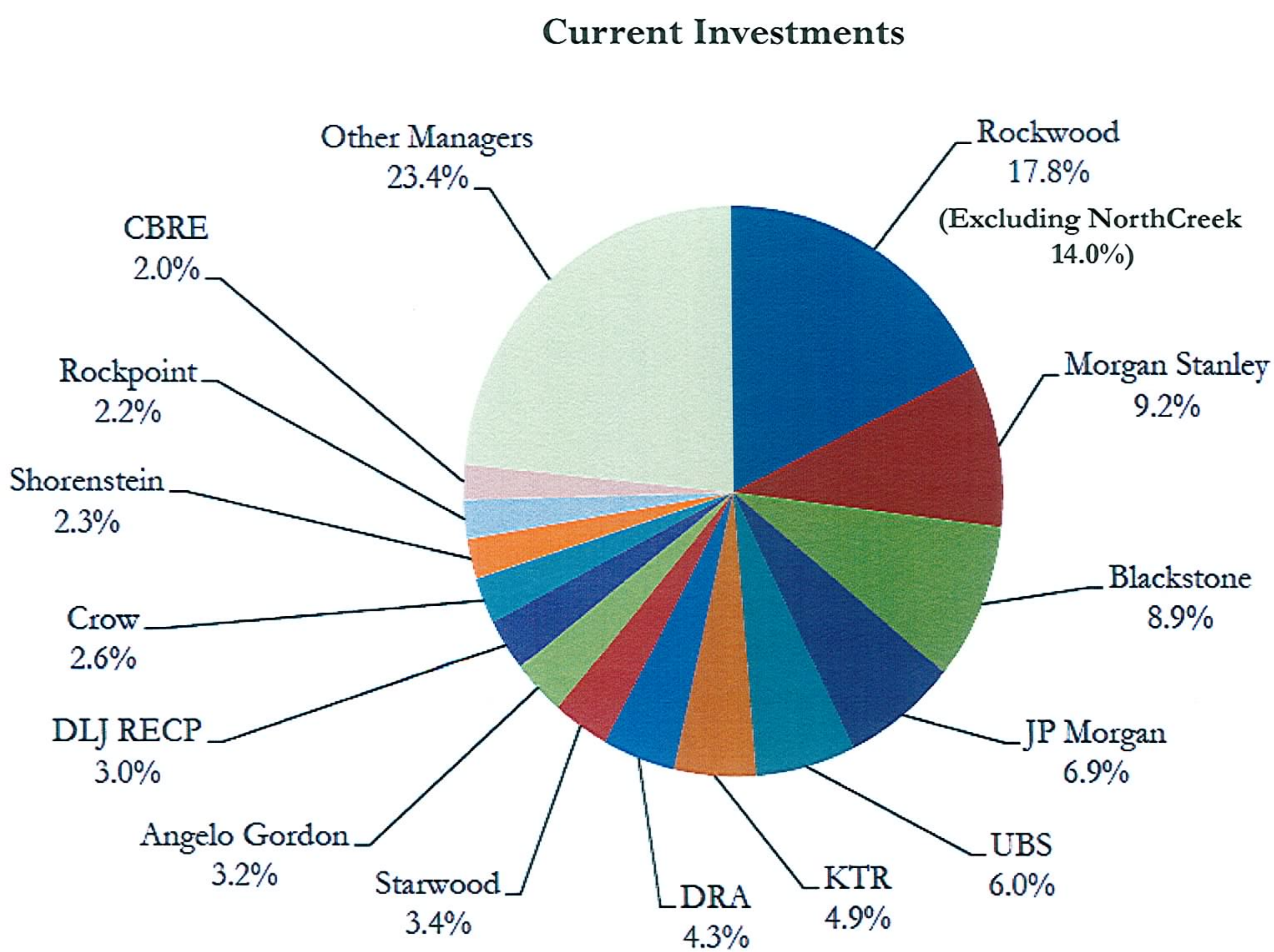
Real Estate Allocation – Deal Size Diversity



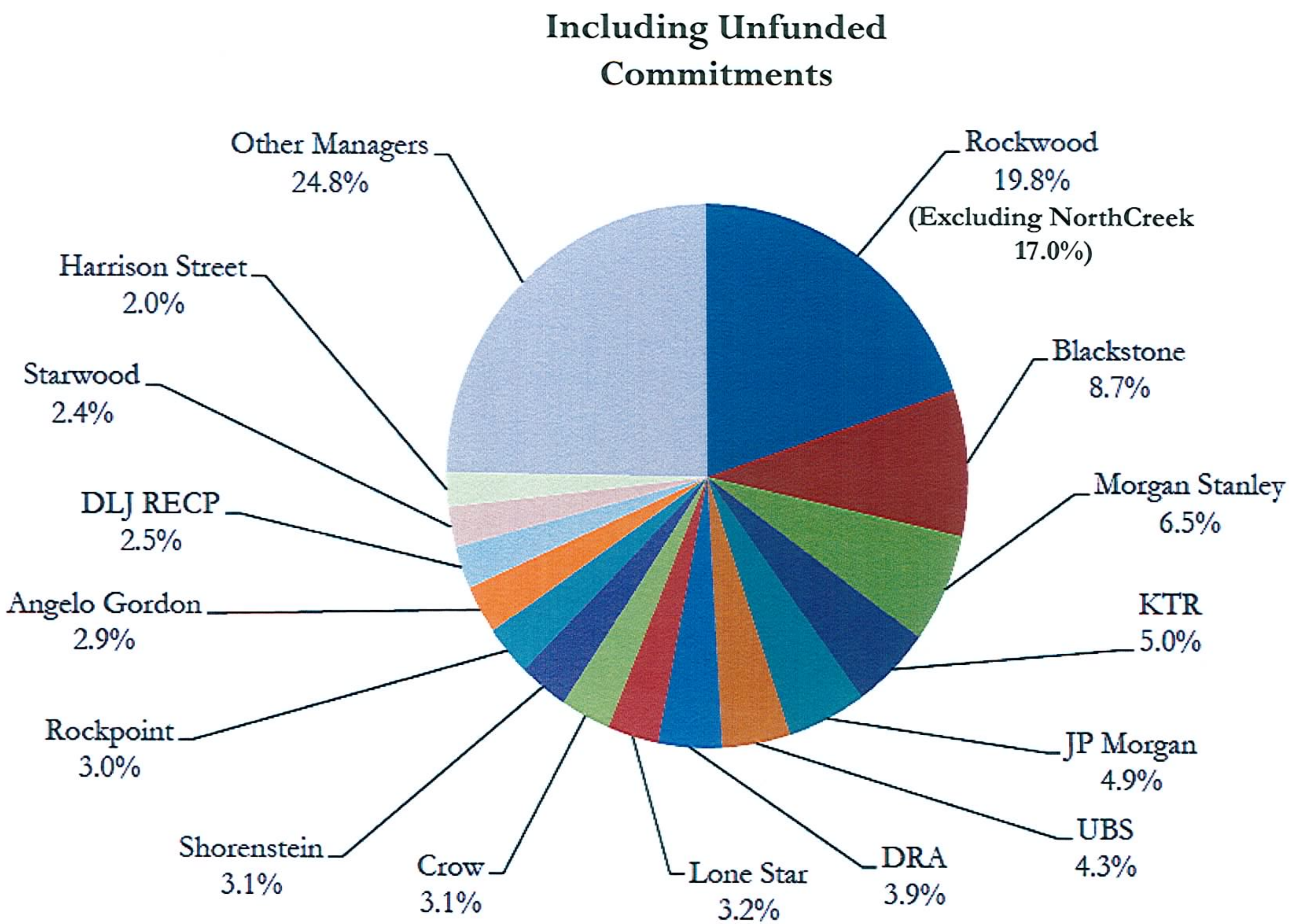
Commitments and Cash Flows by Vintage Year



Manager Concentration



Manager Concentration



Top Ten Performing Managers by IRR and Multiple of Cost

Top Ten Managers by IRR:

Since Inception As of 6/30/13

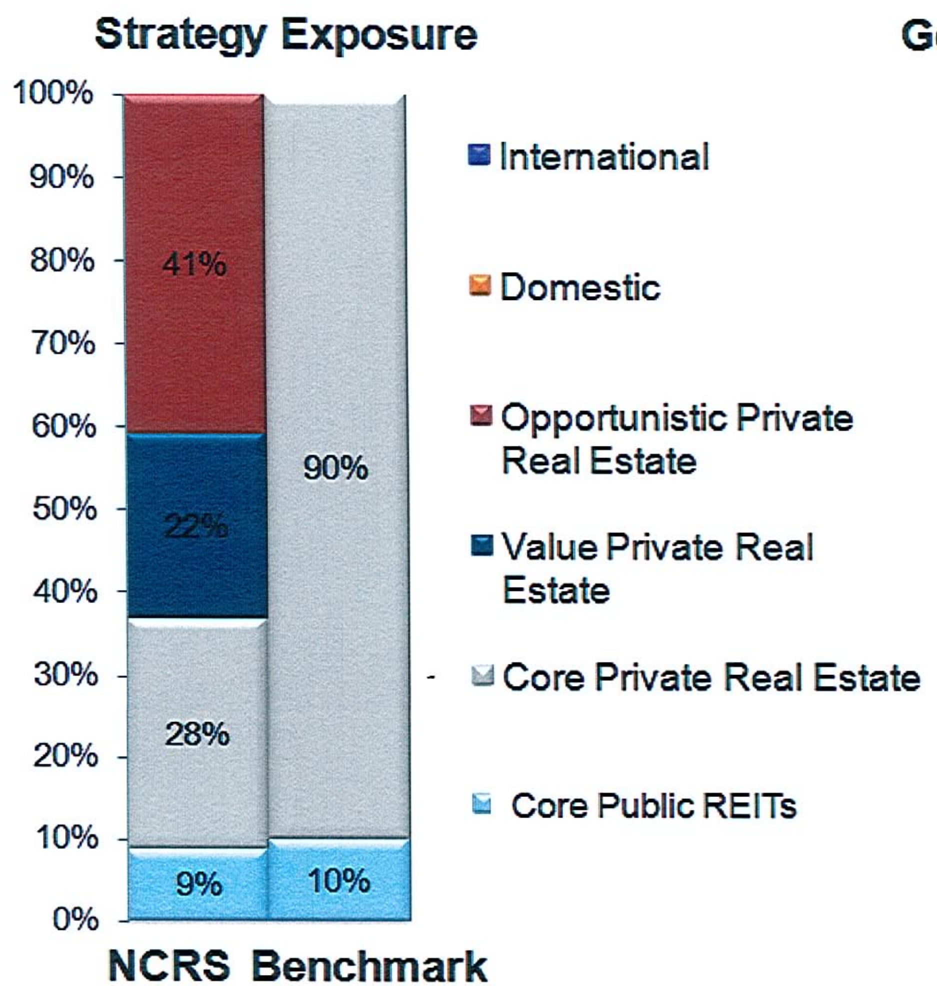
Fund	Vintage Year	IRR %
Westbrook Real Estate Fund I, L.P.	1995	26.06
Keystone Industrial Fund II, L.P.	2007	25.03
DRA Growth & Income Fund III, LLC	2000	22.99
Blackstone Real Estate Partners VII, L.P.	2011	22.26
Westbrook Real Estate Fund IV, L.P.	2000	20.62
RREEF Global Opportunities Fund II, LLC Senior Nts	2010	19.92
DB Real Estate Global Opps I-A/I-B, L.P.	2003	18.69
AG Core Plus Realty Fund I, L.P.	2003	17.78
Lone Star Real Estate Partners II	2011	17.05
DLJ Real Estate Capital Partners II, L.P.	2000	14.50

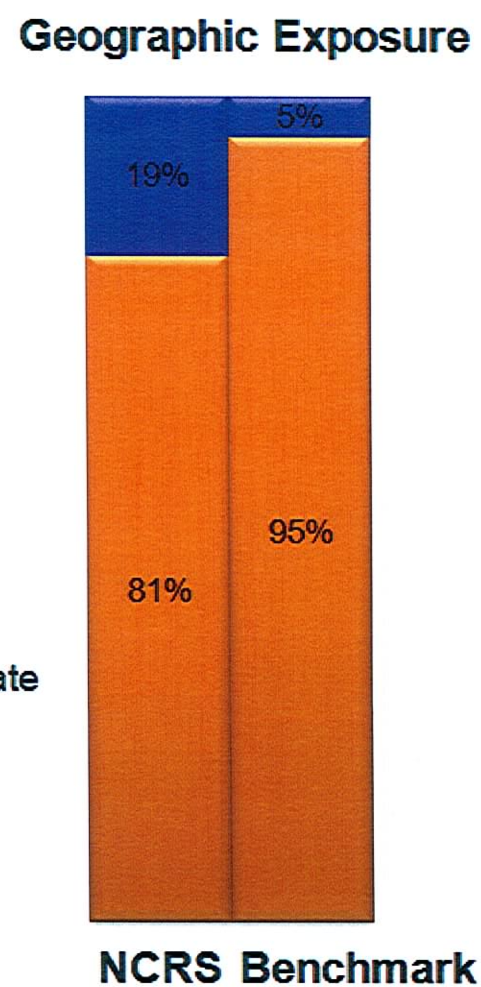
Top Ten Managers by Multiple of Cost:

Since Inception As of 6/30/13

Fund	Vintage Year	Multiple of Cost (Xs)
DRA Growth & Income Fund III, LLC	2000	2.78
UBS Trumbull Property Income Fund	1984	2.72
Westbrook Real Estate Fund I, L.P.	1995	2.16
JP Morgan Strategic Property Fund	1989	2.09
Starwood SDL/SOF Co-Investment	2005	1.95
UBS Trumbull Property Fund	1984	1.79
Westbrook Real Estate Fund IV, L.P.	2000	1.66
Keystone Industrial Fund II, L.P.	2007	1.60
DRA Growth & Income Fund IV, LLC	2003	1.59
SRI Seven REIT	2004	1.58

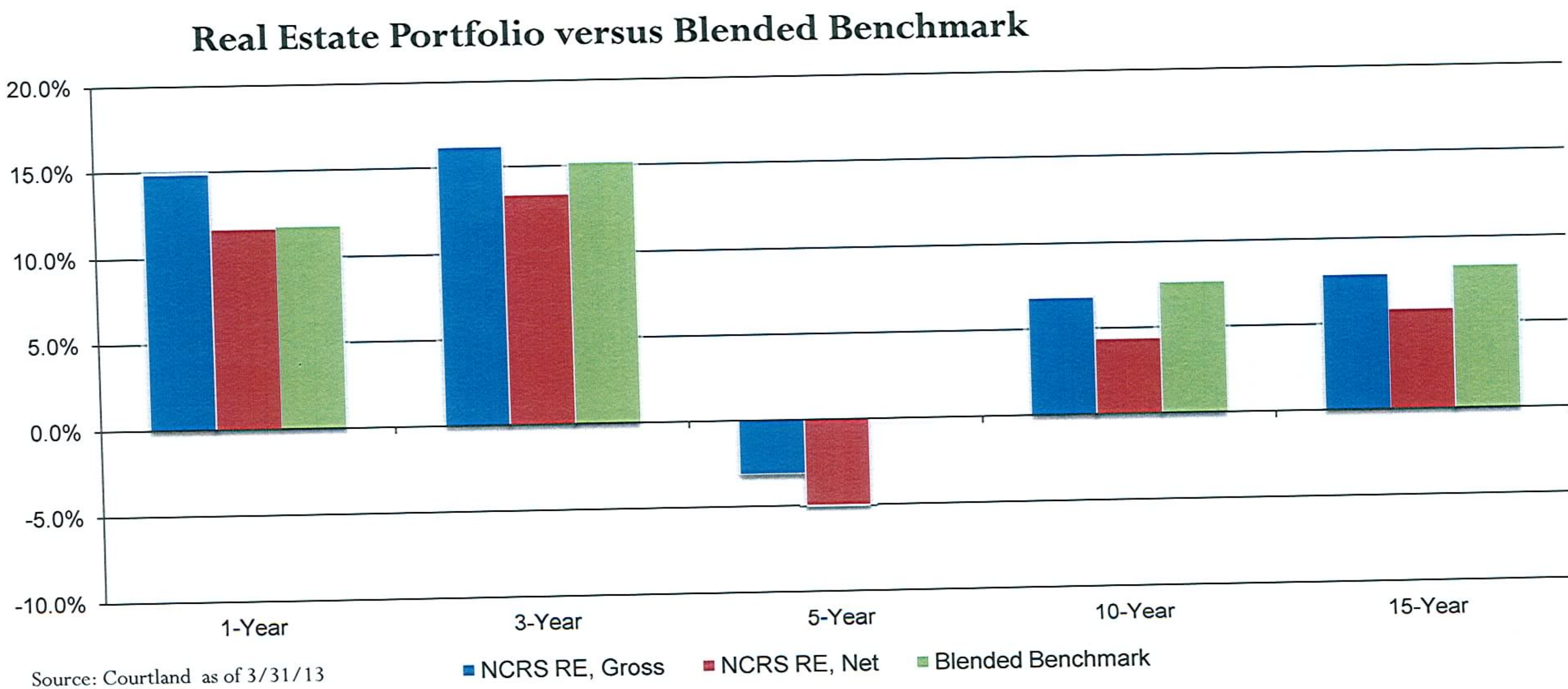
Portfolio Actual vs. Benchmark





Courtland Partners as of March 31,2013
NCRS Benchmark for RE: 90% NCREIF ODCE, 10% FTSE/EPRA/NAREIT

Performance, Total Returns



Source: Courtland as of 3/31/13
Benchmark is Gross Total Return

Key Performance Drivers

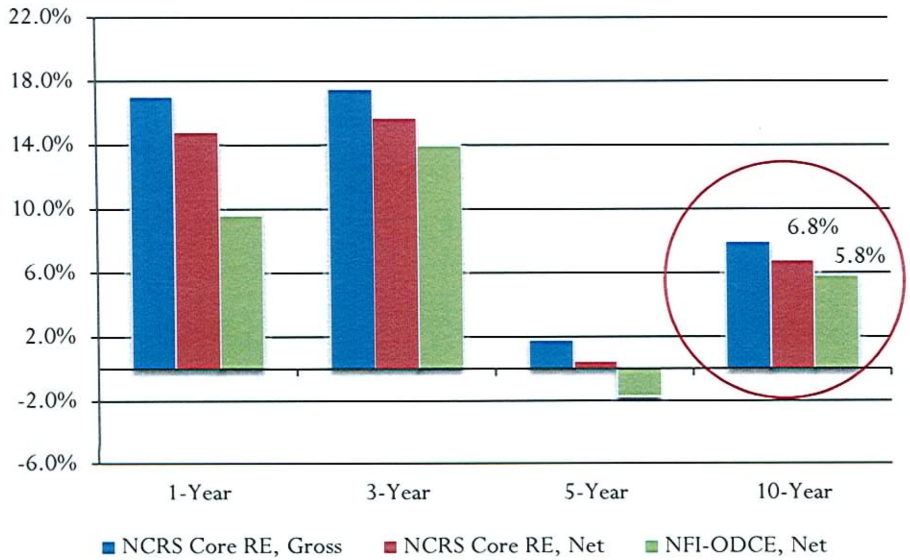
Drivers	Impact
Allocation to non-core private real estate (value-add and opportunistic funds are not in benchmark)	Generally negative due to **timing** of the non-core build out in 05-06. Mature non-core assets added value as discussed in slide 10; however, the relatively small allocation could not support the magnitude of the build-out. Value funds have recently had a strong rebound. Opportunistic funds are expected to as well. Negative effect will decline as these funds mature. Over the long-term, allocation to non core should be a positive.
Individual manager/fund selections	Strong positive, with a small number of exceptions.
Allocation by vintage year	Large negative impact resulted from being out of the market in 2001 and 2009. Large negative impact resulted from build out of portfolio in 2005 and 2006.

Private vs. Public Performance

28% of Portfolio

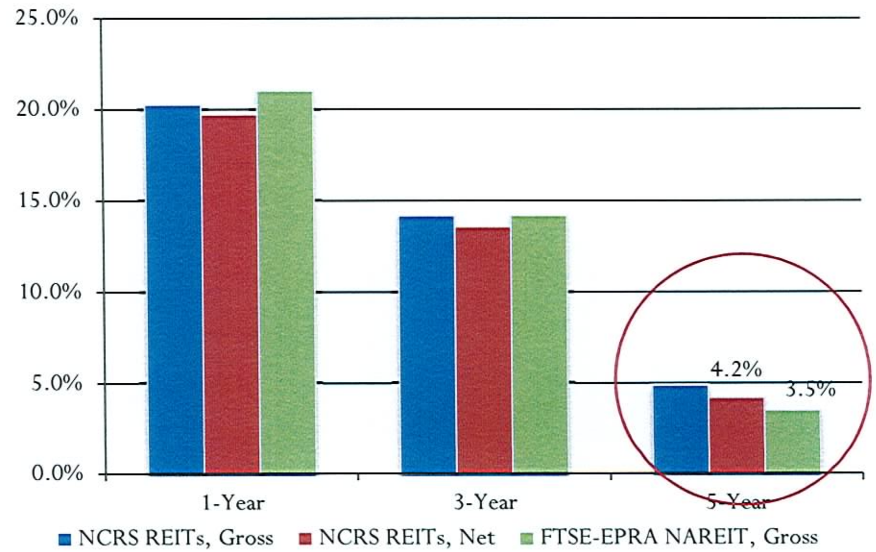
9% of Portfolio

Private Core Real Estate vs. ODCE



Outperformance in 1-, 3-, 5-, and 10-year periods

REITs vs. FTSE EPRA NAREIT

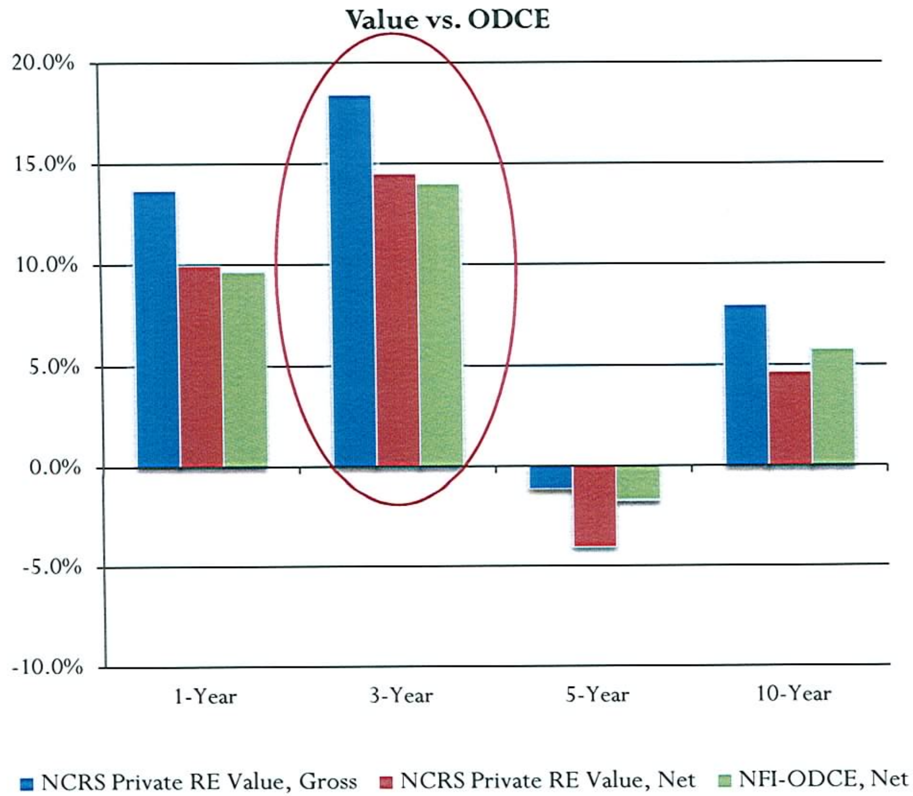


Outperformance over a 5-year period

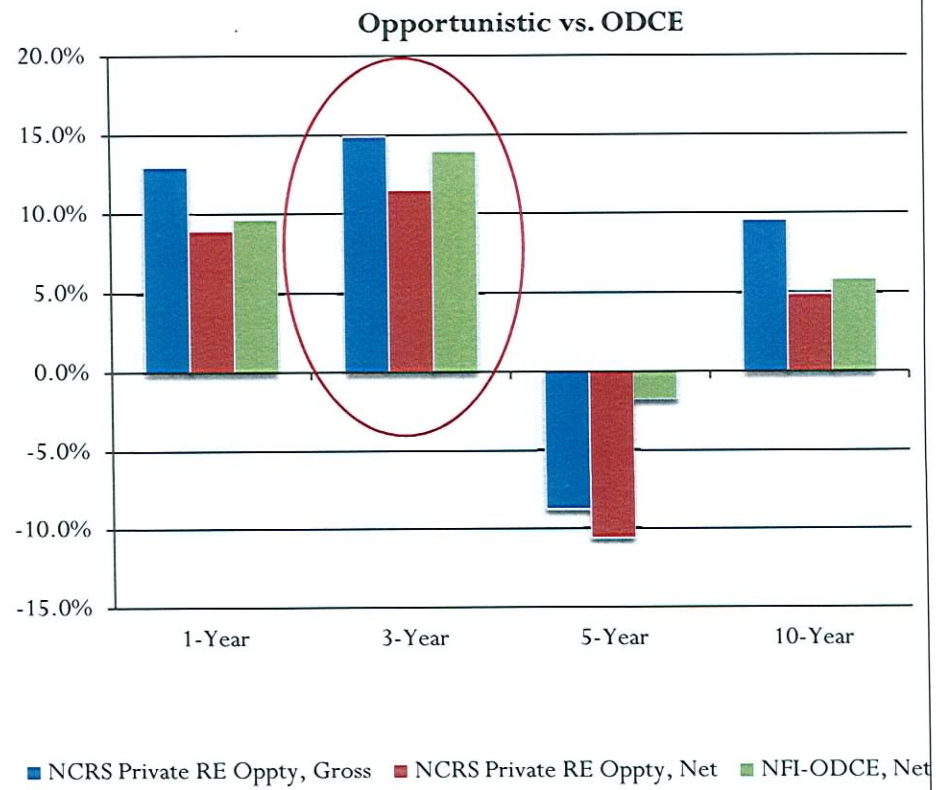
Non-Core Performance vs NFI-ODCE

Non-Core performance mixed over the 3-year period when compared to the NFI - ODCE

22% of Portfolio



41% of Portfolio



NCRS Private Real Estate Compared With Industry Benchmarks

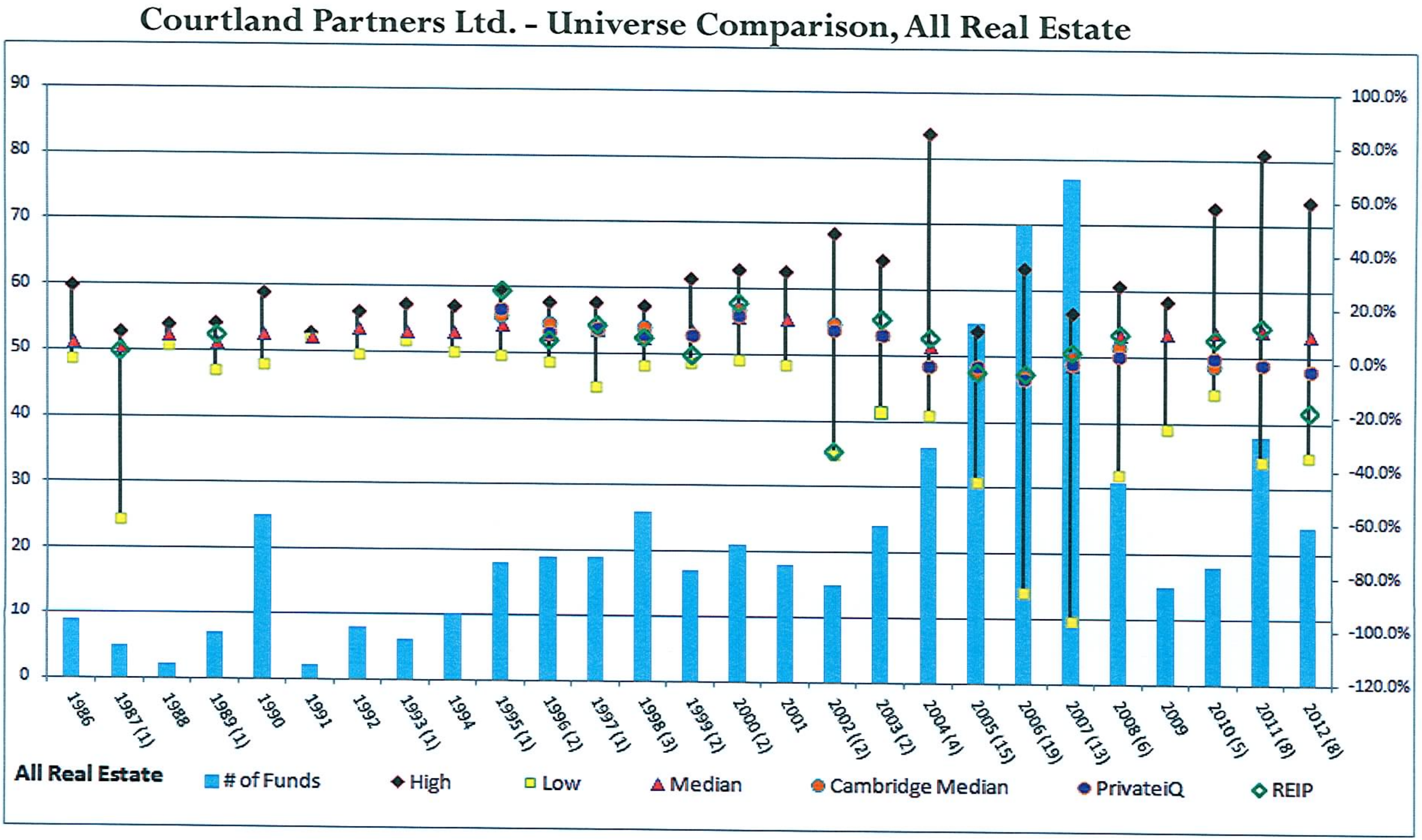
	1 Year	3 Year	5 Year
NCRS Total	11.16	13.09	(5.69)
Total (Dynamic) *	9.92	12.44	(5.59)
Total (Static) **	9.76	12.60	(5.16)
CA Real Estate	9.65	11.56	(6.92)
Private iQ Real Estate	4.98	10.25	(7.75)
NCRS Core	14.51	14.97	0.13
NCREIF ODCE (GROSS)	10.79	15.13	(0.84)
NCREIF ODCE	9.67	14.02	(1.75)
NCREIF Property Index	10.52	13.30	2.32
Private iQ Core	9.73	5.59	(4.05)
NCRS Opportunistic	9.41	11.14	(10.08)
CA Opportunistic	10.26	11.86	(6.38)
Private iQ Opportunistic	4.32	9.90	(7.88)
NCRS Value Add	10.96	14.99	(4.00)
CA Value Add	8.25	10.80	(8.45)
Private iQ Value-Added	6.15	11.58	(7.96)

CA = Cambridge Associates; NCREIF = National Council of Real Estate Investment Fiduciaries;
ODCE = Open-end Diversified Core (Gross), Mellon Returns and all data as of 3/31/13 and shown on Net basis.

* Benchmark is dynamically weighted using NCREIF ODCE (Core), CA Opp, CA VA,
** Benchmark is weighted 33% Core, 33% Opp, 33% VA,

= Outperformance of Private Indices

Vintage Year Comparisons



Real Estate Vintage Year Performance

One year can make a significant difference

IRR by Vintage Year as of 6/30/13

	Pre-2004	2004	2005	2006	2007	2008	2010	2011	2012*	2013	Total
NCRS	7.67	10.12	-3.11	-4.17	**3.82**	**10.84**	**6.80**	**13.64**	**-17.47**	n/a	4.24
# of Funds	20	3	15	18	12	6	5	8	5	5	97**

IRR by Vintage Year as of 6/30/12

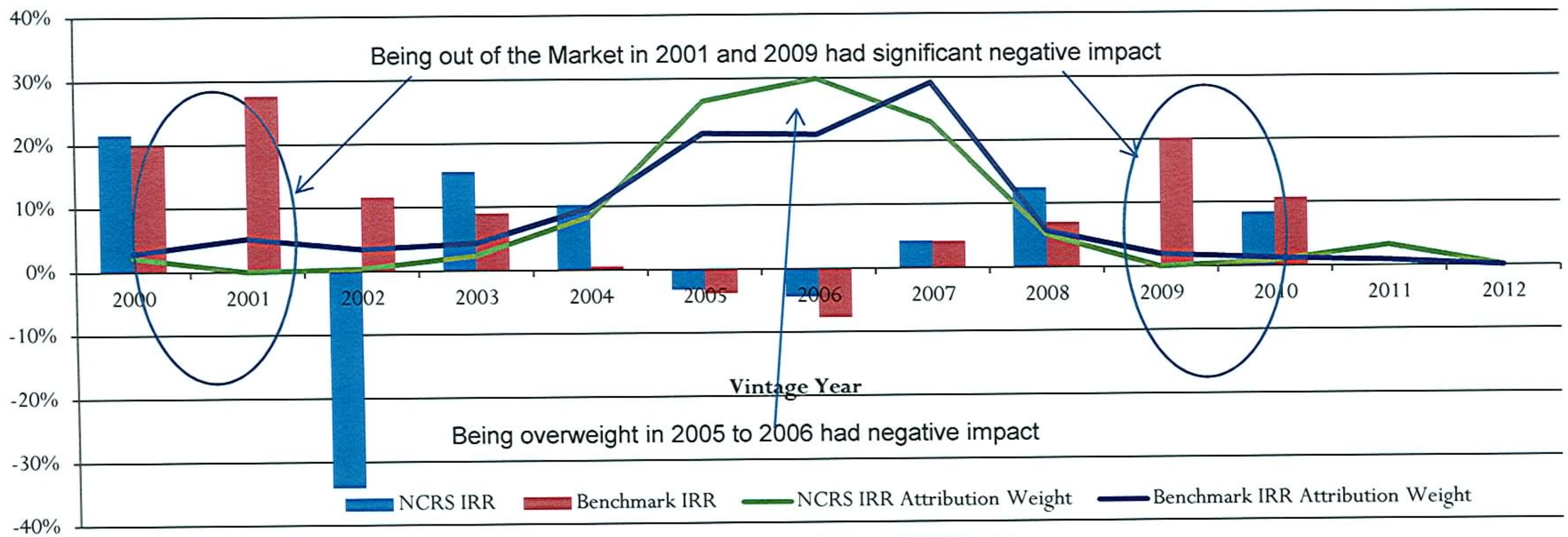
	Pre-2003	2003	2004	2005	2006	2007	2008	2010	2011	2012*	Total
NCRS	7.44	16.34	9.48	-3.48	-6.72	1.07	4.17	-0.10	9.22	n/a	3.38
# of Funds	17	3	3	15	18	12	6	5	8	5	92**

* 2012 IRR by Vintage Year above not meaningful due to J-curve effect.
** We currently have 40 Managers and 86 Investments, including Co-Investments

As of 6/30/2013

Performance Attribution by Vintage Year

Utilizing Cambridge Benchmark
Excludes Pre 2000 Closed-End Funds and all Open -End Funds



Key Takeaways:	
Selection Effect	
Manager Selection Added	241 BP
No selections in Yrs 2001 and 2009	-182 BP
Cherokee 2002	-160 BP
Total Selection Effect	**-101 BP**
Allocation Effect	
Underweight to Benchmark 9 of 13 Years	-284 BP
Overweight to Benchmark 4 of 13 Years	-44 BP
Total Allocation Effect	**-328 BP**
Interaction Effect	
No Selections in 2001 & Cherokee 2002	323 BP
Net Effect from Remaining Years	-1 BP
Total Interaction Effect	**322 BP**
Total IRR Variance from Benchmark	**-107 BP**

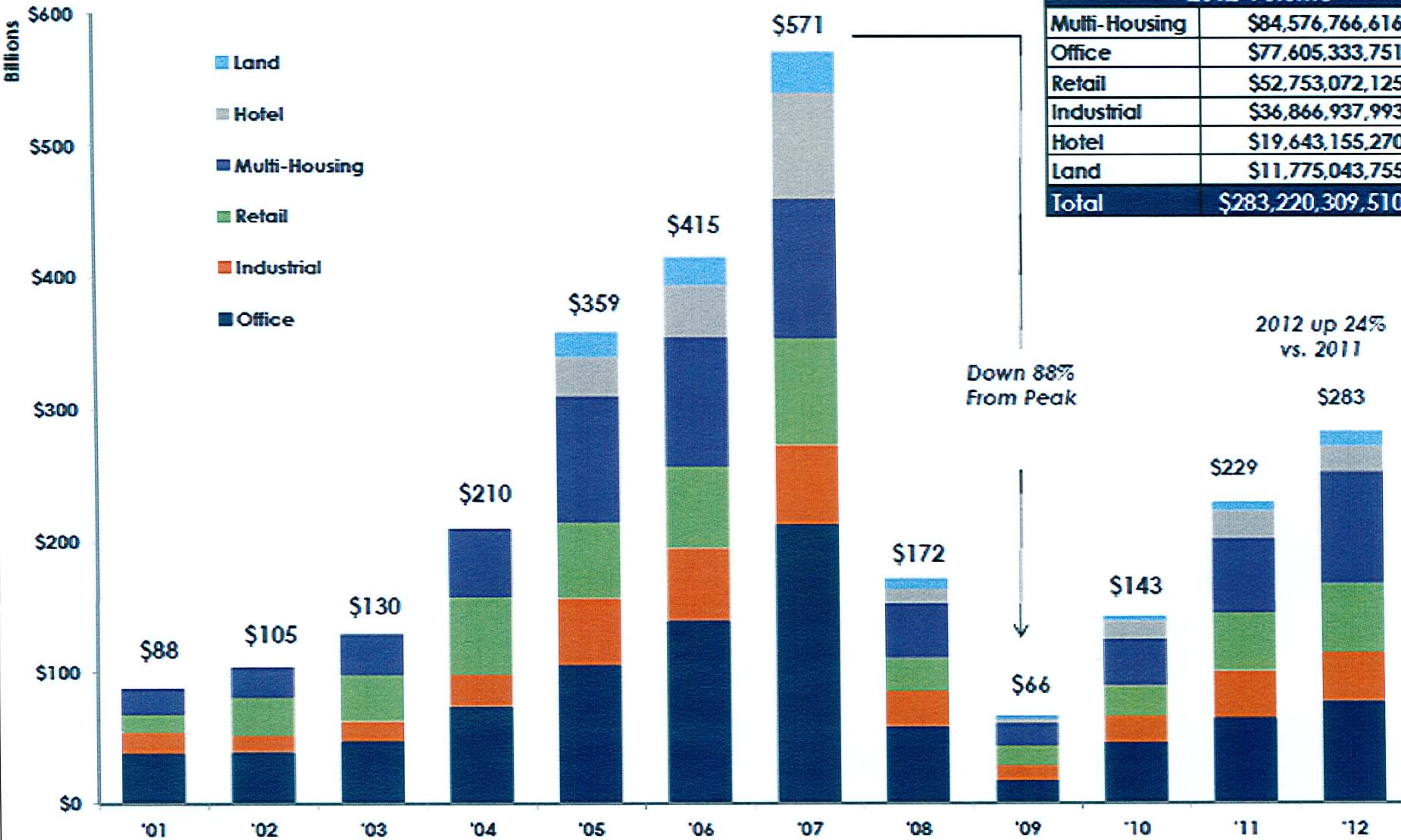
2012/2013 Goals & Accomplishments

Goals	Results
Alleviate Immediate Resource Constraints	Troy March as PM; Analyst Contract Position
Platform Opportunities / Separate Accounts	Investigated four opportunities Two with potential
Debt Program	Completed identified US program Researched EU distress – 3 managers identified
Re-up with Strongest Fund Managers	Closed on $545 mm in FY2013; $250mm on-hold or denied
International / Emerging Market Opportunities	Researched Opportunities in Europe Identified managers for possible investments in both debt and equity.
Legacy/Secondary Initiative	Researched consolidation and possible exits for non-continuing legacy funds.

2011/2012 Goals & Accomplishments - Systems & Team

Goals	Results
Separate Account Successes	NorthRock – increased NorthCreek – ahead of business plan NorthRock II – 50% committed
Portfolio Sales and Exit Strategy Executions	Stag, RREEF, Terra Firma
REIT Review	Rebalancing Policy, In-kind Distributions, ODCE Strategy Evaluation
Giving Back through Participation in Real Estate Community	Active participation in: •Pension Real Estate Association •Urban Land Institute •The Institutional Real Estate Letter •Emerging Managers Conference •Kenan-Flagler •National Association of Office and Industrial Properties (NAIOP)

U.S. Commercial Real Estate Sales Volume by Property Type

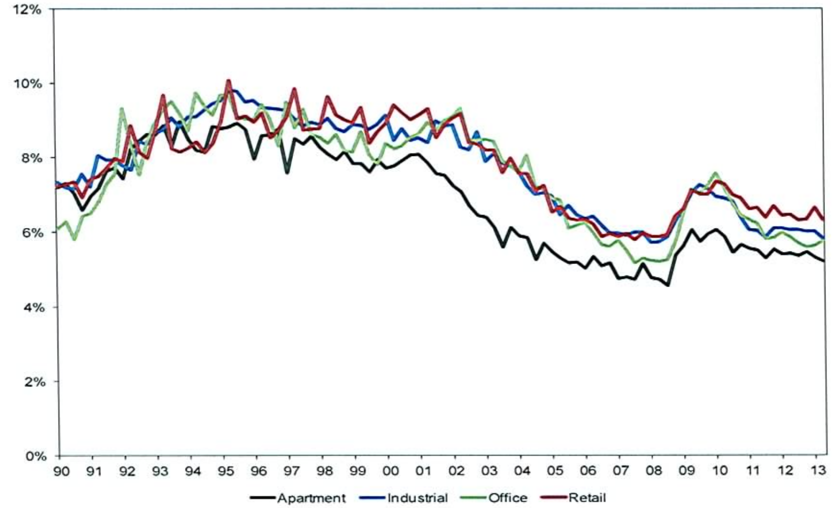


2012 Volume		
Multi-Housing	$84,576,766,616	30%
Office	$77,605,333,751	27%
Retail	$52,753,072,125	19%
Industrial	$36,866,937,993	13%
Hotel	$19,643,155,270	7%
Land	$11,775,043,755	4%
Total	$283,220,309,510	100%

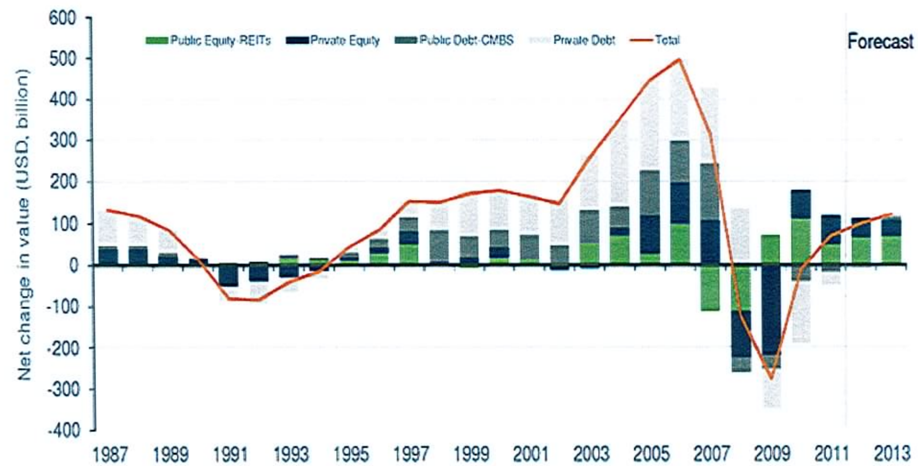
Source: Courtland Partners; Real Capital Analytics

Cap Rates, Vacancy, Capital Flows & Yields

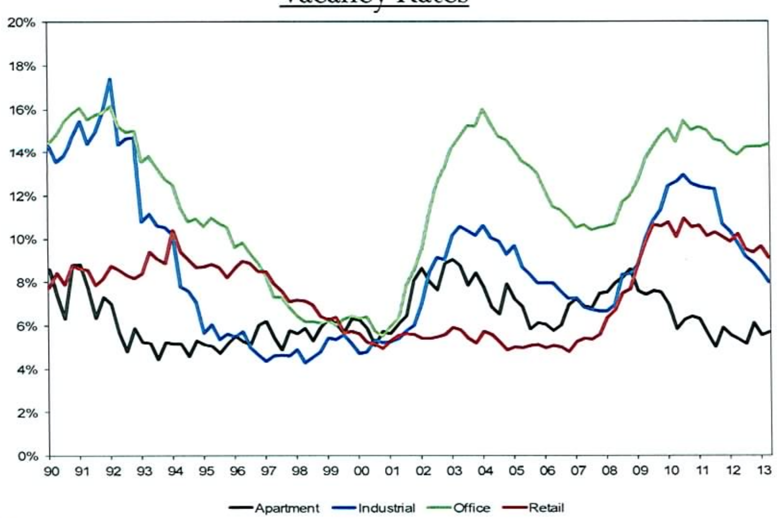
Cap Rates



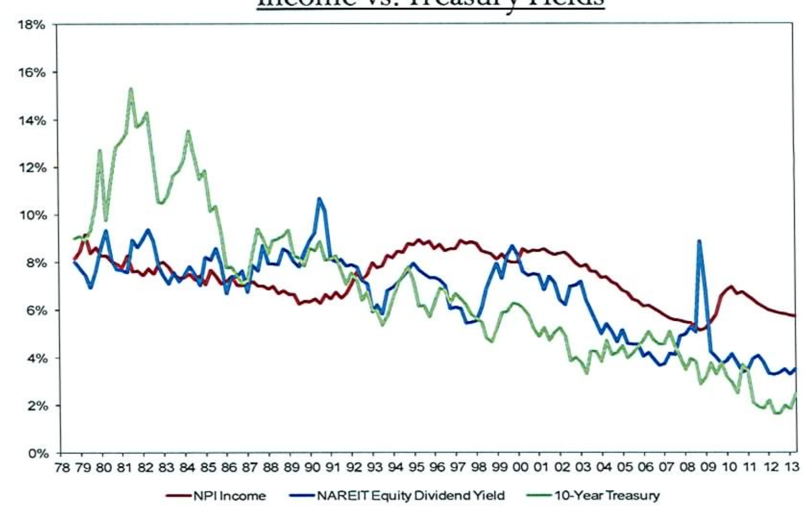
U.S. Net Capital Flows



Vacancy Rates

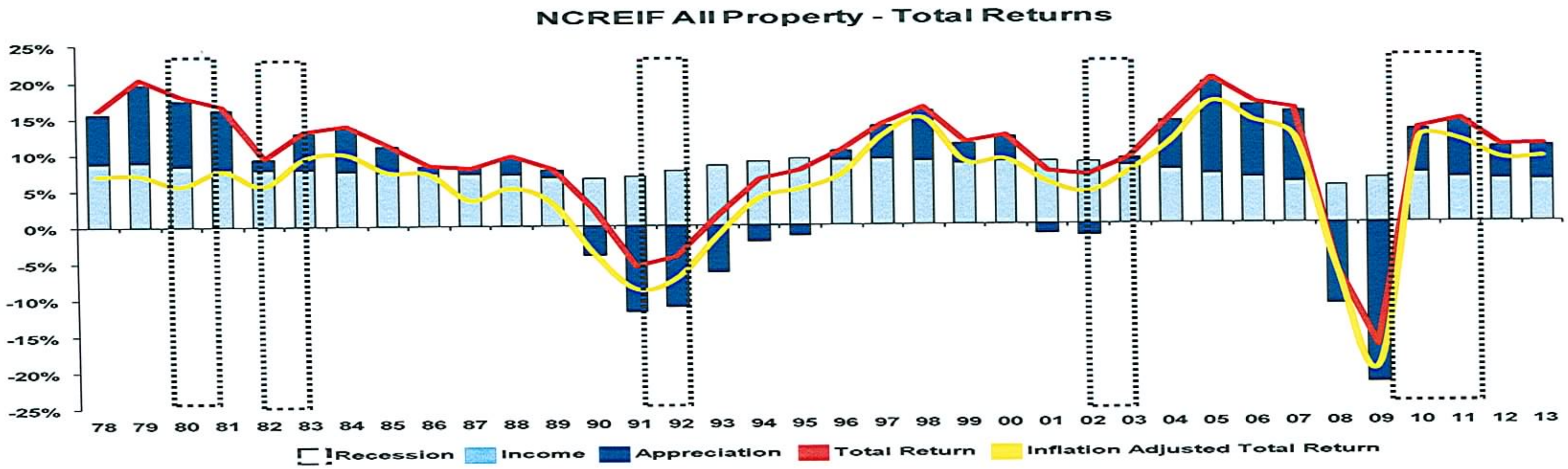


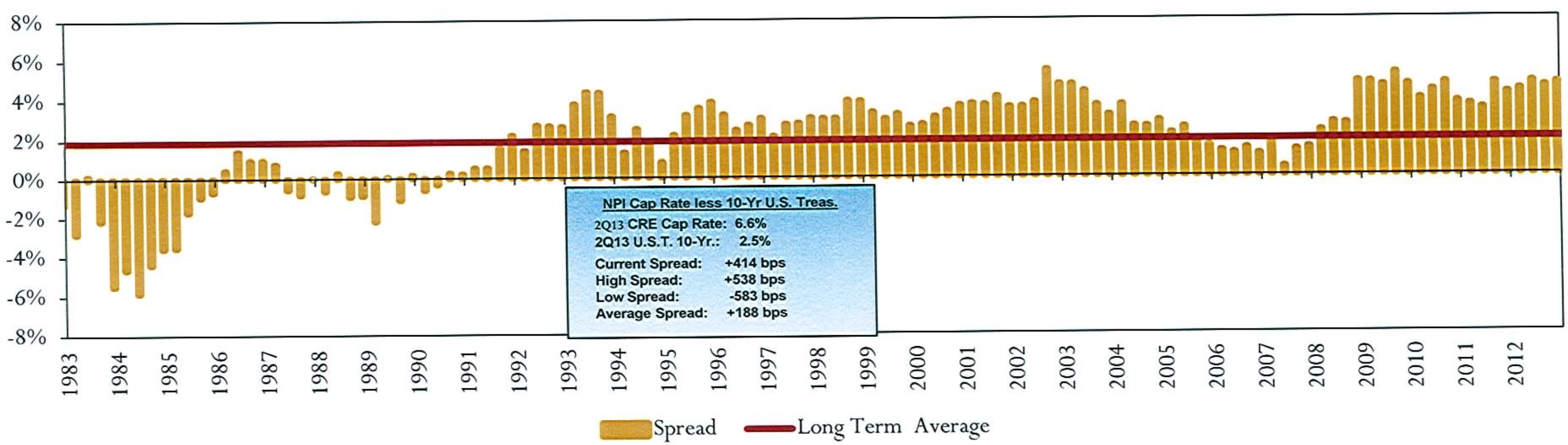
Income vs. Treasury Yields



Source: Courtland Partners; Jones Lang LaSalle, NAREIT, NCREIF; As of June 30, 2013

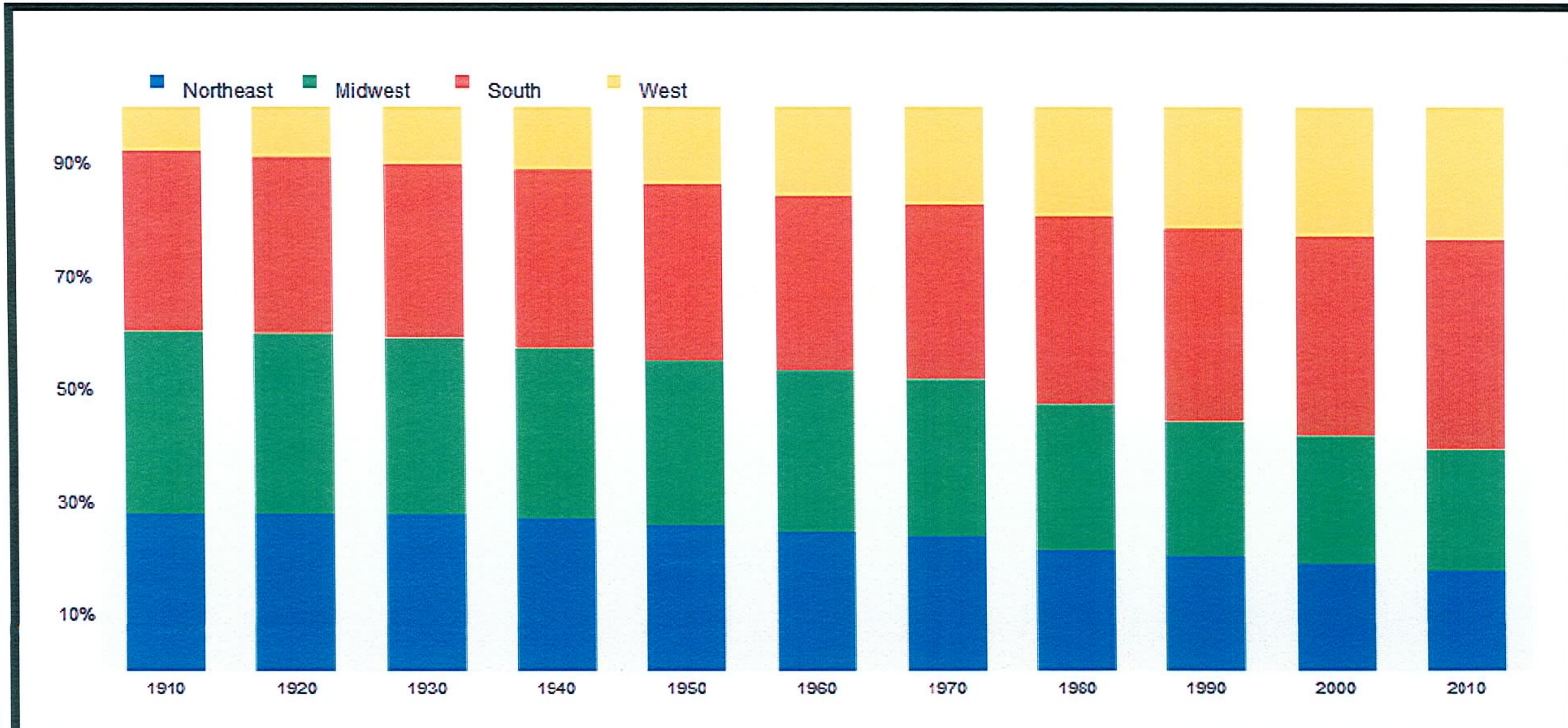
U.S. Cap Rates and Returns





Source: NCREIF, Courtland Partners, Ltd.; As of December 31, 2012.

U.S. Regional Population Composition Over Last 100 Years



Source: Rockwood Capital; U.S. Department of Commerce, Bureau of the Census

Select Metropolitan Area Job Recoveries

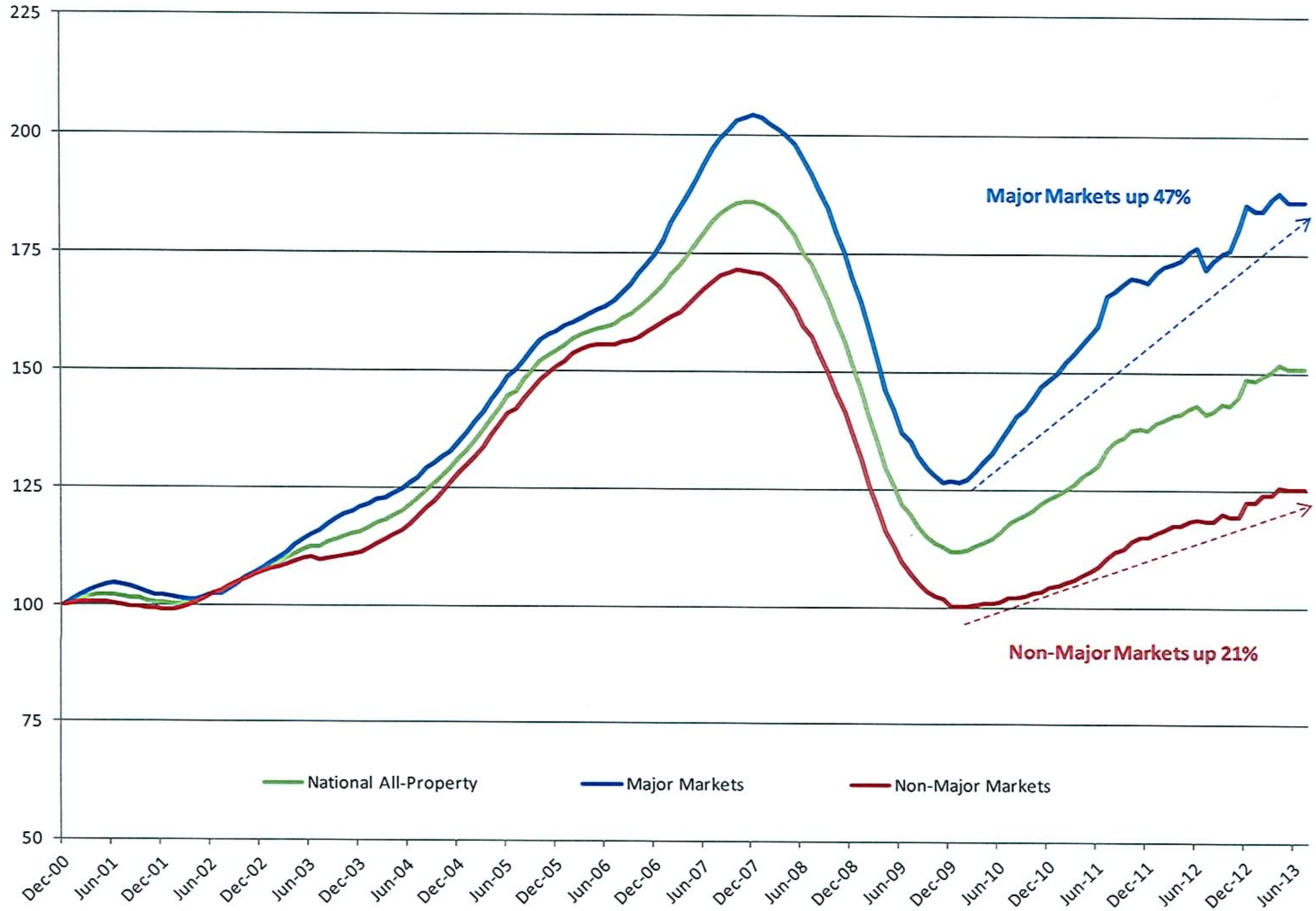
Jobs Regained as a % of Jobs Lost in Recession (Jobs in 000s)

(Through Dec. 2012) Metropolitan Area	Jobs Lost	Jobs Regained	% Jobs Regained
Austin	23.9	77.3	323%
Houston	116.9	208.8	179%
New York City*	140.1	215.7	154%
Washington, D.C.	98.9	127.0	128%
Dallas-Fort Worth	155.2	183.2	118%
San Jose	81.5	81.0	99%
Raleigh-Durham	46.0	45.4	99%
Boston	102.6	98.2	96%
Denver	75.7	67.8	90%
San Francisco	77.5	66.3	86%
Seattle	118.8	90.5	76%
Atlanta	205.2	100.4	49%
Miami	94.0	38.8	41%
Phoenix	245.9	96.5	39%
Chicago	289.3	106.0	37%
Los Angeles	379.9	127.7	34%
Philadelphia	142.8	47.5	33%
Riverside-San Bernardino	159.8	37.3	23%
Las Vegas	133.3	28.5	21%
United States	**8,779**	**4,777**	**54%**

** New York City only.*

Source: Rockwood Capital; U.S. Department of Labor, Bureau of Labor Statistics

U.S. Commercial Real Estate Market Bifurcation

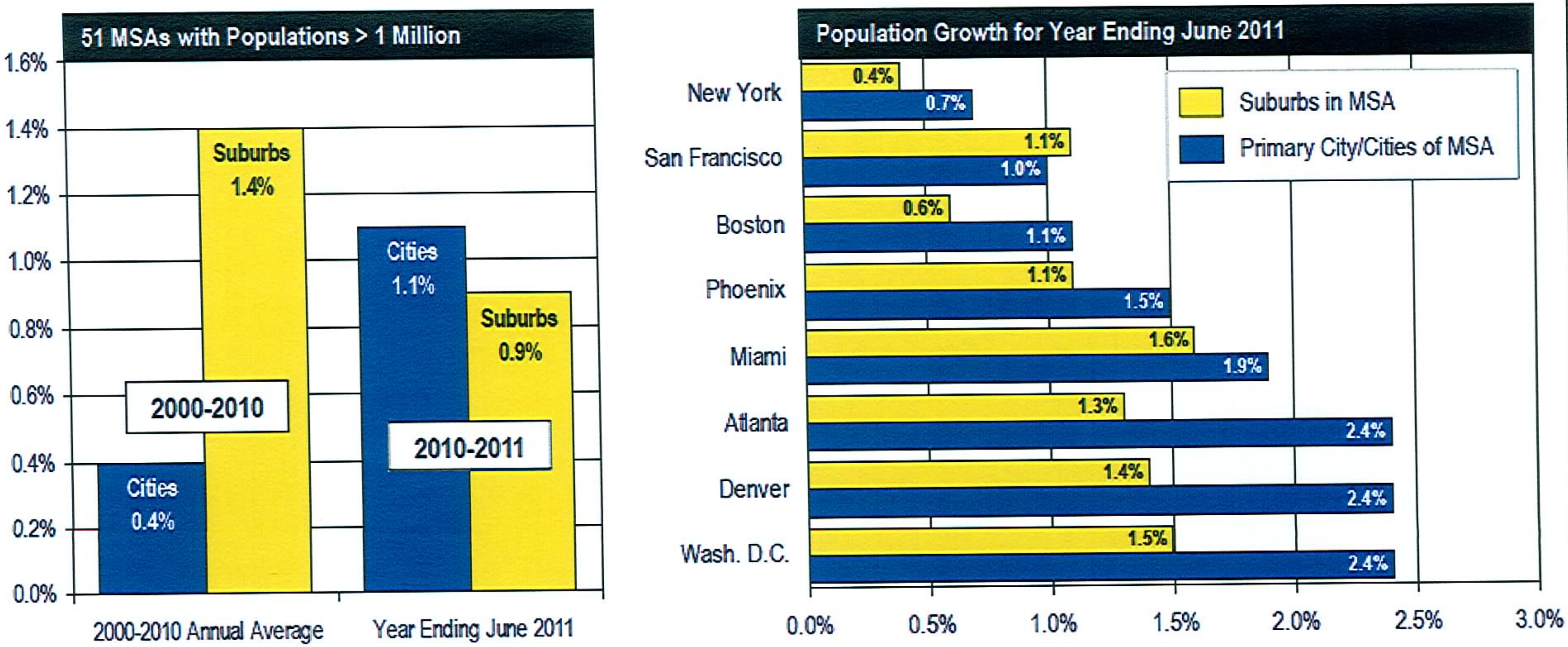


The "Major Markets" are six gateway metropolitan areas: Boston, Chicago, Los Angeles, New York, San Francisco and Washington D.C.

Source: Courtland Partners; RCA and Moody's Investors Service; As of June 2013

U.S. Population Growth: Central Cities vs. Suburbs

Population Growth in Cities Recently Has Outpaced that of the Suburbs



Source: Rockwood Capital; William H. Frey: U.S. Department of Commerce, Bureau of the Census

30 Most Active Global Markets in 2012

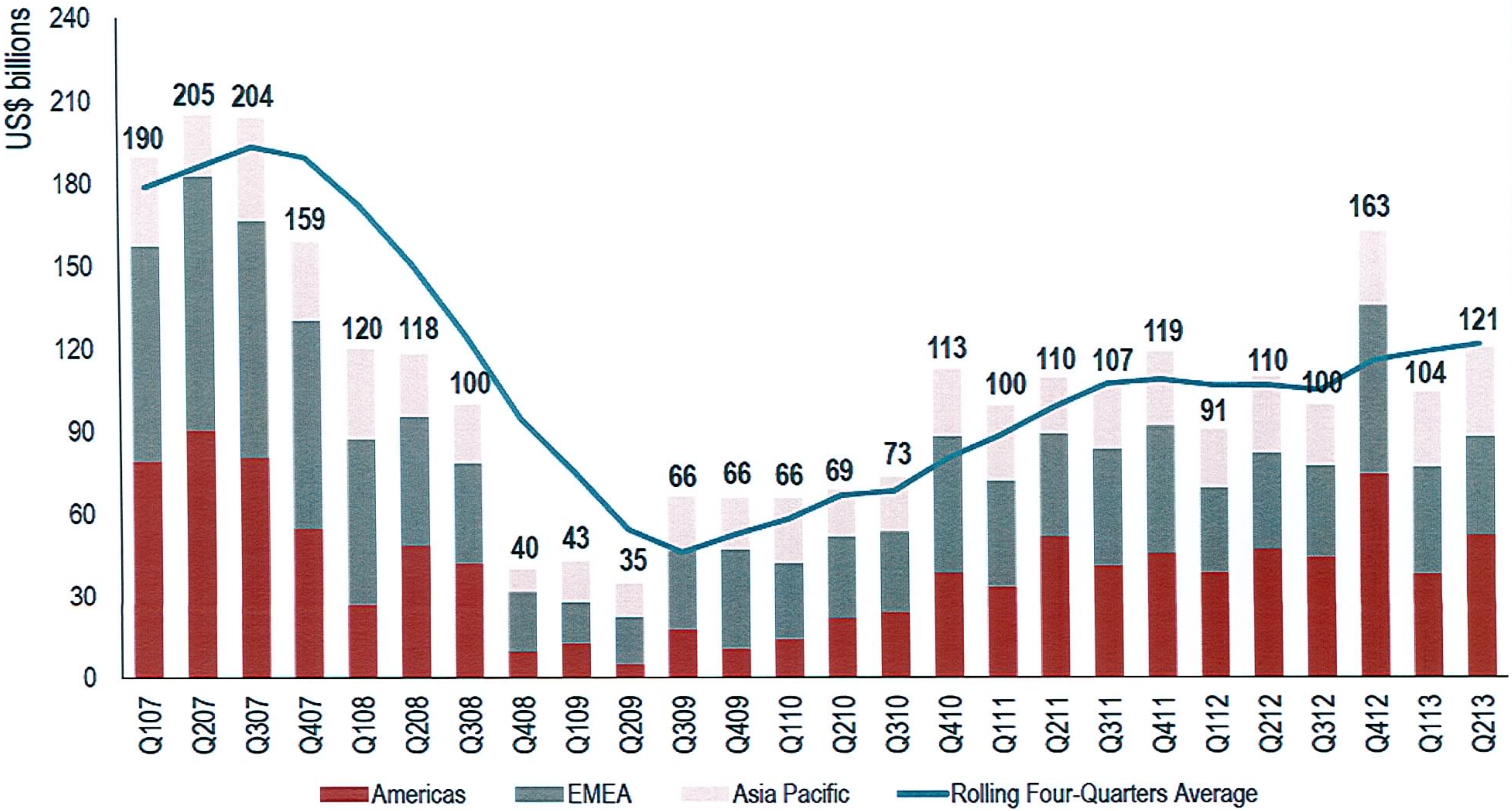
2012 Top 30 Markets

All Core + Hotel

Rankings 2007	2008	2009	2010	2011	2012	Markets	2012 Sales Volume ($M)	YOY Change
1	2	6	3	1	1	NYC Metro	$38,188	12%
2	3	1	2	2	2	London Metro	$31.739	7%
5	1	2	1	3	3	Tokyo	$21,838	-7%
3	5	8	8	5	4	LA Metro	$21,643	42%
4	12	13	9	7	5	SF Metro	$19,938	46%
7	4	3	4	4	6	Paris	$16,677	-21%
22	8	4	5	8	7	Hong Kong	$16,624	43%
6	10	9	7	6	8	DC Metro	$14,234	-6%
8	13	28	16	11	9	Chicago	$10,615	9%
10	34	45	29	31	10	Seattle	$9,241	132%
16	20	38	19	18	11	Houston	$8,624	31%
14	16	34	23	15	12	Dallas	$8,098	19%
11	9	18	6	9	13	Singapore	$7,842	-26%
15	24	19	21	19	14	Berlin-Brandenburg	$7,217	15%
9	27	36	22	14	15	Boston	$6,880	-4%
19	46	23	20	20	16	Sydney	$6,727	13%
39	23	31	18	16	17	Toronto	$6,584	-3%
13	21	27	17	25	18	So Fla	$6,515	34%
24	6	22	12	23	19	Stockholm	$6,415	17%
28	14	5	15	13	20	Seoul	$6,385	-12%
12	15	33	30	21	21	Atlanta	$6,105	6%
51	25	7	11	10	22	Shanghai	$5,661	-43%
26	36	46	48	30	23	Denver	$5,508	35%
17	33	39	34	32	24	Phoenix	$5,415	43%
18	43	30	26	26	25	Frankfurt/Rhine-Main	$4,923	2%
37	18	11	14	17	26	Moscow	$4,645	-31%
40	67	37	43	42	27	Brisbane	$4,604	121%
20	41	41	32	24	28	San Diego	$4,477	-8%
34	48	83	40	46	29	Austin	$4,359	115%
23	19	10	10	12	30	Beijing	$4,149	-50%

Source: Courtland Partners; Real Capital Analytics 2012 Year in Review

Direct Commercial Real Estate Investment, Quarterly Trends 2007 - 2013



Source: Jones Lang LaSalle as of July 2013

Market Takeaways and Trends

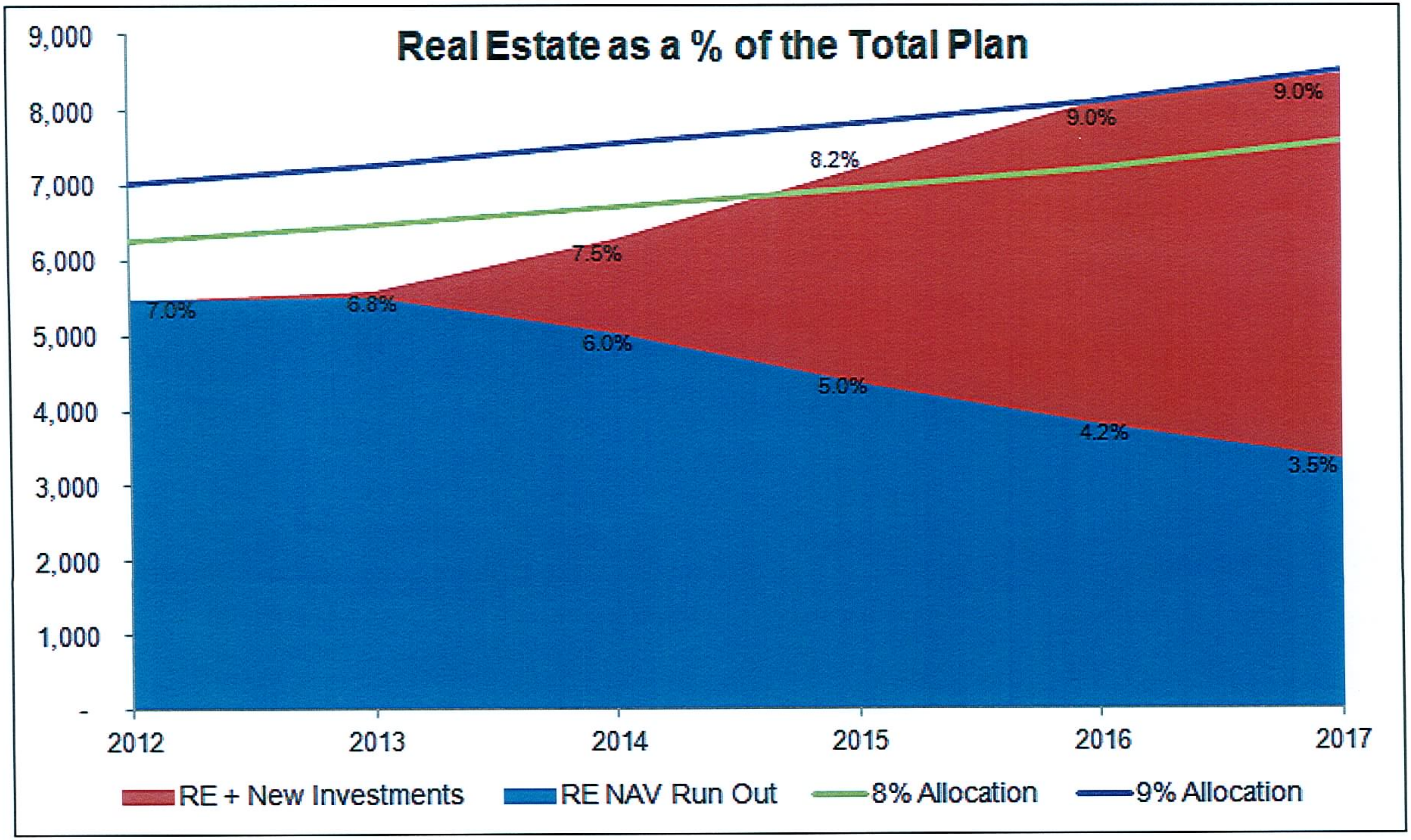
- Capital Flows → U.S. Gateway Cities & Europe (London)
- Demographic Trends → Urban Environments
- Job Growth → Technology & Energy Centered Markets

2014 Areas of Focus

Multi-Year Work Plan
Pacing Model ➡ Tentatively 8%-9% Target
Finalization of Asset Liability Model
Flexible Guidelines for Focus and Pacing

Policy Focus
RE Policy Modifications to tie into AL Study

Real Estate Allocation Forecast

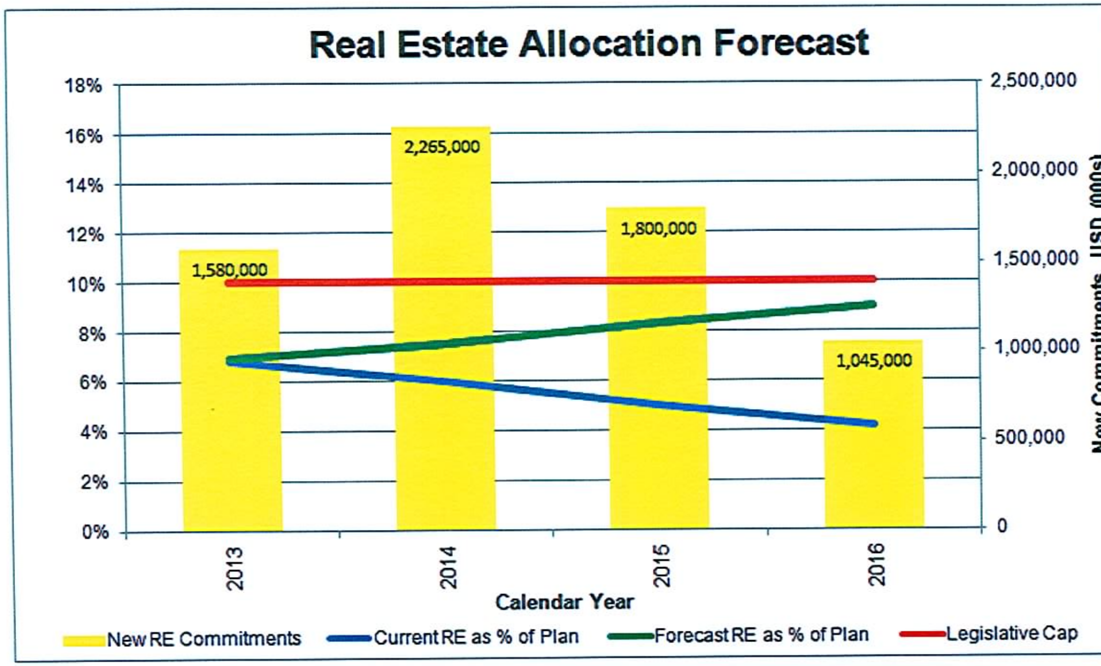


As of 6/30/2013

Sample Investment Pacing Model

Base Case: 9% Scenario

- Return = Buck Consultants
- Attains target allocation of 9% by 2016
- Reflects assessment of potential market opportunities



Sensitivity Analysis

- Includes Pacing Model from RE allocation Forecast
- Maintains compliance with Legislative Cap

Total Plan Impairments (%)

	2013	2014	2015	2016
0%	6.9%	7.5%	8.3%	9.0%
-5%	7.3%	7.9%	8.8%	9.5%
-10%	7.7%	8.3%	9.2%	10.0%
-15%	8.1%	8.8%	9.8%	10.6%
-20%	8.7%	9.4%	10.4%	11.3%
-25%	9.2%	10.0%	11.1%	12.0%

2014 Areas of Focus

Investment Focus
Complete EU investment program
Execute on the Pacing Model • Separate Account Build Out (control, fees and terms) • Current Income • Manufacturing/Building to Core • New Economy Markets
Execute on REIT sales and rebalance .
Execute on external management for mature liquidating legacy funds.
Evaluate Co-investment program
Research Latin America for potential re-ups with existing managers.
Begin Researching Opportunities in Asia

2014 Areas of Focus

Focus In Addition to Investments
Increase Staffing Resources
Staff Development and Training
Middle Office Support Review
Fee Monitoring and Review
Analysis and Research • Improve analytical systems and support • Broaden our research sources and communication of findings
Outreach – continue giving back