

**TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA**  
**Investment Committee Meeting**  
**Tuesday, June 24, 2014 – 3:00 PM**  
**TRS Administration Board Room**  
**2500 N. Lincoln Blvd., 5<sup>th</sup> Floor, Oklahoma City, OK**

**AGENDA**

- 1. CALL TO ORDER**
- 2. DISCUSSION AND POSSIBLE ACTION ON JP MORGAN PRESENTATION AND SPECIAL REPORT**
- 3. DISCUSSION AND POSSIBLE ACTION ON INVESTMENT CONSULTANT MONTHLY REPORT**
- 4. DISCUSSION AND POSSIBLE ACTION ON MANAGER STATUS REPORT**
- 5. DISCUSSION AND POSSIBLE ACTION ON THORNBURG SPECIAL REPORT**
- 6. DISCUSSION AND POSSIBLE ACTION ON MACKAY SHIELDS PERSONNEL CHANGE**
- 7. DISCUSSION AND POSSIBLE ACTION ON REAL ESTATE REPORT**
- 8. DISCUSSION AND POSSIBLE ACTION ON REAL ESTATE SEARCH UPDATE**
- 9. QUESTIONS AND COMMENTS FROM TRUSTEES**
- 10. ADJOURNMENT**

***ALL BOARD MEMBERS ARE ENCOURAGED TO ATTEND INVESTMENT COMMITTEE MEETINGS***

**INVESTMENT COMMITTEE:**

*Chair: Bill Peacher*

*Members: James Dickson, Roger Gaddis, Jill Geiger, Vernon Florence, Gary Trennepohl*

# May 2014 - Market Performance Update

Widespread Gains in May

## Equity Total Returns

Index	Last Month	Last Year	Last 3 Years	Last 5 Years
Dow Jones Industrial Average	1.2	13.3	12.9	17.6
NASDAQ (prc chg only)	3.1	22.8	14.4	19.1
S&P 500 cap weighted	2.4	20.5	15.2	18.4
S&P 500 equal weighted	2.2	22.4	15.4	21.5
S&P Mid Cap	1.8	18.0	12.9	20.8
S&P Small Cap	0.3	19.7	14.3	21.2
S&P REIT	2.4	9.8	10.2	22.8
Alerian MLP	3.4	18.4	17.1	24.3
Russell 1000 Growth	3.1	22.2	15.0	19.0
Russell 1000 Value	1.5	19.6	15.1	18.4
Russell Mid Cap Growth	2.7	20.7	12.8	20.5
Russell Mid Cap Value	1.7	22.0	15.2	22.2
Russell 2000 Growth	1.0	16.7	11.4	19.8
Russell 2000 Value	0.6	16.9	12.1	18.8
Russell Top 200	2.3	20.7	15.5	17.8
Russell 1000	2.3	20.9	15.1	18.8
Russell Mid Cap	2.2	21.3	14.0	21.4
Russell 2500	1.2	18.5	12.9	20.8
Russell 2000	0.8	16.8	11.7	19.3
MSCI World Ex US	1.6	17.5	6.6	11.1
MSCI World Ex US Growth	1.9	15.3	5.9	11.3
MSCI World Ex US Value	1.2	19.7	7.2	10.9
MSCI EAFE	1.6	18.0	7.3	11.4
MSCI Emerging Markets	3.5	4.3	-1.8	8.4

Both stock and bond investors were rewarded during May as financial asset prices rose. Share price volatility sank during May while prices gradually rose. Emerging markets outperformed developed markets by a significant margin.

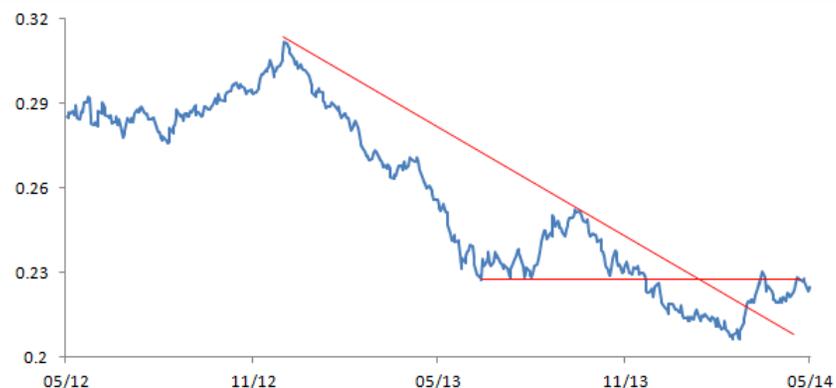
All major domestic equity index returns were positive during May. For the second consecutive month, larger companies produced significantly higher returns than smaller ones. Growth outperformed value despite a break in the market for high momentum stocks.

Long dated Treasuries performed very well during May as economic growth was below expectation. Bond investors have enjoyed an unexpected rally during 2014. US Real GDP was revised sharply lower, from 0.1% to -1.0% reflecting lower corporate profitability and weather related impacts. Short term interest rates remain locked near zero.

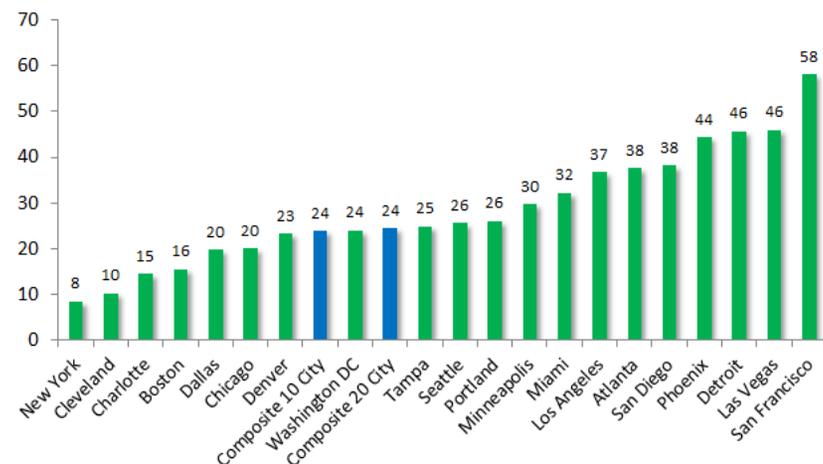
## Bond Total Returns

Index	Last Month	Last Year	Last 3 Years	Last 5 Years
BC T-Bills	0.0	0.0	0.1	0.1
BC Long Treasury	2.9	3.1	8.2	7.6
BC US Agg	1.1	2.7	3.6	5.0

## Ratio of Emerging Markets (EEM) to S&P 500 (SPY): Last Two Years



## S&P Case-Shiller: % From Housing Bust Lows



# Manager Profile - Neumeier Poma, Small Cap Value



Asset Class:	Small Cap Value Domestic Equity
Status:	In Compliance
Portfolio Size:	\$111,052,977
Inception Date:	6/1/2013
Annual Management Fee:	0.79%
Location:	Carmel, California
Structure:	100% Employee Owned
Portfolio Management Team:	Peter Neumeier Brian Poma
Represented by:	Peter Neumeier Brian Poma

## Notes:

Neumeier Poma Investment Counsel focuses exclusively on small cap value stocks that have been either misunderstood or ignored by major Wall Street firms. More than 80% of their research is generated by their investment management team. A typical portfolio will contain 35-40 stocks that have been thoroughly screened and evaluated using their rigorous investment process. Portfolio turnover is low (averaging less than 40% annually).

Founded: 1985  
Total Firm AUM: \$461 Million  
Small Cap AUM: \$461 Million

Return Profile	Since Inception	Last 10 Years	Last 5 Years	Last 3 Years	Last Year	Last Quarter	Last Month
Neumeier Poma Small Cap Value	20.2	-	-	-	20.2	-1.2	1.8
Russell 2000 Value		8.3	18.8	12.1	16.9	-0.7	0.6

Risk Characteristics	Number of Holdings	Average Mkt Cap	Dividend Yield	P/E Ratio	P/B Ratio
Neumeier Poma Small Cap Value	35	\$2,381	1.1%	16.4	3.4
Russell 2000 Value	1374	\$1,694	2.1%	18.5	1.6

# Manager Profile - Shapiro Capital, Small Cap Core/Value



Asset Class:	Small Cap Core/Value Domestic Equity
Status:	In Compliance
Portfolio Size:	\$675,754,394
Inception Date:	2/1/1998
Annual Management Fee:	0.70%
Location:	Atlanta, Georgia
Structure:	Employee owned
Portfolio Management Team:	Sam Shapiro Mike McCarthy
Represented by:	Sam Shapiro Mike McCarthy

## Notes:

Deep value individual stock selection with special attention paid to undiscovered value and management. Shapiro will work with company management to unlock value to shareholders. Special expertise in spin-offs and other difficult to understand corporate structures. Portfolio will be concentrated among approximately thirty holdings that Shapiro know very well. The manager will occasionally hold shares of a small number of mid-cap or even large cap companies.

Founded: 1990  
Total Firm AUM: \$4.1 Billion  
Small Cap AUM: \$2.0 Billion

Return Profile	Since Inception	Last 10 Years		Last 5 Years		Last 3 Years		Last Year	Last Quarter	Last Month
Shapiro Small Cap	11.2	13.3	8.3	23.6	18.8	16.8	12.1	31.6	4.6	3.5
Russell 2000 Value	8.6	8.3	8.3	18.8	12.1	16.9	-0.7	0.6		

Risk Characteristics	Number of Holdings	Average Mkt Cap		Dividend Yield	P/E Ratio		P/B Ratio	
Shapiro Small Cap	26	\$21,583		1.0%	14.8	2.0		
Russell 2000 Value	1374	\$1,694		2.1%	18.5	1.6		

# Monthly Asset Allocation Review



Asset Class	Total Market Value	Current Percentage	New Target Percentage	Difference	Notes
All Cap/Large Cap	2,908,184,799	21.1%	17.0%	4.1%	Excess allocation bound for Private Equity and Real Estate
Mid Cap	1,991,188,649	14.4%	13.0%	1.4%	
Small Cap	1,404,011,166	10.2%	10.0%	0.2%	
<b>Total Domestic Equity</b>	<b>6,303,384,614</b>	<b>45.7%</b>	<b>40.0%</b>	<b>5.7%</b>	
Large Cap International Equity	1,480,829,212	10.7%	11.5%	-0.8%	
Small Cap International Equity	850,807,060	6.2%	6.0%	0.2%	
<b>Total International Equity</b>	<b>2,331,636,271</b>	<b>16.9%</b>	<b>17.5%</b>	<b>-0.6%</b>	
<b>Core Fixed Income</b>	<b>2,104,488,181</b>	<b>15.3%</b>	<b>17.5%</b>	<b>-2.2%</b>	
High Yield Bonds	776,555,502	5.6%	6.0%	-0.4%	Two searches underway
MLPs	1,137,734,720	8.2%	7.0%	1.2%	
Private Equity	356,198,248	2.6%	5.0%	-2.4%	
Real Estate	576,546,442	4.2%	7.0%	-2.8%	
Opportunistic Assets	160,938,191	1.2%	0.0%	1.2%	
<b>Total Non-Core Assets</b>	<b>3,007,973,103</b>	<b>21.8%</b>	<b>25.0%</b>	<b>-3.2%</b>	
<b>Cash</b>	<b>45,511,516</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.3%</b>	
<b>Composite</b>	<b>13,793,058,461</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>	

# Total Fund + Class Composite Summary

## As of May 31, 2014

	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
<b>Total Fund (Gross of Fees)</b>	<b>13,793,058,461</b>	12/1/1991	22.5	<b>9.9</b>	<b>9.0</b>	<b>15.6</b>	<b>12.3</b>	<b>17.8</b>	<b>19.6</b>	<b>3.2</b>	<b>2.0</b>
<b>Total Fund (Net of Fees)</b>				<b>9.5</b>	<b>8.6</b>	<b>15.2</b>	<b>11.9</b>	<b>17.4</b>	<b>19.2</b>	<b>3.1</b>	<b>2.0</b>
<i>Allocation Index Actuarial Assumption</i>				9.5 8.0	7.6 8.0	14.8 8.0	9.5 8.0	12.6 8.0	13.7 6.6	3.9 1.9	0.3 0.6
Total Domestic Equity <i>S&amp;P 500</i>	<b>6,303,384,614</b> 45.7%	4/1/1990	24.2	<b>10.7</b>	<b>8.2</b>	<b>19.1</b>	<b>18.0</b>	<b>23.6</b>	<b>24.9</b>	<b>4.4</b>	<b>2.0</b>
Total All Cap Equity <i>Russell 3000</i>	<b>907,953,691</b> 6.6%	9/1/2006	7.8	<b>7.5</b>	-	<b>18.0</b>	<b>13.1</b>	<b>19.1</b>	<b>20.0</b>	<b>3.1</b>	<b>2.4</b>
Total Large Cap Active Equity <i>S&amp;P 500</i>	<b>1,099,866,735</b> 8.0%	1/1/1995	19.4	<b>10.7</b>	<b>8.2</b>	<b>19.1</b>	<b>18.0</b>	<b>23.6</b>	<b>24.9</b>	<b>4.4</b>	<b>2.0</b>
Total Mid Cap Equity <i>Russell Mid Cap</i>	<b>1,991,188,649</b> 14.4%	11/1/1998	15.6	<b>10.7</b>	<b>11.4</b>	<b>22.1</b>	<b>15.4</b>	<b>25.8</b>	<b>26.2</b>	<b>1.9</b>	<b>2.4</b>
Total Small Cap Equity <i>Russell 2000</i>	<b>1,404,011,166</b> 10.2%	2/1/1998	16.3	<b>9.7</b>	<b>9.5</b>	<b>19.0</b>	<b>12.2</b>	<b>22.7</b>	<b>23.4</b>	<b>0.2</b>	<b>1.6</b>
Total International Equity <i>MSCI ACWI ex-US</i>	<b>2,331,636,271</b> 16.9%	2/1/1998	16.3	<b>9.4</b>	<b>7.9</b>	<b>11.9</b>	<b>7.3</b>	<b>15.7</b>	<b>19.9</b>	<b>0.6</b>	<b>1.9</b>
Core Fixed Income (ex- High Yield) <i>Barclays Aggregate</i>	<b>2,104,488,181</b> 15.3%	4/1/1990	24.2	<b>7.4</b>	<b>6.8</b>	<b>8.2</b>	<b>6.7</b>	<b>5.1</b>	<b>7.5</b>	<b>3.2</b>	<b>1.5</b>
Master Limited Partnerships <i>Alerian MLP Index</i>	<b>1,137,734,720</b> 8.2%	2/28/2011	3.3	<b>23.2</b>	-	-	<b>25.6</b>	<b>33.9</b>	<b>30.0</b>	<b>12.5</b>	<b>5.6</b>
High Yield Bonds <i>ML High Yield II</i>	<b>776,555,502</b> 5.6%	2/1/2009	5.3	<b>16.0</b>	-	<b>14.2</b>	<b>8.8</b>	<b>8.2</b>	<b>11.3</b>	<b>2.5</b>	<b>1.2</b>
Core Real Estate <i>NCREIF</i>	<b>576,546,442</b> 4.2%	4/1/2011	3.2	-	-	-	-	-	-	-	-
Cash <i>91 Day T-bill</i>	<b>45,511,516</b> 0.3%	4/1/1990	24.2	-	-	-	-	-	-	-	-
					-	1.6	0.1	0.1	0.1	0.0	0.0

# Equity Portfolios Summary

## As of May 31, 2014

	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month	
<b>All Cap / Large Cap Domestic</b>												
Hotchkis & Wiley Large Cap	577,792,841	4/1/1990	24.2	11.3	8.0	21.7	18.7	24.6	25.3	5.3	1.4	
Russell 1000 Value	4.2%			10.3	8.0	18.4	15.1	19.6	20.7	4.9	1.5	
Sawgrass	522,073,894	7/1/2006	7.9	9.0	-	19.1	16.9	22.6	24.3	3.4	2.7	
Russell 1000 Growth	3.8%			9.1	-	19.0	15.0	22.2	24.5	2.1	3.1	
ARI All Cap	452,657,073	9/1/2006	7.8	6.7	-	17.8	13.1	18.1	18.6	3.6	1.9	
Russell 3000 Value	3.3%			7.7	-	18.8	14.8	20.6	22.2	2.8	2.2	
EPOCH All Cap	455,296,618	9/1/2006	7.8	8.3	-	18.1	13.2	20.2	21.4	2.6	2.9	
Russell 3000 Value	3.3%			7.7	-	18.8	14.8	20.6	22.2	2.8	2.2	
<b>Passive Domestic Equity</b>												
NT Cap Weighted Passive	439,373,335	4/1/2012	2.2	18.4	-	-	-	20.1	21.8	4.0	2.3	
S&P 500 Cap Weighted	3.2%			18.0	7.8	18.4	15.2	20.5	20.5	4.0	2.4	
SSGA Eq Weighted Passive	460,991,037	4/1/2012	2.2	21.3	-	-	-	22.1	23.5	3.2	2.1	
S&P 500 Equal Weighted	3.3%			-	10.1	21.5	15.4	22.4	-	3.3	2.2	
<b>Mid Cap Domestic Equity</b>												
Frontier Capital	502,841,469	6/1/2002	12.0	10.7	11.6	19.2	13.6	22.5	24.6	-1.5	2.2	
Russell Mid Cap Growth	3.6%			9.6	9.7	20.5	12.8	20.7	22.2	-0.7	2.7	
Wellington Management	456,321,819	9/1/1998	15.8	10.9	10.3	19.2	10.4	26.8	27.5	0.2	1.3	
Russell Mid Cap Growth	3.3%			9.1	9.7	20.5	12.8	20.7	22.2	-0.7	2.7	
AJO Partners	520,925,768	8/1/1998	15.8	11.4	11.1	22.6	16.4	25.9	27.2	4.2	2.6	
Russell MidCap	3.8%			9.5	10.4	21.4	14.0	21.3	22.8	1.4	2.2	
Hotchkis & Wiley Mid Cap	511,099,593	8/1/2002	11.8	15.1	12.4	27.8	21.0	27.8	25.8	4.9	3.3	
Russell MidCap Value	3.7%			12.0	10.7	22.2	15.2	22.0	23.5	3.7	1.7	
<b>Small Cap Domestic Equity</b>												
Shapiro Capital Management	675,754,394	2/1/1998	16.3	11.2	13.3	23.6	16.8	31.6	32.8	4.6	3.5	
Russell 2000	4.9%			8.6	8.3	18.8	12.1	16.9	17.3	-0.7	0.6	
Geneva Capital	177,897,405	6/1/2013	1.0	13.0	-	-	-	13.0	11.6	-8.9	-2.1	
Russell 2000 Growth	1.3%			16.7	-	-	-	16.7	17.4	-6.6	1.0	
Wasatch Advisors	178,126,796	6/1/2013	1.0	12.1	-	-	-	12.1	12.9	-2.5	-0.1	
Russell 2000 Growth	1.3%			16.7	-	-	-	16.7	17.4	-6.6	1.0	
Cove Street Capital	103,059,607	6/1/2013	1.0	13.3	-	-	-	13.3	15.4	-3.9	0.9	
Russell 2000 Value	0.7%			16.9	-	-	-	16.9	17.4	-0.7	0.6	
Frontier Capital	158,119,986	6/1/2013	1.0	21.0	-	-	-	21.0	22.7	0.3	0.6	
Russell 2000 Value	1.1%			16.9	-	-	-	16.9	17.4	-0.7	0.6	
Neumeier Poma	111,052,977	6/1/2013	1.0	20.2	-	-	-	20.2	19.4	-1.2	1.8	
Russell 2000 Value	0.8%			16.9	-	-	-	16.9	17.4	-0.7	0.6	
<b>International Large Cap Equity</b>												
Causeway Capital	557,110,217	5/1/2003	11.1	11.3	8.2	13.9	8.1	17.5	21.7	2.4	2.1	
MSCI ACWI Ex US	4.0%			10.4	7.8	10.5	4.6	14.5	19.7	3.6	1.9	
International Transition Account	7,153	-	-	-	-	-	-	-	-	-	-	
MSCI ACWI Ex US	0.0%			-	-	-	-	-	-	-	-	
Northern Trust Passive	443,141,387	9/1/2013	0.7	10.6	-	-	-	-	-	2.8	1.7	
MSCI EAFE	3.2%			17.8	7.1	11.4	7.3	18.0	22.4	2.4	1.6	
Thornburg	480,567,898	12/1/2005	8.5	6.9	-	10.3	2.7	7.6	12.4	0.3	1.7	
MSCI ACWI Ex US	3.5%			5.7	7.8	10.5	4.6	14.5	19.7	3.6	1.9	
<b>International Small Cap Equity</b>												
ARI Small Cap International	218,168,099	12/1/2011	2.5	21.1	-	-	-	22.5	25.7	3.1	2.1	
MSCI EAFE Small Cap	1.6%			20.1	9.1	15.3	8.7	22.5	27.2	0.1	1.4	
Epoch Small Cap International	216,219,971	12/1/2011	2.5	20.0	-	-	-	24.7	27.7	-1.6	1.1	
MSCI EAFE Small Cap	1.6%			20.1	9.1	15.3	8.7	22.5	27.2	0.1	1.4	
Wasatch Small Cap International	200,143,345	12/1/2011	2.5	23.9	-	-	-	10.7	16.0	-1.1	2.2	
MSCI EAFE Small Cap	1.5%			20.1	9.1	15.3	8.7	22.5	27.2	0.1	1.4	
Wellington Small Cap International	216,275,644	12/1/2011	2.5	25.5	-	-	-	24.1	26.7	0.1	2.6	
MSCI EAFE Small Cap	1.6%			20.1	9.1	15.3	8.7	22.5	27.2	0.1	1.4	



# Fixed Income Portfolios Summary

As of May 31, 2014



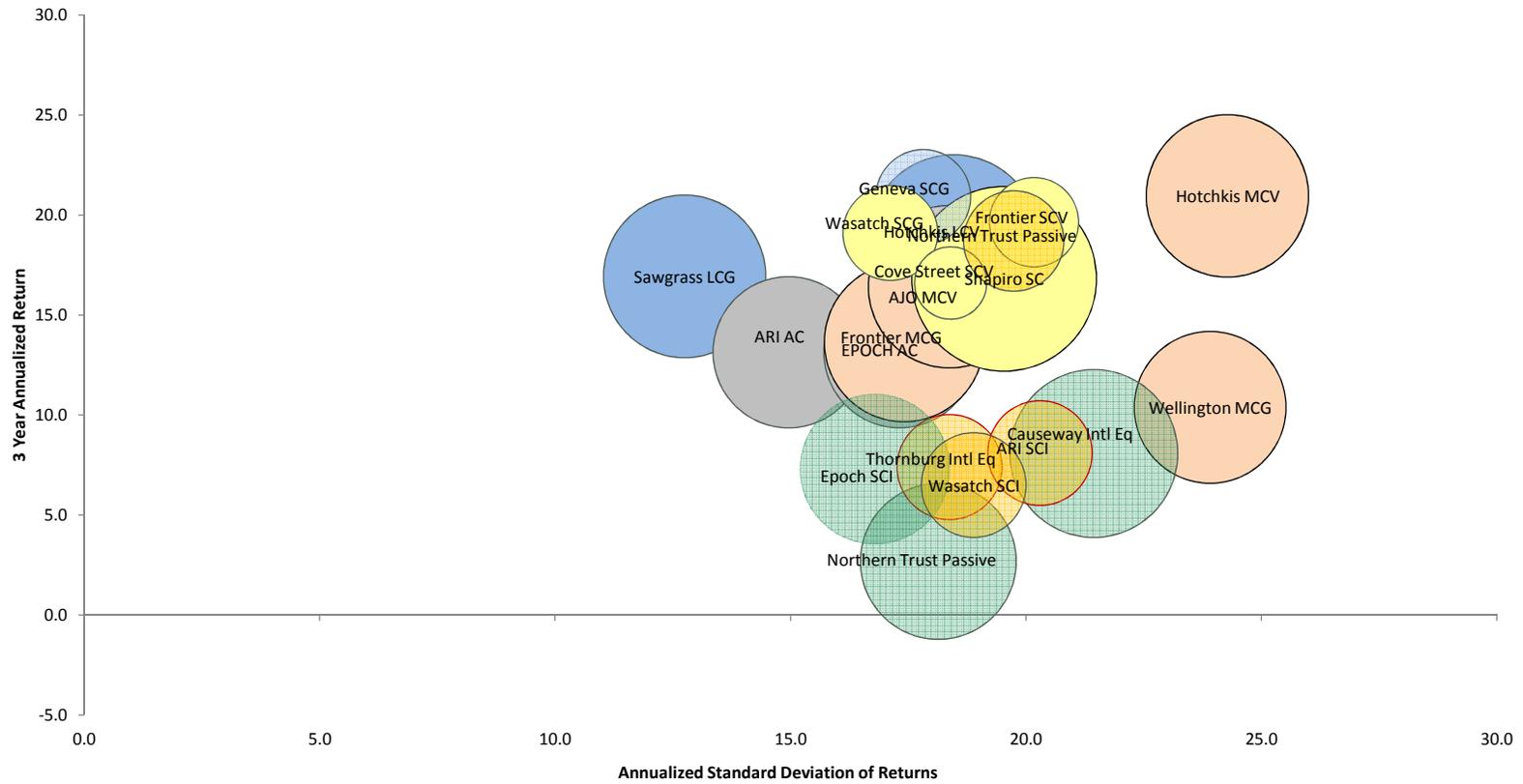
	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month	
<b>Core Fixed Income</b>												
Loomis Sayles	612,609,331	8/1/1999	14.8	7.3	8.1	10.0	7.0	6.1	9.0	3.2	1.5	
<i>Barclays Aggregate</i>	4.4%			5.7	5.0	5.0	3.5	2.7	4.3	1.8	1.1	
Lord Abbett	601,895,357	11/1/2004	9.6	6.3	-	7.7	5.6	4.0	6.3	2.5	1.4	
<i>Barclays Aggregate</i>	4.4%			4.7	-	5.0	3.5	2.7	4.3	1.8	1.1	
Mackay Shields	605,297,892	11/1/2004	9.6	6.6	-	8.2	6.1	4.3	6.4	1.9	0.8	
<i>Barclays Aggregate</i>	4.4%			4.7	-	5.0	3.5	2.7	4.3	1.8	1.1	
<b>Active Duration Fixed Income</b>												
Hoisington	284,685,601	11/1/2004	9.6	8.0	-	8.9	10.7	4.2	8.0	7.3	3.5	
<i>Barclays Aggregate</i>	2.1%			4.7	-	5.0	3.5	2.7	4.3	1.8	1.1	
<b>High Yield Fixed Income</b>												
Loomis Sayles High Yield	258,954,675	2/1/2009	5.3	16.1	-	14.0	7.4	7.2	11.2	2.8	1.6	
<i>Merrill Lynch High Yield II</i>	1.9%			17.3	-	14.5	8.6	7.9	10.9	1.9	1.0	
Lord Abbett High Yield	259,368,200	2/1/2009	5.3	17.0	-	15.6	10.1	9.8	12.7	2.6	1.2	
<i>Merrill Lynch High Yield II</i>	1.9%			17.3	-	14.5	8.6	7.9	10.9	1.9	1.0	
Mackay Shields High Yield	258,232,627	2/1/2009	5.3	14.9	-	12.9	8.9	7.8	9.9	2.0	0.9	
<i>Merrill Lynch High Yield II</i>	1.9%			17.3	-	14.5	8.6	7.9	10.9	1.9	1.0	

# Non-Traditional Portfolios Summary

As of May 31, 2014

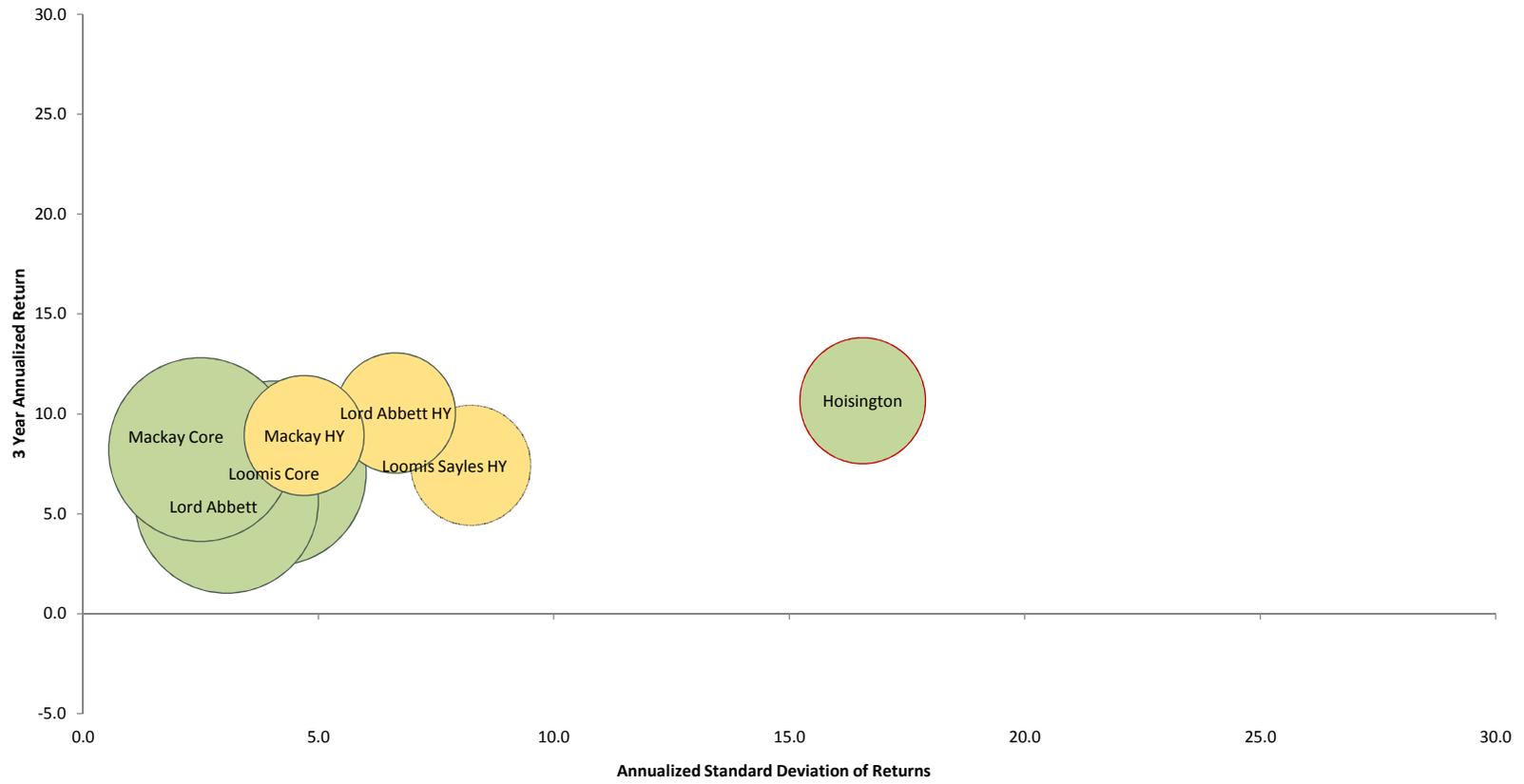
	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
<b>Master Limited Partnerships</b>											
Chickasaw Capital MLP	392,991,152	2/28/2011	3.3	31.7	-	-	34.6	45.0	41.6	14.2	7.0
<i>Alerian MLP Index</i>	2.8%			15.6	-	-	17.1	18.4	14.8	9.4	3.4
Cushing MLP Management	380,935,226	2/28/2011	3.3	24.3	-	-	26.6	37.9	34.8	12.9	5.5
<i>Alerian MLP Index</i>	2.8%			15.6	-	-	17.1	18.4	14.8	9.4	3.4
FAMCO MLP	363,808,343	2/28/2011	3.3	16.7	-	-	19.1	22.7	18.4	10.3	4.3
<i>Alerian MLP Index</i>	2.6%			15.6	-	-	17.1	18.4	14.8	9.4	3.4
<b>Private Equity</b>											
Legacy Private Equity Portfolio	70,543,479	10/1/2008	5.7	-	-	-	-	-	-	-	-
Franklin Park Private Equity	285,654,769	4/1/2010	4.2	-	-	-	-	-	-	-	-
	2.6%			-	-	-	-	-	-	-	-
<b>Real Estate</b>											
AEW Real Estate	192,034,573	5/1/2011	3.1	-	-	-	-	-	-	-	-
<i>NCREIF - OEDCE</i>	1.4%			-	-	-	-	-	-	-	-
Heitman Real Estate	202,938,892	5/1/2011	3.1	-	-	-	-	-	-	-	-
<i>NCREIF - OEDCE</i>	1.5%			-	-	-	-	-	-	-	-
L&B Real Estate	181,572,977	4/1/2011	3.2	-	-	-	-	-	-	-	-
<i>NCREIF - OEDCE</i>	1.3%			-	-	-	-	-	-	-	-
<b>Opportunistic Fixed Income</b>											
PIMCO BRAVO	132,348,442	3/31/2011	3.2	-	-	-	-	-	-	-	-
<i>Barclays Aggregate</i>	1.0%			-	-	-	-	-	-	-	-
PIMCO BRAVO II	28,589,749	3/31/2013	1.2	-	-	-	-	-	-	-	-
<i>Barclays Aggregate</i>	0.2%			-	-	-	-	-	-	-	-

# Three Year Risk/Return Review - Equity Portfolios



<sup>1</sup>Actual OTRS results used when available, composite when necessary.

# Three Year Risk/Return Review - Fixed Income Portfolios



<sup>1</sup>Actual OTRS results used when available, composite when necessary.

## June Manager Status Report

Manager	Mandate	Strategy	AUM	% of Portfolio	Current Status	Reason for Status Change	Status Change Effective Date	Date of Last Review	Date of Next Review	Expectations
Thornburg Investment Management	International Equity	All Cap	480,567,452	3.49%	<b>On Alert</b>	Performance Issues	November 2013	November 2013	June 2014	Improvement in performance compared to peers and benchmark.

All other managers currently rated In Compliance

# Thornburg International Value Review

June, 2014



# Portfolio Background

- ❑ Thornburg began managing international equity assets on **December 27, 2005**.
- ❑ They were initially funded with **\$153 Million**.
- ❑ The portfolio was co-managed by **Bill Fries, Lei Wang** and **Wendy Trevisani** until **April of 2014**.
- ❑ Thornburg recently announced that **Wendy Trevisani** would be taking over the role of lead portfolio manager for separate account clients.
- ❑ Performance was above benchmark for several years.
- ❑ Performance suffered over the last 18 months due to emerging markets exposure, a large cap bias, and a lack of exposure to Japan during the recent rally.
- ❑ Gregory W Group has met with Thornburg numerous times over the past 24 months.
- ❑ OTRS Staff met with Thornburg at OTRS offices.



# Thornburg Process and Philosophy

- ❑ Headquartered in Santa Fe, New Mexico
- ❑ **Thornburg Investment Inc.**, an employee-owned investment management company, is the portfolio's investment advisor.
- ❑ Total International Value product AUM: **\$38.7 Billion**
- ❑ OTRS AUM: **\$479 Million**
- ❑ The product is managed by **Wendy Trevisani**.
- ❑ The advisor intends to invest on an opportunistic basis, where it believes there is intrinsic value. Securities are selected on a **value basis** using fundamental research. The portfolio is diversified to include **traditional basic value stocks**, but also includes stocks of companies with **consistent earnings** and **emerging franchises** when these are value priced. Thornburg is willing to go wherever the best opportunities are and regularly concentrate on individual markets and industries. They run a compact international portfolio of roughly 60 stocks.



# Thornburg Team

## ❑ **Wendy Trevisani**

Wendy is portfolio manager of the Thornburg Equity separate account strategies, and the International ADR strategy. Ms. Trevisani began her investment career as an institutional sales and trading representative(focusing on asset- and mortgage backed securities) for Salomon Smith Barney in New York City and London. Ms. Trevisani received a BA from Bucknell University cum laude in 1992, and an MBA from Columbia University in 1996.

## ❑ **William Fries**

Bill is portfolio manager of the Thornburg International Equity Mutual Fund Strategy. He joined Thornburg in 1995 as managing director and founding portfolio manager of the Thornburg Value Fund and the U.S. Equity Strategy, which followed. Bill founded the Thornburg International Value Fund and the International Equity Strategy three years later in 1998. Bill began his career as a securities analyst and bank investment officer. His more than 40 years of investment management experience includes an extended tenure as vice president of equities at USAA Investment Management Company. Bill Fries is a CFA charterholder.

## ❑ **Lei Wang**

Lei is a managing director and co-portfolio manager of the Thornburg International Equity Mutual Fund Strategy. His responsibilities include portfolio management and analysis of companies as well as evaluation of existing positions and overall equity strategy performance. Lei Wang joined Thornburg Investment Management in 2004 as an associate portfolio manager and in 2006 was promoted to co-portfolio manager for the International Equity Strategy and was also named managing director. Prior to joining Thornburg, Lei served as an associate for Deutsche Bank as well as Enso Capital Management. He has also worked as a bank supervision manager at Chinas central bank. Lei holds a BA and an MA from East China Normal University and an MBA from New York University. Lei Wang a CFA charterholder.

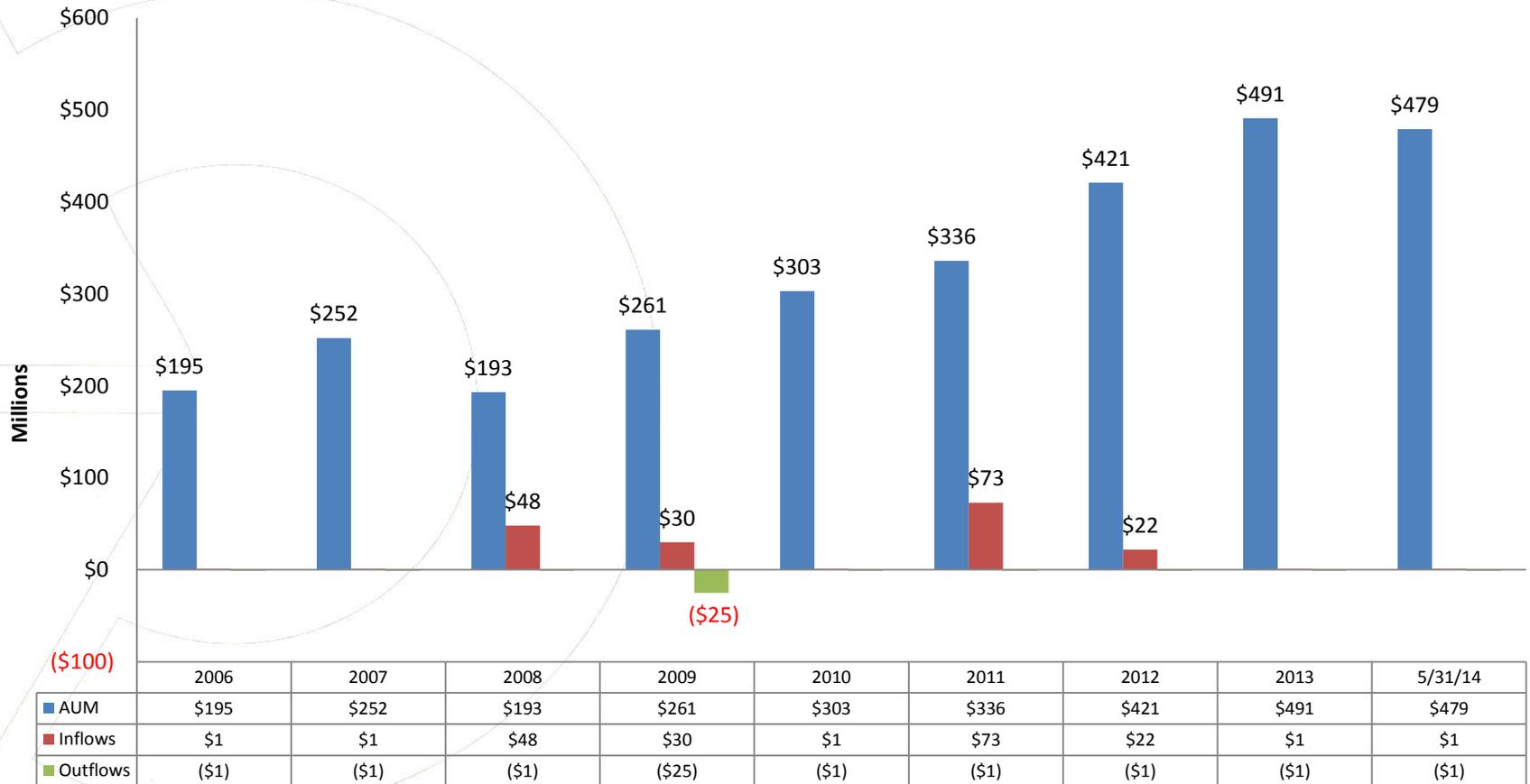


# Meeting with Thornburg at GWG Headquarters

- Meeting began with Wendy reviewing the structural changes made in April 2014
- Charles Wilson, her co-PM for the ADR portfolio, provided commentary and additional dialogue
  - Wilson has been with Thornburg for two years and offered some differing and helpful insights
- Decision making was gradually reduced to a crawl after the appointment of Lei Wang and Wendy Trevisani to co-PMs with Bill Fries eight years ago.
  - New names had to push out old names, requiring agreement among three persons on two separate issues
  - Assets under management growth also an issue, but we believe the cumbersome decision process (three managers often operating in different countries/time zones) hamstrung the previously dynamic investment process.
    - This belief can be substantiated through dramatically reduced position turnover post-restructuring.
- Thornburg's three basket approach (Basic Value, Consistent Earners, and Emerging Franchises) is still used.
  - Concept is still valid for the long-term although it hasn't delivered over the past three years.
  - Correlations among portfolio holdings and the three baskets, correlations that were not initially recognizable, negatively impacted performance.
- Wendy speculated that Bill will serve as Portfolio Manager of the mutual fund for another 12-18 months and then transition to an advisory role.



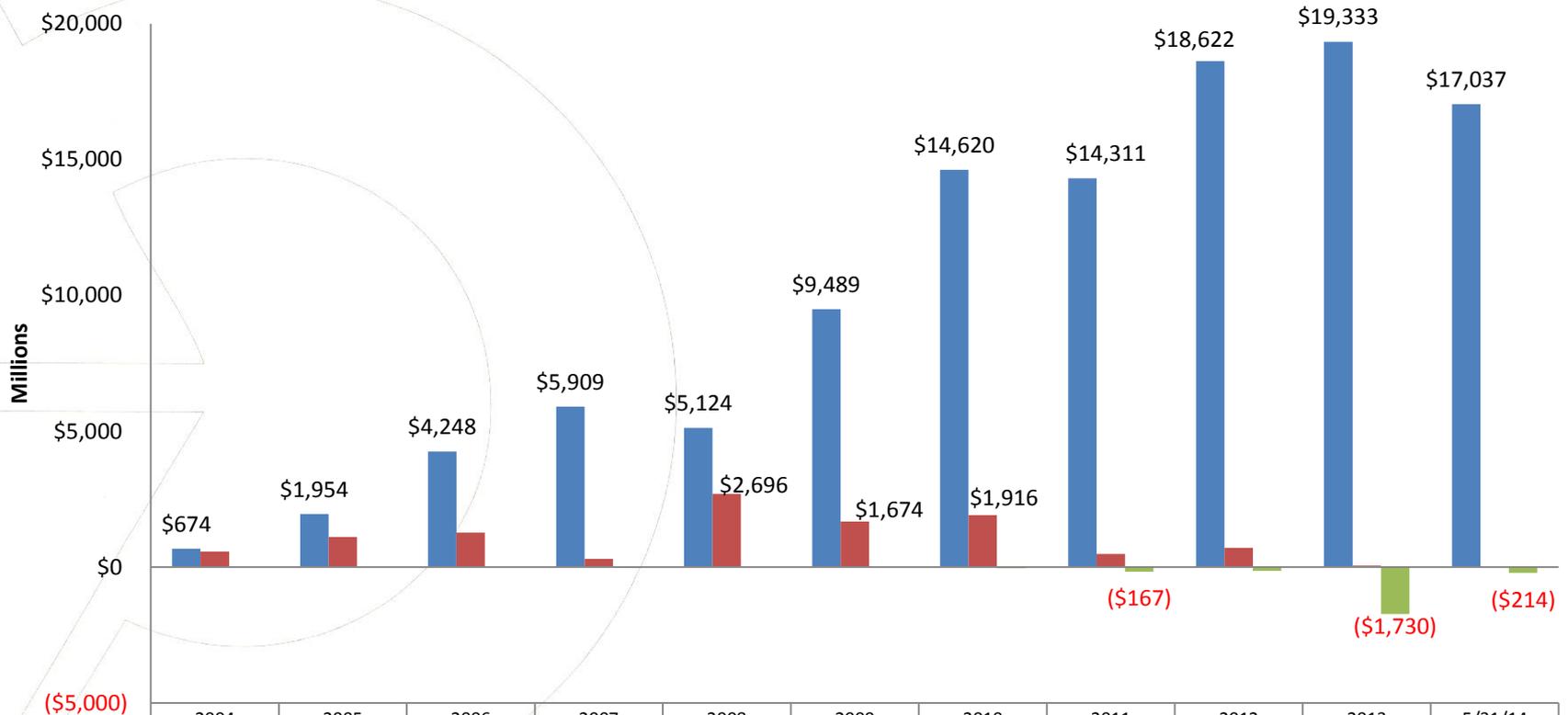
# Oklahoma Teachers' Retirement System Account Value



Note: All values rounded to the nearest million.



# Historical AUM for Separate Account Composite

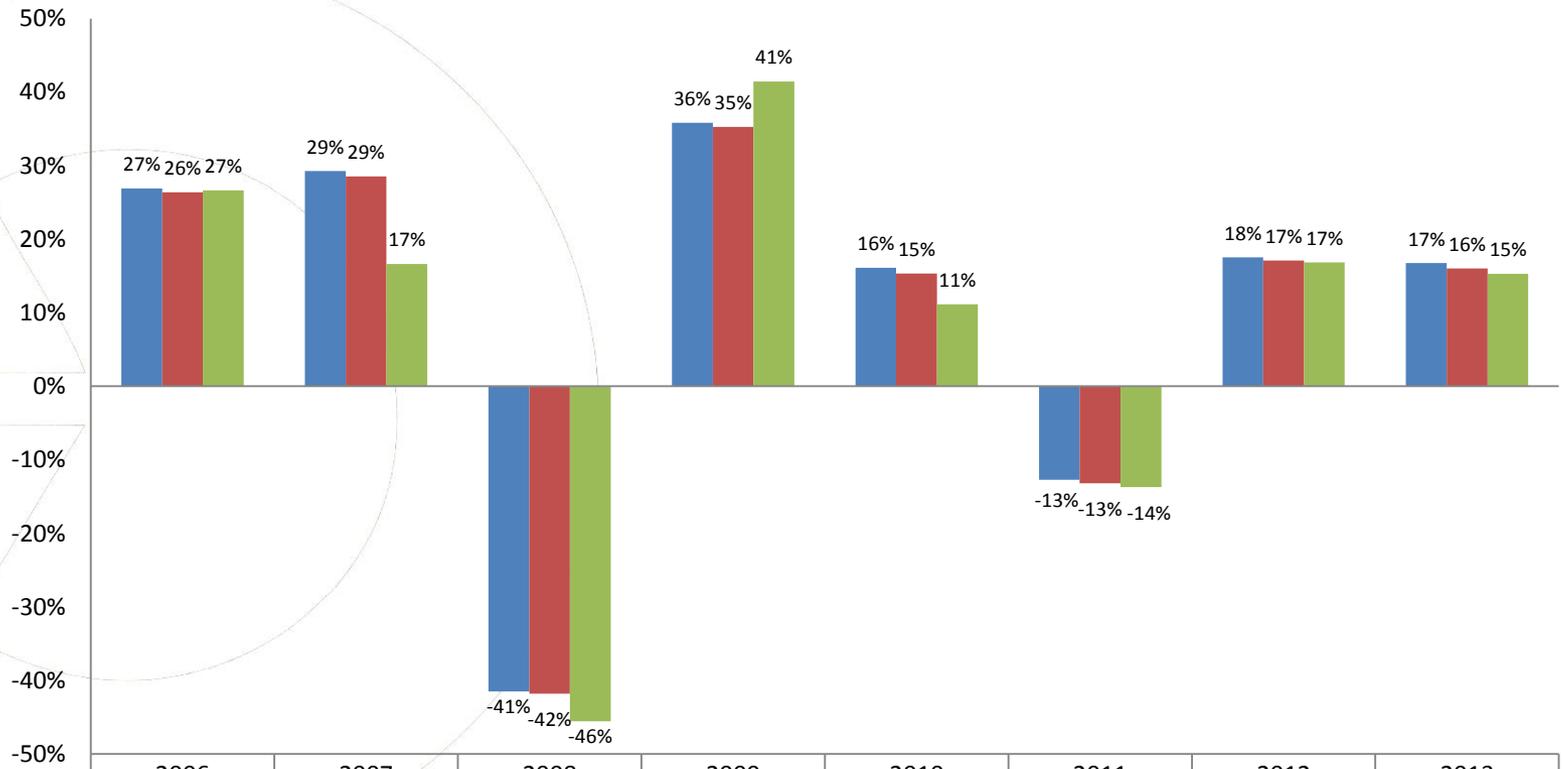


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5/31/14
■ AUM	\$674	\$1,954	\$4,248	\$5,909	\$5,124	\$9,489	\$14,620	\$14,311	\$18,622	\$19,333	\$17,037
■ Inflows	\$575	\$1,106	\$1,272	\$298	\$2,696	\$1,674	\$1,916	\$486	\$714	\$50	\$0
■ Outflows	\$0	\$0	\$0	(\$33)	\$0	\$0	(\$44)	(\$167)	(\$137)	(\$1,730)	(\$214)

Note: All values rounded to the nearest million.



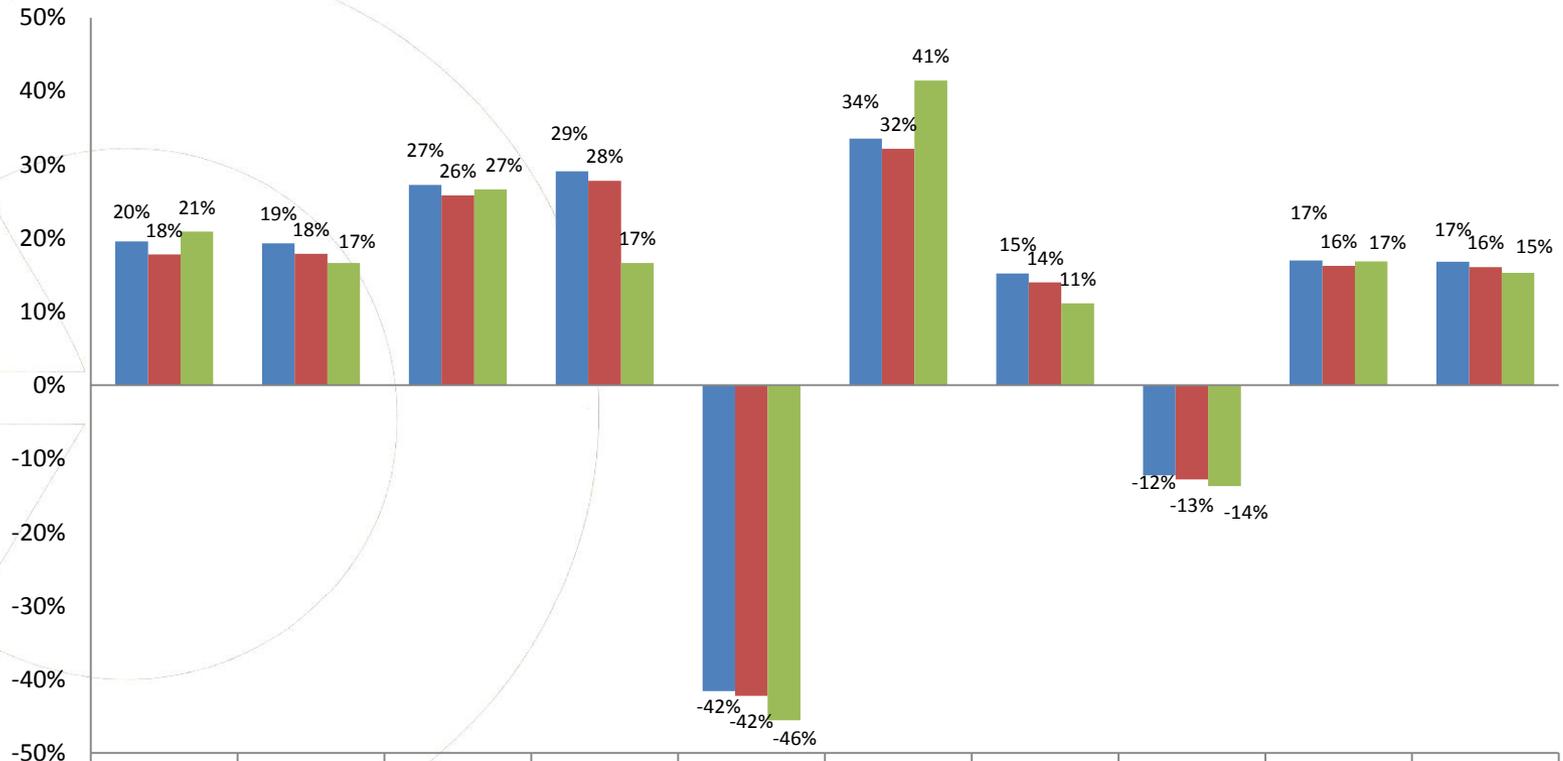
# Annual Returns for Oklahoma Teachers' Retirement System Account



	2006	2007	2008	2009	2010	2011	2012	2013
■ Gross Return	26.9%	29.3%	-41.5%	35.8%	16.1%	-12.7%	17.5%	16.8%
■ Net Return	26.4%	28.5%	-41.8%	35.3%	15.4%	-13.2%	17.1%	16.0%
■ MSCI ACWI-EX	26.7%	16.7%	-45.5%	41.5%	11.2%	-13.7%	16.8%	15.3%



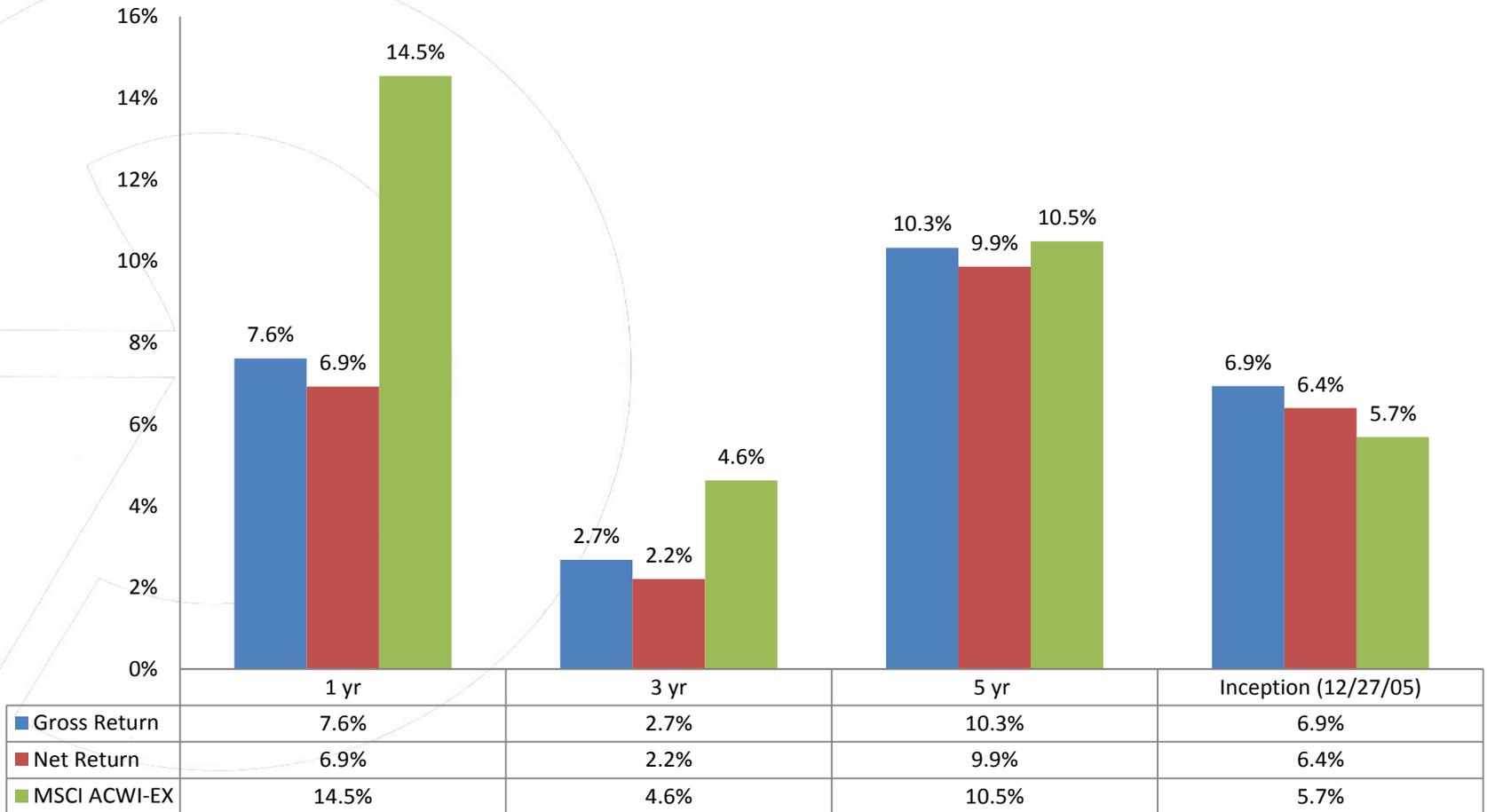
# Annual Returns for Separate Account Composite



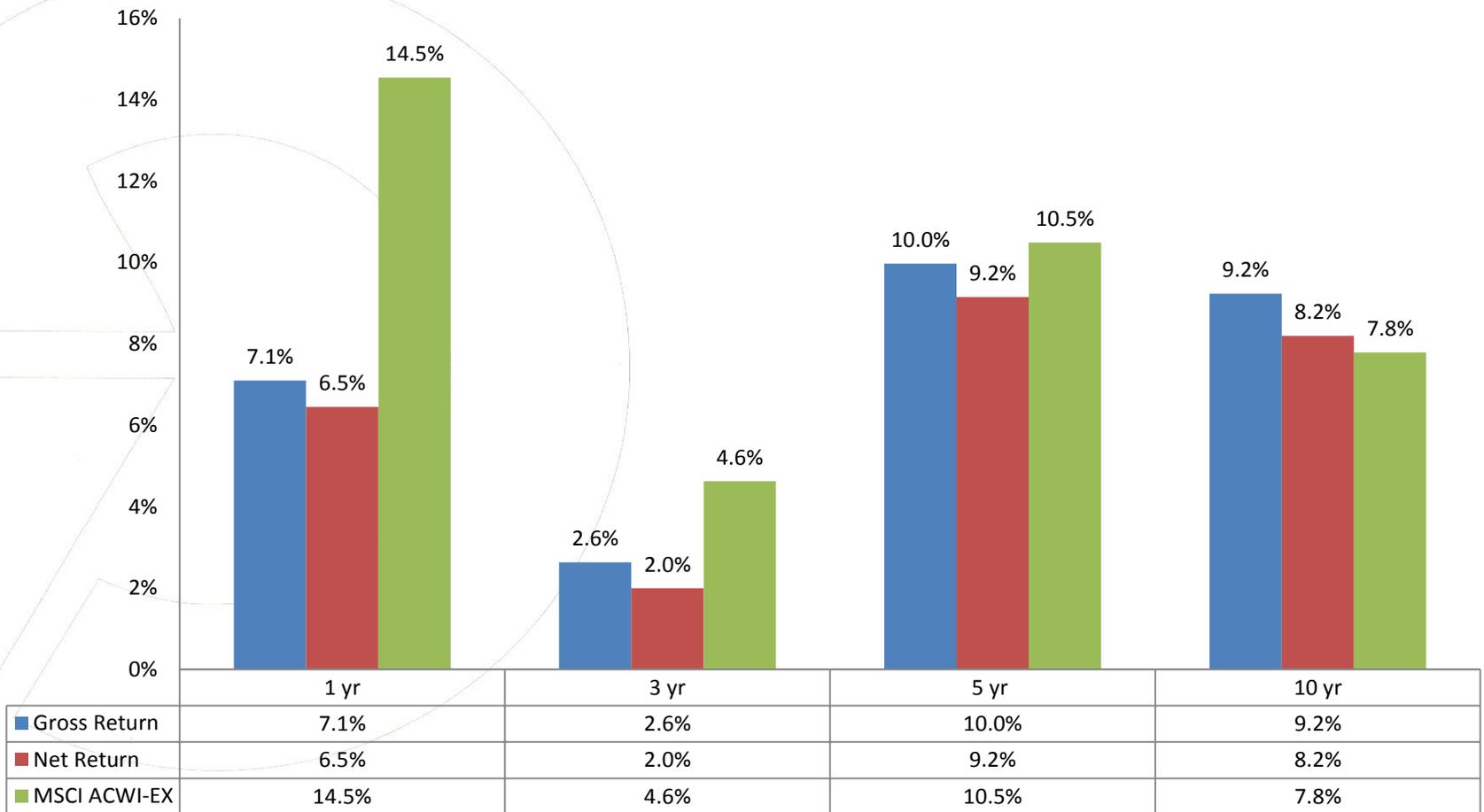
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
■ Gross Return	19.6%	19.3%	27.2%	29.1%	-41.6%	33.6%	15.2%	-12.2%	17.0%	16.8%
■ Net Return	17.8%	17.9%	25.8%	27.8%	-42.2%	32.2%	14.0%	-12.8%	16.3%	16.1%
■ MSCI ACWI-EX	20.9%	16.6%	26.7%	16.7%	-45.5%	41.5%	11.2%	-13.7%	16.8%	15.3%



# Performance for Oklahoma Teachers' Retirement System Account as of May 31, 2014



# Performance for Separate Account Composite as of May 31, 2014



# OTRS Thornburg Portfolio Statistics – data as of 3/31/14

	Upside Capture	Downside Capture	Information Ratios
3 year	84.46%	97.01%	-0.50
5 year	86.37%	91.92%	-0.32
Since Inception*	97.99%	93.76%	0.34

\* Account inception date was 12/27/2005.

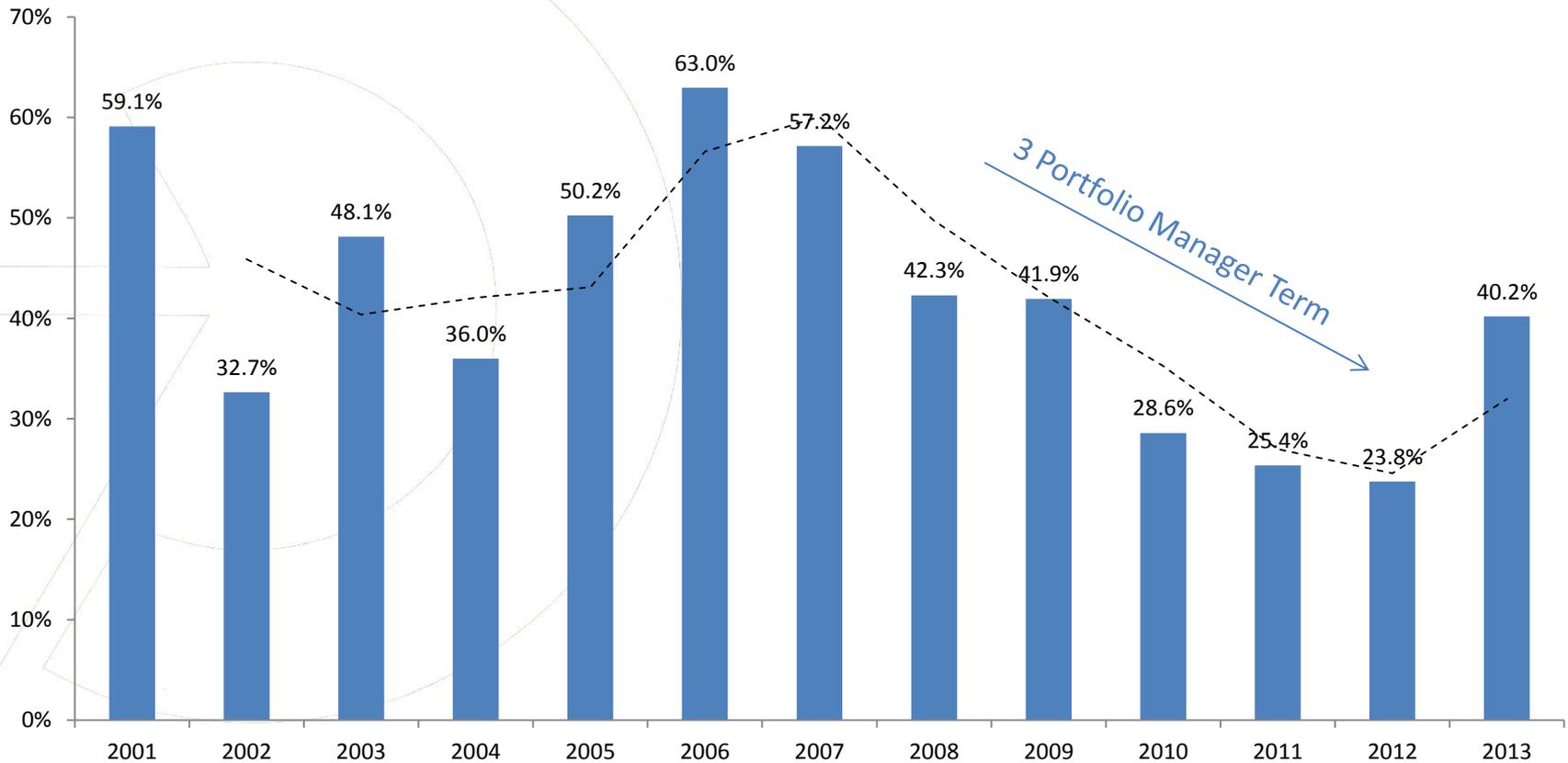


## Separate Account Composite Portfolio Statistics – data as of 3/31/14

	Upside Capture	Downside Capture	Information Ratios
<b>3 year</b>	84.13%	96.59%	-0.50
<b>5 year</b>	82.46%	91.8%	-0.47
<b>10 year</b>	90.92%	94.18%	0.12
<b>Since Inception</b>	118.72%	95.74%	0.43



# Turnover History for Separate Account Composite



# Recommendation

- Portfolio remains On Alert until year end.
- Establish performance timeline
- Patience to allow positive personnel and portfolio changes to produce results
- Reevaluate if there is a significant decline in assets or negative personnel changes





June 3, 2014

Melissa Kempkes  
Oklahoma Teachers Retirement System  
Oliver Hodge Education Building  
2500 North Lincoln Blvd., 5th Floor  
Oklahoma City, OK 73105

Dear Melissa,

After much thought, I wanted to let you know that I have decided to leave MacKay Shields at the end of this year. I am proud to say that I spent the last 17 years at MacKay Shields, where I built one of the deepest and most experienced teams in the high yield sector with average total experience of 20 years.

Leading MacKay's High Yield Corporate Bond effort going forward will be the current deputy head of the team, Andrew Susser, who stepped in to assume my responsibilities a few weeks ago while I was on leave. It will be my intention to devote my time and energy to Andrew and the entire team to ensure a smooth transition.

For several years, Andrew has been known internally and externally as my designated deputy. In 2013 as a reflection of my confidence in him, Andrew was formally named a co-manager with me on the Mainstay High Yield Corporate Bond Fund and the Mainstay Short Duration High Yield Fund which represent more than 50% of the team's assets under management. I take great pride in having mentored Andrew from both a portfolio management and leadership perspective. I designed my succession plan several years ago to ensure continuity and enable the team to maintain and build on the success of the philosophy, process and autonomy we honed over our many years together at MacKay Shields.

I have every confidence that Andrew, an eight-year veteran of MacKay Shields with an investment career that spans over 28 years, will maintain our high standards and continue to embrace the philosophy and process upon which the group was founded – bottom-up security selection, with a high “margin of safety” and strong “asset coverage”. His appointment as my successor reflects his outstanding contributions to the team and his own natural progression. Andrew will also continue as a key member of the MacKay Shields Management Committee, which is comprised of the most senior professionals across the organization.

I want you to know that I so appreciate your confidence and support over the years.

Warmest regards,

A handwritten signature in black ink, appearing to be "JMP", written in a cursive style.

J. Matthew Philo

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## High Yield Team

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### **Andrew Susser**

*Senior Managing Director  
Head of High Yield*

Andrew Susser is a Senior Managing Director and Head of High Yield, responsible for the group's implementation of its investment process. Prior to joining MacKay Shields in 2006, he was a Portfolio Manager with GoldenTree Asset Management. Previously, he was a Managing Director and Head of High Yield Bond Research at Banc of America Securities covering the gaming, lodging and leisure sectors. From 1999 to 2004, Andrew was named to the Institutional Investor All-America Fixed Income Research Team; from 2002 to 2004, he was ranked by Institutional Investor as the No. 1 analyst in the high yield sector. Andrew also worked as a Fixed Income Analyst for Salomon Brothers, as a Senior Analyst at Moody's Investors Service and as a Market Analyst and Institutional Trading Liaison for Merrill Lynch Capital Markets. He began his career as a Corporate Finance and M&A Attorney at Shearman & Sterling in their New York office.

Andrew received a BA from Vassar College, an MBA from the Wharton Graduate School of Business and a JD from the University of Pennsylvania Law School. He has been working in the investment industry since 1986.

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### **Dohyun Cha, CFA**

*Managing Director  
Portfolio Manager/Analyst*

Dohyun Cha is a Managing Director and Portfolio Manager/Research Analyst for the High Yield Team, where he helps manage high yield bond investments and follows the energy and utility sectors. Prior to joining MacKay Shields in 2006, he was a Vice President and Equity Analyst at Credit Suisse. Previously, he was a Financial Analyst at CIBC World Markets.

Dohyun received a BS from Boston College and is a CFA Charterholder. He has been working in the investment industry since 1997.

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### **Won Choi, CFA**

*Managing Director  
Portfolio Manager/Analyst*

Won Choi is a Managing Director and Portfolio Manager/Research Analyst for the High Yield Team, where he helps manage high yield bond investments and follows the chemicals, metals and paper & packaging sectors. Prior to joining MacKay Shields in 2002, from he was a Private Equity Associate Fenway Partners, Inc. Previously, he was a Financial Analyst in the Financial Entrepreneurs Group at Salomon Smith Barney.

Won received a BA from Yale University and is a CFA Charterholder. He has been working in the investment industry since 1997.

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## High Yield Team

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### **Eric Gold**

*Managing Director  
Portfolio Manager/Analyst*

Eric Gold is a Managing Director and Portfolio Manager/Research Analyst for the High Yield Team, where he helps manage high yield bond investments and follows the cable TV, broadcasting, technology and telecommunications sectors. Prior to joining MacKay Shields in 2010, he was a sell-side Analyst covering the telecommunications, cable and media sectors at Sterne Agee & Leach, Inc. Previously, he was an Analyst at BlackRock and a sell-side Analyst at Grantchester Securities where he was ranked by Institutional Investor as the #1 analyst in the wireless telecommunications sector for 1999, 2000, 2001 and 2002.

Eric received a BA from Vassar College and an MBA from New York University. He has been working in the investment industry since 1987.

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### **Nate Hudson, CFA**

*Managing Director  
Portfolio Manager/Analyst*

Nate Hudson is a Managing Director and Portfolio Manager/Research Analyst for the High Yield Team, where he helps manage high yield bond investments and follows the automotive/transportation, building materials and homebuilding sectors. Prior to joining MacKay Shields in 2008, he was a Senior Analyst of High Yield Credit in Strategic Capital's (White Ridge Advisors) proprietary investment group at Banc of America Securities. Previously, he was a sell-side High Yield Analyst at Banc of America Securities and a High Yield Credit Analyst at Nomura Corporate Research & Asset Management (NCRAM).

Nate received a BA from Yale University and is a CFA Charterholder. He has been working in the investment industry since 1991.

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### **Michael A. Snyder**

*Managing Director  
Portfolio Manager/Analyst*

Michael Snyder is a Managing Director and Portfolio Manager/Research Analyst for the High Yield Team, where he helps manage high yield bond investments and follows the aerospace/defense, consumer products, manufacturing and diversified media sectors. Prior to joining MacKay Shields in 2006, he was a Managing Director with AllianceBernstein as the Director of their Global High Yield Group. Previously, he was a Managing Director with both DLJ Asset Management and Bear Stearns Asset Management Group as the Director for DLJ's Leverage Investment Group and Director of Bear Stearns High Yield Investment Group, and a Senior Vice President with Prudential Insurance Company of America, first in Merchant Banking and then High Yield Investments.

Michael received a BA from Dickinson College and an MBA from Duke University's Fuqua School of Business. He has been working in the investment industry since 1987.

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## High Yield Team

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### **James S. Wolf**

*Managing Director  
Portfolio Manager/Analyst*

Jim Wolf is a Managing Director and Portfolio Manager/Research Analyst for the High Yield Team, where he helps manage high yield bond investments and follows the finance and healthcare sectors. Prior to joining the MacKay Shields in 2006, he was a Managing Director and Director of Research at First Albany Capital. Previously, he was a Director with RBC Capital Markets First Albany and a Managing Director of High Yield Research at Bear, Stearns & Co.

Jim received a BA from Northwestern University and an MBA from the University of Rochester's Simon School of Business. He has been working in the investment industry since 1987.

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### **Thomas Metcalf**

*Associate  
Research Analyst*

Tom Metcalf is an Associate and Research Analyst for the High Yield Team. Prior to joining MacKay Shields in 2011, he was a Content Publisher at iO Global Ltd.

Tom received a BS and an MS from the University of Durham. He has been working in the investment industry since 2011.

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### **Scott D. Mallek**

*Director  
Trader*

Scott Mallek is a Director and Trader for the High Yield Team. Prior to joining MacKay Shields in 2002, he was an Assistant Vice President involved with IFG High Yield Trading at Salomon Smith Barney.

Scott received a BA from Fairfield University and has been working in the investment industry since 1996.

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### **Alex Leites**

*Associate Director  
Trader*

Alex Leites is an Associate Director and Trader for the High Yield Team. Prior to joining MacKay Shields in 2002, he was a Settlements Specialist at Credit Suisse First Boston. He previously worked at Kinexus, Inc., Bank of New York, Lazard Asset Management and Prudential Securities.

Alex received a BS from New York University's Stern School of Business and has been in the investment industry since 1993.

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# OKLAHOMA TEACHERS RETIREMENT SYSTEM

real estate portfolio  
executive summary report  
first quarter, 2014



Gregory W Group

# Real Estate Portfolio Overview

- ▶ The OTRS real estate portfolio was initially funded during April/May of 2011. Three managers were selected after an extensive search process. All three were funded with \$150 million.
- ▶ The total real estate allocation target is now 7% of the total fund. The target allocation is based on the net amount invested by the System in real estate assets. The target allocation for real estate was increased from 5% to 7% during 2013.
- ▶ The current portfolio is focused on U.S. based core assets. Core real estate is generally defined as high-quality, low risk, diversified portfolio of stable, income-producing assets.
- ▶ The current performance benchmark is the NCREIF Fund Index – Open End Diversified Core Equity (NFI-ODCE). The index is a fund-level capitalization weighted, time weighted index that includes property investments at ownership share, cash balance and leverage. The returns reflect the funds' actual ownership positions and financing strategy. The inception date of the index is the first quarter of 1978.
- ▶ Last year, AEW and Heitman were given additional capital commitments. The commitments are expected to be drawn beginning the second or third quarter of 2014. L&B was given an additional allocation to invest in non-core real estate assets.
- ▶ The investments have been successful. We are in the second stage of the real estate investment program. This stage is intended to provide additional diversification and return potential by investing in value added and opportunistic funds. A search is underway to potentially select several funds in each category.



# Real Estate Portfolio Timeline

**2010** - Core Real Estate Target Allocation Established: 5%

**Late 2010** - Core Real Estate Manager Search Concluded. AEW, Heitman and L&B selected.

**Early/Mid 2011** - Core Real Estate Managers Funded

**2013** - Asset Allocation Review Completed. Real Estate Allocation Increased to 7%

**Late 2013** - Additional Capital Committed to AEW and Heitman

**2013** - L&B Proposes Special Opportunities Portfolio. Permission granted during early 2014.

**Early 2014** - Opportunistic and Value Added RFP Responses Under Review

# Allocation of Real Estate Portfolio – Net Exposure

## As of March 31, 2014

Total Market Value: **\$562,910,457**  
This represented **4.2%** of the total fund.

L&B  
31.5%

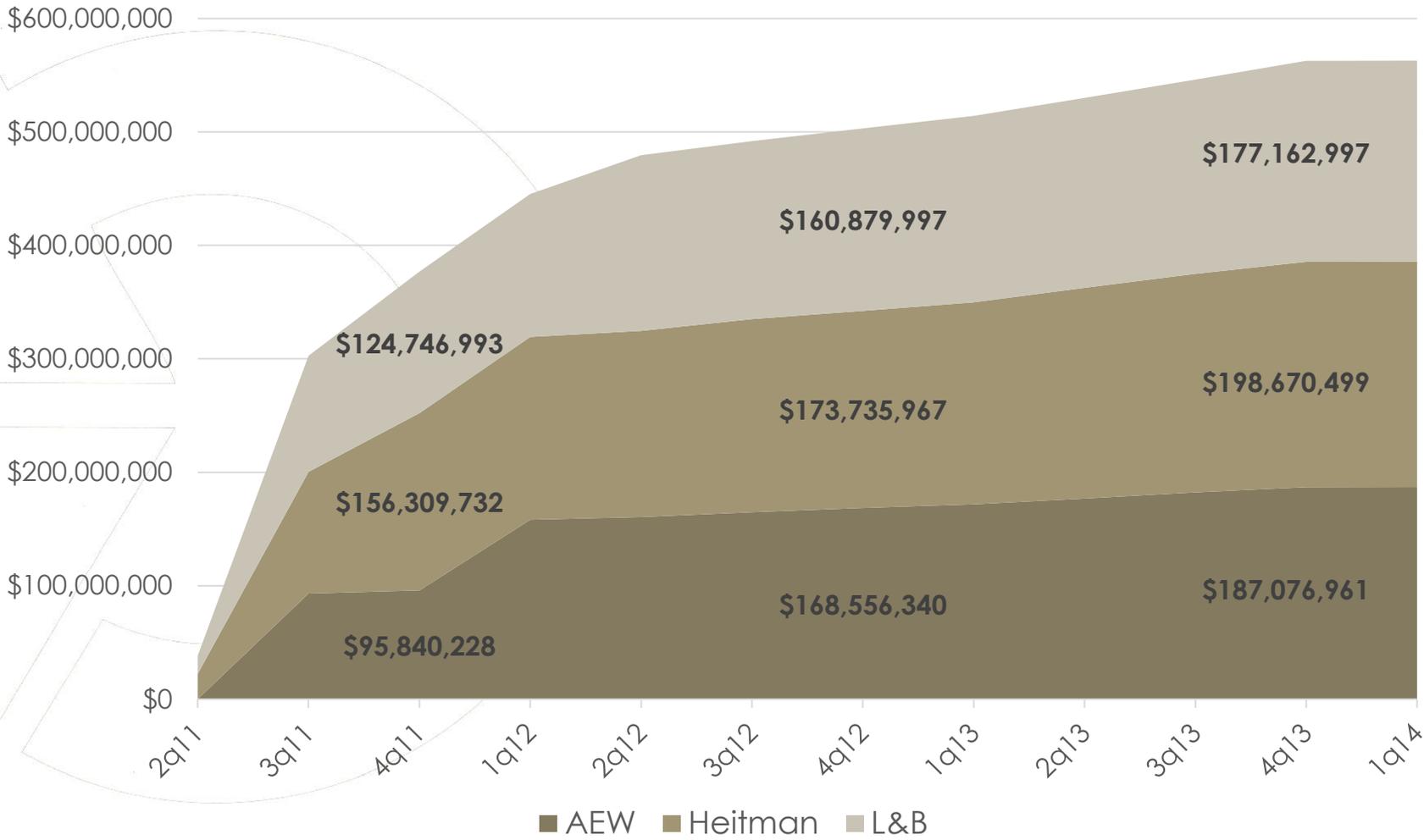
AEW  
33.2%

Heitman  
35.3%

Note: Does not include the \$60 million allocation to the L&B non-core portfolio.

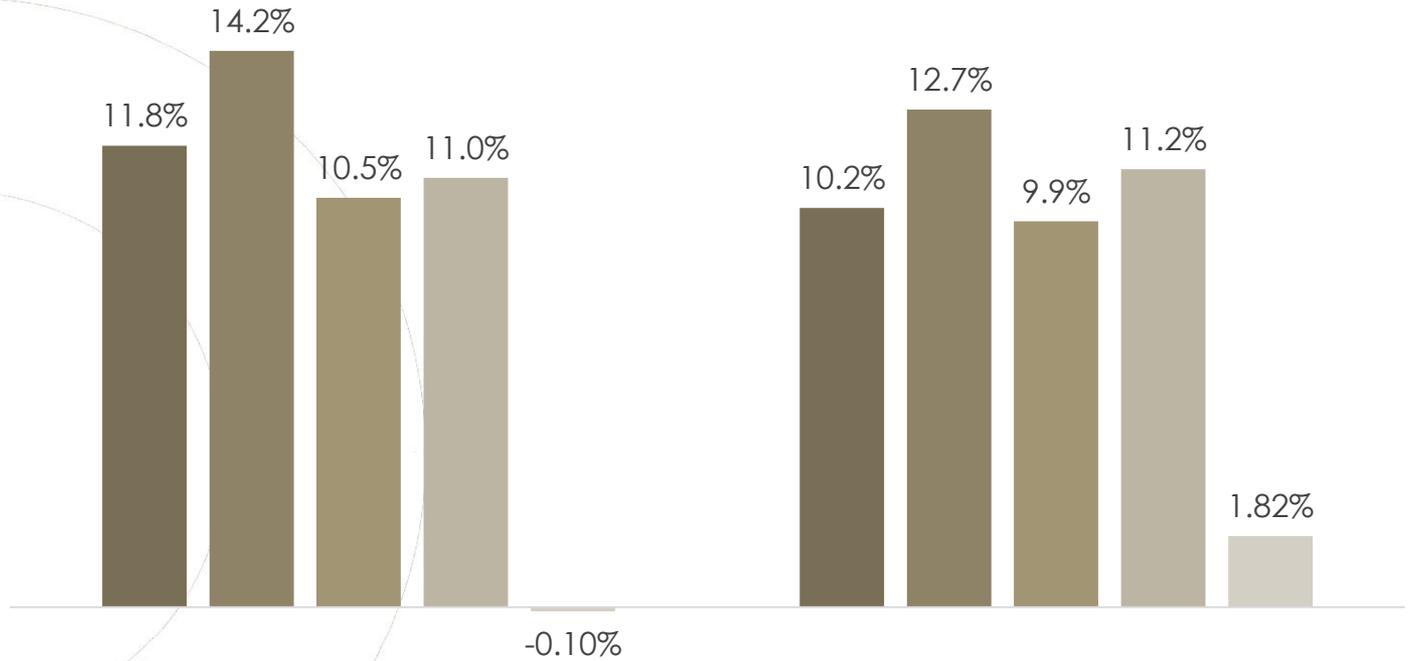


# Allocation History – Quarterly Observations



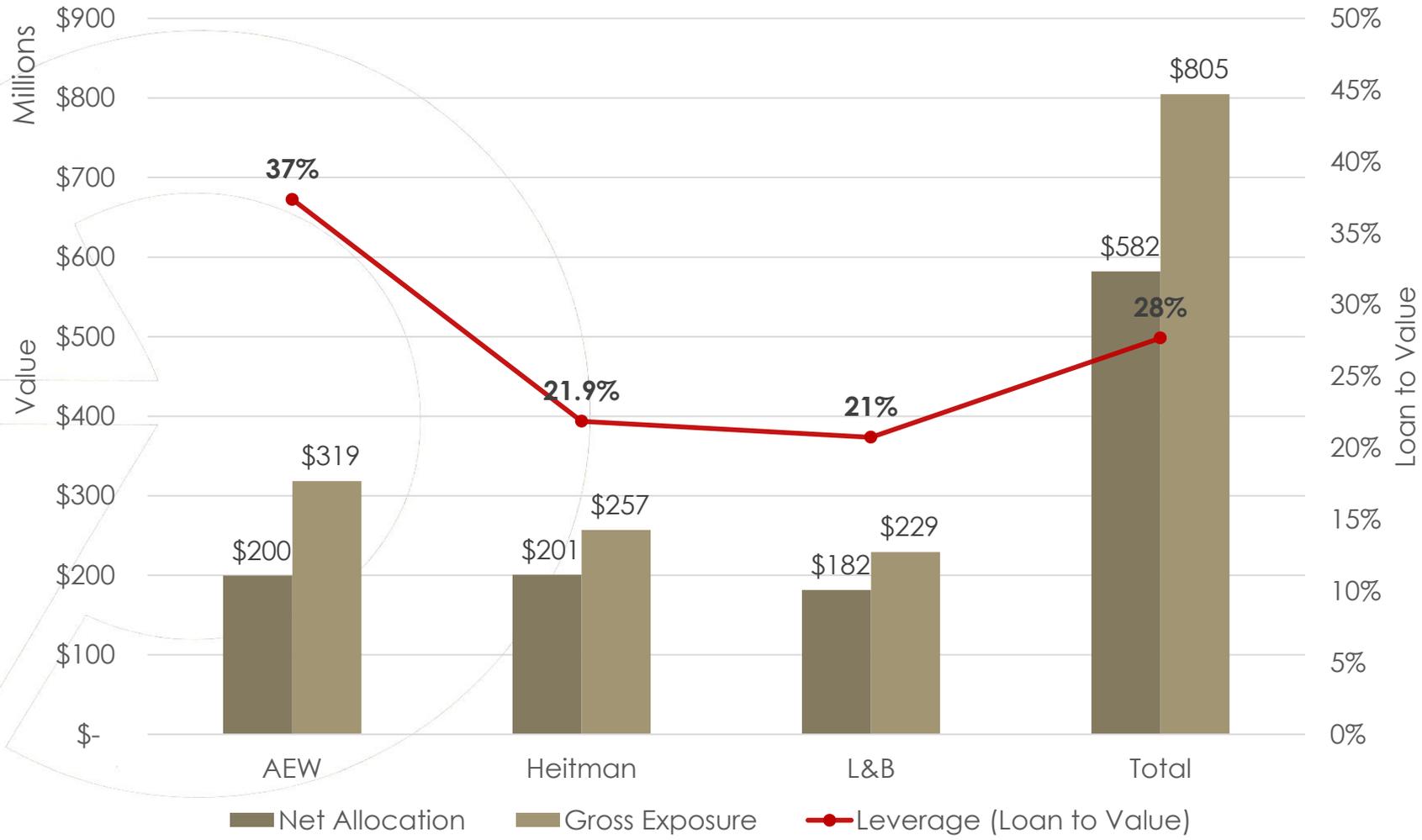
# Performance Comparison – Net of Fees

## Periods Ended March 31, 2014



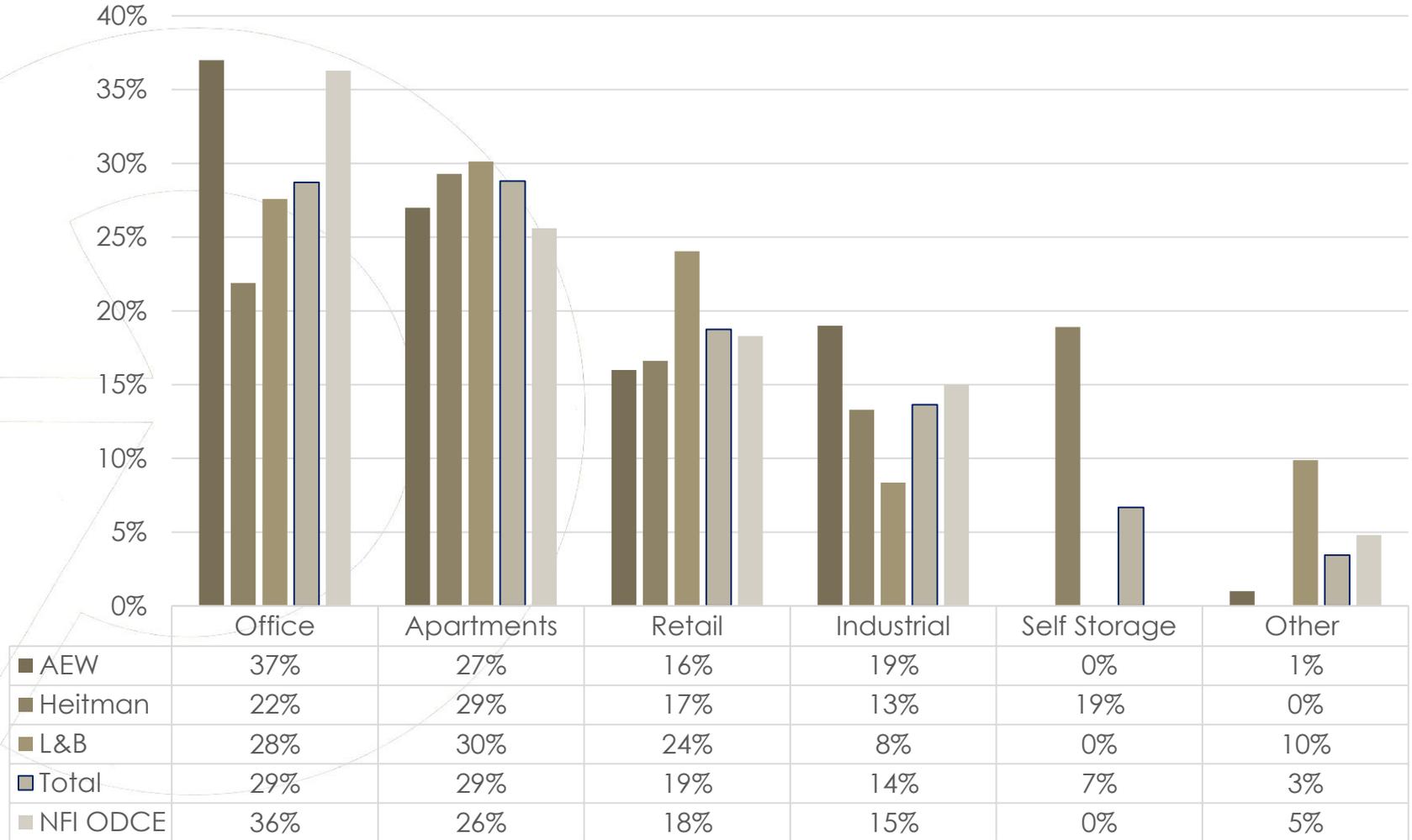
	Trailing Year	Trailing 2 Years
■ AEW	11.79%	10.20%
■ Heitman	14.21%	12.71%
■ L&B	10.46%	9.86%
■ NFI-ODCE	10.97%	11.19%
■ BC Aggregate	-0.10%	1.82%

# Allocation of Real Estate Portfolio – Net vs. Gross Exposure As of March 31, 2014



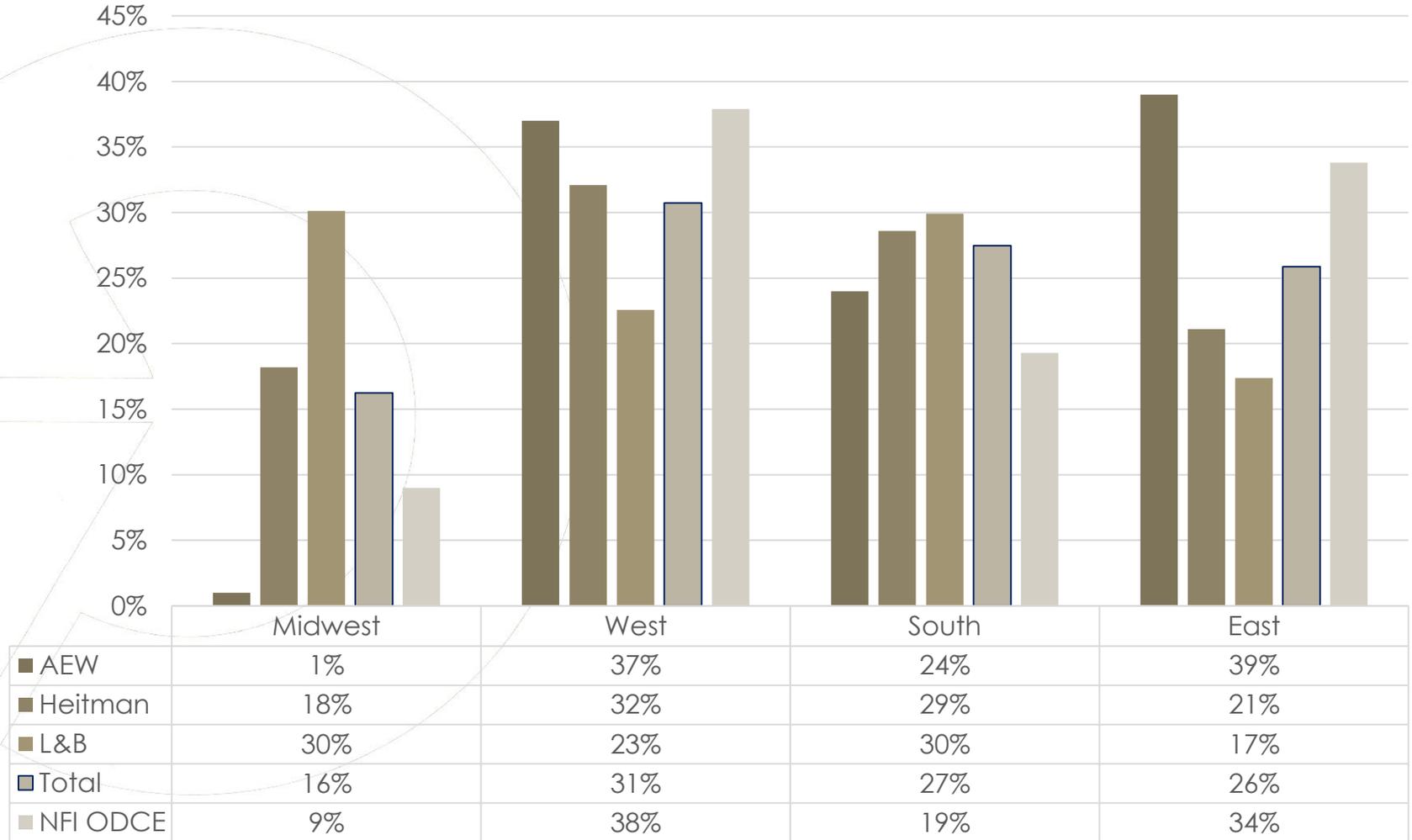
# Property Type Diversification – Net Exposure

As of March 31, 2014



# Geographic Diversification – Net Exposure

As of March 31, 2014

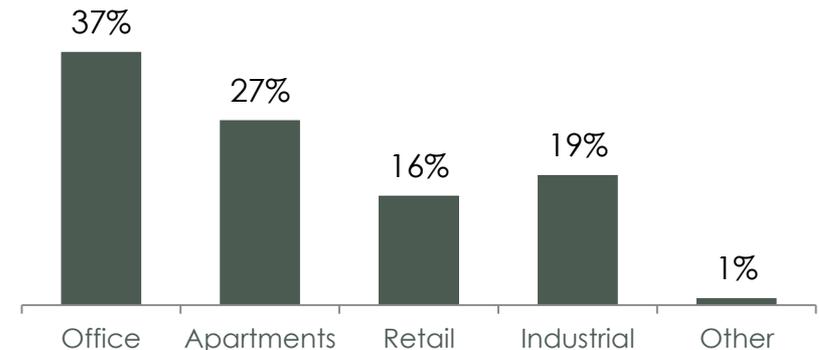


# AEW Capital Management – Core Real Estate

**Location:** Boston, Massachusetts  
**OTRS Initial Commitment:** \$150 million  
**OTRS Total Commitment:** \$165.5 million  
**Fund Name:** AEW Core Property Trust  
**Fund Type:** Open Ended Private REIT  
**Fund Size (Net):** \$3.4 billion  
**Fund Size (Gross):** \$5.6 million  
**Number of Investments:** 44  
**Firm AUM:** \$53 billion  
**Inception Date:** Fourth Quarter, 2007  
**Fund Manager:** Dan Bradley and Jon Martin  
**Investment Process:** Research driven strategy that combines long-term economic forecasts with on-the-ground market knowledge that builds diversified portfolios of apartments, retail, office, industrial, and to a smaller extent, hotel properties. Portfolios will be diversified among major growing metropolitan markets with barriers to new supply. The portfolio will feature high-quality assets designed to provide durable income and reasonable capital appreciation. The fund will only invest in the U.S. No single investment may exceed 25% of the fund's net asset value. Non-core assets limited to 15% of net asset value. 30% maximum leverage at the total fund level.

**Status:** In Compliance

## Property Type Diversification

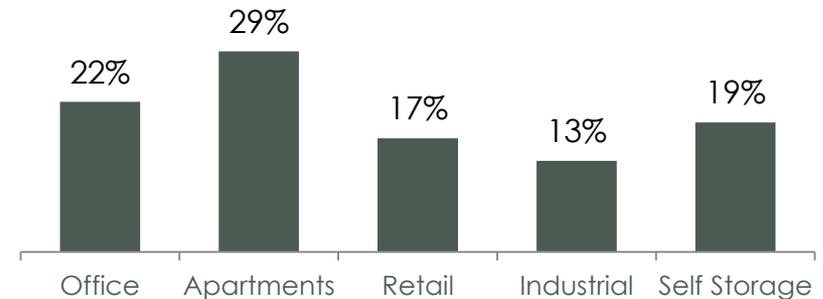


	AEW	NFI ODCE
2013 Income Return	6.16%	5.24%
2013 Appreciation Return	5.79%	8.35%
Current Occupancy	92.2%	-
OTRS Ownership of Fund	5.7%	-

# Heitman Capital Management – Core Real Estate

**Location:** Chicago, Illinois  
**OTRS Initial Commitment:** \$150 million  
**OTRS Total Commitment:** \$167.4 million  
**Fund Name:** Heitman Capital Management  
**Fund Type:** Open Ended Partnership  
**Fund Size (Net):** \$3.5 billion  
**Fund Size (Gross):** \$4.5 billion  
**Number of Investments:** 69  
**Firm AUM:** \$30 billion  
**Fund Inception Date:** First Quarter, 2007  
**Fund Manager:** David Perisho  
**Investment Process:** Acquire strong properties on a direct basis to deliver returns 1.0% over the relevant benchmark index over a rolling five year period. The portfolio will remain flexible as to property type concentration but will be adequately diversified. Heitman will buy in major markets. Properties will be well-constructed and have proximity to amenities and transportation networks. The fund will invest only in the U.S. and Canada. No more than 10% of the fund will be invested in Canada. Up to 15% of the fund will be invested in value-added properties. The maximum investment in a single property will be 15%. Leverage is capped at 30% of the fund.  
**Status:** In Compliance

## Property Type Diversification

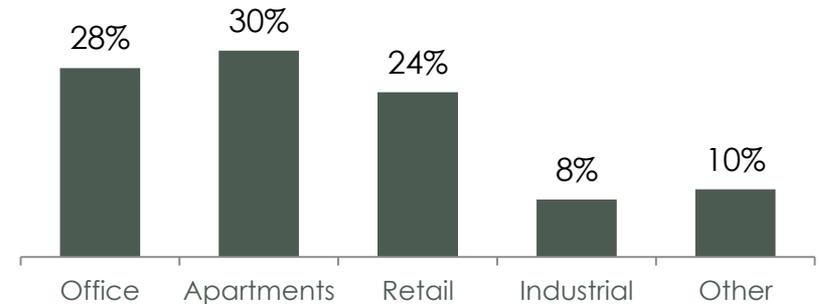


	Heitman	NFI ODCE
2013 Income Return	5.68%	5.24%
2013 Appreciation Return	9.42%	8.35%
Current Occupancy	90.6%	-
OTRS Ownership of Fund	5.8%	-

# L&B Realty Advisers – Core Real Estate

**Location:** Dallas, Texas  
**OTRS Initial Commitment:** \$150 million  
**OTRS Total Commitment:** \$150 million  
**Fund Name:** L&B Core Income Partners, L.P.  
**Fund Type:** Open Ended Partnership  
**Fund Size (Net):** \$408 million  
**Fund Size (Gross):** \$516 million  
**Number of Investments:** 9  
**Firm AUM:** \$6.1 billion  
**Inception Date:** Second Quarter, 2011  
**Fund Manager:** Mark Gerigk and Christopher Metten  
**Investment Process:** The fund will invest in a diversified portfolio of core properties that are well-leased by credit-worthy tenants. The primary objective is protection of capital and limited downside risk. Assets will be appropriately priced and utilize reasonable leverage. The portfolio will concentrate on stable, enduring assets but can allocate up to 15% to non-core assets. All investments will be in the U.S. Maximum leverage at the fund level is 35%; maximum leverage for individual properties is 50%. Average investment is \$50 million in equity. This fund was recently added to the NFI ODCE Index.  
**Status:** In compliance

## Property Type Diversification



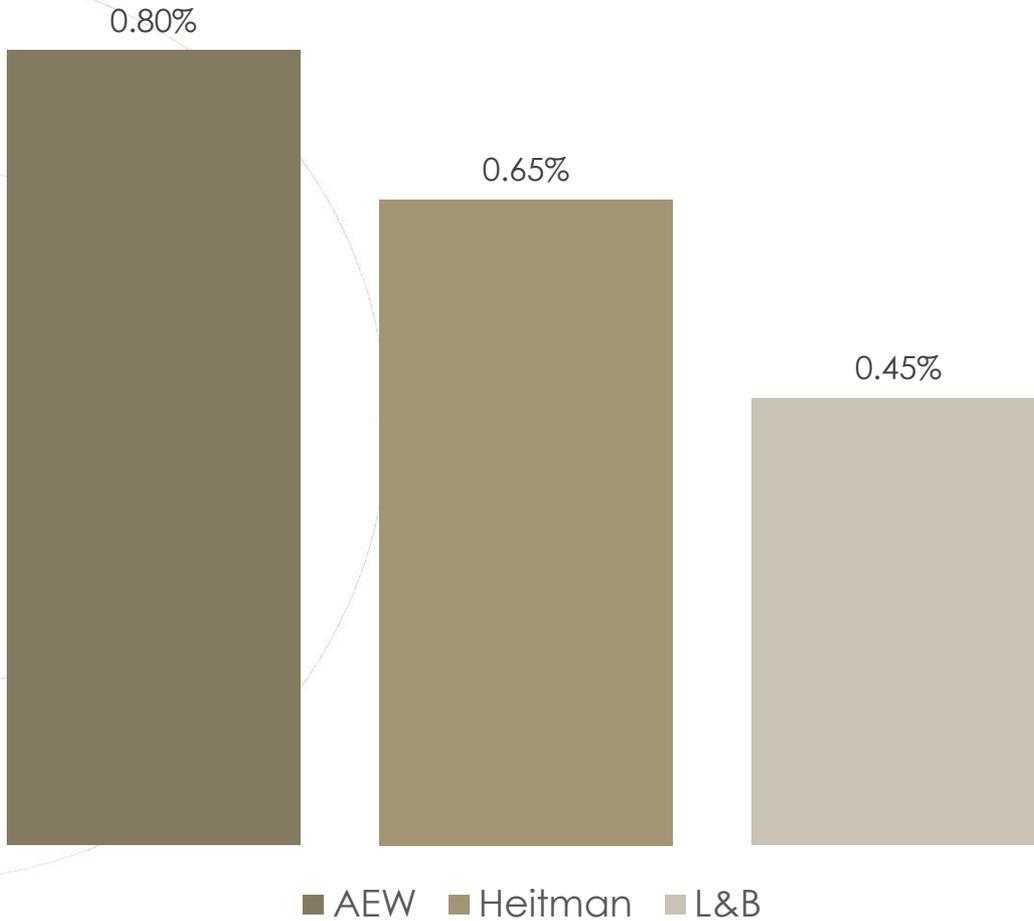
	L&B	NFI ODCE
2013 Income Return	5.26%	5.24%
2013 Appreciation Return	5.11%	8.35%
Current Occupancy	92.7%	-
OTRS Ownership of Fund	44.4%	-

# Quarterly Performance History

## Core Real Estate Portfolios

	<b>AEW</b>	<b>Heitman</b>	<b>L&amp;B</b>	<b>NFI-ODCE</b>
2q 2011	3.7%	5.4%	0.6%	4.6%
3q2011	5.1%	2.7%	1.7%	3.5%
4q2011	3.1%	2.2%	1.1%	3.0%
1q 2012	2.2%	3.3%	1.2%	2.8%
2q 2012	1.7%	2.3%	1.5%	2.6%
3q 2012	2.8%	4.0%	1.4%	2.8%
4q 2012	2.5%	2.5%	2.6%	2.4%
1q 2013	2.0%	2.8%	2.3%	2.7%
2q 2013	3.1%	4.6%	2.0%	3.9%
3q 2013	3.5%	3.9%	2.4%	3.6%
4q 2013	3.2%	3.4%	3.6%	3.2%
1q 2014	2.3%	2.3%	2.6%	3.2%
<b>Trailing Year</b>	<b>12.3%</b>	<b>15.5%</b>	<b>10.6%</b>	<b>13.9%</b>
<b>Trailing 2 Years (annualized)</b>	<b>10.9%</b>	<b>14.1%</b>	<b>8.7%</b>	<b>12.4%</b>

# Annual Management Fee Comparison



# Market Value History

## Core Real Estate Portfolios

	<b>AEW</b>	<b>Heitman</b>	<b>L&amp;B</b>	<b>Total</b>
2q 2011	0	22,274,283	16,029,339	38,303,622
3q2011	93,120,247	107,274,647	102,362,456	302,757,350
4q2011	95,840,228	156,309,732	124,746,993	376,896,953
1q 2012	158,158,228	161,159,299	126,045,930	445,363,457
2q 2012	160,527,947	164,136,057	154,879,803	479,543,807
3q 2012	164,777,493	170,260,588	156,919,704	491,957,785
4q 2012	168,556,340	173,735,967	160,879,997	503,172,304
1q 2013	171,755,602	178,076,841	164,376,355	514,208,798
2q 2013	176,850,639	185,778,492	167,448,015	530,077,146
3q 2013	182,265,413	192,671,534	171,267,534	546,204,481
4q 2013	186,904,498	198,670,499	177,162,997	562,737,994
1q 2014	187,076,961	198,670,499	177,162,997	562,910,457



# Oklahoma Teachers' Retirement System

Value Added and Opportunistic Real Estate Searches

June, 2014

# Discussion Items

June, 2014

I. REVIEW OF VALUE ADDED REAL ESTATE SEARCH

II. REVIEW OF OPPORTUNISTIC REAL ESTATE SEARCH

# UPDATE ON REAL ESTATE SEARCHES

Due date for responses was February 14, 2014. Responses were due to OTRS and Gregory W Group. Submissions were categorized as either Value-Added or Opportunistic

AEW and Heitman submitted bids for the search (Opportunistic and Value-Added, respectively).

Gregory W Group review process is well underway. We have completed our initial in-depth reviews of all submissions and have reduced the list of candidates to **eight value added managers** and **five opportunistic candidates**. **We believe that an adequately diversified portfolio can be constructed from within these candidate pools. However, we may not be able to meet our target allocation in each category with funds from this search without granting relatively large allocations.** Resizing the target allocations could be an option.

The funds under consideration possess different investment processes, philosophies and operational features. All but one of the funds currently under consideration are closed end vehicles. Most have ten year terms with possible extensions. Some of the funds are in the earlier stages of fund raising while others are nearing their final closes. Thoughtful portfolio construction can take advantage of these features to build an exceptionally well-rounded portfolio.

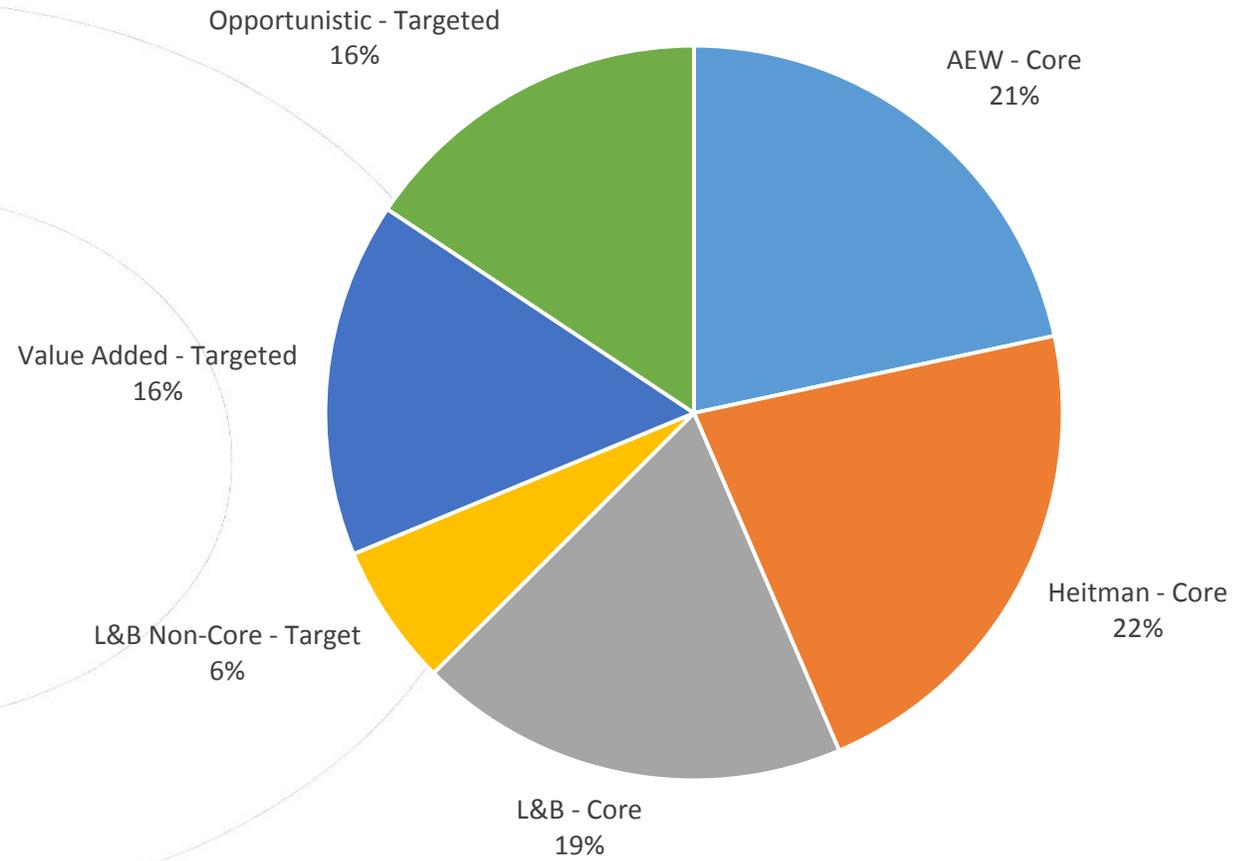
# Real Estate Portfolio

## Leverage Estimates by Category

Core	Total Market Value + Uncalled Capital	Leverage (LTV)	Maximum Total Exposure
AEW	\$ 207,534,573	30%	\$ 296,477,961
Heitman	\$ 210,338,892	30%	\$ 300,484,131
L&B	\$ 181,572,977	35%	\$ 279,343,042
Subtotal	\$ 599,446,442		\$ 876,305,134
Percent of Total - Unlevered	4.4%		
Percent of Total - Levered	6.5%		
<b>Value Added</b>	<b>Total Market Value + Uncalled Capital</b>	<b>Leverage (LTV)</b>	<b>Maximum Total Exposure</b>
L&B (target)	\$ 60,000,000	60%	\$ 150,000,000
Targeted	\$ 115,000,000	50%	\$ 230,000,000
Subtotal	\$ 175,000,000		\$ 380,000,000
Percent of Total - Unlevered	1.3%		
Percent of Total - Levered	2.8%		
<b>Opportunistic</b>	<b>Total Market Value + Uncalled Capital</b>	<b>Leverage (LTV)</b>	<b>Maximum Total Exposure</b>
Targeted	\$ 175,000,000	65%	\$ 500,000,000
Subtotal	\$ 175,000,000		\$ 500,000,000
Percent of Total - Unlevered	1.3%		
Percent of Total - Levered	3.7%		
<b>Total</b>	<b>Total Market Value + Uncalled Capital</b>	<b>Leverage (LTV)</b>	<b>Maximum Total Exposure</b>
	\$ 949,446,442	46%	\$ 1,756,305,134
Percent of Total - Unlevered	7.0%		
Percent of Total - Levered	12.9%		



# Real Estate Allocation Review: By Market Value



# I. Value Added Real Estate Search Overview

- **Value Added:** This is a medium-to-high-risk/medium-to-high-return strategy. It involves buying a property, improving it in some way, and selling it at an opportune time for gain. Properties are considered value added when they exhibit management or operational problems, require physical improvement, and/or suffer from capital constraints. Value added portfolios can be diversified or focused by property type or region.

# Value Added Short List

Firm-Fund Name	Headquarters Location	Total Firm AUM	Fund Structure
American Realty Advisors – Strategic Value Realty Fund, LP	Glendale, California	\$5.9 Billion	Open Ended Diversified Value Added
AMSTAR Advisers (separate account)	Denver, Colorado	\$2.5 Billion	Diversified Value Added Separate Account
Angelo Gordon & Company - AG Core Plus Realty Fund IV	New York, New York	\$53.0 Billion	Closed Ended Core and Value Added Blend
Antheus Capital LLC Lyrical Antheus Realty Partners IV	Englewood, New Jersey	\$420 Million	Closed Ended Value Added Multi Family
Heitman Value Partners III	Chicago, Illinois	\$29.1 Billion	Closed Ended Diversified Value Added
Landmark Realty Advisors LLC, Landmark Real Estate Fund VII	Simsbury, Connecticut	\$10.5 Billion	Closed Ended Real Estate Secondaries
Stockbridge Core and Value Advisors Value Fund II	San Francisco, California	\$3.1 Billion	Closed Ended Diversified Value Added
Waterton Associates Waterton Residential Property Venture XII	Chicago, Illinois	\$3.0 Billion	Closed Ended Value Added Multi Family

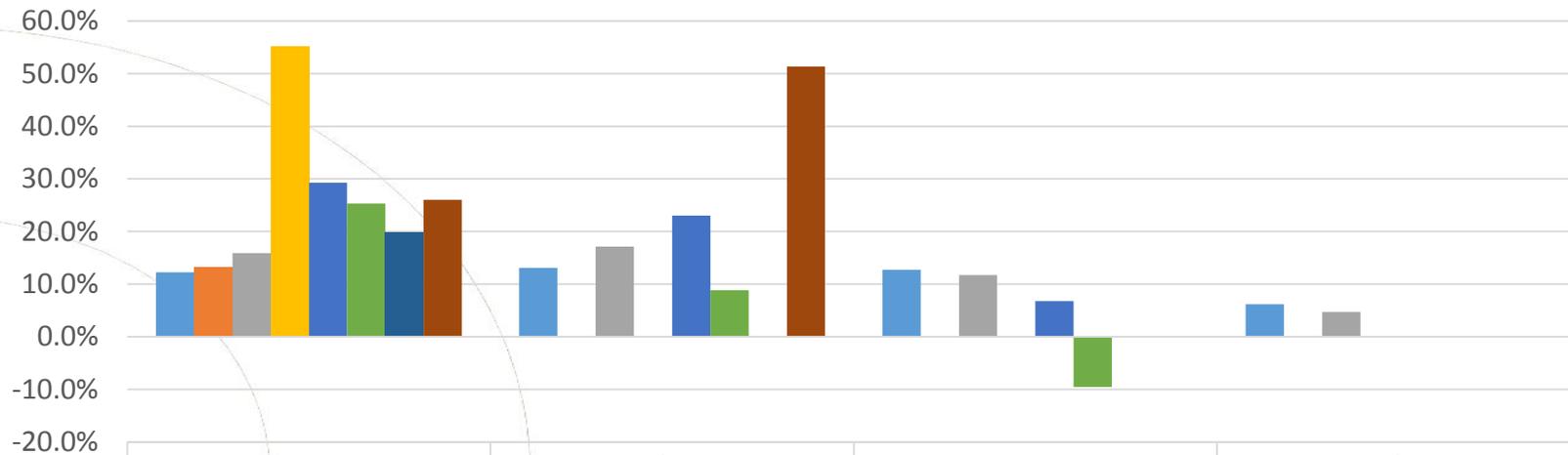


# Note on Real Estate Return Comparisons

- Real estate is cyclical asset class. Fund returns can be largely determined by their vintage year.
- Returns can be highly correlated within category and region.
- Interim returns are based on a combination of income, sales proceeds, and appraisal values.
- Real estate returns are generally displayed using Internal Rates of Return. This method does accurately portray returns on capital invested. It does have a downside – funds that are called at different times and at different paces cannot be accurately compared. Furthermore, early stage fund returns can be misleading due to timing of cash flows and other distortions. We have studied an array of return metrics for all candidates.
- Historical returns are important but do not provide a truly sound basis for real estate manager hiring decisions. They are extremely difficult to compare. As we move further, we will perform additional analysis on returns, particularly in a portfolio of funds context. All managers shown have demonstrated capability to provide adequate returns to their investors. However, comparing them side by side is difficult.

# Return Comparison – Representative Funds

Periods Ended December 31, 2013

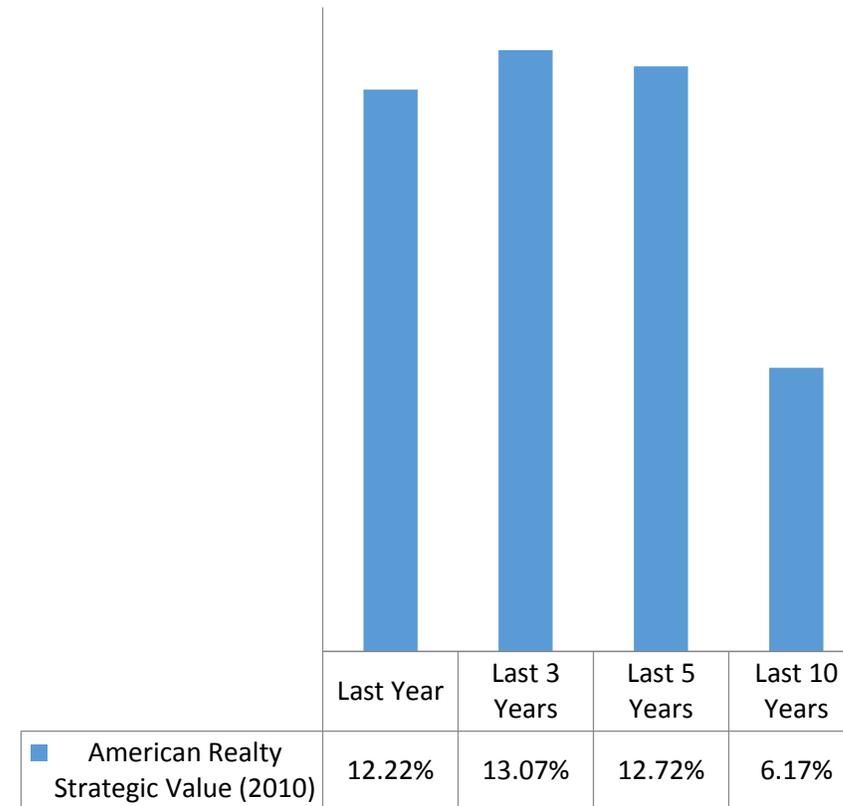


	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
American Realty	12.2%	13.1%	12.7%	6.2%
AMSTAR	13.1%			
Angelo, Gordon	15.9%	17.1%	11.7%	4.7%
Antheus	55.1%			
Heitman	29.3%	23.0%	6.8%	
Landmark	25.3%	8.8%	-9.5%	
Stockbridge	19.8%			
Waterton	26.0%	51.3%		

# Candidate Review: American Realty Strategic Value Realty Fund

**Location:** Glendale, California  
**Fund Type:** Open Ended Diversified Value Added  
**Firm Type:** Domestic Real Estate Specialist  
**Fund Focus:** Diversified portfolio that invests in all major asset categories and regions within the US.  
**Fund Terms:** Open Ended  
**Management Fee:** 1.16%  
**Incentive Fee:** 20% over 10% preferred return  
**Firm AUM:** \$5.9 Billion  
**First Close Date:** 2010 (inception date)  
**Fund Manager:** Kurt Helgeson and Douglas Rush  
**Investment Process:** Team based process that views each acquisition as on operating asset and also a part of the overall portfolio. Acquisitions are reviewed by Investment Committee. Named portfolio manager is Chairman of the Investment Committee. Portfolio currently has a focus on the West and Midwest (~80% of portfolio). Largest sector allocation is Office which accounts for 68% of the portfolio. Investment process follows these steps: market/submarket research, acquisition underwriting and due diligence, active operational management and a well-defined hold/exit strategy. Risk of each asset is continuously evaluated and managed. Purchases are generally mid to lower market, or between \$10 - \$50 million.  
**Maximum Leverage:** 65% of Gross Value

Previous Fund Returns as of 12/31/2013



# Candidate Review: AMSTAR Advisers (separate account)

**Location:** Denver, Colorado

**Fund Type:** Value Added Separate Account

**Firm Type:** Separate Account Real Estate Specialist

**Fund Focus:** Fully Diversified

**Fund Terms:** Anticipated 2-7 year hold period

**Management Fee:** 1.75%

**Incentive Fee:** 15% of profits over 8%

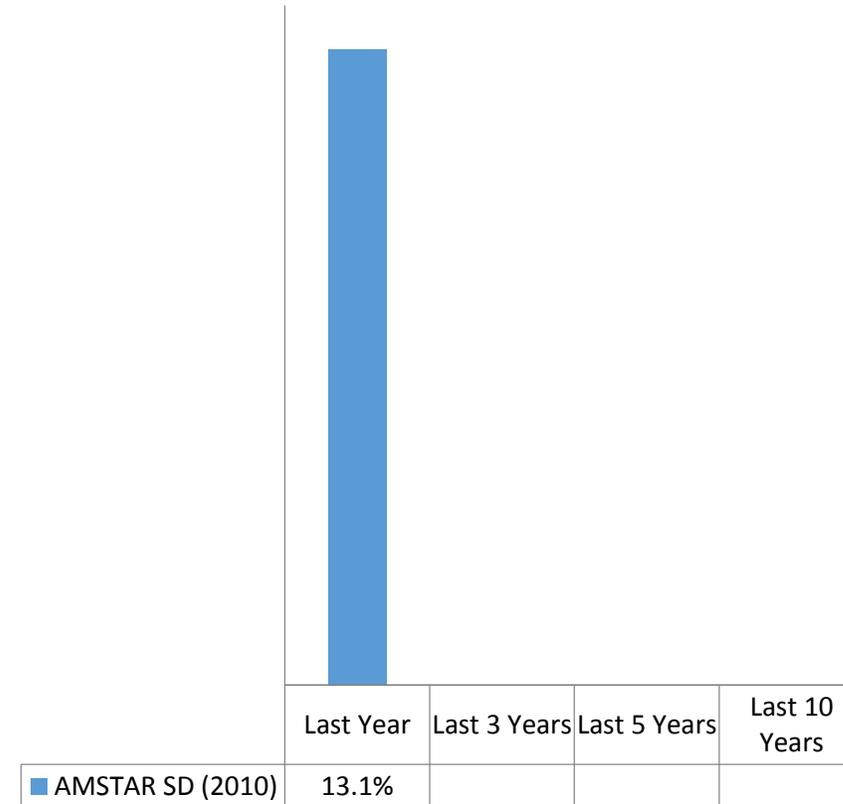
**Firm AUM:** \$2.5 Billion

**Fund Manager:** Gabe Finke, Rob Toomey, Jeff Stonger

**Investment Process:** AMSTAR manages large separate account real estate portfolios for institutional clients. They have a handful of large clients and two specialized comingled vehicles. The minimum portfolio size is suggested at \$200 million to achieve adequate diversification, but a smaller account could be accommodated. The firm operates as a team, but individual investments are assigned "cradle to grave" where the principal sourcing the deal is also responsible for closing, executing the business plan and disposition. The firm's current investment thesis is to "lead the capital cycle" by focusing on gateway markets. This focus has led the firm to focus on yield through 2015, but thereafter to hedge inflation (buy value added properties but sell to core investors). This will allow the portfolio to capitalize on the weak recovery but following population growth with keen attention to supply. Portfolio would be diversified among five target strategies.

**Maximum Leverage:** OTRS discretion

## Previous Fund Returns as of 12/31/2013



# Candidate Review: AG Core Plus Realty Fund IV

**Location:** New York, New York

**Fund Type:** Closed Ended Core/Value Added Blend

**Firm Type:** Diversified Alternative Asset Manager

**Fund Focus:** High quality in-fill assets in major U.S. markets

**Fund Terms:** Ten years with 2 one year options (expected)

**Management Fee:** 1.5%

**Incentive Fee:** 20% of profits over 8%

**Firm AUM:** \$53 billion

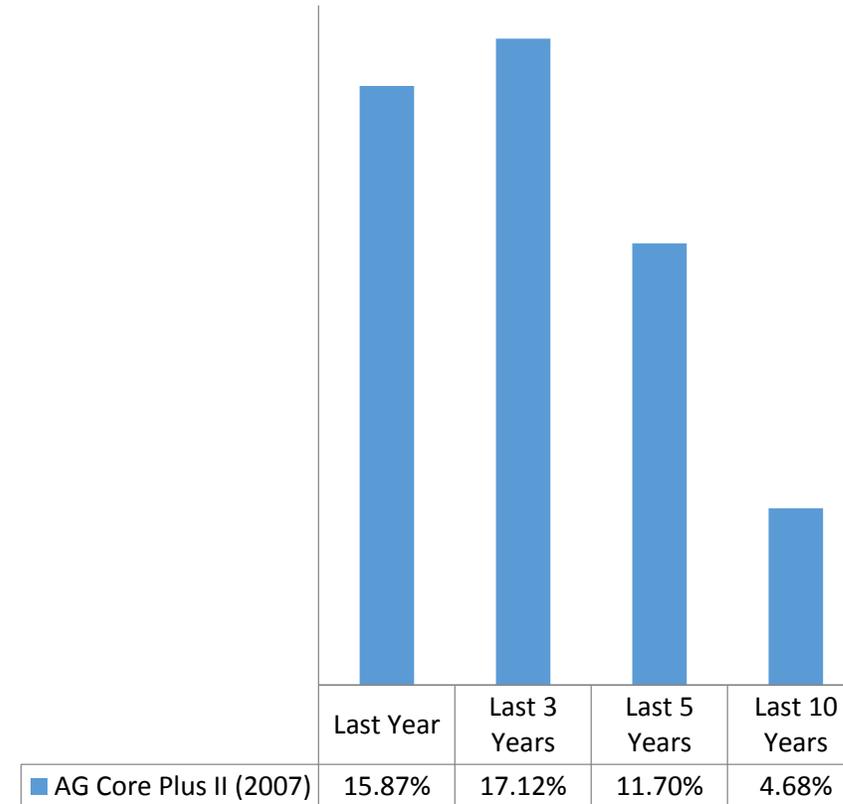
**First Close Date:** Expected late 2014

**Fund Manager:** Adam Schwartz and Reid Liffmann

**Investment Process:** Fund will target sub-performing assets in office, retail, multi-family and industrial where performance can be improved with relatively low risk. Well built but under managed properties are sought in attractive locations in top 15 U.S. markets. Assets are targeted in areas with barriers to entry and below replacement cost. Properties are stabilized and improved with an eye towards eventual sale to core investors. Many assets are purchased through off-market or privately negotiated transactions. Firm has significant experience adding value through lease-ups, renovations and complete repositionings. Current income is targeted at 7% - 8%. Total IRR is targeted at 14% - 15%.

**Maximum Leverage:** 75% (expected)

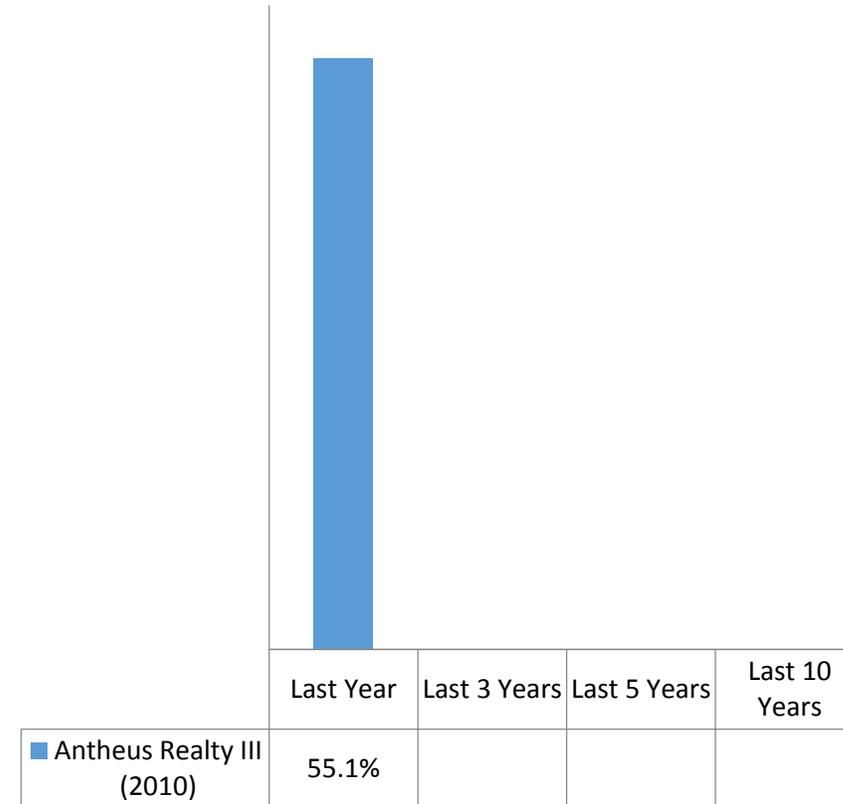
## Previous Fund Returns as of 12/31/2013



# Candidate Review: Antheus Realty Partners IV

**Location:** Englewood, New Jersey  
**Fund Type:** Close Ended Value Added  
**Firm Type:** Specialist Real Estate Boutique  
**Fund Focus:** Multi Family in Focused Sub markets  
**Fund Terms:** 10 years with two 2 year options  
**Management Fee:** 2%  
**Incentive Fee:** 20% of profits over 7%  
**Firm AUM:** \$420 million  
**Fund Manager:** Eli Ungar and David Gefsky  
**Investment Process:** Extremely hands on investment process that currently manages a diversified portfolio of multi-family investments in two sub-markets where they seek deep property by property knowledge and a dominant market share. Currently, their portfolio owns over 6,000 apartment units in Chicago and Kansas City in areas that exhibit strong, structural supply/demand conditions that cannot be easily reversed and ultimately benefit apartment owners. The team seeks areas where supply/demand remains in disequilibrium and favorable to long-term growth rates of rental income. Operating expenses for their properties tend to remain flat after initial investment, allowing them to compound a growing level of net operating expenses. The team focuses on year over year operating success rather than "trades".  
**Maximum Leverage:** 75%

## Previous Fund Returns as of 12/31/2013



# Candidate Review: Heitman Value Partners III

**Location:** Chicago, Illinois

**Fund Type:** Closed Ended Diversified Value Added

**Firm Type:** Large Real Estate Specialist

**Fund Focus:** Formation of property level joint ventures with public and private operating companies to purchase, stabilize and dispose of value added properties.

**Fund Terms:** 10 years

**Management Fee:** 1.25% of equity invested

**Incentive Fee:** 20% of profits over 9%

**Firm AUM:** \$29.1 Billion

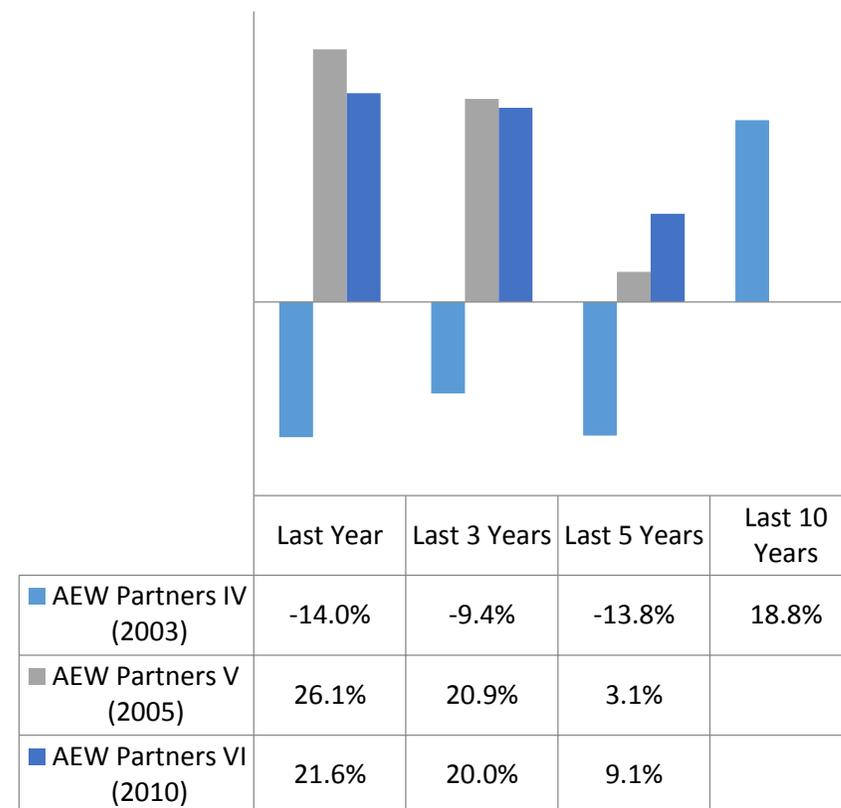
**First Close Date:** July, 2013

**Fund Manager:** Tom McCarthy

**Investment Process:** Research intensive process that seeks to allocate capital to specialized assets in identified sub markets and categories to form a portfolio with resilience to changes in the economy, property markets, and capital markets. The fund is expected to focus on less growth dependent asset types such as student housing, senior housing, multifamily, retail, and medical offices. Investments will be made in metropolitan areas that are experiencing lower levels of capital investment but forecasted improving growth. The portfolio will be constructed with an eye toward strong net operating income growth to buffer against eventual rising interest rates.

**Maximum Leverage:** 60%

## Previous Fund Returns as of 12/31/2013



# Candidate Review: Landmark Real Estate Fund VII

**Location:** Simsbury, Connecticut

**Fund Type:** Closed Ended Real Estate Secondaries

**Firm Type:** Large Alternatives/Secondaries Specialist

**Fund Focus:** Purchase Real Estate Fund Interests on Secondary Market

**Fund Terms:** Investment Period is four years from final close.

**Management Fee:** 1.00% of committed capital

**Incentive Fee:** 12% of profits over 8%

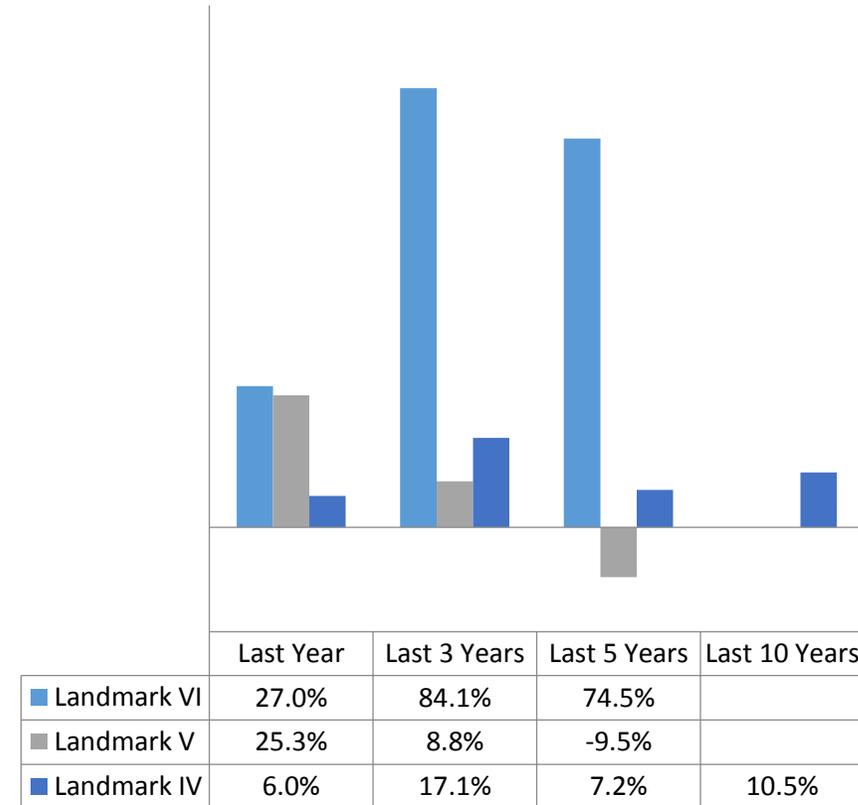
**Firm AUM:** \$9 Billion

**Fund Manager:** Francisco Borges, Timothy Haviland, Chad Alfeld, Robert Dombi, Raul Mehlman, James Sunday

**Investment Process:** Landmark is a pioneer in the construction of portfolios through secondary market transactions. The firm will seek to build a portfolio diversified across vintage years, geographies, managers and strategies. Investing in secondaries generally allows for faster deployment of capital as sellers come to market. Sellers generally are forced to sell their interests at a discount, benefitting an established buyer such as Landmark. Secondary interests are usually seasoned assets that generate income and distributions immediately. This produces current cash flow and minimizes J-curve impact. Investments are generally held until full fund level distribution.

**Maximum Leverage:** 70% (fund level)

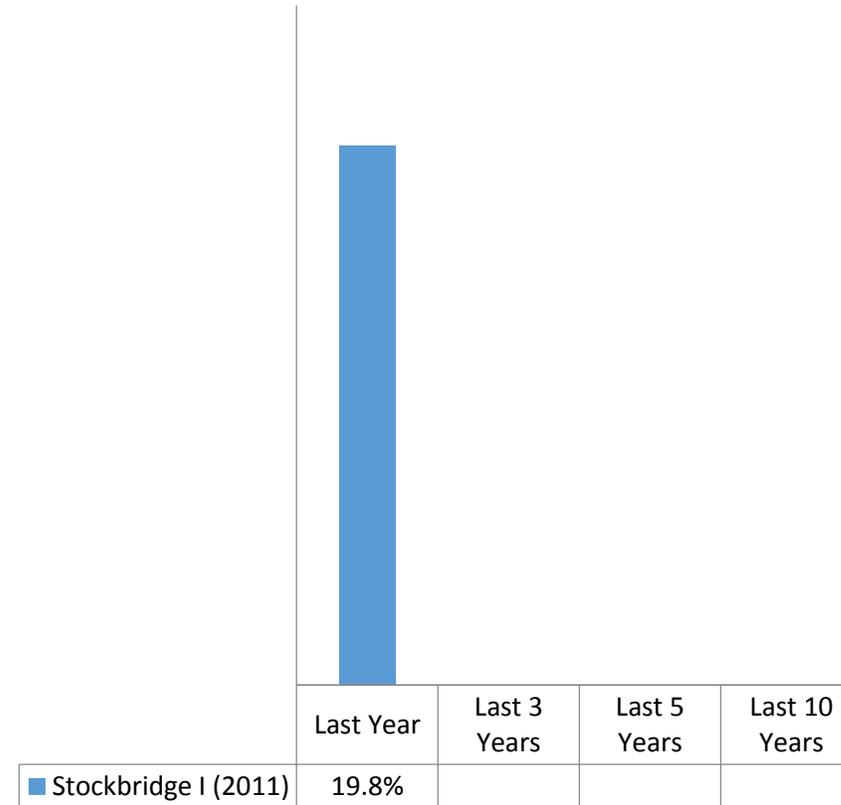
## Previous Fund Returns as of 12/31/2013



# Candidate Review: Stockbridge Core and Value Advisors Value Fund II

**Location:** San Francisco, California  
**Fund Type:** Closed Ended Diversified Value Added  
**Firm Type:** Real Estate Specialist Boutique  
**Fund Focus:** Value added portfolio composing all major classes of real estate with no more than 25% of assets in any MSA  
**Fund Terms:** 10 years  
**Management Fee:** 1.25%  
**Incentive Fee:** 20% of profits over 8% return  
**Firm AUM:** \$3.1 billion  
**First Close Date:** January, 2014  
**Fund Manager:** Douglas Sturiale  
**Investment Process:** Investment committee of nine oversees a regional office structure with personnel on the ground in four offices around the country. Senior professionals have worked together for 15 years and have average real estate experience of 30 years. Six acquisition officers are responsible for deep surveys of their defined region. Firm seeks properties that are not widely marketed or can be acquired from lenders or distressed sellers. Top down research leads to allocation to markets with heavy near-term demand while local knowledge is used to make tactical decisions. Properties are aggressively improved and generally sold before rents improve to levels that invite competition.  
**Maximum Leverage:** 65%

Previous Fund Returns as of 12/31/2013



# Candidate Review: Waterton Residential Property Venture XII

**Location:** Chicago, Illinois

**Fund Type:** Closed Ended Multifamily Value Added

**Firm Type:** Multifamily Specialist Boutique

**Fund Focus:** Vertically Integrated Diversified Multifamily Value Added Portfolio

**Fund Terms:** 10 years

**Management Fee:** 1.25% committed/1.50% invested

**Incentive Fee:** 20% of profits over 8% return

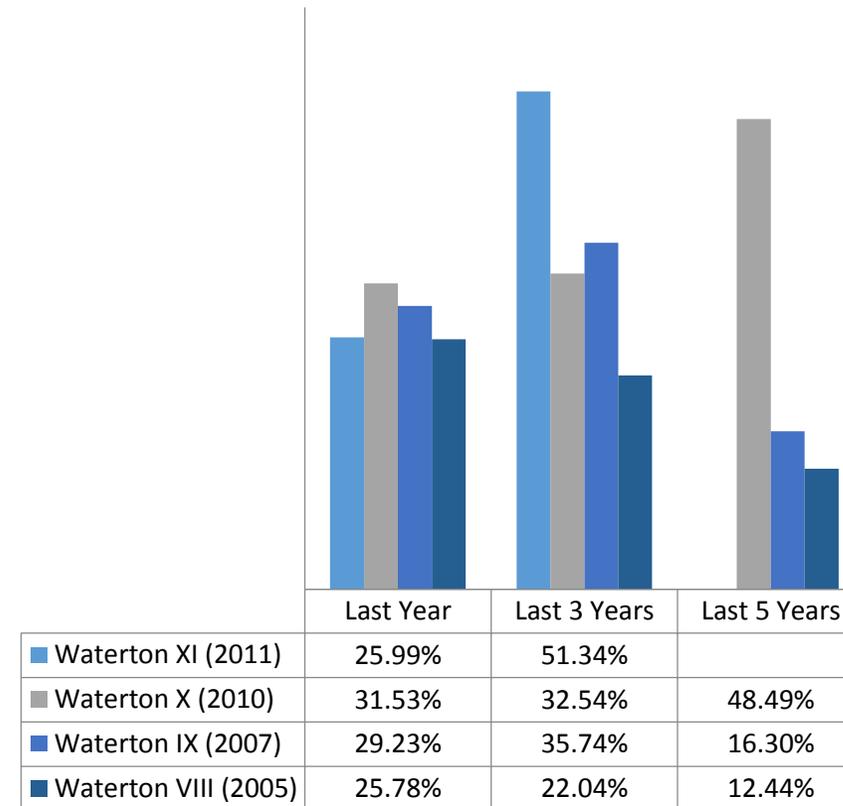
**Firm AUM:** \$3.0 billion

**Fund Manager:** Phil Lukowski

**Investment Process:** Investment committee of six oversees process that acquires, improves, manages and disposes multifamily properties within the 30 largest metropolitan areas. Fund expects to target 12 -15 markets in this fund. Manager will continue to execute value-added strategies from previous funds and exploit current market conditions. Value-added activities include remedying deferred maintenance and mismanagement, capitalizing on motivated sellers, acquisition of debt as a path to title ownership and repurpose of hotel, office and other properties into multifamily assets. This fund will seek to avoid recent pockets of oversupply and uncover attractive investments from 2005-2007 vintage funds.

**Maximum Leverage:** 65%

## Previous Fund Returns as of 12/31/2013



## II. Opportunistic Real Estate Search Overview

- **Opportunistic:** This is a higher-risk/higher-return strategy. The properties will require a high degree of enhancement. This strategy may also involve investments in development, raw land, mortgage notes, and niche property sectors. Investments are tactical.

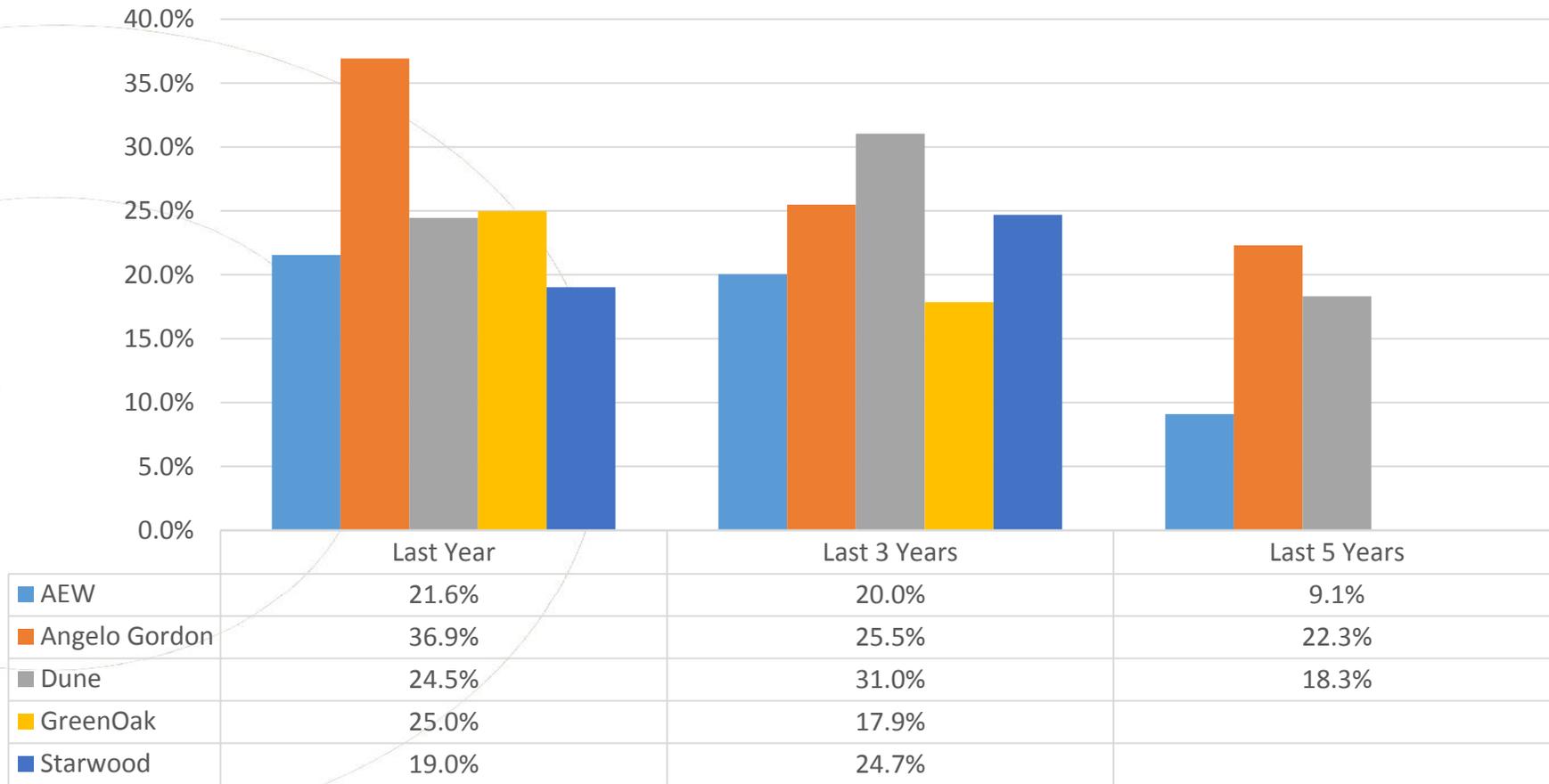
# Opportunistic Short List

Firm - Fund Name	Headquarters Location	Total Firm AUM	Fund Structure	Final Close
AEW Capital Management - AEW Partners VII	Boston, Massachusetts	\$50.9 Billion	Close Ended Opportunistic	?
Angelo Gordon & Company - AG Realty Fund IX	New York, New York	\$53.0 Billion	Close Ended Opportunistic	?
Dune Real Estate Partners – Dune Real Estate Fund III	New York, New York	\$1.7 Billion	Close Ended Opportunistic	July/August 2014
GreenOak Real Estate Partners US Fund II	New York, New York	\$3.5 Billion	Close Ended Opportunistic	July/August 2014
Starwood Capital Group Distressed Opportunity Fund X	Greenwich, Connecticut	\$33 Billion	Close Ended Opportunistic	?



# Return Comparison – Representative Funds

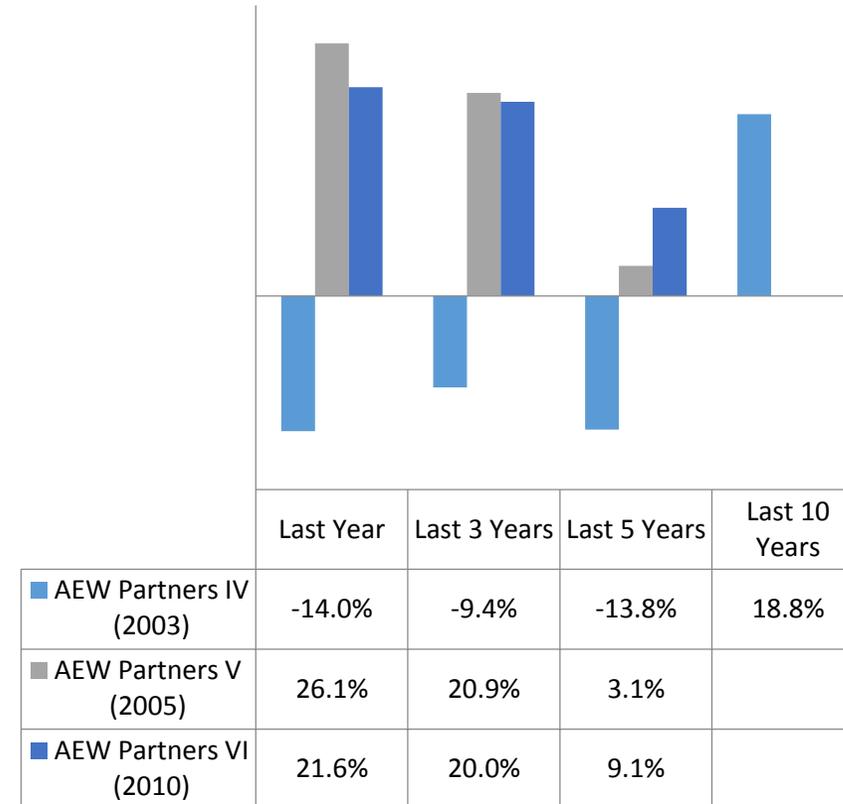
Periods Ended December 31, 2013



# Candidate Review: AEW Partners VII

**Location:** Boston, Massachusetts  
**Fund Type:** Close Ended Opportunistic  
**Firm Type:** Large Real Estate Specialist  
**Fund Focus:** Diversified Opportunistic Portfolio  
**Fund Terms:** 10 years  
**Management Fee:** 1.0%  
**Incentive Fee:** 20% of profits over 9%  
**Firm AUM:** \$53 billion  
**First Close Date:** March 2014  
**Fund Manager:** Marc Davidson  
**Investment Process:** Process begins with ongoing macro level research to identify demographic and globalization trends that can benefit demand in identifiable markets and property types. In the current environment, the fund is expected to focus on the following themes: Recapitalization of assets from fatigued owners; Providing capital to distressed owners facing near term maturities from deleveraging lenders; Acquisition of non-performing and defaulted loans to obtain title of underlying property; Exploit demographic trend of urbanization; Arbitrage pricing differentials between capital market and real estate markets. Portfolio is overseen by Investment Committee and Risk Management Committee.  
**Maximum Leverage:** 75%

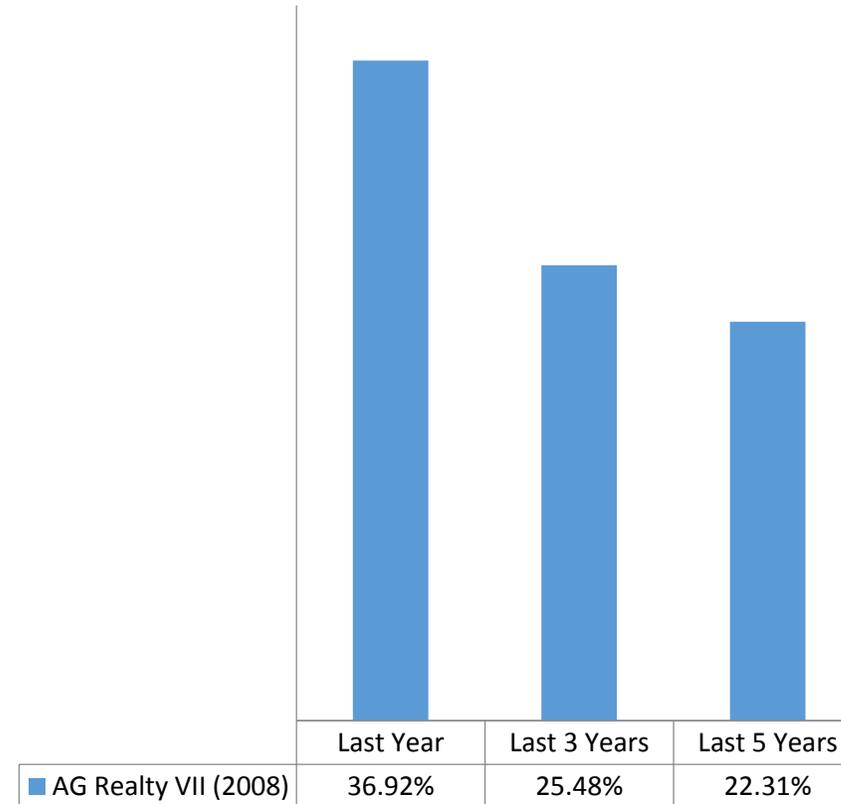
Previous Fund Returns as of 12/31/2013



# Candidate Review: AG Realty Fund IX

**Location:** New York, New York  
**Fund Type:** Close Ended Opportunistic  
**Firm Type:** Diversified Alternative Asset Manager  
**Fund Focus:** Diversified Portfolio of Distressed/Underperforming Assets  
**Fund Terms:** Eight years with 2 one year options  
**Management Fee:** 1.50%  
**Incentive Fee:** 20% of profits over 9%  
**Firm AUM:** \$53 billion  
**Fund Manager:** Adam Schwartz and Reid Liffman  
**Investment Process:** Portfolio will target underperforming and distressed assets in the four major asset categories plus for sale housing, nursing homes, and self storage. Investments are expected to require significant improvements from capital investment and leasing. Deals may be attractively priced due to interrupted cash flow, constrained access to capital, complex deal structure or difficult/broken sale process. Portfolio team will invest primarily in the largest US markets and focus on stabilizing and exiting investments at a discount to replacement cost. Distressed opportunities will be sought. Team has experience rearranging capital structures and is familiar with bankruptcy/foreclosure process.  
**Maximum Leverage:** 70%

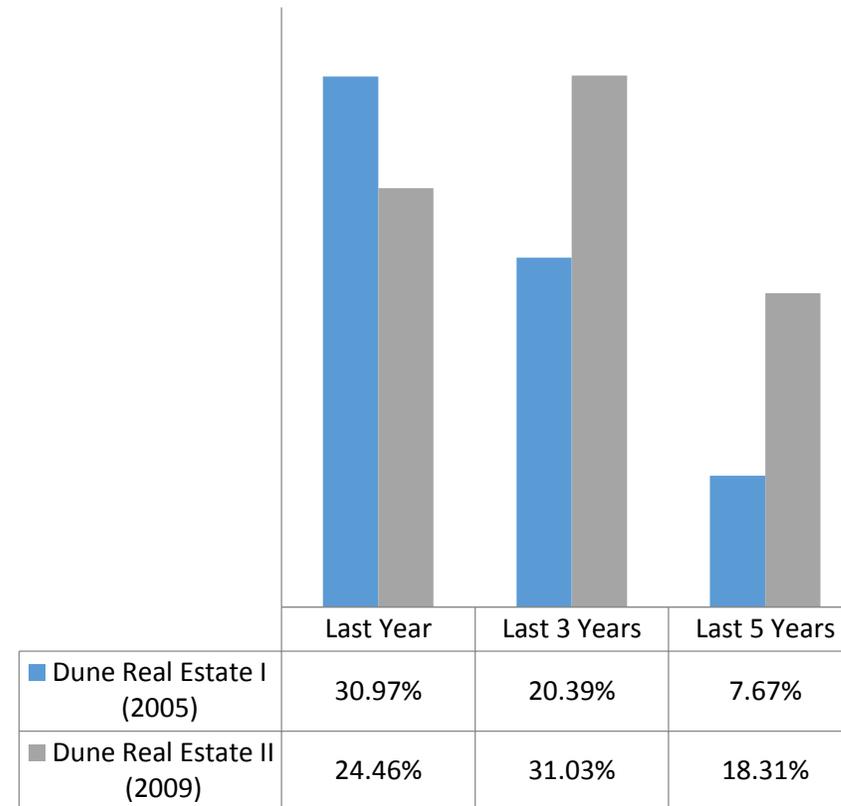
Previous Fund Returns as of 12/31/2013



# Candidate Review: Dune Real Estate Fund III

**Location:** New York, New York  
**Fund Type:** Close Ended Opportunistic  
**Fund Focus:** Diversified Opportunistic Strategy  
**Fund Terms:** Real Estate Specialist Boutique  
**Management Fee:** 1.5%  
**Incentive Fee:** 20% of profits over 9%  
**Firm AUM:** \$1.7 billion  
**Fund Manager:** Dan Neidich, Cia Buckly Marakovits  
**Investment Process:** Partner driven model that seeks to exploit the talent and experience of a highly experienced group of real estate professionals. The fund will broadly focus on opportunities resulting from the unprecedented deleveraging of the capital market. The fund will seek opportunities created by distress and dislocation through three themes: Distressed Assets, Deep Value-add, and Contrarian Investments. Distressed assets will be creatively acquired, recapitalized and/or restructured through sub- or non-performing commercial mortgages or real estate loans. Deep value-add projects will seek to stabilize and reposition underperforming assets through renovation, re-leasing and capital investment. Contrarian assets will be acquired to exploit oversold conditions through deeply discounted purchased of unpopular assets.  
**Maximum Leverage: 75%**

Previous Fund Returns as of 12/31/2013



# Candidate Review: GreenOak Real Estate Partners US Fund II

**Location:** New York, New York

**Fund Type:** Close Ended Opportunistic

**Firm Type:** Real Estate Specialist Boutique

**Fund Focus:** Office, Retail, Multifamily, Hotel and other discounted properties in selected sub markets of New York, Los Angeles, Boston, San Francisco and Miami.

**Fund Terms:** Fund will dissolve 12/31/2020 with two one year extensions

**Management Fee:** 1.75%

**Incentive Fee:** 20% of profits over 9%

**Firm AUM:** \$3.5 billion

**Fund Manager:** Sonny Kalsi, Chris Niehaus, John Carrefiell, Fred Schmidt, Andrew Yoon

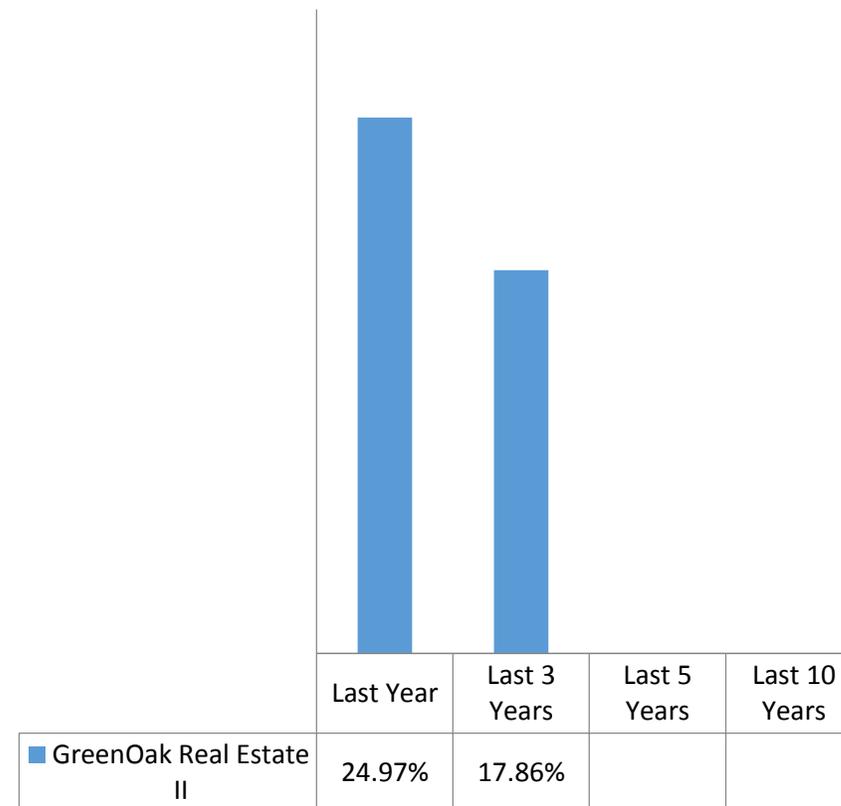
**Investment Process:** Fund will focus on high barrier to entry markets that possess size, supply constraints, significant demand growth and liquidity.

Undervalued properties will be targeted in off market transactions. Assets will be recapitalized – the fund will target assets acquired or financed during the 2005-2008 vintages. Mid market properties will be targeted – properties owned primarily by families, private investors or smaller institutions who are not willing to expend capital to maintain competitiveness or professionally manage the asset. The fund will also allocate to improvable assets with good locations.

**Maximum Leverage:** 75%

**Note:** Fund's final close is expected July/August 2014

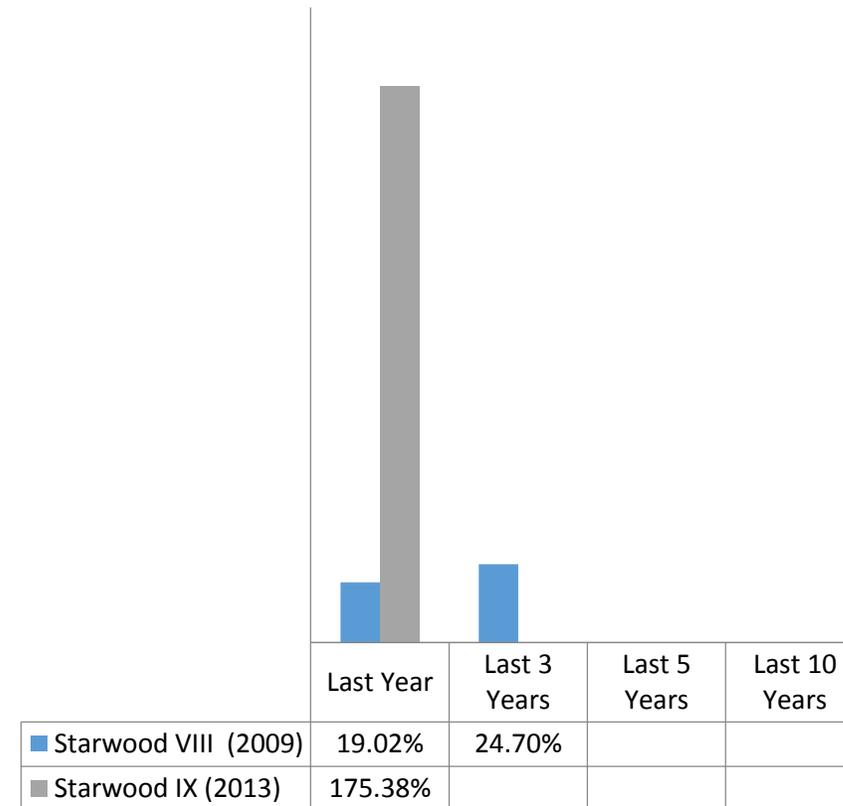
## Previous Fund Returns as of 12/31/2013



# Candidate Review: Starwood Distressed Opportunity Fund X

**Location:** Greenwich, Connecticut  
**Fund Type:** Close Ended Opportunistic  
**Firm Type:** Large Real Estate Specialist  
**Fund Terms:** 10 years with 2 one year extensions  
**Management Fee:** 1.25% + 0.25% Asset Management Fee on gross asset cost  
**Incentive Fee:** 20% of profits over 10%  
**Firm AUM:** \$33 billion  
**Fund Manager:** Barry Sternlicht  
**Investment Process:** The fund will target investments with average equity of \$75 - \$100 million. The firm adheres to an established set of investment principles: buy below replacement cost, use appropriate leverage (amount and duration), invest when supply is low, avoid overconcentration by diversifying across risk spectrum, geographic areas, asset type and capital structure; invest alongside LPs, and anticipate opportunities created by capital flows. The fund will invest in a **global portfolio** via purchases of non-performing loans, individual assets and portfolios of assets or companies. Purchases will **focus on the US and Europe** although investment opportunities in other regions will be considered.  
**Maximum Leverage:** 75%  
**Note:** Fund expects to raise up to \$5 Billion

Previous Fund Returns as of 12/31/2013



# Next Steps

1. Reduce Lists to Finalists
2. Establish Priorities
3. Continue Due Diligence
4. Finalist Presentations
5. Portfolio Construction
6. Legal Review
7. Fund Portfolios



# Appendix

# Value Added Respondents

Firm Name
American Realty Advisors
Amstar
Angelo Gordon
Antheus
Ares
Bailard
Centersquare
Clarion
Ethika
Greenfield
Guggenheim
Harbert
Heitman
Invesco
Intercontinental
JP Morgan
Landmark

Firm Name
Laramar
Mesirow
National Real Estate Advisors
Paramount
Partners Group Global Real Estate
Partners Secondary
Pennybacker
Principal
Prudential PRISA II
Prudential SHP V
Savanna Real Estate
Sentinel
Stockbridge
UBS
Virtus
Waterton

# Opportunistic Respondents

Firm Name
AEW
Alcion
Angelo Gordon
Carlyle
Clarion
Dune
Ethika
Fortress
GreenOak
GTIS
Morgan Stanley
Sigular Guff
SquareMile
Starwood
Townsend
Westport Capital Partners