

# **Kentucky Retirement Systems**

Investment Performance Analysis

Quarter Ended September 30, 2013

RVKuhns & ASSOCIATES, INC.

1 Penn Plaza, Suite 2128 New York, New York 10119 646.805.7075 www.rvkuhns.com

#### Capital Markets Review As of September 30, 2013

#### **Third Quarter Economic Environment**

Faced with softer U.S. economic growth, fiscal policy uncertainty, and minimal inflationary pressure, the Federal Reserve surprised many market participants in September with its decision to delay tapering of its quantitative easing (QE) program. Global Equity markets rallied in response and produced positive results for the quarter, while Fixed Income regained some lost ground from the prior quarter's declines. The headline unemployment rate declined from 7.6% to 7.3% during the quarter. Job growth has been slow but steady, with a significant portion of the improvement due to reduced labor force participation. While real GDP growth remains low, stock prices traded near record highs intra-quarter and bond yields remain near historic lows. Despite the increasing threat of U.S. involvement in Syria, geopolitical events had limited market impact. Also in September, Larry Summers withdrew his candidacy to succeed Ben Bernanke as the Chairman of the Federal Reserve when his term ends in January. With the withdrawal of Mr. Summers, most experts concluded that Vice Chairwoman Janet Yellen would be the leading candidate. President Obama validated this belief with his formal nomination of Ms. Yellen in early October. Markets generally responded positively, as the prevailing view is that Ms. Yellen will adhere to a more accomodative monetary policy, perhaps further delaying the tapering of QE.

The Fed has simultaneously quadrupled the size of its balance sheet through QE programs and the U.S. federal government now has the highest public debt levels relative to GDP since post-WWII. These developments appear to be magnifying political polarization. On the last day of the quarter, Congress missed its deadline to continue funding discretionary spending, forcing a partial government shutdown. While the third quarter generated positive performance overall, Equity markets declined late September in anticipation of the shutdown and continue to sell-off in the fourth quarter.

#### **Domestic Equities**

The U.S. Equity market produced positive returns in July and September, with a correction period occurring in August.
After six consecutive quarters of value trumping growth, the trend reversed this quarter, with the Russell 3000 Growth returning 8.48%, outpacing the 4.23% earned by the Russell 3000 Value.
Small cap stocks outperformed large cap, as the Russell 2000 returned 10.21% while the Russell 1000 returned 6.02%.
Sector returns were largely positive in the third quarter. Materials posted a 10.30% return on the quarter, and was the highest performing sector. Telecom services returned -4.40%, and was the lowest performing sector, as well as the only sector to post negative performance.

#### **International Equities**

• Despite increased international market volatility, the quarter ended in positive territory for most markets.

• On a relative basis, developed markets once again outperformed their emerging counterparts as the MSCI EAFE returned 11.61% versus 5.90% for the MSCI Emerging Markets.

#### **Fixed Income**

• After a difficult second quarter, Fixed Income markets regained lost ground, although not without interest rate volatility.

• Treasury long remains the lowest performing sector for the quarter, posting a return of -2.23%, while all other sectors finished in positive territory for the quarter.

	Trailing-Period Performance													
	Mth End Jul-2013	Mth End Aug-2013	MTD	QTD	CYTD	1 Year	2 Years	3 Years	5 Years	10 Years				
S&P 500 (Cap Wtd)	5.09	-2.90	3.14	5.25	19.79	19.34	24.65	16.27	10.02	7.57				
R 2000	7.00	-3.18	6.38	10.21	27.69	30.05	30.97	18.28	11.15	9.64				
MSCI EAFE (Gross)	5.28	-1.31	7.42	11.61	16.59	24.29	19.21	8.97	6.85	8.50				
MSCI EAFE SC (Gross)	6.08	-0.05	8.99	15.56	22.42	29.82	21.10	11.61	11.79	10.67				
MSCI EM (Gross)	1.10	-1.68	6.53	5.90	-4.05	1.33	9.04	0.00	7.56	13.16				
Barclays US Agg Bond	0.14	-0.51	0.95	0.57	-1.89	-1.68	1.68	2.86	5.41	4.59				
BofA ML 3 Mo US T-Bill	0.01	0.01	0.01	0.02	0.06	0.10	0.08	0.10	0.16	1.70				
NCREIF ODCE (Gross)	N/A	N/A	N/A	3.56	10.44	13.04	12.32	14.27	0.68	7.08				
Wilshire US REIT	0.82	-6.86	3.26	-3.04	2.71	5.26	18.06	12.48	5.55	9.42				
HFN FOF Multi-Strat	0.86	-0.63	1.28	1.50	5.16	6.54	4.76	2.49	1.51	3.13				
DJ-UBS Cmdty (TR)	1.36	3.40	-2.55	2.13	-8.56	-14.35	-4.72	-3.16	-5.29	2.14				

Performance is annualized for periods greater than one year.

Treasury data courtesy of the U.S. Department of the Treasury.





# Kentucky Retirement Systems

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Asset Allocation & Performance

As of September 30, 2013

Asset All	ocation & Perforn	nance		Asset Allocation & Performance						
	Allocatio	n	Performance (%)		Allocation	1	Performance (%			
	Market Value (\$)	%	FYTD		Market Value (\$)	%	FYTD			
Total Fund	11,287,647,124	100.00	4.30	Real Return Composite	1,061,420,259	9.40	1.43			
				Internal TIPS (SA)	291,834,335	2.59	0.87			
U.S. Equity Composite	2,449,593,647	21.70	6.97	Weaver Barksdale TIPS (SA)	278,108,006	2.46	1.08			
River Road Asset Management (SA)	34,139,151	0.30	4.26	PIMCO:All Asset;Inst (PAAIX)	330,074,074	2.92	2.94			
Westwood Management (SA)	107,425,973	0.95	4.91	Tenaska Power Fund II (CF)	10,952,625	0.10	-3.99			
Westfield Capital (SA)	122,657,874	1.09	10.35	1 , ,		0.58	0.69			
Internal S&P 500 Index (SA)	1,242,820,554	11.01	5.24	Amerra Ag Fund II (CF)	28,129,801	0.25	1.37			
INVESCO Struct'd Core Equity (SA)	227,039,159	2.01	5.35	Magnetar MTP Energy Fund, L.P.	57,113,770	0.51	2.17			
Sasco Capital Inc. (SA)	49,291,568	0.44	11.24							
Systematic Financial Management (SA)	205,484,028	1.82	9.73	Real Estate Composite	384,652,213	3.41	1.67			
Geneva Capital Management (SA)	236,456,239	2.09	10.93	FHA Mortgages (SA)	1,871,011	0.02	1.09			
NT Structured Small Cap (SA)	224,278,987	1.99	10.66	H/2 Credit Partners (CF)	96,690,817	0.86	-0.53			
Pension Transition	114	0.00	N/A	Harrison Street Core (CF)	83,144,997	0.74	3.61			
				Mesa West Core Lending, L.P.	47,911,901	0.42	1.70			
Non-U.S. Equity Composite	2,363,234,633	20.94	9.97	Prima Mortgage Invest Trust, LLC	56,626,768	0.50	1.42			
The Boston Co. Non-US Value (SA)	725,585,917	6.43	9.52	Greenfield Acquisition Partners VI, L.P.	32,911,592	0.29	3.65			
BTC ACWI Ex US Fund (CF)	733,851,102	6.50	9.96	Mesa West Real Estate Income Fund II L.P.	26,610,043	0.24	-0.18			
Pyramis Int'l Growth Fund (SA)	713,784,275	6.32	9.80	Rubenstein Properties Fund II, L.P.	2,648,081	0.02	0.00			
NT Int'l Sm Cap Eq Index (SA)	190,013,339	1.68	12.36	Walton Street Real Estate Fund VI, L.P.	32,484,794	0.29	4.20			
				Walton Street Real Estate Fund VII, L.P.	3,752,209	0.03	2.58			
Emerging Mkts Equity Composite	320,619,084	2.84	4.85							
BTC Emg Mkts Equity (CF)	84,766,100	0.75	5.72	Absolute Return Composite	1,165,036,077	10.32	0.19			
Aberdeen Emg Mkts Equity (CF)	114,965,058	1.02	2.45	BAAM (SA)	376,755,228	3.34	0.66			
Wellington Emg Mkts Equity (CF)	120,887,926	1.07	6.58	PAAMCO (SA)	390,546,394	3.46	0.78			
				Prisma Capital Partners (SA)	382,734,455	3.39	-0.90			
Fixed Income Composite	2,150,891,861	19.06	1.21	MKP Opportunity Fund (CF)	15,000,000	0.13	N/A			
NISA Core Agg Fixed Income (SA)	544,114,867	4.82	0.51							
PIMCO Core Fixed Income (SA)	785,052,017	6.95	1.32	Private Equity Composite	1,189,940,030	10.54	2.51			
Columbia HY Fixed Income (SA)	171,456,877	1.52	2.11							
Loomis Sayles HY Fixed Income (SA)	174,645,321	1.55	1.85	Cash Equivalent Composite	194,959,319	1.73	0.43			
Shenkman Capital (SA)	120,145,335	1.06	1.42	Cash Equivalents (SA)	194,959,319	1.73	0.43			
Waterfall (SA)	125,647,454	1.11	3.03							
Manulife Asset Mgmt (SA)	115,463,995	1.02	0.49	Other Composite	7,300,000	0.06	N/A			
Stone Harbor (SA)	114,365,995	1.01	-0.01	Perimeter Park	7,300,000	0.06	N/A			

Performance shown is net of fees. Fiscal year ends June 30th. Allocations shown may not sum up to 100% exactly due to rounding. Real Estate and Private Equity valuations shown are as of the most recent date available.

#### Kentucky Retirement Systems - Pension Plan Asset Allocation by Plan & Asset Class and Thematic & Liquidity Analysis As of September 30, 2013



Allocations shown may not sum up to 100% exactly due to rounding. Totals shown may not match due to differences between BNY Melon's performance and accounting departments.



#### Kentucky Retirement Systems - Pension Plan Asset Allocation vs. Target & Plan Compliance As of September 30, 2013

	Asset Allocation v	s. Target Alle	ocation			Asset Allocation vs. T	arget Alloca	tion Differences
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)	U.S. Equity Non-U.S. Equity		1.20% 0.94%
Total Fund	11,287,647,124	100.00	-	100.00	-	Emerging Mkts Equity	-0.06%	
U.S. Equity Composite	2,449,593,647	21.70	15.50	20.50	25.50	Fixed Income	-0.24%	
Non-U.S. Equity Composite	2,363,234,633	20.94	15.00	20.00	25.00	Real Return	-0.60%	
Emerging Mkts Equity Composite	320,619,084	2.84	0.90	2.90	4.90			
Fixed Income Composite	2,150,891,861	19.06	16.80	19.30	21.80	Real Estate	-1.09%	
Real Return Composite	1,061,420,259	9.40	7.00	10.00	13.00	Absolute Return		0.32%
Real Estate Composite	384,652,213	3.41	1.50	4.50	7.50	Private Equity		0.54%
Absolute Return Composite	1,165,036,077	10.32	7.00	10.00	13.00	Cash Equivalent	-1.07%	
Private Equity Composite	1,189,940,030	10.54	5.00	10.00	15.00	Other	-	0.06%
Cash Equivalent Composite	194,959,319	1.73	0.80	2.80	4.80	L L		
Other Composite	7,300,000	0.06	-	-	-	-15.0	0% -5.00%	5.00% 15.00%

Ind	ividual Plan As	sset Allocation	Monitor		
	KERS	KERS Haz	CERS	CERS Haz	SPRS
U.S. Equity Composite	<b>Under Min</b>	In Range	In Range	In Range	In Range
Non-U.S. Equity Composite	In Range	In Range	In Range	In Range	In Range
Emerging Mkts Equity Composite	In Range	In Range	In Range	In Range	In Range
Fixed Income Composite	In Range	In Range	In Range	In Range	In Range
Real Return Composite	In Range	In Range	In Range	In Range	In Range
Real Estate Composite	In Range	In Range	In Range	In Range	In Range
Absolute Return Composite	In Range	In Range	In Range	In Range	In Range
Private Equity Composite	<b>Over Max</b>	In Range	In Range	In Range	In Range
Cash Equivalent Composite	<b>Under Min</b>	In Range	In Range	In Range	In Range
Other Composite	In Range	In Range	In Range	In Range	In Range

KERS U.S. Equity Composite is under the minimum allocation by 1.20%.

KERS Private Equity Composite is over the maximum allocation by 0.36%. This is an illiquid asset class and may take additional time to bring back into target range.

KERS Cash Equivalent Composite is under the minimum allocation by 0.70%.

Allocations shown may not sum to 100% exactly due to rounding.



**Plan Comparative Performance** 

			I	As of Septe	mber 30, 2	013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	10 Years	2012	2011	2010	Since Incep.	Inception Date
Total Fund	4.30	4.30	8.01	10.90	8.60	7.34	6.72	12.68	-0.48	12.70	9.47	04/01/1984
Target Allocation Index (P)	4.06	4.06	8.95	11.65	8.88	8.04	6.90	13.54	-1.19	12.41	9.60	
Difference	0.24	0.24	-0.94	-0.75	-0.28	-0.70	-0.18	-0.86	0.71	0.29	-0.13	
KERS (P)	4.11	4.11	7.81	10.69	8.53	7.30	6.70	12.68	-0.48	12.70	9.47	04/01/1984
KERS (P) - Target Allocation Index	4.10	4.10	8.99	11.69	8.89	8.05	6.90	13.54	-1.19	12.41	9.60	
Difference	0.01	0.01	-1.18	-1.00	-0.36	-0.75	-0.20	-0.86	0.71	0.29	-0.13	
KERS Haz (P)	4.31	4.31	8.02	10.91	8.60	7.34	6.72	12.68	-0.48	12.70	9.47	04/01/1984
KERS Haz (P) - Target Allocation Index	4.27	4.27	9.17	11.88	8.95	8.08	6.92	13.54	-1.19	12.41	9.61	
Difference	0.04	0.04	-1.15	-0.97	-0.35	-0.74	-0.20	-0.86	0.71	0.29	-0.14	
CERS (P)	4.34	4.34	8.06	10.95	8.61	7.35	6.72	12.68	-0.48	12.70	9.47	04/01/1984
CERS (P) - Target Allocation Index	4.27	4.27	9.17	11.88	8.95	8.08	6.92	13.54	-1.19	12.41	9.61	
Difference	0.07	0.07	-1.11	-0.93	-0.34	-0.73	-0.20	-0.86	0.71	0.29	-0.14	
CERS Haz (P)	4.33	4.33	8.04	10.93	8.61	7.35	6.72	12.68	-0.48	12.70	9.47	04/01/1984
CERS Haz (P) - Target Allocation Index	4.27	4.27	9.17	11.88	8.95	8.08	6.92	13.54	-1.19	12.41	9.61	
Difference	0.06	0.06	-1.13	-0.95	-0.34	-0.73	-0.20	-0.86	0.71	0.29	-0.14	
SPRS (P)	4.42	4.42	8.13	11.02	8.64	7.36	6.73	12.68	-0.48	12.70	9.48	04/01/1984
SPRS (P) - Target Allocation Index	4.27	4.27	9.17	11.87	8.95	8.08	6.92	13.54	-1.19	12.41	9.61	
Difference	0.15	0.15	-1.04	-0.85	-0.31	-0.72	-0.19	-0.86	0.71	0.29	-0.13	

Performance shown is net of fees. All data reported for Kentucky Retirement Systems, including manager and composite performance, is provided by BNY Melon. Fiscal year ends June 30th. See the Addendum for the complete historical composition of custom indices.



**Composite Comparative Performance** 

As of	September	30. 2013
110 01	September	50, 2015

				1	$\frac{1}{30,2013}$	5	10				Since	Inception
	QTD	FYTD	CYTD	Year	Years	Years	Years	2012	2011	2010	Incep.	Date
U.S. Equity Composite	6.97	6.97	21.77	22.31	16.72	10.27	8.09	15.76	1.02	16.77	11.30	04/01/1984
R 3000 Index (P)*	6.35	6.35	21.30	21.61	16.79	10.46	8.23	16.42	0.92	17.50	11.19	
Difference	0.62	0.62	0.47	0.70	-0.07	-0.19	-0.14	-0.66	0.10	-0.73	0.11	
Non-U.S. Equity Composite	9.97	9.97	12.44	19.26	5.20	6.94	8.10	16.13	-17.10	12.87	2.47	07/01/2000
MSCI ACW Ex US Index (Gross) (P)*	10.17	10.17	10.47	16.98	6.60	7.05	8.47	17.39	-13.26	12.37	3.13	
Difference	-0.20	-0.20	1.97	2.28	-1.40	-0.11	-0.37	-1.26	-3.84	0.50	-0.66	
Emerging Mkts Equity Composite	4.85	4.85	-4.33	1.51	N/A	N/A	N/A	23.05	N/A	N/A	0.14	07/01/2011
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	13.16	18.64	-18.17	19.20	-3.55	
Difference	-1.05	-1.05	-0.28	0.18	N/A	N/A	N/A	4.41	N/A	N/A	3.69	
Fixed Income Composite	1.21	1.21	-0.93	0.94	4.98	6.45	5.05	9.89	7.01	7.56	8.04	04/01/1984
Barclays Universal Bond Index (P)*	0.75	0.75	-1.56	-1.00	3.56	5.63	4.86	5.53	8.12	6.49	7.79	
Difference	0.46	0.46	0.63	1.94	1.42	0.82	0.19	4.36	-1.11	1.07	0.25	
Real Return Composite	1.43	1.43	-3.50	-2.62	N/A	N/A	N/A	9.49	N/A	N/A	5.50	07/01/2011
Consumer Price Index + 3%	1.15	1.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Difference	0.28	0.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Real Estate Composite	1.67	1.67	8.42	10.77	11.87	7.80	6.62	10.18	13.33	14.80	5.59	07/01/1984
NCREIF ODCE Index (Net) (AWA) (Qtr Lag)	3.60	3.60	8.34	11.08	13.85	-1.07	5.95	10.47	17.18	6.01	5.86	
Difference	-1.93	-1.93	0.08	-0.31	-1.98	8.87	0.67	-0.29	-3.85	8.79	-0.27	
Absolute Return Composite	0.19	0.19	7.73	9.72	6.61	N/A	N/A	7.06	3.82	N/A	4.71	04/01/2010
HFRI FOF Diversified (Mth Lag)	-1.14	-1.14	4.77	5.71	2.90	0.45	3.44	3.13	-2.46	4.07	2.44	
Difference	1.33	1.33	2.96	4.01	3.71	N/A	N/A	3.93	6.28	N/A	2.27	
Private Equity Composite	2.51	2.51	9.29	13.42	12.90	5.59	10.35	13.78	11.03	16.76	10.99	10/01/1990
R 3000 Index + 4% (Qtr Lag) (P)*	3.70	3.70	17.76	26.33	16.30	13.39	9.22	35.41	-8.63	16.16	N/A	
Difference	-1.19	-1.19	-8.47	-12.91	-3.40	-7.80	1.13	-21.63	19.66	0.60	N/A	
Cash Equivalent Composite	0.43	0.43	0.56	0.67	0.42	0.68	2.19	0.30	0.31	0.89	4.12	01/01/1988
Citi 3 Mo T-Bill Index	0.01	0.01	0.04	0.07	0.08	0.15	1.61	0.07	0.08	0.13	3.66	
Difference	0.42	0.42	0.52	0.60	0.34	0.53	0.58	0.23	0.23	0.76	0.46	

Performance shown is net of fees, except where noted. All data reported for Kentucky Retirement Systems, including manager and composite performance, is provided by BNY Melon. Fiscal year ends June 30th. An index marked with an asterisk (\*) represents the current benchmark. See the Addendum for the complete historical composition of custom indices.



#### Total Fund vs. Target Allocation Index (P)

**Total Fund Attribution** 

Quarter To Date Ending September 30, 2013



Performance shown is net of fees. Calculation is based on monthly periodicity. Allocation to "Other" is the contribution of other residual factors, including market timing and cash flows. The historical benchmark, Russell 3000 + 4%, which is used to measure the PE composite prior to 7/1/2013, does not closely track the performance of this asset class over short periods of time. Therefore, significant manager value added should be anticipated and independently is not a cause for concern.

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**Total Fund vs. Target Allocation Index (P)** 

**Total Fund Attribution** 

1 Year Ending September 30, 2013



Performance shown is net of fees. Calculation is based on monthly periodicity. Allocation to "Other" is the contribution of other residual factors, including market timing and cash flows. The historical benchmark, Russell 3000 + 4%, which is used to measure the PE composite prior to 7/1/2013, does not closely track the performance of this asset class over short periods of time. Therefore, significant manager value added should be anticipated and independently is not a cause for concern.

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## Kentucky Retirement Systems - Pension Plan Historical Stats, Correlation, Risk/Return, & Up/Down Markets Analysis

	As of September 30, 2013											
Historical Statistics - 5 Years												
Total FundU.S. Equity CompositeNon-U.S. Equity CompositeFixed Income CompositeReal EstatePrivate Equity CompositeCash Equivaler CompositeTotal FundU.S. Equity CompositeCompositeCompositeCompositeCompositeComposite												
Standard Deviation	10.82	18.59	21.10	4.55	6.61	8.82	0.26					
Sharpe Ratio	0.69	0.61	0.42	1.36	1.15	0.64	1.97					
Downside Risk	7.75	13.03	14.73	3.03	4.37	6.27	0.00					
Excess Return	7.54	11.42	8.85	6.21	7.59	5.69	0.51					

			Correlation Matrix	- 5 Years			
	Total Fund	U.S. Equity Composite	Non-U.S. Equity Composite	Fixed Income Composite	Real Estate Composite	Private Equity Composite	Cash Equivalent Composite
Total Fund	1.00						
U.S. Equity Composite	0.96	1.00					
Non-U.S. Equity Composite	0.96	0.91	1.00				
Fixed Income Composite	0.57	0.39	0.52	1.00			
Real Estate Composite	-0.13	-0.11	-0.19	-0.09	1.00		
Private Equity Composite	0.35	0.29	0.14	0.30	0.20	1.00	
Cash Equivalent Composite	0.14	0.15	0.11	0.21	-0.22	-0.08	1.00



Performance shown is net of fees. Calculation is based on quarterly periodicity. Excluded composites do not have five years of performance history.

#### Kentucky Retirement Systems - Pension Plan Asset Class Risk/Return 3 & 5 Years As of September 30, 2013



Composites with less history than the specified time period will not appear in the chart. Performance shown is net of fees.

#### Kentucky Retirement Systems - Pension Plan Asset Allocation by Asset Class & Style As of September 30, 2013



Allocations shown may not sum to 100% exactly due to rounding. Pension Transition account is included in U.S. Large Cap Equity.

			ager Compa As of	September		,					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
River Road Asset Management (SA)	4.26	4.26	22.26	21.34	N/A	N/A	9.57	N/A	N/A	14.04	07/01/2011
R 3000 Value Index	4.23	4.23	20.68	22.67	16.27	8.88	17.55	-0.10	16.23	13.90	
Difference	0.03	0.03	1.58	-1.33	N/A	N/A	-7.98	N/A	N/A	0.14	
Westwood Management (SA)	4.91	4.91	22.37	26.22	N/A	N/A	14.16	N/A	N/A	11.61	07/01/2011
R 3000 Value Index	4.23	4.23	20.68	22.67	16.27	8.88	17.55	-0.10	16.23	13.90	
Difference	0.68	0.68	1.69	3.55	N/A	N/A	-3.39	N/A	N/A	-2.29	
Westfield Capital (SA)	10.35	10.35	24.41	26.46	N/A	N/A	22.08	N/A	N/A	14.53	07/01/2011
R 3000 Growth Index	8.48	8.48	21.75	20.30	17.18	12.16	15.21	2.18	17.64	13.88	
Difference	1.87	1.87	2.66	6.16	N/A	N/A	6.87	N/A	N/A	0.65	
U.S. All Cap Equity Composite	7.28	7.28	23.30	25.68	N/A	N/A	17.00	N/A	N/A	13.25	07/01/2011
R 3000 Index	6.35	6.35	21.30	21.61	16.77	10.58	16.42	1.03	16.93	13.94	
Difference	0.93	0.93	2.00	4.07	N/A	N/A	0.58	N/A	N/A	-0.69	
Internal S&P 500 Index (SA)	5.24	5.24	19.77	19.33	16.66	10.33	15.84	3.20	15.97	5.24	07/01/2001
S&P 500 Index (Cap Wtd)*	5.25	5.25	19.79	19.34	16.52	10.34	16.00	2.37	16.38	5.17	
Difference	-0.01	-0.01	-0.02	-0.01	0.14	-0.01	-0.16	0.83	-0.41	0.07	
INVESCO Struct'd Core Equity (SA)	5.35	5.35	21.78	21.95	17.51	9.57	16.79	2.85	11.17	7.51	08/01/2005
S&P 500 Index (Cap Wtd)	5.25	5.25	19.79	19.34	16.27	10.02	16.00	2.11	15.06	6.09	
Difference	0.10	0.10	1.99	2.61	1.24	-0.45	0.79	0.74	-3.89	1.42	
U.S. Large Cap Equity Composite	5.28	5.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.28	07/01/2013
R 1000 Index	6.02	6.02	20.76	20.91	16.64	10.53	16.43	1.50	16.10	6.02	
Difference	-0.74	-0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.74	
Sasco Capital Inc. (SA)	11.24	11.24	22.27	25.97	N/A	N/A	N/A	N/A	N/A	23.82	07/01/2012
R Mid Cap Value Index	5.89	5.89	22.94	27.77	17.27	11.86	18.51	-1.38	24.75	27.27	
Difference	5.35	5.35	-0.67	-1.80	N/A	N/A	N/A	N/A	N/A	-3.45	
Systematic Financial Management (SA)	9.73	9.73	24.41	27.52	N/A	N/A	N/A	N/A	N/A	27.54	07/01/2012
R Mid Cap Value Index	5.89	5.89	22.94	27.77	17.27	11.86	18.51	-1.38	24.75	27.27	
Difference	3.84	3.84	1.47	-0.25	N/A	N/A	N/A	N/A	N/A	0.27	
Geneva Capital Management (SA)	10.93	10.93	23.14	22.33	N/A	N/A	N/A	N/A	N/A	20.98	07/01/2012
R Mid Cap Growth Index	9.34	9.34	25.42	27.54	17.65	13.92	15.81	-1.65	26.38	26.65	
Difference	1.59	1.59	-2.28	-5.21	N/A	N/A	N/A	N/A	N/A	-5.67	



As of September 30, 2013												
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date	
U.S. Mid Cap Equity Composite	10.46	10.46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.46	07/01/2013	
R Mid Cap Index	7.70	7.70	24.34	27.91	17.53	12.97	17.28	-1.55	25.47	7.70		
Difference	2.76	2.76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.76		
NT Structured Small Cap (SA)	10.66	10.66	27.94	31.53	20.26	13.32	18.48	-1.25	29.64	10.21	10/01/1999	
R 2000 Index	10.21	10.21	27.69	30.05	18.28	11.15	16.34	-4.18	26.86	8.22		
Difference	0.45	0.45	0.25	1.48	1.98	2.17	2.14	2.93	2.78	1.99		
U.S. Small Cap Equity Composite	10.67	10.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.67	07/01/2013	
R 2000 Index	10.21	10.21	27.69	30.05	18.28	11.15	16.34	-4.18	26.86	10.21		
Difference	0.46	0.46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.46		
U.S. Equity Composite	6.97	6.97	21.77	22.31	16.72	10.27	15.76	1.02	16.77	11.30	04/01/1984	
R 3000 Index (P)*	6.35	6.35	21.30	21.61	16.79	10.46	16.42	0.92	17.50	11.19		
Difference	0.62	0.62	0.47	0.70	-0.07	-0.19	-0.66	0.10	-0.73	0.11		



			As of	September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
The Boston Co. Non-US Value (SA)	9.52	9.52	13.78	21.23	5.51	5.85	14.49	-16.09	5.87	4.77	05/01/2005
MSCI ACW Ex US Index (Gross)*	10.17	10.17	10.47	16.98	7.04	5.88	17.39	-11.78	9.43	5.46	
Difference	-0.65	-0.65	3.31	4.25	-1.53	-0.03	-2.90	-4.31	-3.56	-0.69	
BTC ACWI Ex US Fund (CF)	9.96	9.96	10.13	16.59	6.18	N/A	17.12	-13.44	11.23	10.72	07/01/2009
MSCI ACW Ex US Index (Net)	10.09	10.09	10.04	16.48	5.95	6.26	16.83	-13.71	11.15	10.54	
Difference	-0.13	-0.13	0.09	0.11	0.23	N/A	0.29	0.27	0.08	0.18	
Pyramis Int'l Growth Fund (SA)	9.80	9.80	12.67	19.53	8.25	6.43	17.23	-11.59	11.83	6.93	08/01/2001
MSCI ACW Ex US Index (Gross)*	10.17	10.17	10.47	16.98	7.04	5.88	17.39	-11.78	9.43	5.99	
Difference	-0.37	-0.37	2.20	2.55	1.21	0.55	-0.16	0.19	2.40	0.94	
NT Int'l Sm Cap Eq Index (SA)	12.36	12.36	15.33	21.06	7.01	N/A	17.97	-18.79	22.69	19.24	12/01/2008
MSCI ACW Ex US Sm Cap Index (Net)	12.38	12.38	14.43	20.04	7.27	11.38	18.52	-18.50	25.21	20.18	
Difference	-0.02	-0.02	0.90	1.02	-0.26	N/A	-0.55	-0.29	-2.52	-0.94	
Non-U.S. Equity Composite	9.97	9.97	12.44	19.26	5.20	6.94	16.13	-17.10	12.87	2.47	07/01/2000
MSCI ACW Ex US Index (Gross) (P)*	10.17	10.17	10.47	16.98	6.60	7.05	17.39	-13.26	12.37	3.13	
Difference	-0.20	-0.20	1.97	2.28	-1.40	-0.11	-1.26	-3.84	0.50	-0.66	



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			As of	September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
BTC Emg Mkts Equity (CF)	5.72	5.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.72	07/01/2013
MSCI Emg Mkts Index (Net)	5.77	5.77	-4.35	0.98	-0.33	7.23	18.23	-18.42	18.88	5.77	
Difference	-0.05	-0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.05	
Aberdeen Emg Mkts Equity (CF)	2.45	2.45	-5.36	0.73	3.84	13.52	25.57	-10.78	29.06	8.20	04/01/2008
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	0.80	
Difference	-3.45	-3.45	-1.31	-0.60	3.84	5.96	6.93	7.39	9.86	7.40	
Wellington Emg Mkts Equity (CF)	6.58	6.58	-4.15	1.11	-1.55	6.09	18.56	-21.80	16.39	0.29	04/01/2008
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	0.80	
Difference	0.68	0.68	-0.10	-0.22	-1.55	-1.47	-0.08	-3.63	-2.81	-0.51	
Emerging Mkts Equity Composite	4.85	4.85	-4.33	1.51	N/A	N/A	23.05	N/A	N/A	0.14	07/01/2011
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	-3.55	
Difference	-1.05	-1.05	-0.28	0.18	N/A	N/A	4.41	N/A	N/A	3.69	



			As of	September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
NISA Core Agg Fixed Income (SA)	0.51	0.51	-2.02	-1.83	2.90	N/A	4.31	7.95	6.96	5.15	02/01/2009
Barclays US Agg Bond Index	0.57	0.57	-1.89	-1.68	2.86	5.41	4.21	7.84	6.54	5.00	
Difference	-0.06	-0.06	-0.13	-0.15	0.04	N/A	0.10	0.11	0.42	0.15	
PIMCO Core Fixed Income (SA)	1.32	1.32	-3.29	-2.34	2.92	N/A	8.92	4.89	7.06	4.12	11/01/2009
PIMCO Blended Index	1.31	1.31	-2.16	-1.44	2.93	N/A	6.10	6.28	6.40	N/A	
Difference	0.01	0.01	-1.13	-0.90	-0.01	N/A	2.82	-1.39	0.66	N/A	
Core Fixed Income Composite	0.99	0.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.99	07/01/2013
Barclays US Agg Bond Index	0.57	0.57	-1.89	-1.68	2.86	5.41	4.21	7.84	6.54	0.57	
Difference	0.42	0.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.42	
Columbia HY Fixed Income (SA)	2.11	2.11	3.26	6.84	N/A	N/A	16.00	N/A	N/A	10.40	11/01/2011
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	10.30	
Difference	-0.17	-0.17	-0.47	-0.30	N/A	N/A	0.19	N/A	N/A	0.10	
Loomis Sayles HY Fixed Income (SA)	1.85	1.85	2.32	7.42	N/A	N/A	23.69	N/A	N/A	12.49	11/01/2011
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	10.30	
Difference	-0.43	-0.43	-1.41	0.28	N/A	N/A	7.88	N/A	N/A	2.19	
Shenkman Capital (SA)	1.42	1.42	2.78	5.13	6.23	N/A	10.10	3.33	N/A	6.23	10/01/2010
Shenkman Blended Index	1.73	1.73	3.67	6.11	7.63	10.90	13.00	3.04	12.41	7.63	
Difference	-0.31	-0.31	-0.89	-0.98	-1.40	N/A	-2.90	0.29	N/A	-1.40	
Waterfall (SA)	3.03	3.03	7.74	11.00	13.38	N/A	13.35	10.55	N/A	14.76	02/01/2010
Opportunistic FI Blended Index	1.36	1.36	2.73	4.94	5.93	9.41	9.89	3.24	10.12	6.74	
Difference	1.67	1.67	5.01	6.06	7.45	N/A	3.46	7.31	N/A	8.02	
High Yield Fixed Income Composite	2.07	2.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.07	07/01/2013
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	2.28	
Difference	-0.21	-0.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.21	



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			As of	September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
Manulife Asset Mgmt (SA)	0.49	0.49	-0.04	2.61	N/A	N/A	11.82	N/A	N/A	6.41	12/01/2011
Barclays Multiverse Index	2.82	2.82	-1.94	-2.22	2.34	5.35	4.84	5.55	5.84	1.92	
Difference	-2.33	-2.33	1.90	4.83	N/A	N/A	6.98	N/A	N/A	4.49	
Stone Harbor (SA)	-0.01	-0.01	-8.33	-5.88	N/A	N/A	16.88	6.98	N/A	5.08	12/01/2010
JPMorgan EMBI Global Dvf'd TR Index	1.19	1.19	-6.67	-4.06	4.95	9.76	17.44	7.35	12.24	5.74	
Difference	-1.20	-1.20	-1.66	-1.82	N/A	N/A	-0.56	-0.37	N/A	-0.66	
Global Fixed Income Composite	0.31	0.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.31	07/01/2013
Barclays Global Agg Bond Index	2.80	2.80	-2.17	-2.64	2.09	5.07	4.32	5.64	5.54	2.80	
Difference	-2.49	-2.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.49	
Fixed Income Composite	1.21	1.21	-0.93	0.94	4.98	6.45	9.89	7.01	7.56	8.04	04/01/1984
Barclays Universal Bond Index (P)*	0.75	0.75	-1.56	-1.00	3.56	5.63	5.53	8.12	6.49	7.79	
Difference	0.46	0.46	0.63	1.94	1.42	0.82	4.36	-1.11	1.07	0.25	



			As of	September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
Internal TIPS (SA)	0.87	0.87	-6.63	-5.97	3.92	5.28	7.15	13.09	6.46	6.23	05/01/2002
Barclays US Trsy: US TIPS Index	0.70	0.70	-6.74	-6.10	4.02	5.31	6.98	13.56	6.31	6.19	
Difference	0.17	0.17	0.11	0.13	-0.10	-0.03	0.17	-0.47	0.15	0.04	
Weaver Barksdale TIPS (SA)	1.08	1.08	-6.33	-5.69	4.07	5.53	6.89	13.65	6.51	6.32	07/01/2001
Barclays US Trsy: US TIPS Index	0.70	0.70	-6.74	-6.10	4.02	5.31	6.98	13.56	6.31	6.23	
Difference	0.38	0.38	0.41	0.41	0.05	0.22	-0.09	0.09	0.20	0.09	
PIMCO:All Asset;Inst (PAAIX)	2.94	2.94	-0.52	2.29	N/A	N/A	19.91	N/A	N/A	8.12	12/01/2011
Barclays US Trsy Infl Notes: 1-10 Yr Index	0.92	0.92	-4.34	-3.90	3.08	4.12	5.04	8.93	5.22	0.16	
Difference	2.02	2.02	3.82	6.19	N/A	N/A	14.87	N/A	N/A	7.96	
Tenaska Power Fund II (CF)	-3.99	-3.99	-8.79	-12.80	0.47	-3.50	2.33	5.94	-0.92	-3.50	10/01/2008
Tortoise Capital (CF)	0.69	0.69	25.99	23.02	20.63	N/A	7.37	18.41	34.95	25.23	08/01/2009
Alerian MLP Index	-0.73	-0.73	21.18	17.04	16.48	22.55	4.80	13.88	35.85	22.42	
Difference	1.42	1.42	4.81	5.98	4.15	N/A	2.57	4.53	-0.90	2.81	
Amerra Ag Fund II (CF)	1.37	1.37	-1.33	N/A	N/A	N/A	N/A	N/A	N/A	-1.33	12/01/2012
Magnetar MTP Energy Fund, L.P.	2.17	2.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.17	07/01/2013
Real Return Composite	1.43	1.43	-3.50	-2.62	N/A	N/A	9.49	N/A	N/A	5.50	07/01/2011
Consumer Price Index + 3%	1.15	1.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Difference	0.28	0.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	



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	QTD	FYTD	AS OF	<u>September</u> 1 Year	30, 2013 3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
FHA Mortgages (SA)	1.09	1.09	2.93	5.75	8.08	-3.91	5.84	12.75	11.55	8.18	10/01/1990
H/2 Credit Partners (CF)	-0.53	-0.53	3.92	6.09	N/A	N/A	12.56	N/A	N/A	7.03	07/01/2011
Harrison Street Core (CF)	3.61	3.61	6.84	7.46	N/A	N/A	N/A	N/A	N/A	5.14	05/01/2012
Mesa West Core Lending, L.P.	1.70	1.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.70	05/01/2013
Prima Mortgage Invest Trust, LLC	1.42	1.42	4.78	7.06	8.39	N/A	8.03	7.93	22.63	11.46	05/01/2009
Greenfield Acquisition Partners VI, L.P.	3.65	3.65	10.48	N/A	N/A	N/A	N/A	N/A	N/A	10.48	12/01/2012
Mesa West Real Estate Income Fund II L.P.	-0.18	-0.18	25.84	34.15	20.12	N/A	20.16	11.12	-15.50	9.80	01/01/2010
Rubenstein Properties Fund II, L.P.	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	07/01/2013
Walton Street Real Estate Fund VI, L.P.	4.20	4.20	13.21	14.80	25.17	N/A	7.95	54.15	-11.15	-39.36	05/01/2009
Walton Street Real Estate Fund VII, L.P.	2.58	2.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.58	06/01/2013
Real Estate Composite	1.67	1.67	8.42	10.77	11.87	7.80	10.18	13.33	14.80	5.59	07/01/1984
NCREIF ODCE Index (Net) (AWA) (Qtr Lag)	3.60	3.60	8.34	11.08	13.85	-1.07	10.47	17.18	6.01	5.86	
Difference	-1.93	-1.93	0.08	-0.31	-1.98	8.87	-0.29	-3.85	8.79	-0.27	



			As of	September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
BAAM (SA)	0.66	0.66	7.90	10.76	N/A	N/A	7.87	N/A	N/A	7.68	09/01/2011
PAAMCO (SA)	0.78	0.78	9.60	10.79	N/A	N/A	6.00	N/A	N/A	7.10	09/01/2011
Prisma Capital Partners (SA)	-0.90	-0.90	5.72	7.70	N/A	N/A	7.77	N/A	N/A	5.01	09/01/2011
Absolute Return Composite	0.19	0.19	7.73	9.72	6.61	N/A	7.06	3.82	N/A	4.71	04/01/2010
HFRI FOF Diversified Index (Mth Lag)	-1.14	-1.14	4.77	5.71	2.90	0.45	3.13	-2.46	4.07	2.44	
Difference	1.33	1.33	2.96	4.01	3.71	N/A	3.93	6.28	N/A	2.27	
Cash Equivalents (SA)	0.43	0.43	0.56	0.67	0.42	0.68	0.30	0.31	0.89	4.12	01/01/1988
Citi 3 Mo T-Bill Index	0.01	0.01	0.04	0.07	0.08	0.15	0.07	0.08	0.13	3.66	
Difference	0.42	0.42	0.52	0.60	0.34	0.53	0.23	0.23	0.76	0.46	

Performance for absolute return managers and the HFRI FOF Diversified Index is lagged by one month.

Performance for the NCREIF ODCE Index (Net) (AWA) is lagged by one quarter and available quarterly; interim month returns assume a 0.00% return.



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	As of September 30, 2013	

	A S	or septem	oer 30, 201	3						
QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
4.42	4.42	22.79	22.08	N/A	N/A	10.28	N/A	N/A	14.66	07/01/2011
4.23	4.23	20.68	22.67	16.27	8.88	17.55	-0.10	16.23	13.90	
0.19	0.19	2.11	-0.59	N/A	N/A	-7.27	N/A	N/A	0.76	
6.22	6.22	22.80	25.98	16.56	11.11	15.83	-0.71	17.60	13.64	
84	84	51	69	N/A	N/A	85	N/A	N/A	29	
5.05	5.05	22.82	26.87	N/A	N/A	14.79	N/A	N/A	12.13	07/01/2011
4.23	4.23	20.68	22.67	16.27	8.88	17.55	-0.10	16.23	13.90	
0.82	0.82	2.14	4.20	N/A	N/A	-2.76	N/A	N/A	-1.77	
6.22	6.22	22.80	25.98	16.56	11.11	15.83	-0.71	17.60	13.64	
73	73	50	43	N/A	N/A	60	N/A	N/A	72	
10.51	10.51	24.93	27.20	N/A	N/A	22.86	N/A	N/A	15.15	07/01/2011
8.48	8.48	21.75	20.30	17.18	12.16	15.21	2.18	17.64	13.88	
2.03	2.03	3.18	6.90	N/A	N/A	7.65	N/A	N/A	1.27	
10.08	10.08	24.01	24.30	17.31	12.80	16.33	-1.34	21.03	13.73	
48	48	39	25	N/A	N/A	4	N/A	N/A	27	
7.43	7.43	23.80	26.39	N/A	N/A	17.72	N/A	N/A	13.83	07/01/2011
6.35	6.35	21.30	21.61	16.77	10.58	16.42	1.03	16.93	13.94	
1.08	1.08	2.50	4.78	N/A	N/A	1.30	N/A	N/A	-0.11	
5.24	5.24	19.77	19.33	16.66	10.33	15.84	3.20	15.97	5.24	07/01/2001
5.25	5.25	19.79	19.34	16.52	10.34	16.00	2.37	16.38	5.17	
-0.01	-0.01	-0.02	-0.01	0.14	-0.01	-0.16	0.83	-0.41	0.07	
5.35	5.35	20.42	19.57	16.32	10.16	16.23	1.61	15.56	4.76	
70	70	73	65	33	43	80	9	41	23	
5.38	5.38	21.89	22.10	17.60	9.62	16.97	2.85	11.17	7.54	08/01/2005
5.25	5.25	19.79	19.34	16.27	10.02	16.00	2.11	15.06	6.09	
0.13	0.13	2.10	2.76	1.33	-0.40	0.97	0.74	-3.89	1.45	
5.99	5.99	20.41	20.62	16.46	10.28	15.71	1.90	14.84	6.79	
65	65	29	31	28	73	32	39	87	23	
5.29	5.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.29	07/01/2013
6.02	6.02	20.76	20.91	16.64	10.53	16.43	1.50	16.10	6.02	
-0.73	-0.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.73	
	4.42         4.23         0.19         6.22         84         5.05         4.23         0.82         6.22         73         10.51         8.48         2.03         10.08         48         7.43         6.35         1.08         5.24         5.25         -0.01         5.35         70         5.38         5.25         0.13         5.99         65	QTD         FYTD           4.42         4.42           4.23         4.23           0.19         0.19           6.22         6.22           84         84           5.05         5.05           4.23         4.23           0.82         0.82           6.22         6.22           73         73           10.51         10.51           8.48         8.48           2.03         2.03           10.08         10.08           48         48           7.43         7.43           6.35         6.35           1.08         1.08           5.24         5.24           5.25         5.25           -0.01         -0.01           5.35         5.35           70         70           70         70           5.38         5.38           5.25         5.25           0.13         0.13           5.99         5.99           65         65           5.29         5.29	QTD         FYTD         CYTD           4.42         4.42         22.79           4.23         4.23         20.68           0.19         0.19         2.11           6.22         6.22         22.80           84         84         51           5.05         5.05         22.82           4.23         4.23         20.68           0.82         0.82         2.14           6.22         6.22         22.80           73         73         50           10.51         10.51         24.93           8.48         8.48         21.75           2.03         2.03         3.18           10.08         10.08         24.01           48         48         39           7.43         7.43         23.80           6.35         6.35         21.30           1.08         1.08         2.50           5.25         5.25         19.79           -0.01         -0.02         5.35           5.35         5.35         20.42           70         70         73           5.25         5.25         19.79	QTD         FYTD         CYTD         1 Year           4.42         4.42         22.79         22.08           4.23         4.23         20.68         22.67           0.19         0.19         2.11         -0.59           6.22         6.22         22.80         25.98           84         84         51         69           5.05         5.05         22.82         26.87           4.23         4.23         20.68         22.67           0.82         0.82         2.14         4.20           6.22         6.22         22.80         25.98           73         73         50         43           10.51         10.51         24.93         27.20           8.48         8.48         21.75         20.30           2.03         2.03         3.18         6.90           10.08         10.08         24.01         24.30           48         48         39         25           7.43         7.43         23.80         26.39           6.35         6.35         21.30         21.61           1.08         1.08         2.50         4.78 <tr< td=""><td>QTDFYTDCYTD<math>1</math> Year<math>3</math> Years4.424.4222.7922.08N/A4.234.2320.6822.6716.270.190.192.11-0.59N/A6.226.2222.8025.9816.5684845169N/A5.055.0522.8226.87N/A4.234.2320.6822.6716.270.820.822.144.20N/A6.226.2222.8025.9816.5673735043N/A6.226.2222.8025.9816.5673735043N/A10.5110.5124.9327.20N/A8.488.4821.7520.3017.182.032.033.186.90N/A10.0810.0824.0124.3017.3148483925N/A6.356.3521.3021.6116.771.081.082.504.78N/A5.245.2419.7719.3316.665.255.2519.7919.3416.52-0.01-0.01-0.02-0.010.145.355.3520.4219.5716.3270707365335.385.3821.8922.1017.605.255.2519.7919.3416.270.130</td><td>QTD         FYTD         CYTD         1 Year         3 Years         5 Years           4.42         4.42         22.79         22.08         N/A         N/A           4.23         4.23         20.68         22.67         16.27         8.88           0.19         0.19         2.11         -0.59         N/A         N/A           6.22         6.22         22.80         25.98         16.56         11.11           84         84         51         69         N/A         N/A           5.05         5.05         22.82         26.87         N/A         N/A           6.22         6.22         22.80         25.98         16.56         11.11           73         73         50         43         N/A         N/A           6.22         6.22         22.80         25.98         16.56         11.11           73         73         50         43         N/A         N/A           10.51         10.51         24.93         27.20         N/A         N/A           10.08         10.08         24.01         24.30         17.31         12.80           48         48         39         2</td><td>QTDFYTDCYTD<math>1</math> Year<math>3</math> Years<math>5</math> Years20124.424.4222.7922.08N/AN/A10.284.234.2320.6822.6716.278.8817.550.190.192.11-0.59N/AN/A-7.276.226.2222.8025.9816.5611.1115.8384845169N/AN/A855.055.0522.8226.87N/AN/A850.820.822.144.20N/AN/A2.766.226.2222.8025.9816.5611.1115.8373735043N/AN/A6010.5110.5124.9327.20N/AN/A22.868.488.4821.7520.3017.1812.1615.212.032.033.186.90N/AN/A47.437.4323.8026.39N/AN/A47.437.4323.8026.39N/AN/A47.437.4323.8026.39N/AN/A1.305.245.2419.7719.3316.6610.3315.845.255.2519.7919.3416.5210.3416.00-0.01-0.01-0.02-0.010.14-0.01-0.165.355.3520.4219.5716.3210.1616.23<td< td=""><td>QTD         FYTD         CYTD         <math>I</math> <math>3</math> <math>5</math>         2012         2011           4.42         4.42         22.79         22.08         N/A         N/A         10.28         N/A           4.23         4.23         20.68         22.67         16.27         8.88         17.55         -0.10           0.19         0.19         2.11         -0.59         N/A         N/A         -7.27         N/A           6.22         6.22         22.80         25.98         16.56         11.11         15.83         -0.71           84         84         51         69         N/A         N/A         85         N/A           6.22         6.22         22.80         25.98         16.56         11.11         15.83         -0.71           84         84         51         69         N/A         N/A         N/A         83         -0.75           0.82         0.82         2.14         4.20         N/A         N/A         60         N/A           10.51         24.93         27.20         N/A         N/A         60         N/A           10.51         24.93         27.20         N/A         N/</td><td>QTDFYTDCYTD<math>\frac{1}{Year}</math><math>\frac{3}{Years}</math><math>5</math> Years2012201120104.424.4222.7922.08N/AN/AN/A10.28N/AN/A4.234.2320.6822.6716.278.8817.55-0.1016.230.190.192.11-0.59N/AN/AN/AN/AN/A6.226.2222.8025.9816.5611.1115.83-0.7117.6084845169N/AN/AN/A85N/AN/A5.055.0522.8226.87N/AN/AN/A4.234.234.2320.6822.6716.278.8817.55-0.1016.230.820.822.144.20N/AN/A4.26N/AN/A6.226.2222.8025.9816.5611.1115.83-0.7117.6073735043N/AN/A60N/AN/A10.5110.5124.9327.20N/AN/AAA10.0810.0824.0124.3017.3112.8016.33-1.3421.0348483925N/AN/A4N/AN/A10.0810.082.504.78N/AN/A1.30N/AN/A10.0810.082.504.78N/AN/A1.30N/AN/A10.830.</td><td>QTD         FYTD         CYTD         1 Years         3 Years         5 Years         2012         2011         2010         Since Incep.           4.42         4.42         22.79         22.08         N/A         N/A         10.28         N/A         N/A         14.66           4.23         4.23         20.68         22.67         16.27         8.88         17.55         -0.10         16.23         13.90           0.19         0.19         2.11         -0.59         N/A         N/A         N/A         -0.71         17.60         13.64           84         84         51         69         N/A         N/A         85         N/A         N/A         29           5.05         50.5         22.82         26.67         N/A         N/A         14.79         N/A         N/A         16.23         13.90           0.82         0.82         21.44         4.20         N/A         N/A         N/A         2.76         N/A         N/A         17.60         13.64           73         73         50         43         N/A         N/A         20.6         N/A         N/A         17.60         13.64           7.43         0.31</td></td<></td></tr<>	QTDFYTDCYTD $1$ Year $3$ Years4.424.4222.7922.08N/A4.234.2320.6822.6716.270.190.192.11-0.59N/A6.226.2222.8025.9816.5684845169N/A5.055.0522.8226.87N/A4.234.2320.6822.6716.270.820.822.144.20N/A6.226.2222.8025.9816.5673735043N/A6.226.2222.8025.9816.5673735043N/A10.5110.5124.9327.20N/A8.488.4821.7520.3017.182.032.033.186.90N/A10.0810.0824.0124.3017.3148483925N/A6.356.3521.3021.6116.771.081.082.504.78N/A5.245.2419.7719.3316.665.255.2519.7919.3416.52-0.01-0.01-0.02-0.010.145.355.3520.4219.5716.3270707365335.385.3821.8922.1017.605.255.2519.7919.3416.270.130	QTD         FYTD         CYTD         1 Year         3 Years         5 Years           4.42         4.42         22.79         22.08         N/A         N/A           4.23         4.23         20.68         22.67         16.27         8.88           0.19         0.19         2.11         -0.59         N/A         N/A           6.22         6.22         22.80         25.98         16.56         11.11           84         84         51         69         N/A         N/A           5.05         5.05         22.82         26.87         N/A         N/A           6.22         6.22         22.80         25.98         16.56         11.11           73         73         50         43         N/A         N/A           6.22         6.22         22.80         25.98         16.56         11.11           73         73         50         43         N/A         N/A           10.51         10.51         24.93         27.20         N/A         N/A           10.08         10.08         24.01         24.30         17.31         12.80           48         48         39         2	QTDFYTDCYTD $1$ Year $3$ Years $5$ Years20124.424.4222.7922.08N/AN/A10.284.234.2320.6822.6716.278.8817.550.190.192.11-0.59N/AN/A-7.276.226.2222.8025.9816.5611.1115.8384845169N/AN/A855.055.0522.8226.87N/AN/A850.820.822.144.20N/AN/A2.766.226.2222.8025.9816.5611.1115.8373735043N/AN/A6010.5110.5124.9327.20N/AN/A22.868.488.4821.7520.3017.1812.1615.212.032.033.186.90N/AN/A47.437.4323.8026.39N/AN/A47.437.4323.8026.39N/AN/A47.437.4323.8026.39N/AN/A1.305.245.2419.7719.3316.6610.3315.845.255.2519.7919.3416.5210.3416.00-0.01-0.01-0.02-0.010.14-0.01-0.165.355.3520.4219.5716.3210.1616.23 <td< td=""><td>QTD         FYTD         CYTD         <math>I</math> <math>3</math> <math>5</math>         2012         2011           4.42         4.42         22.79         22.08         N/A         N/A         10.28         N/A           4.23         4.23         20.68         22.67         16.27         8.88         17.55         -0.10           0.19         0.19         2.11         -0.59         N/A         N/A         -7.27         N/A           6.22         6.22         22.80         25.98         16.56         11.11         15.83         -0.71           84         84         51         69         N/A         N/A         85         N/A           6.22         6.22         22.80         25.98         16.56         11.11         15.83         -0.71           84         84         51         69         N/A         N/A         N/A         83         -0.75           0.82         0.82         2.14         4.20         N/A         N/A         60         N/A           10.51         24.93         27.20         N/A         N/A         60         N/A           10.51         24.93         27.20         N/A         N/</td><td>QTDFYTDCYTD<math>\frac{1}{Year}</math><math>\frac{3}{Years}</math><math>5</math> Years2012201120104.424.4222.7922.08N/AN/AN/A10.28N/AN/A4.234.2320.6822.6716.278.8817.55-0.1016.230.190.192.11-0.59N/AN/AN/AN/AN/A6.226.2222.8025.9816.5611.1115.83-0.7117.6084845169N/AN/AN/A85N/AN/A5.055.0522.8226.87N/AN/AN/A4.234.234.2320.6822.6716.278.8817.55-0.1016.230.820.822.144.20N/AN/A4.26N/AN/A6.226.2222.8025.9816.5611.1115.83-0.7117.6073735043N/AN/A60N/AN/A10.5110.5124.9327.20N/AN/AAA10.0810.0824.0124.3017.3112.8016.33-1.3421.0348483925N/AN/A4N/AN/A10.0810.082.504.78N/AN/A1.30N/AN/A10.0810.082.504.78N/AN/A1.30N/AN/A10.830.</td><td>QTD         FYTD         CYTD         1 Years         3 Years         5 Years         2012         2011         2010         Since Incep.           4.42         4.42         22.79         22.08         N/A         N/A         10.28         N/A         N/A         14.66           4.23         4.23         20.68         22.67         16.27         8.88         17.55         -0.10         16.23         13.90           0.19         0.19         2.11         -0.59         N/A         N/A         N/A         -0.71         17.60         13.64           84         84         51         69         N/A         N/A         85         N/A         N/A         29           5.05         50.5         22.82         26.67         N/A         N/A         14.79         N/A         N/A         16.23         13.90           0.82         0.82         21.44         4.20         N/A         N/A         N/A         2.76         N/A         N/A         17.60         13.64           73         73         50         43         N/A         N/A         20.6         N/A         N/A         17.60         13.64           7.43         0.31</td></td<>	QTD         FYTD         CYTD $I$ $3$ $5$ 2012         2011           4.42         4.42         22.79         22.08         N/A         N/A         10.28         N/A           4.23         4.23         20.68         22.67         16.27         8.88         17.55         -0.10           0.19         0.19         2.11         -0.59         N/A         N/A         -7.27         N/A           6.22         6.22         22.80         25.98         16.56         11.11         15.83         -0.71           84         84         51         69         N/A         N/A         85         N/A           6.22         6.22         22.80         25.98         16.56         11.11         15.83         -0.71           84         84         51         69         N/A         N/A         N/A         83         -0.75           0.82         0.82         2.14         4.20         N/A         N/A         60         N/A           10.51         24.93         27.20         N/A         N/A         60         N/A           10.51         24.93         27.20         N/A         N/	QTDFYTDCYTD $\frac{1}{Year}$ $\frac{3}{Years}$ $5$ Years2012201120104.424.4222.7922.08N/AN/AN/A10.28N/AN/A4.234.2320.6822.6716.278.8817.55-0.1016.230.190.192.11-0.59N/AN/AN/AN/AN/A6.226.2222.8025.9816.5611.1115.83-0.7117.6084845169N/AN/AN/A85N/AN/A5.055.0522.8226.87N/AN/AN/A4.234.234.2320.6822.6716.278.8817.55-0.1016.230.820.822.144.20N/AN/A4.26N/AN/A6.226.2222.8025.9816.5611.1115.83-0.7117.6073735043N/AN/A60N/AN/A10.5110.5124.9327.20N/AN/AAA10.0810.0824.0124.3017.3112.8016.33-1.3421.0348483925N/AN/A4N/AN/A10.0810.082.504.78N/AN/A1.30N/AN/A10.0810.082.504.78N/AN/A1.30N/AN/A10.830.	QTD         FYTD         CYTD         1 Years         3 Years         5 Years         2012         2011         2010         Since Incep.           4.42         4.42         22.79         22.08         N/A         N/A         10.28         N/A         N/A         14.66           4.23         4.23         20.68         22.67         16.27         8.88         17.55         -0.10         16.23         13.90           0.19         0.19         2.11         -0.59         N/A         N/A         N/A         -0.71         17.60         13.64           84         84         51         69         N/A         N/A         85         N/A         N/A         29           5.05         50.5         22.82         26.67         N/A         N/A         14.79         N/A         N/A         16.23         13.90           0.82         0.82         21.44         4.20         N/A         N/A         N/A         2.76         N/A         N/A         17.60         13.64           73         73         50         43         N/A         N/A         20.6         N/A         N/A         17.60         13.64           7.43         0.31



	1 <b>VIUIN</b>	0	of Septeml		•						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
Sasco Capital Inc. (SA)	11.38	11.38	22.74	26.63	N/A	N/A	N/A	N/A	N/A	24.34	07/01/2012
R Mid Cap Value Index	5.89	5.89	22.94	27.77	17.27	11.86	18.51	-1.38	24.75	27.27	
Difference	5.49	5.49	-0.20	-1.14	N/A	N/A	N/A	N/A	N/A	-2.93	
IM U.S. Mid Cap Value Equity (SA+CF) Median	7.57	7.57	24.50	28.51	17.54	13.47	17.15	-1.04	22.22	27.98	
Sasco Capital Inc. (SA) Rank	3	3	68	71	N/A	N/A	N/A	N/A	N/A	91	
Systematic Financial Management (SA)	9.85	9.85	24.78	28.04	N/A	N/A	N/A	N/A	N/A	27.95	07/01/2012
R Mid Cap Value Index	5.89	5.89	22.94	27.77	17.27	11.86	18.51	-1.38	24.75	27.27	
Difference	3.96	3.96	1.84	0.27	N/A	N/A	N/A	N/A	N/A	0.68	
IM U.S. Mid Cap Value Equity (SA+CF) Median	7.57	7.57	24.50	28.51	17.54	13.47	17.15	-1.04	22.22	27.98	
Systematic Financial Management (SA) Rank	9	9	48	57	N/A	N/A	N/A	N/A	N/A	51	
Geneva Capital Management (SA)	11.05	11.05	23.56	22.90	N/A	N/A	N/A	N/A	N/A	21.43	07/01/2012
R Mid Cap Growth Index	9.34	9.34	25.42	27.54	17.65	13.92	15.81	-1.65	26.38	26.65	
Difference	1.71	1.71	-1.86	-4.64	N/A	N/A	N/A	N/A	N/A	-5.22	
IM U.S. Mid Cap Growth Equity (SA+CF) Median	10.16	10.16	25.52	26.85	17.80	13.63	15.03	-1.71	26.68	25.20	
Geneva Capital Management (SA) Rank	37	37	64	83	N/A	N/A	N/A	N/A	N/A	84	
U.S. Mid Cap Equity Composite	10.58	10.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.58	07/01/2013
R Mid Cap Index	7.70	7.70	24.34	27.91	17.53	12.97	17.28	-1.55	25.47	7.70	
Difference	2.88	2.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.88	
NT Structured Small Cap (SA)	10.69	10.69	28.05	31.65	20.37	13.38	18.71	-1.25	29.64	10.23	10/01/1999
R 2000 Index	10.21	10.21	27.69	30.05	18.28	11.15	16.34	-4.18	26.86	8.22	
Difference	0.48	0.48	0.36	1.60	2.09	2.23	2.37	2.93	2.78	2.01	
IM U.S. Small Cap Core Equity (SA+CF) Median	10.42	10.42	28.80	32.25	20.31	12.81	16.79	-1.42	28.28	11.70	
NT Structured Small Cap (SA) Rank	43	43	56	54	48	42	32	49	38	74	
U.S. Small Cap Equity Composite	10.69	10.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.69	07/01/2013
R 2000 Index	10.21	10.21	27.69	30.05	18.28	11.15	16.34	-4.18	26.86	10.21	
Difference	0.48	0.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.48	
U.S. Equity Composite	7.02	7.02	21.92	22.52	16.82	10.33	15.92	1.04	16.77	11.31	04/01/1984
R 3000 Index (P)*	6.35	6.35	21.30	21.61	16.79	10.46	16.42	0.92	17.50	11.19	
Difference	0.67	0.67	0.62	0.91	0.03	-0.13	-0.50	0.12	-0.73	0.12	



inager	Comparative Performance (Gross of Fo	2
	As of Sentember 30, 2013	

		As	of Septem	ber 30, 201	.3						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
The Boston Co. Non-US Value (SA)	9.60	9.60	14.04	21.61	5.74	5.98	14.85	-16.01	5.88	4.85	05/01/2005
MSCI ACW Ex US Index (Gross)*	10.17	10.17	10.47	16.98	7.04	5.88	17.39	-11.78	9.43	5.46	
Difference	-0.57	-0.57	3.57	4.63	-1.30	0.10	-2.54	-4.23	-3.55	-0.61	
IM International Value Equity (SA+CF) Median	11.13	11.13	16.08	23.74	8.97	7.73	18.50	-11.15	11.43	6.91	
The Boston Co. Non-US Value (SA) Rank	75	75	70	63	89	80	81	83	81	91	
BTC ACWI Ex US Fund (CF)	10.11	10.11	10.31	16.78	6.25	N/A	17.13	-13.43	11.23	10.77	07/01/2009
MSCI ACW Ex US Index (Net)	10.09	10.09	10.04	16.48	5.95	6.26	16.83	-13.71	11.15	10.54	
Difference	0.02	0.02	0.27	0.30	0.30	N/A	0.30	0.28	0.08	0.23	
IM International Core Equity (SA+CF) Median	11.03	11.03	16.21	22.96	9.87	8.09	19.58	-12.23	11.61	13.04	
BTC ACWI Ex US Fund (CF) Rank	76	76	90	91	93	N/A	80	65	54	93	
Pyramis Int'l Growth Fund (SA)	9.87	9.87	12.90	19.86	8.46	6.56	17.56	-11.52	11.85	6.98	08/01/2001
MSCI ACW Ex US Index (Gross)*	10.17	10.17	10.47	16.98	7.04	5.88	17.39	-11.78	9.43	5.99	
Difference	-0.30	-0.30	2.43	2.88	1.42	0.68	0.17	0.26	2.42	0.99	
IM International Growth Equity (SA+CF) Median	10.35	10.35	15.61	22.10	9.96	9.37	20.10	-12.08	14.67	8.33	
Pyramis Int'l Growth Fund (SA) Rank	62	62	72	65	78	75	71	47	68	75	
NT Int'l Sm Cap Eq Index (SA)	12.36	12.36	15.43	21.16	7.09	N/A	18.14	-18.79	22.69	19.30	12/01/2008
MSCI ACW Ex US Sm Cap Index (Gross)	12.46	12.46	14.77	20.45	7.65	11.76	18.96	-18.21	25.58	20.60	
Difference	-0.10	-0.10	0.66	0.71	-0.56	N/A	-0.82	-0.58	-2.89	-1.30	
IM International Small Cap Equity (SA+CF) Median	13.25	13.25	22.19	29.17	13.58	12.65	23.35	-13.67	23.68	21.23	
NT Int'l Sm Cap Eq Index (SA) Rank	70	70	92	89	100	N/A	89	93	62	81	
Non-U.S. Equity Composite	10.06	10.06	12.66	19.55	5.39	7.06	16.43	-17.01	12.88	2.52	07/01/2000
MSCI ACW Ex US Index (Gross) (P)*	10.17	10.17	10.47	16.98	6.60	7.05	17.39	-13.26	12.37	3.13	
Difference	-0.11	-0.11	2.19	2.57	-1.21	0.01	-0.96	-3.75	0.51	-0.61	



		As	of Septeml	oer 30, 201	3						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
BTC Emg Mkts Equity (CF)	5.75	5.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.75	07/01/2013
MSCI Emg Mkts Index (Net)	5.77	5.77	-4.35	0.98	-0.33	7.23	18.23	-18.42	18.88	5.77	
Difference	-0.02	-0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.02	
IM Emerging Markets Equity (SA+CF) Median	5.94	5.94	-2.23	4.17	1.03	7.99	20.48	-18.45	21.60	5.94	
BTC Emg Mkts Equity (CF) Rank	55	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	55	
Aberdeen Emg Mkts Equity (CF)	2.91	2.91	-4.77	1.52	4.41	13.89	26.41	-10.46	29.06	8.52	04/01/2008
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	0.80	
Difference	-2.99	-2.99	-0.72	0.19	4.41	6.33	7.77	7.71	9.86	7.72	
IM Emerging Markets Equity (SA+CF) Median	5.94	5.94	-2.23	4.17	1.03	7.99	20.48	-18.45	21.60	1.26	
Aberdeen Emg Mkts Equity (CF) Rank	83	83	76	70	17	7	11	8	11	5	
Wellington Emg Mkts Equity (CF)	6.79	6.79	-3.53	1.96	-1.01	6.44	19.49	-21.63	16.39	0.59	04/01/2008
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	0.80	
Difference	0.89	0.89	0.52	0.63	-1.01	-1.12	0.85	-3.46	-2.81	-0.21	
IM Emerging Markets Equity (SA+CF) Median	5.94	5.94	-2.23	4.17	1.03	7.99	20.48	-18.45	21.60	1.26	
Wellington Emg Mkts Equity (CF) Rank	35	35	62	69	78	75	62	73	85	62	
Emerging Mkts Equity Composite	5.10	5.10	-3.74	2.31	N/A	N/A	23.92	N/A	N/A	0.86	07/01/2011
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	-3.55	
Difference	-0.80	-0.80	0.31	0.98	N/A	N/A	5.28	N/A	N/A	4.41	



		As	of Septeml	ber 30, 201	3						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
NISA Core Agg Fixed Income (SA)	0.55	0.55	-1.91	-1.68	3.01	N/A	4.47	8.00	6.96	5.22	02/01/2009
Barclays US Agg Bond Index	0.57	0.57	-1.89	-1.68	2.86	5.41	4.21	7.84	6.54	5.00	
Difference	-0.02	-0.02	-0.02	0.00	0.15	N/A	0.26	0.16	0.42	0.22	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.63	0.63	-1.70	-1.30	3.49	6.42	5.85	7.84	7.25	6.20	
NISA Core Agg Fixed Income (SA) Rank	67	67	72	81	84	N/A	86	36	64	84	
PIMCO Core Fixed Income (SA)	1.40	1.40	-3.08	-2.06	3.10	N/A	9.26	4.90	7.06	4.27	11/01/2009
PIMCO Blended Index	1.31	1.31	-2.16	-1.44	2.93	N/A	6.10	6.28	6.40	N/A	
Difference	0.09	0.09	-0.92	-0.62	0.17	N/A	3.16	-1.38	0.66	N/A	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.63	0.63	-1.70	-1.30	3.49	6.42	5.85	7.84	7.25	4.85	
PIMCO Core Fixed Income (SA) Rank	1	1	99	93	75	N/A	5	99	60	84	
IM Global Fixed Income (SA+CF) Median	2.15	2.15	-1.29	0.16	3.94	6.65	8.52	5.03	8.11	5.21	
PIMCO Core Fixed Income (SA) Rank	66	66	76	72	59	N/A	47	52	62	60	
Core Fixed Income Composite	1.05	1.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.05	07/01/2013
Barclays US Agg Bond Index	0.57	0.57	-1.89	-1.68	2.86	5.41	4.21	7.84	6.54	0.57	
Difference	0.48	0.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.48	
Columbia HY Fixed Income (SA)	2.22	2.22	3.56	7.27	N/A	N/A	16.43	N/A	N/A	10.79	11/01/2011
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	10.30	
Difference	-0.06	-0.06	-0.17	0.13	N/A	N/A	0.62	N/A	N/A	0.49	
IM U.S. High Yield Bonds (SA+CF) Median	2.25	2.25	4.06	7.19	9.27	12.26	15.42	5.40	15.06	10.25	
Columbia HY Fixed Income (SA) Rank	54	54	62	49	N/A	N/A	28	N/A	N/A	33	
Loomis Sayles HY Fixed Income (SA)	1.97	1.97	2.70	7.95	N/A	N/A	24.26	N/A	N/A	12.98	11/01/2011
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	10.30	
Difference	-0.31	-0.31	-1.03	0.81	N/A	N/A	8.45	N/A	N/A	2.68	
IM U.S. High Yield Bonds (SA+CF) Median	2.25	2.25	4.06	7.19	9.27	12.26	15.42	5.40	15.06	10.25	
Loomis Sayles HY Fixed Income (SA) Rank	76	76	85	33	N/A	N/A	2	N/A	N/A	9	
Shenkman Capital (SA)	1.54	1.54	3.16	5.65	6.59	N/A	10.65	3.46	N/A	6.59	10/01/2010
Shenkman Blended Index	1.73	1.73	3.67	6.11	7.63	10.90	13.00	3.04	12.41	7.63	
Difference	-0.19	-0.19	-0.51	-0.46	-1.04	N/A	-2.35	0.42	N/A	-1.04	
Waterfall (SA)	3.17	3.17	9.77	13.24	14.33	N/A	14.05	10.55	N/A	15.54	02/01/2010
Opportunistic FI Blended Index	1.36	1.36	2.73	4.94	5.93	9.41	9.89	3.24	10.12	6.74	
Difference	1.81	1.81	7.04	8.30	8.40	N/A	4.16	7.31	N/A	8.80	

Performance shown is gross of fees. All data reported for Kentucky Retirement Systems, including manager and composite performance, is provided by BNY Melon. Fiscal year ends June 30th. An index marked with an asterisk (\*) represents the current benchmark. See the Addendum for the complete historical composition of custom indices. Manager inception dates shown represent the first full month following initial funding.



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		As	of Septeml	oer 30, 201	3						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
High Yield Fixed Income Composite	2.19	2.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.19	07/01/2013
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	2.28	
Difference	-0.09	-0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.09	
Manulife Asset Mgmt (SA)	0.57	0.57	0.21	2.95	N/A	N/A	12.13	N/A	N/A	6.71	12/01/2011
Barclays Multiverse Index	2.82	2.82	-1.94	-2.22	2.34	5.35	4.84	5.55	5.84	1.92	
Difference	-2.25	-2.25	2.15	5.17	N/A	N/A	7.29	N/A	N/A	4.79	
Stone Harbor (SA)	0.12	0.12	-7.95	-5.36	N/A	N/A	17.53	7.12	N/A	5.49	12/01/2010
JPMorgan EMBI Global Dvf'd TR Index	1.19	1.19	-6.67	-4.06	4.95	9.76	17.44	7.35	12.24	5.74	
Difference	-1.07	-1.07	-1.28	-1.30	N/A	N/A	0.09	-0.23	N/A	-0.25	
IM Emerging Markets Debt (SA+CF) Median	0.49	0.49	-6.57	-2.99	5.30	10.36	19.21	2.90	15.20	5.87	
Stone Harbor (SA) Rank	69	69	84	95	N/A	N/A	70	21	N/A	57	
Global Fixed Income Composite	0.43	0.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.43	07/01/2013
Barclays Global Agg Bond Index	2.80	2.80	-2.17	-2.64	2.09	5.07	4.32	5.64	5.54	2.80	
Difference	-2.37	-2.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.37	
Fixed Income Composite	1.29	1.29	-0.61	1.35	5.22	6.49	10.24	7.04	7.61	8.06	04/01/1984
Barclays Universal Bond Index (P)*	0.75	0.75	-1.56	-1.00	3.56	5.63	5.53	8.12	6.49	7.79	
Difference	0.54	0.54	0.95	2.35	1.66	0.86	4.71	-1.08	1.12	0.27	



		As	of Septem	ber 30, 201	3						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
Internal TIPS (SA)	0.89	0.89	-6.62	-5.96	3.93	5.29	7.15	13.09	6.46	6.23	05/01/2002
Barclays US Trsy: US TIPS Index	0.70	0.70	-6.74	-6.10	4.02	5.31	6.98	13.56	6.31	6.19	
Difference	0.19	0.19	0.12	0.14	-0.09	-0.02	0.17	-0.47	0.15	0.04	
IM U.S. TIPS (SA+CF) Median	0.76	0.76	-6.67	-5.78	4.07	5.47	7.12	13.50	6.42	6.29	
Internal TIPS (SA) Rank	46	46	47	57	64	61	45	60	41	68	
Weaver Barksdale TIPS (SA)	1.27	1.27	-6.12	-5.47	4.17	5.59	6.96	13.67	6.51	6.34	07/01/2001
Barclays US Trsy: US TIPS Index	0.70	0.70	-6.74	-6.10	4.02	5.31	6.98	13.56	6.31	6.23	
Difference	0.57	0.57	0.62	0.63	0.15	0.28	-0.02	0.11	0.20	0.11	
IM U.S. TIPS (SA+CF) Median	0.76	0.76	-6.67	-5.78	4.07	5.47	7.12	13.50	6.42	6.32	
Weaver Barksdale TIPS (SA) Rank	6	6	33	41	35	42	62	43	40	44	
PIMCO:All Asset;Inst (PAAIX)	2.94	2.94	-0.52	2.29	N/A	N/A	19.91	N/A	N/A	8.12	12/01/2011
Barclays US Trsy Infl Notes: 1-10 Yr Index	0.92	0.92	-4.34	-3.90	3.08	4.12	5.04	8.93	5.22	0.16	
Difference	2.02	2.02	3.82	6.19	N/A	N/A	14.87	N/A	N/A	7.96	
Tenaska Power Fund II (CF)	-3.59	-3.59	-8.41	-12.44	0.61	-1.95	2.33	5.94	-0.92	-1.95	10/01/2008
Tortoise Capital (CF)	1.07	1.07	26.93	24.16	21.35	N/A	8.24	18.68	34.95	25.77	08/01/2009
Alerian MLP Index	-0.73	-0.73	21.18	17.04	16.48	22.55	4.80	13.88	35.85	22.42	
Difference	1.80	1.80	5.75	7.12	4.87	N/A	3.44	4.80	-0.90	3.35	
Amerra Ag Fund II (CF)	1.93	1.93	-0.79	N/A	N/A	N/A	N/A	N/A	N/A	-0.79	12/01/2012
Magnetar MTP Energy Fund, L.P.	2.17	2.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.17	07/01/2013
Real Return Composite	1.53	1.53	-3.38	-2.49	N/A	N/A	9.55	N/A	N/A	5.59	07/01/2011
Consumer Price Index + 3%	1.15	1.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Difference	0.38	0.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	



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	As of Sont	ombor 30	2013	1		

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
FHA Mortgages (SA)	1.09	1.09	2.93	5.75	8.08	-3.91	5.84	12.75	11.55	8.18	10/01/1990
H/2 Credit Partners (CF)	-0.53	-0.53	3.92	6.09	N/A	N/A	12.56	N/A	N/A	7.03	07/01/2011
Harrison Street Core (CF)	3.61	3.61	6.84	7.46	N/A	N/A	N/A	N/A	N/A	5.14	05/01/2012
Mesa West Core Lending, L.P.	1.77	1.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.77	05/01/2013
Prima Mortgage Invest Trust, LLC	1.42	1.42	4.78	7.06	8.39	N/A	8.03	7.93	22.63	11.46	05/01/2009
Greenfield Acquisition Partners VI, L.P.	3.89	3.89	10.74	N/A	N/A	N/A	N/A	N/A	N/A	10.74	12/01/2012
Mesa West Real Estate Income Fund II L.P.	0.08	0.08	26.18	34.51	20.23	N/A	20.16	11.12	-15.50	9.88	01/01/2010
Rubenstein Properties Fund II, L.P.	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	07/01/2013
Walton Street Real Estate Fund VI, L.P.	4.59	4.59	13.63	15.22	25.32	N/A	7.95	54.15	-11.15	-39.30	05/01/2009
Walton Street Real Estate Fund VII, L.P.	2.58	2.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.58	07/01/2013
Real Estate Composite	1.75	1.75	8.50	10.86	11.90	7.82	10.18	13.33	14.80	5.59	07/01/1984
NCREIF ODCE Index (Net) (AWA) (Qtr Lag)	3.60	3.60	8.34	11.08	13.85	-1.07	10.47	17.18	6.01	5.86	
Difference	-1.85	-1.85	0.16	-0.22	-1.95	8.89	-0.29	-3.85	8.79	-0.27	



	As of September 30, 2013										
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
BAAM (SA)	0.66	0.66	7.90	10.76	N/A	N/A	7.87	N/A	N/A	7.68	09/01/2011
PAAMCO (SA)	0.78	0.78	9.60	10.79	N/A	N/A	6.00	N/A	N/A	7.10	09/01/2011
Prisma Capital Partners (SA)	-0.90	-0.90	5.72	7.70	N/A	N/A	7.77	N/A	N/A	5.01	09/01/2011
Absolute Return Composite	0.19	0.19	7.73	9.72	6.61	N/A	7.06	3.82	N/A	4.71	04/01/2010
HFRI FOF Diversified Index (Mth Lag)	-1.14	-1.14	4.77	5.71	2.90	0.45	3.13	-2.46	4.07	2.44	
Difference	1.33	1.33	2.96	4.01	3.71	N/A	3.93	6.28	N/A	2.27	
Cash Equivalents (SA)	0.43	0.43	0.56	0.67	0.42	0.68	0.30	0.31	0.89	4.12	01/01/1988
Citi 3 Mo T-Bill Index	0.01	0.01	0.04	0.07	0.08	0.15	0.07	0.08	0.13	3.66	
Difference	0.42	0.42	0.52	0.60	0.34	0.53	0.23	0.23	0.76	0.46	

Performance for absolute return managers and the HFRI FOF Diversified Index is lagged by one month.

Performance for the NCREIF ODCE Index (Net) (AWA) is lagged by one quarter and available quarterly; interim month returns assume a 0.00% return.



#### Kentucky Retirement Systems - Insurance Plan

Asset Allocation & Performance

As of September 30, 2013

Asset Allo	cation & Perforn	nance		Asset Alloca	tion & Performa	nce	
	Allocatio	n	Performance (%)		Allocatio	n	Performance (%)
	Market Value (\$)	%	FYTD		Market Value (\$)	%	FYTD
Total Fund	3,672,318,692	100.00	4.35	Real Return Composite	376,384,637	10.25	1.50
				Internal TIPS (SA)	224,539,504	6.11	1.58
U.S. Equity Composite	901,047,761	24.54	6.94	PIMCO:All Asset;Inst (PAAIX)	103,370,290	2.81	2.94
River Road Asset Management (SA)	13,233,263	0.36	4.28	Tenaska Power Fund II (CF)	1,216,957	0.03	-3.99
Westwood Management (SA)	41,562,720	1.13	4.93	Tortoise Capital (CF)	18,441,788	0.50	0.69
Westfield Capital (SA)	47,615,503	1.30	10.32	Amerra Ag Fund II (CF)	11,344,785	0.31	1.37
Internal S&P 500 Index (SA)	533,439,901	14.53	5.22	Magnetar MTP Energy Fund, L.P.	17,471,314	0.48	2.17
Sasco Capital Inc. (SA)	16,583,528	0.45	11.20				
Systematic Financial Management (SA)	69,240,043	1.89	9.69	Real Estate Composite	126,616,251	3.45	-1.60
Geneva Capital Management (SA)	79,686,185	2.17	10.93	H/2 Credit Partners (CF)	23,645,221	0.64	-0.53
NT Structured Small Cap (SA)	99,686,524	2.71	10.39	Harrison Street Core (CF)	22,912,301	0.62	-11.65
KRS Insurance Transition	94	0.00	N/A	Mesa West Core Lending, L.P.	21,247,886	0.58	1.70
				Prima Mortgage Invest Trust, LLC	34,958,530	0.95	0.26
Non-U.S. Equity Composite	741,598,747	20.19	9.91	Mesa West Real Estate Income Fund II L.P.	2,956,672	0.08	-0.18
The Boston Co. Non-US Value (SA)	231,951,559	6.32	9.30	Greenfield Acquisition Partners VI, L.P.	14,465,733	0.39	3.65
BTC ACWI Ex US Fund (CF)	227,536,436	6.20	9.93	Rubenstein Properties Fund II, L.P.	1,171,267	0.03	0.00
Pyramis Int'l Growth Fund (SA)	229,110,183	6.24	9.41	Walton Street Real Estate Fund VI, L.P.	3,609,421	0.10	4.20
BTC ACWI Ex US Small Cap Fund (CF)	53,000,569	1.44	14.83	Walton Street Real Estate Fund VII, L.P.	1,649,220	0.04	2.58
Emerging Mkts Equity Composite	133,517,529	3.64	4.79	Absolute Return Composite	366,486,129	9.98	0.18
BTC Emg Mkts Equity (CF)	38,223,166	1.04	5.72	BAAM (SA)	121,110,251	3.30	0.66
Aberdeen Emg Mkts Equity (CF)	48,186,945	1.31	2.37	PAAMCO (SA)	121,292,979	3.30	0.78
Wellington Emg Mkts Equity (CF)	47,107,418	1.28	6.57	Prisma Capital Partners (SA)	119,082,899	3.24	-0.90
				MKP Opportunity Fund (CF)	5,000,000	0.14	N/A
Fixed Income Composite	686,250,174	18.69	1.47		- , ,		
NISA Core Agg Fixed Income (SA)	187,809,494	5.11	0.59	Private Equity Composite	203,847,394	5.55	3.46
PIMCO Core Fixed Income (SA)	254,541,775	6.93	1.39		, ,		
Columbia HY Fixed Income (SA)	50,968,572	1.39	2.05	Cash Equivalent Composite	136,570,070	3.72	0.07
Loomis Sayles HY Fixed Income (SA)	52,227,585	1.42	2.02	Cash Equivalents (SA)	136,470,056	3.72	0.07
Shenkman Capital (SA)	36,090,544	0.98	4.82	Cash Equivalents at JPM (SA)	100,014	0.00	N/A
Waterfall (SA)	41,365,540	1.13	2.85				
Manulife Asset Mgmt (SA)	32,822,464	0.89	1.47				
Stone Harbor (SA)	30,424,201	0.83	0.17				

Performance shown is net of fees. Fiscal year ends June 30th. Allocations shown may not sum up to 100% exactly due to rounding. Real Estate and Private Equity valuations shown are as of the most recent date available.



#### Kentucky Retirement Systems - Insurance Plan Asset Allocation by Plan & Asset Class and Thematic & Liquidity Analysis As of September 30, 2013



Allocations shown may not sum up to 100% exactly due to rounding. Totals shown may not match due to differences between BNY Melon's performance and accounting departments.

#### Kentucky Retirement Systems - Insurance Plan Asset Allocation vs. Target & Plan Compliance As of September 30, 2013

	Asset Allocation v	s. Target All	ocation			Asset Allocation vs.	Farget Alloca	tion Differer
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)	U.S. Equity Non-U.S. Equity		4.54%
Fotal Fund	3,672,318,692	100.00	-	100.00	-	1.0	0.260/	
U.S. Equity Composite	901,047,761	24.54	15.00	20.00	25.00	Emerging Mkts Equity	-0.36%	
Non-U.S. Equity Composite	741,598,747	20.19	15.00	20.00	25.00	Fixed Income	-1.31%	
Emerging Mkts Equity Composite	133,517,529	3.64	2.00	4.00	6.00	Real Return		0.25%
Fixed Income Composite	686,250,174	18.69	17.50	20.00	22.50	Real Estate	-1.55%	
Real Return Composite	376,384,637	10.25	7.00	10.00	13.00			
Real Estate Composite	126,616,251	3.45	2.00	5.00	8.00	Absolute Return	-0.02%	
Absolute Return Composite	366,486,129	9.98	7.00	10.00	13.00	Private Equity	-4.45%	
Private Equity Composite	203,847,394	5.55	5.00	10.00	15.00	Cash Equivalent		2.72%
Cash Equivalent Composite	136,470,056	3.72	-	1.00	3.00	-	00% -5.00%	5.00% 15.

Ind	ividual Plan A	sset Allocation	Monitor		
	KERS	KERS Haz	CERS	<b>CERS Haz</b>	SPRS
U.S. Equity Composite	In Range	Over Max	Over Max	In Range	In Range
Non-U.S. Equity Composite	In Range	In Range	In Range	In Range	In Range
Emerging Mkts Equity Composite	In Range	In Range	In Range	In Range	In Range
Fixed Income Composite	<b>Under Min</b>	In Range	In Range	In Range	In Range
Real Return Composite	In Range	In Range	In Range	In Range	In Range
Real Estate Composite	In Range	In Range	In Range	In Range	In Range
Absolute Return Composite	In Range	In Range	In Range	In Range	In Range
Private Equity Composite	In Range	In Range	In Range	In Range	In Range
Cash Equivalent Composite	<b>Over Max</b>	In Range	<b>Over Max</b>	<b>Over Max</b>	<b>Over Max</b>

KERS Fixed Income Composite is under the minimum allocation by 0.02%. KERS Cash Equivalent Composite is over the maximum allocation by 5.08%. KERS Haz U.S. Equity Composite is over the maximum allocation by 0.43%. CERS U.S. Equity Composite is over the maximum allocation by 0.21%. CERS Cash Equivalent Composite is over the maximum allocation by 0.01%. CERS Haz Cash Equivalent Composite is over the maximum allocation by 0.15%. SPRS Cash Equivalent Composite is over the maximum allocation by 0.26%. Allocations shown may not sum to 100% exactly due to rounding.



#### Kentucky Retirement Systems - Insurance Plan

**Plan Comparative Performance** 

Acof	Sontombo	. 20	2012	
AS OI	September	r 30,	2013	

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	10 Years	2012	2011	2010	Since Incep.	Inception Date
Total Fund	4.35	4.35	7.60	10.14	8.40	6.66	6.77	11.99	-1.98	13.25	7.52	04/01/1987
Target Allocation Index (I)	4.21	4.21	8.94	11.52	9.84	7.70	6.98	13.18	-0.45	13.25	7.91	
Difference	0.14	0.14	-1.34	-1.38	-1.44	-1.04	-0.21	-1.19	-1.53	0.00	-0.39	
KERS (I)	4.12	4.12	7.36	9.90	8.32	6.62	6.75	11.99	-1.98	13.25	7.51	04/01/1987
KERS (I) - Target Allocation Index	4.37	4.37	9.10	11.69	9.89	7.73	6.99	13.18	-0.45	13.25	7.91	
Difference	-0.25	-0.25	-1.74	-1.79	-1.57	-1.11	-0.24	-1.19	-1.53	0.00	-0.40	
KERS Haz (I)	4.39	4.39	7.64	10.18	8.41	6.67	6.78	11.99	-1.98	13.25	7.52	04/01/1987
KERS Haz (I) - Target Allocation Index	4.38	4.38	9.11	11.70	9.90	7.74	7.00	13.18	-0.45	13.25	7.91	
Difference	0.01	0.01	-1.47	-1.52	-1.49	-1.07	-0.22	-1.19	-1.53	0.00	-0.39	
CERS (I)	4.38	4.38	7.63	10.18	8.41	6.67	6.78	11.99	-1.98	13.25	7.52	04/01/1987
CERS (I) - Target Allocation Index	4.38	4.38	9.11	11.70	9.90	7.74	7.00	13.18	-0.45	13.25	7.91	
Difference	0.00	0.00	-1.48	-1.52	-1.49	-1.07	-0.22	-1.19	-1.53	0.00	-0.39	
CERS Haz (I)	4.37	4.37	7.62	10.17	8.40	6.67	6.78	11.99	-1.98	13.25	7.52	04/01/1987
CERS Haz (I) - Target Allocation Index	4.38	4.38	9.11	11.70	9.90	7.74	7.00	13.18	-0.45	13.25	7.91	
Difference	-0.01	-0.01	-1.49	-1.53	-1.50	-1.07	-0.22	-1.19	-1.53	0.00	-0.39	
SPRS (I)	4.38	4.38	7.63	10.17	8.41	6.67	6.78	11.99	-1.98	13.25	7.52	04/01/1987
SPRS (I) - Target Allocation Index	4.38	4.38	9.11	11.70	9.90	7.74	7.00	13.18	-0.45	13.25	7.91	
Difference	0.00	0.00	-1.48	-1.53	-1.49	-1.07	-0.22	-1.19	-1.53	0.00	-0.39	

Performance shown is net of fees. All data reported for Kentucky Retirement Systems, including manager and composite performance, is provided by BNY Melon. Fiscal year ends June 30th. An index marked with an asterisk (\*) represents the current benchmark. See the Addendum for the complete historical composition of custom indices.



#### Kentucky Retirement Systems - Insurance Plan

**Composite Comparative Performance** 

As of September 30, 2013	3
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				September 1	3	5	10				Since	Inception
	QTD	FYTD	CYTD	Year	Years	Years	Years	2012	2011	2010	Incep.	Date
U.S. Equity Composite	6.94	6.94	21.62	22.21	16.28	10.29	8.00	15.73	0.41	16.32	9.26	07/01/1992
R 3000 Index (I)*	6.35	6.35	21.30	21.61	16.60	10.39	7.99	16.42	0.97	16.38	N/A	
Difference	0.59	0.59	0.32	0.60	-0.32	-0.10	0.01	-0.69	-0.56	-0.06	N/A	
Non-U.S. Equity Composite	9.91	9.91	11.94	18.91	-1.71	2.14	6.27	15.73	-31.50	11.35	1.06	04/01/2000
MSCI ACW Ex US Index (Gross) (I)*	10.17	10.17	10.47	16.98	6.60	6.32	8.10	17.39	-12.90	10.60	1.99	
Difference	-0.26	-0.26	1.47	1.93	-8.31	-4.18	-1.83	-1.66	-18.60	0.75	-0.93	
Emerging Mkts Equity Composite	4.79	4.79	-4.29	1.56	N/A	N/A	N/A	23.10	N/A	N/A	0.18	07/01/2011
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	13.16	18.64	-18.17	19.20	-3.55	
Difference	-1.11	-1.11	-0.24	0.23	N/A	N/A	N/A	4.46	N/A	N/A	3.73	
Fixed Income Composite	1.47	1.47	-0.83	0.91	5.13	6.09	5.70	9.72	7.64	6.40	6.93	07/01/1992
Barclays Universal Bond Index (I)*	0.75	0.75	-1.56	-1.00	4.32	5.49	5.32	5.53	10.00	6.31	6.71	
Difference	0.72	0.72	0.73	1.91	0.81	0.60	0.38	4.19	-2.36	0.09	0.22	
Real Return Composite	1.50	1.50	-3.99	-3.26	N/A	N/A	N/A	9.00	N/A	N/A	5.03	07/01/2011
Consumer Price Index + 3%	1.15	1.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Difference	0.35	0.35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Real Estate Composite	-1.60	-1.60	3.75	5.67	11.01	N/A	N/A	10.23	14.85	18.36	8.28	05/01/2009
NCREIF ODCE Index (Net) (AWA) (Qtr Lag)	3.60	3.60	8.34	11.08	13.85	-1.07	5.95	10.47	17.18	6.01	1.64	
Difference	-5.20	-5.20	-4.59	-5.41	-2.84	N/A	N/A	-0.24	-2.33	12.35	6.64	
Absolute Return Composite	0.18	0.18	7.66	9.67	6.62	N/A	N/A	7.16	3.81	N/A	4.55	04/01/2010
HFRI FOF Diversified (Mth Lag)	-1.14	-1.14	4.77	5.71	2.90	0.45	3.44	3.13	-2.46	4.07	2.44	
Difference	1.32	1.32	2.89	3.96	3.72	N/A	N/A	4.03	6.27	N/A	2.11	
Private Equity Composite	3.46	3.46	11.25	14.66	13.97	8.43	8.98	12.43	11.64	17.83	7.46	06/01/2001
R 3000 Index + 4% (Qtr Lag) (I)*	3.70	3.70	17.76	26.33	16.97	12.21	8.76	35.41	-8.41	16.32	6.19	
Difference	-0.24	-0.24	-6.51	-11.67	-3.00	-3.78	0.22	-22.98	20.05	1.51	1.27	
Cash Equivalent Composite	0.07	0.07	0.20	0.48	0.33	0.29	2.06	0.47	0.26	0.25	3.19	07/01/1992
Citi 3 Mo T-Bill Index	0.01	0.01	0.04	0.07	0.08	0.15	1.61	0.07	0.08	0.13	2.98	
Difference	0.06	0.06	0.16	0.41	0.25	0.14	0.45	0.40	0.18	0.12	0.21	

Performance shown is net of fees. All data reported for Kentucky Retirement Systems, including manager and composite performance, is provided by BNY Melon. Fiscal year ends June 30th. An index marked with an asterisk (\*) represents the current benchmark. See the Addendum for the complete historical composition of custom indices.


#### Kentucky Retirement Systems - Insurance Plan

#### Total Fund vs. Target Allocation Index (I)

**Total Fund Attribution** 

Quarter To Date Ending September 30, 2013



Performance shown is net of fees. Calculation is based on monthly periodicity. Allocation to "Other" is the contribution of other residual factors, including market timing and cash flows. The historical benchmark, Russell 3000 + 4%, which is used to measure the PE composite prior to 7/1/2013, does not closely track the performance of this asset class over short periods of time. Therefore, significant manager value added should be anticipated and independently is not a cause for concern.

5.00%

-10.00 %

-5.00 %

0.00%

Average Active Weight

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-0.10 %

0.00%

Asset Allocation Value Added

0.10%

0.20%

-0.40 %

-0.20 %

0.00%

Manager Value Added

0.20%

RVKuhns

▶ ▶ ▶ & ASSOCIATES, INC.

0.40%

10.00% -0.20 %

#### Kentucky Retirement Systems - Insurance Plan

#### Total Fund vs. Target Allocation Index (I)

**Total Fund Attribution** 

1 Year Ending September 30, 2013





Performance shown is net of fees. Calculation is based on monthly periodicity. Allocation to "Other" is the contribution of other residual factors, including market timing and cash flows. The historical benchmark, Russell 3000 + 4%, which is used to measure the PE composite prior to 7/1/2013, does not closely track the performance of this asset class over short periods of time. Therefore, significant manager value added should be anticipated and independently is not a cause for concern.

RVKuhns

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# Kentucky Retirement Systems - Insurance Plan Historical Stats, Correlation, Risk/Return, & Up/Down Markets Analysis

			As of September 30, 202	13		
		H	listorical Statistics - 5 Y	ears		
	Total Fund	U.S. Equity Composite	Non-U.S. Equity Composite	Fixed Income Composite	Private Equity Composite	Cash Equivalent Composite
Standard Deviation	14.05	18.04	22.55	6.41	8.04	0.26
Sharpe Ratio	0.52	0.63	0.20	0.93	1.03	1.97
Downside Risk	10.14	12.52	16.87	4.21	5.36	0.00
Excess Return	7.32	11.33	4.60	5.97	8.28	0.51

		Cor	relation Matrix - 5 Years			
	Total Fund	U.S. Equity Composite	Non-U.S. Equity Composite	Fixed Income Composite	Private Equity Composite	Cash Equivalent Composite
Total Fund	1.00					
U.S. Equity Composite	0.95	1.00				
Non-U.S. Equity Composite	0.89	0.87	1.00			
Fixed Income Composite	0.48	0.37	0.41	1.00		
Private Equity Composite	0.57	0.51	0.37	0.26	1.00	
Cash Equivalent Composite	0.15	0.14	0.13	0.30	-0.06	1.00



Performance shown is net of fees, except where noted. Calculation is based on quarterly periodicity. Excluded composites do not have five years of performance history.



#### Kentucky Retirement Systems - Insurance Asset Class Risk/Return 3 & 5 Years As of September 30, 2013



Composites with less history than the specified time period will not appear in the chart. Performance shown is net of fees.

Kentucky Retirement Systems - Insurance Asset Allocation by Asset Class & Style As of September 30, 2013



Allocations shown may not sum to 100% exactly due to rounding. Insurance Transition account is included in U.S. Large Cap Equity.

As of September 30, 2013											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
River Road Asset Management (SA)	4.28	4.28	22.28	21.38	N/A	N/A	9.70	N/A	N/A	14.10	07/01/2011
R 3000 Value Index	4.23	4.23	20.68	22.67	16.27	8.88	17.55	-0.10	16.23	13.90	
Difference	0.05	0.05	1.60	-1.29	N/A	N/A	-7.85	N/A	N/A	0.20	
Westwood Management (SA)	4.93	4.93	22.34	26.20	N/A	N/A	14.16	N/A	N/A	11.59	07/01/2011
R 3000 Value Index	4.23	4.23	20.68	22.67	16.27	8.88	17.55	-0.10	16.23	13.90	
Difference	0.70	0.70	1.66	3.53	N/A	N/A	-3.39	N/A	N/A	-2.31	
Westfield Capital (SA)	10.32	10.32	24.36	26.44	N/A	N/A	22.18	N/A	N/A	14.56	07/01/2011
R 3000 Growth Index	8.48	8.48	21.75	20.30	17.18	12.16	15.21	2.18	17.64	13.88	
Difference	1.84	1.84	2.61	6.14	N/A	N/A	6.97	N/A	N/A	0.68	
U.S. All Cap Equity Composite	7.28	7.28	23.27	25.67	N/A	N/A	17.07	N/A	N/A	13.27	07/01/2011
R 3000 Index	6.35	6.35	21.30	21.61	16.77	10.58	16.42	1.03	16.93	13.94	
Difference	0.93	0.93	1.97	4.06	N/A	N/A	0.65	N/A	N/A	-0.67	
Internal S&P 500 Index (SA)	5.22	5.22	19.71	19.26	16.61	10.48	15.95	2.71	16.32	5.30	07/01/2001
S&P 500 Index (Cap Wtd)*	5.25	5.25	19.79	19.34	16.52	10.34	16.00	2.37	16.38	5.17	
Difference	-0.03	-0.03	-0.08	-0.08	0.09	0.14	-0.05	0.34	-0.06	0.13	
U.S. Large Cap Equity Composite	5.24	5.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.24	07/01/2013
R 1000 Index	6.02	6.02	20.76	20.91	16.64	10.53	16.43	1.50	16.10	6.02	
Difference	-0.78	-0.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.78	
Sasco Capital Inc. (SA)	11.20	11.20	22.22	25.91	N/A	N/A	N/A	N/A	N/A	23.77	07/01/2012
R Mid Cap Value Index	5.89	5.89	22.94	27.77	17.27	11.86	18.51	-1.38	24.75	27.27	
Difference	5.31	5.31	-0.72	-1.86	N/A	N/A	N/A	N/A	N/A	-3.50	
Systematic Financial Management (SA)	9.69	9.69	24.37	27.48	N/A	N/A	N/A	N/A	N/A	27.50	07/01/2012
R Mid Cap Value Index	5.89	5.89	22.94	27.77	17.27	11.86	18.51	-1.38	24.75	27.27	
Difference	3.80	3.80	1.43	-0.29	N/A	N/A	N/A	N/A	N/A	0.23	
Geneva Capital Management (SA)	10.93	10.93	23.13	22.33	N/A	N/A	N/A	N/A	N/A	20.97	07/01/2012
R Mid Cap Growth Index	9.34	9.34	25.42	27.54	17.65	13.92	15.81	-1.65	26.38	26.65	
Difference	1.59	1.59	-2.29	-5.21	N/A	N/A	N/A	N/A	N/A	-5.68	
U.S. Mid Cap Equity Composite	10.44	10.44	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.44	07/01/2013
R Mid Cap Index	7.70	7.70	24.34	27.91	17.53	12.97	17.28	-1.55	25.47	7.70	
Difference	2.74	2.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.74	



			Asof	September	30 2013	,					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
NT Structured Small Cap (SA)	10.39	10.39	27.72	31.23	N/A	N/A	18.36	N/A	N/A	15.48	07/01/2011
R 2000 Index	10.21	10.21	27.69	30.05	18.28	11.15	16.34	-4.18	26.86	13.90	
Difference	0.18	0.18	0.03	1.18	N/A	N/A	2.02	N/A	N/A	1.58	
U.S. Small Cap Equity Composite	10.39	10.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.39	07/01/2013
R 2000 Index	10.21	10.21	27.69	30.05	18.28	11.15	16.34	-4.18	26.86	10.21	
Difference	0.18	0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.18	
U.S. Equity Composite	6.94	6.94	21.62	22.21	16.28	10.29	15.73	0.41	16.32	9.26	07/01/1992
R 3000 Index (I)*	6.35	6.35	21.30	21.61	16.60	10.39	16.42	0.97	16.38	N/A	
Difference	0.59	0.59	0.32	0.60	-0.32	-0.10	-0.69	-0.56	-0.06	N/A	



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			As of	f September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
The Boston Co. Non-US Value (SA)	9.30	9.30	13.26	20.69	5.35	5.85	14.53	-16.08	5.78	0.43	06/01/2008
MSCI ACW Ex US Index (Gross)*	10.17	10.17	10.47	16.98	7.04	5.88	17.39	-11.78	9.43	-0.54	
Difference	-0.87	-0.87	2.79	3.71	-1.69	-0.03	-2.86	-4.30	-3.65	0.97	
BTC ACWI Ex US Fund (CF)	9.93	9.93	9.33	15.72	N/A	N/A	N/A	N/A	N/A	22.89	06/01/2012
MSCI ACW Ex US Index (Net)	10.09	10.09	10.04	16.48	5.95	6.26	16.83	-13.71	11.15	23.48	
Difference	-0.16	-0.16	-0.71	-0.76	N/A	N/A	N/A	N/A	N/A	-0.59	
Pyramis Int'l Growth Fund (SA)	9.41	9.41	12.09	18.86	7.88	6.26	16.75	-11.56	11.72	6.84	08/01/2001
MSCI ACW Ex US Index (Gross)*	10.17	10.17	10.47	16.98	7.04	5.88	17.39	-11.78	9.43	5.99	
Difference	-0.76	-0.76	1.62	1.88	0.84	0.38	-0.64	0.22	2.29	0.85	
BTC ACWI Ex US Small Cap Fund (CF)	14.83	14.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.83	07/01/2013
MSCI ACW Ex US Sm Cap Index (Net)	12.38	12.38	14.43	20.04	7.27	11.38	18.52	-18.50	25.21	12.38	
Difference	2.45	2.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.45	
Non-U.S. Equity Composite	9.91	9.91	11.94	18.91	-1.71	2.14	15.73	-31.50	11.35	1.06	04/01/2000
MSCI ACW Ex US Index (Gross) (I)*	10.17	10.17	10.47	16.98	6.60	6.32	17.39	-12.90	10.60	1.99	
Difference	-0.26	-0.26	1.47	1.93	-8.31	-4.18	-1.66	-18.60	0.75	-0.93	



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			As of	September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
BTC Emg Mkts Equity (CF)	5.72	5.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.72	07/01/2013
MSCI Emg Mkts Index (Net)	5.77	5.77	-4.35	0.98	-0.33	7.23	18.23	-18.42	18.88	5.77	
Difference	-0.05	-0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.05	
Aberdeen Emg Mkts Equity (CF)	2.37	2.37	-5.42	0.66	3.81	13.50	25.57	-10.78	29.06	8.18	04/01/2008
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	0.80	
Difference	-3.53	-3.53	-1.37	-0.67	3.81	5.94	6.93	7.39	9.86	7.38	
Wellington Emg Mkts Equity (CF)	6.57	6.57	-4.02	1.24	-1.50	6.12	18.56	-21.78	16.39	0.31	04/01/2008
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	0.80	
Difference	0.67	0.67	0.03	-0.09	-1.50	-1.44	-0.08	-3.61	-2.81	-0.49	
Emerging Mkts Equity Composite	4.79	4.79	-4.29	1.56	N/A	N/A	23.10	N/A	N/A	0.18	07/01/2011
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	-3.55	
Difference	-1.11	-1.11	-0.24	0.23	N/A	N/A	4.46	N/A	N/A	3.73	



			As of	September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
NISA Core Agg Fixed Income (SA)	0.59	0.59	-1.95	-1.81	N/A	N/A	4.19	N/A	N/A	3.28	07/01/2011
Barclays US Agg Bond Index	0.57	0.57	-1.89	-1.68	2.86	5.41	4.21	7.84	6.54	3.20	
Difference	0.02	0.02	-0.06	-0.13	N/A	N/A	-0.02	N/A	N/A	0.08	
PIMCO Core Fixed Income (SA)	1.39	1.39	-3.16	-2.07	N/A	N/A	9.60	N/A	N/A	4.01	04/01/201
PIMCO Blended Index	1.31	1.31	-2.16	-1.44	2.93	N/A	6.10	6.28	6.40	3.48	
Difference	0.08	0.08	-1.00	-0.63	N/A	N/A	3.50	N/A	N/A	0.53	
Core Fixed Income Composite	1.04	1.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.04	07/01/2013
Barclays US Agg Bond Index	0.57	0.57	-1.89	-1.68	2.86	5.41	4.21	7.84	6.54	0.57	
Difference	0.47	0.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.47	
Columbia HY Fixed Income (SA)	2.05	2.05	2.94	6.48	N/A	N/A	15.95	N/A	N/A	10.20	11/01/2011
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	10.30	
Difference	-0.23	-0.23	-0.79	-0.66	N/A	N/A	0.14	N/A	N/A	-0.10	
Loomis Sayles HY Fixed Income (SA)	2.02	2.02	2.08	6.94	N/A	N/A	22.94	N/A	N/A	11.96	11/01/2011
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	10.30	
Difference	-0.26	-0.26	-1.65	-0.20	N/A	N/A	7.13	N/A	N/A	1.66	
Shenkman Capital (SA)	4.82	4.82	6.28	8.99	N/A	N/A	10.26	N/A	N/A	7.52	07/01/2011
Shenkman Blended Index	1.73	1.73	3.67	6.11	7.63	10.90	13.00	3.04	12.41	6.96	
Difference	3.09	3.09	2.61	2.88	N/A	N/A	-2.74	N/A	N/A	0.56	
Waterfall (SA)	2.85	2.85	8.12	12.84	N/A	N/A	17.14	N/A	N/A	13.89	07/01/2011
Opportunistic FI Blended Index	1.36	1.36	2.73	4.94	5.93	9.41	9.89	3.24	10.12	5.49	
Difference	1.49	1.49	5.39	7.90	N/A	N/A	7.25	N/A	N/A	8.40	
High Yield Fixed Income Composite	2.74	2.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.74	07/01/2013
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	2.28	
Difference	0.46	0.46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.46	



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			As of	f September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
Manulife Asset Mgmt (SA)	1.47	1.47	1.04	3.51	N/A	N/A	11.44	N/A	N/A	6.81	12/01/2011
Barclays Multiverse Index	2.82	2.82	-1.94	-2.22	2.34	5.35	4.84	5.55	5.84	1.92	
Difference	-1.35	-1.35	2.98	5.73	N/A	N/A	6.60	N/A	N/A	4.89	
Stone Harbor (SA)	0.17	0.17	-8.46	-6.01	N/A	N/A	16.94	N/A	N/A	3.33	07/01/2011
JPMorgan EMBI Global Dvf'd TR Index	1.19	1.19	-6.67	-4.06	4.95	9.76	17.44	7.35	12.24	5.29	
Difference	-1.02	-1.02	-1.79	-1.95	N/A	N/A	-0.50	N/A	N/A	-1.96	
Global Fixed Income Composite	0.84	0.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.84	07/01/2013
Barclays Global Agg Bond Index	2.80	2.80	-2.17	-2.64	2.09	5.07	4.32	5.64	5.54	2.80	
Difference	-1.96	-1.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.96	
Fixed Income Composite	1.47	1.47	-0.83	0.91	5.13	6.09	9.72	7.64	6.40	6.93	07/01/1992
Barclays Universal Bond Index (I)*	0.75	0.75	-1.56	-1.00	4.32	5.49	5.53	10.00	6.31	6.71	
Difference	0.72	0.72	0.73	1.91	0.81	0.60	4.19	-2.36	0.09	0.22	



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			As of	f September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
Internal TIPS (SA)	1.58	1.58	-5.97	-5.36	4.19	5.43	7.01	13.30	6.40	5.54	10/01/2003
Barclays US Trsy: US TIPS Index	0.70	0.70	-6.74	-6.10	4.02	5.31	6.98	13.56	6.31	5.23	
Difference	0.88	0.88	0.77	0.74	0.17	0.12	0.03	-0.26	0.09	0.31	
PIMCO:All Asset;Inst (PAAIX)	2.94	2.94	-0.52	2.28	N/A	N/A	19.91	N/A	N/A	8.12	12/01/2011
Barclays US Trsy Infl Notes: 1-10 Yr Index	0.92	0.92	-4.34	-3.90	3.08	4.12	5.04	8.93	5.22	0.16	
Difference	2.02	2.02	3.82	6.18	N/A	N/A	14.87	N/A	N/A	7.96	
Tenaska Power Fund II (CF)	-3.99	-3.99	-8.79	-12.80	0.47	-3.50	2.33	5.94	-0.92	-3.50	10/01/2008
Tortoise Capital (CF)	0.69	0.69	25.64	22.70	21.38	N/A	9.64	18.46	34.93	25.79	08/01/2009
Alerian MLP Index	-0.73	-0.73	21.18	17.04	16.48	22.55	4.80	13.88	35.85	22.42	
Difference	1.42	1.42	4.46	5.66	4.90	N/A	4.84	4.58	-0.92	3.37	
Amerra Ag Fund II (CF)	1.37	1.37	-1.33	N/A	N/A	N/A	N/A	N/A	N/A	-1.33	12/01/2012
Magnetar MTP Energy Fund, L.P.	2.17	2.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.17	07/01/2013
Real Return Composite	1.50	1.50	-3.99	-3.26	N/A	N/A	9.00	N/A	N/A	5.03	07/01/2011
Consumer Price Index + 3%	1.15	1.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Difference	0.35	0.35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	



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			As of	September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
H/2 Credit Partners (CF)	-0.53	-0.53	3.91	5.99	N/A	N/A	12.45	N/A	N/A	6.98	07/01/2011
Harrison Street Core (CF)	-11.65	-11.65	-9.29	-8.77	N/A	N/A	N/A	N/A	N/A	-6.33	05/01/2012
Mesa West Core Lending, L.P.	1.70	1.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.70	05/01/2013
Prima Mortgage Invest Trust, LLC	0.26	0.26	3.58	5.83	7.76	N/A	7.39	7.92	22.87	11.07	05/01/2009
Greenfield Acquisition Partners VI, L.P.	3.65	3.65	10.47	N/A	N/A	N/A	N/A	N/A	N/A	10.47	12/01/2012
Mesa West Real Estate Income Fund II L.P.	-0.18	-0.18	25.84	34.15	20.12	N/A	20.16	11.12	-15.50	9.80	01/01/2010
Rubenstein Properties Fund II, L.P.	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	07/01/2013
Walton Street Real Estate Fund VI, L.P.	4.20	4.20	13.21	14.80	25.16	N/A	7.95	54.14	-11.15	-39.36	05/01/2009
Walton Street Real Estate Fund VII, L.P.	2.58	2.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.58	06/01/2013
Real Estate Composite	-1.60	-1.60	3.75	5.67	11.01	N/A	10.23	14.85	18.36	8.28	05/01/2009
NCREIF ODCE Index (Net) (AWA) (Qtr Lag)	3.60	3.60	8.34	11.08	13.85	-1.07	10.47	17.18	6.01	1.64	
Difference	-5.20	-5.20	-4.59	-5.41	-2.84	N/A	-0.24	-2.33	12.35	6.64	



			As of	f September	30, 2013						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
BAAM (SA)	0.66	0.66	7.86	10.72	N/A	N/A	8.05	N/A	N/A	7.74	09/01/2011
PAAMCO (SA)	0.78	0.78	9.43	10.62	N/A	N/A	6.22	N/A	N/A	7.13	09/01/2011
Prisma Capital Partners (SA)	-0.90	-0.90	5.69	7.67	N/A	N/A	7.97	N/A	N/A	5.09	09/01/2011
Absolute Return Composite	0.18	0.18	7.66	9.67	6.62	N/A	7.16	3.81	N/A	4.55	04/01/2010
HFRI FOF Diversified Index (Mth Lag)	-1.14	-1.14	4.77	5.71	2.90	0.45	3.13	-2.46	4.07	2.44	
Difference	1.32	1.32	2.89	3.96	3.72	N/A	4.03	6.27	N/A	2.11	
Cash Equivalents (SA)	0.07	0.07	0.20	0.48	0.33	0.29	0.47	0.26	0.25	3.10	07/01/1992
Citi 3 Mo T-Bill Index	0.01	0.01	0.04	0.07	0.08	0.15	0.07	0.08	0.13	2.98	
Difference	0.06	0.06	0.16	0.41	0.25	0.14	0.40	0.18	0.12	0.12	

Performance for absolute return managers and the HFRI FOF Diversified Index is lagged by one month.

Performance for the NCREIF ODCE Index (Net) (AWA) is lagged by one quarter and available quarterly; interim month returns assume a 0.00% return.



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	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
River Road Asset Management (SA)	4.44	4.44	22.81	22.10	N/A	N/A	10.34	N/A	N/A	14.69	07/01/2011
R 3000 Value Index	4.23	4.23	20.68	22.67	16.27	8.88	17.55	-0.10	16.23	13.90	
Difference	0.21	0.21	2.13	-0.57	N/A	N/A	-7.21	N/A	N/A	0.79	
IM U.S. All Cap Value Equity (SA+CF) Median	6.22	6.22	22.80	25.98	16.56	11.11	15.83	-0.71	17.60	13.64	
River Road Asset Management (SA) Rank	84	84	50	69	N/A	N/A	84	N/A	N/A	29	
Westwood Management (SA)	5.10	5.10	22.83	26.87	N/A	N/A	14.72	N/A	N/A	12.10	07/01/2011
R 3000 Value Index	4.23	4.23	20.68	22.67	16.27	8.88	17.55	-0.10	16.23	13.90	
Difference	0.87	0.87	2.15	4.20	N/A	N/A	-2.83	N/A	N/A	-1.80	
IM U.S. All Cap Value Equity (SA+CF) Median	6.22	6.22	22.80	25.98	16.56	11.11	15.83	-0.71	17.60	13.64	
Westwood Management (SA) Rank	72	72	49	42	N/A	N/A	60	N/A	N/A	72	
Westfield Capital (SA)	10.50	10.50	24.91	27.18	N/A	N/A	22.88	N/A	N/A	15.15	07/01/2011
R 3000 Growth Index	8.48	8.48	21.75	20.30	17.18	12.16	15.21	2.18	17.64	13.88	
Difference	2.02	2.02	3.16	6.88	N/A	N/A	7.67	N/A	N/A	1.27	
IM U.S. All Cap Growth Equity (SA+CF) Median	10.08	10.08	24.01	24.30	17.31	12.80	16.33	-1.34	21.03	13.73	
Westfield Capital (SA) Rank	48	48	39	25	N/A	N/A	4	N/A	N/A	27	
U.S. All Cap Equity Composite	7.46	7.46	23.79	26.38	N/A	N/A	17.71	N/A	N/A	13.83	07/01/2011
R 3000 Index	6.35	6.35	21.30	21.61	16.77	10.58	16.42	1.03	16.93	13.94	
Difference	1.11	1.11	2.49	4.77	N/A	N/A	1.29	N/A	N/A	-0.11	
Internal S&P 500 Index (SA)	5.22	5.22	19.71	19.26	16.61	10.48	15.95	2.71	16.32	5.30	07/01/2001
S&P 500 Index (Cap Wtd)*	5.25	5.25	19.79	19.34	16.52	10.34	16.00	2.37	16.38	5.17	
Difference	-0.03	-0.03	-0.08	-0.08	0.09	0.14	-0.05	0.34	-0.06	0.13	
IM U.S. Large Cap Index Equity (SA+CF) Median	5.35	5.35	20.42	19.57	16.32	10.16	16.23	1.61	15.56	4.76	
Internal S&P 500 Index (SA) Rank	71	71	79	76	36	40	76	12	31	22	
U.S. Large Cap Equity Composite	5.24	5.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.24	07/01/2013
R 1000 Index	6.02	6.02	20.76	20.91	16.64	10.53	16.43	1.50	16.10	6.02	
Difference	-0.78	-0.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.78	
Sasco Capital Inc. (SA)	11.38	11.38	22.72	26.60	N/A	N/A	N/A	N/A	N/A	24.31	07/01/2012
R Mid Cap Value Index	5.89	5.89	22.94	27.77	17.27	11.86	18.51	-1.38	24.75	27.27	
Difference	5.49	5.49	-0.22	-1.17	N/A	N/A	N/A	N/A	N/A	-2.96	
IM U.S. Mid Cap Value Equity (SA+CF) Median	7.57	7.57	24.50	28.51	17.54	13.47	17.15	-1.04	22.22	27.98	
Sasco Capital Inc. (SA) Rank	3	3	68	71	N/A	N/A	N/A	N/A	N/A	91	



As of September 30, 2013													
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date		
Systematic Financial Management (SA)	9.85	9.85	24.78	28.03	N/A	N/A	N/A	N/A	N/A	27.94	07/01/2012		
R Mid Cap Value Index	5.89	5.89	22.94	27.77	17.27	11.86	18.51	-1.38	24.75	27.27			
Difference	3.96	3.96	1.84	0.26	N/A	N/A	N/A	N/A	N/A	0.67			
IM U.S. Mid Cap Value Equity (SA+CF) Median	7.57	7.57	24.50	28.51	17.54	13.47	17.15	-1.04	22.22	27.98			
Systematic Financial Management (SA) Rank	9	9	48	57	N/A	N/A	N/A	N/A	N/A	51			
Geneva Capital Management (SA)	11.05	11.05	23.55	22.89	N/A	N/A	N/A	N/A	N/A	21.42	07/01/2012		
R Mid Cap Growth Index	9.34	9.34	25.42	27.54	17.65	13.92	15.81	-1.65	26.38	26.65			
Difference	1.71	1.71	-1.87	-4.65	N/A	N/A	N/A	N/A	N/A	-5.23			
IM U.S. Mid Cap Growth Equity (SA+CF) Median	10.16	10.16	25.52	26.85	17.80	13.63	15.03	-1.71	26.68	25.20			
Geneva Capital Management (SA) Rank	37	37	65	83	N/A	N/A	N/A	N/A	N/A	84			
U.S. Mid Cap Equity Composite	10.58	10.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.58	07/01/2013		
R Mid Cap Index	7.70	7.70	24.34	27.91	17.53	12.97	17.28	-1.55	25.47	7.70			
Difference	2.88	2.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.88			
NT Structured Small Cap (SA)	10.41	10.41	27.88	31.39	N/A	N/A	18.50	N/A	N/A	15.61	07/01/2011		
R 2000 Index	10.21	10.21	27.69	30.05	18.28	11.15	16.34	-4.18	26.86	13.90			
Difference	0.20	0.20	0.19	1.34	N/A	N/A	2.16	N/A	N/A	1.71			
IM U.S. Small Cap Core Equity (SA+CF) Median	10.42	10.42	28.80	32.25	20.31	12.81	16.79	-1.42	28.28	15.53			
NT Structured Small Cap (SA) Rank	51	51	57	58	N/A	N/A	34	N/A	N/A	49			
U.S. Small Cap Equity Composite	10.42	10.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.42	07/01/2013		
R 2000 Index	10.21	10.21	27.69	30.05	18.28	11.15	16.34	-4.18	26.86	10.21			
Difference	0.21	0.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.21			
U.S. Equity Composite	6.99	6.99	21.78	22.41	16.38	10.35	15.86	0.43	16.32	9.27	07/01/1992		
R 3000 Index (I)*	6.35	6.35	21.30	21.61	16.60	10.39	16.42	0.97	16.38	N/A			
Difference	0.64	0.64	0.48	0.80	-0.22	-0.04	-0.56	-0.54	-0.06	N/A			



As of September 30, 2013													
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date		
The Boston Co. Non-US Value (SA)	9.42	9.42	13.57	21.11	5.59	6.00	14.90	-16.00	5.79	0.56	06/01/2008		
MSCI ACW Ex US Index (Gross)*	10.17	10.17	10.47	16.98	7.04	5.88	17.39	-11.78	9.43	-0.54			
Difference	-0.75	-0.75	3.10	4.13	-1.45	0.12	-2.49	-4.22	-3.64	1.10			
IM International Value Equity (SA+CF) Median	11.13	11.13	16.08	23.74	8.97	7.73	18.50	-11.15	11.43	1.73			
The Boston Co. Non-US Value (SA) Rank	79	79	73	65	90	80	81	83	82	70			
BTC ACWI Ex US Fund (CF)	10.07	10.07	9.49	15.89	N/A	N/A	N/A	N/A	N/A	23.02	06/01/2012		
MSCI ACW Ex US Index (Net)	10.09	10.09	10.04	16.48	5.95	6.26	16.83	-13.71	11.15	23.48			
Difference	-0.02	-0.02	-0.55	-0.59	N/A	N/A	N/A	N/A	N/A	-0.46			
IM International Core Equity (SA+CF) Median	11.03	11.03	16.21	22.96	9.87	8.09	19.58	-12.23	11.61	28.83			
BTC ACWI Ex US Fund (CF) Rank	77	77	94	94	N/A	N/A	N/A	N/A	N/A	91			
Pyramis Int'l Growth Fund (SA)	9.48	9.48	12.34	19.23	8.11	6.41	17.12	-11.48	11.75	6.91	08/01/2001		
MSCI ACW Ex US Index (Gross)*	10.17	10.17	10.47	16.98	7.04	5.88	17.39	-11.78	9.43	5.99			
Difference	-0.69	-0.69	1.87	2.25	1.07	0.53	-0.27	0.30	2.32	0.92			
IM International Growth Equity (SA+CF) Median	10.35	10.35	15.61	22.10	9.96	9.37	20.10	-12.08	14.67	8.33			
Pyramis Int'l Growth Fund (SA) Rank	72	72	78	72	83	77	75	47	68	75			
BTC ACWI Ex US Small Cap Fund (CF)	14.86	14.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.86	07/01/2013		
MSCI ACW Ex US Sm Cap Index (Net)	12.38	12.38	14.43	20.04	7.27	11.38	18.52	-18.50	25.21	12.38			
Difference	2.48	2.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.48			
IM International Small Cap Equity (SA+CF) Median	13.25	13.25	22.19	29.17	13.58	12.65	23.35	-13.67	23.68	13.25			
BTC ACWI Ex US Small Cap Fund (CF) Rank	13	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13			
Non-U.S. Equity Composite	10.01	10.01	12.18	19.24	4.82	6.17	16.09	-17.36	11.39	2.53	04/01/2000		
MSCI ACW Ex US Index (Gross) (I)*	10.17	10.17	10.47	16.98	6.60	6.32	17.39	-12.90	10.60	1.99			
Difference	-0.16	-0.16	1.71	2.26	-1.78	-0.15	-1.30	-4.46	0.79	0.54			



		As	of Septem	ber 30, 201	.3								
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date		
BTC Emg Mkts Equity (CF)	5.75	5.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.75	07/01/2013		
MSCI Emg Mkts Index (Net)	5.77	5.77	-4.35	0.98	-0.33	7.23	18.23	-18.42	18.88	5.77			
Difference	-0.02	-0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.02			
IM Emerging Markets Equity (SA+CF) Median	5.94	5.94	-2.23	4.17	1.03	7.99	20.48	-18.45	21.60	5.94			
BTC Emg Mkts Equity (CF) Rank	55	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	55			
Aberdeen Emg Mkts Equity (CF)	2.85	2.85	-4.82	1.47	4.39	13.88	26.41	-10.46	29.06	8.51	04/01/2008		
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	0.80			
Difference	-3.05	-3.05	-0.77	0.14	4.39	6.32	7.77	7.71	9.86	7.71			
IM Emerging Markets Equity (SA+CF) Median	5.94	5.94	-2.23	4.17	1.03	7.99	20.48	-18.45	21.60	1.26			
Aberdeen Emg Mkts Equity (CF) Rank	83	83	77	71	17	7	11	8	11	5			
Wellington Emg Mkts Equity (CF)	6.79	6.79	-3.50	1.99	-0.99	6.45	19.49	-21.61	16.39	0.60	04/01/2008		
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	0.80			
Difference	0.89	0.89	0.55	0.66	-0.99	-1.11	0.85	-3.44	-2.81	-0.20			
IM Emerging Markets Equity (SA+CF) Median	5.94	5.94	-2.23	4.17	1.03	7.99	20.48	-18.45	21.60	1.26			
Wellington Emg Mkts Equity (CF) Rank	35	35	62	69	78	74	62	73	85	62			
Emerging Mkts Equity Composite	5.04	5.04	-3.74	2.32	N/A	N/A	23.97	N/A	N/A	0.89	07/01/2011		
MSCI Emg Mkts Index (Gross)	5.90	5.90	-4.05	1.33	0.00	7.56	18.64	-18.17	19.20	-3.55			
Difference	-0.86	-0.86	0.31	0.99	N/A	N/A	5.33	N/A	N/A	4.44			



	As of September 30, 2013													
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date			
NISA Core Agg Fixed Income (SA)	0.63	0.63	-1.83	-1.66	N/A	N/A	4.34	N/A	N/A	3.42	07/01/2011			
Barclays US Agg Bond Index	0.57	0.57	-1.89	-1.68	2.86	5.41	4.21	7.84	6.54	3.20				
Difference	0.06	0.06	0.06	0.02	N/A	N/A	0.13	N/A	N/A	0.22				
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.63	0.63	-1.70	-1.30	3.49	6.42	5.85	7.84	7.25	3.87				
NISA Core Agg Fixed Income (SA) Rank	51	51	63	79	N/A	N/A	88	N/A	N/A	78				
PIMCO Core Fixed Income (SA)	1.47	1.47	-2.94	-1.78	N/A	N/A	9.91	N/A	N/A	4.22	04/01/2011			
PIMCO Blended Index	1.31	1.31	-2.16	-1.44	2.93	N/A	6.10	6.28	6.40	3.48				
Difference	0.16	0.16	-0.78	-0.34	N/A	N/A	3.81	N/A	N/A	0.74				
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.63	0.63	-1.70	-1.30	3.49	6.42	5.85	7.84	7.25	4.36				
PIMCO Core Fixed Income (SA) Rank	1	1	99	88	N/A	N/A	4	N/A	N/A	61				
IM Global Fixed Income (SA+CF) Median	2.15	2.15	-1.29	0.16	3.94	6.65	8.52	5.03	8.11	4.64				
PIMCO Core Fixed Income (SA) Rank	66	66	73	68	N/A	N/A	44	N/A	N/A	55				
Core Fixed Income Composite	1.11	1.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.11	07/01/2013			
Barclays US Agg Bond Index	0.57	0.57	-1.89	-1.68	2.86	5.41	4.21	7.84	6.54	0.57				
Difference	0.54	0.54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.54				
Columbia HY Fixed Income (SA)	2.28	2.28	3.35	7.01	N/A	N/A	16.38	N/A	N/A	10.65	11/01/2011			
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	10.30				
Difference	0.00	0.00	-0.38	-0.13	N/A	N/A	0.57	N/A	N/A	0.35				
IM U.S. High Yield Bonds (SA+CF) Median	2.25	2.25	4.06	7.19	9.27	12.26	15.42	5.40	15.06	10.25				
Columbia HY Fixed Income (SA) Rank	48	48	68	58	N/A	N/A	29	N/A	N/A	39				
Loomis Sayles HY Fixed Income (SA)	2.13	2.13	2.43	7.43	N/A	N/A	23.50	N/A	N/A	12.43	11/01/2011			
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	10.30				
Difference	-0.15	-0.15	-1.30	0.29	N/A	N/A	7.69	N/A	N/A	2.13				
IM U.S. High Yield Bonds (SA+CF) Median	2.25	2.25	4.06	7.19	9.27	12.26	15.42	5.40	15.06	10.25				
Loomis Sayles HY Fixed Income (SA) Rank	59	59	92	45	N/A	N/A	2	N/A	N/A	13				
Shenkman Capital (SA)	4.95	4.95	6.66	9.51	N/A	N/A	10.81	N/A	N/A	7.99	07/01/2011			
US High Yield/Bank Loan Blended Index	1.73	1.73	3.67	6.11	7.63	10.90	13.00	3.04	12.41	6.96				
Difference	3.22	3.22	2.99	3.40	N/A	N/A	-2.19	N/A	N/A	1.03				
Waterfall (SA)	2.99	2.99	10.50	15.48	N/A	N/A	17.92	N/A	N/A	15.35	07/01/2011			
Opportunistic FI Blended Index	1.36	1.36	2.73	4.94	5.93	9.41	9.89	3.24	10.12	5.49				
Difference	1.63	1.63	7.77	10.54	N/A	N/A	8.03	N/A	N/A	9.86				



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		As	of Septeml	ber 30, 201	3						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
High Yield Fixed Income Composite	2.89	2.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.89	07/01/2013
Barclays US Corp: Hi Yld Index	2.28	2.28	3.73	7.14	9.19	13.53	15.81	4.98	15.12	2.28	
Difference	0.61	0.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.61	
Manulife Asset Mgmt (SA)	1.56	1.56	1.29	3.85	N/A	N/A	11.75	N/A	N/A	7.12	12/01/2011
Barclays Multiverse Index	2.82	2.82	-1.94	-2.22	2.34	5.35	4.84	5.55	5.84	1.92	
Difference	-1.26	-1.26	3.23	6.07	N/A	N/A	6.91	N/A	N/A	5.20	
Stone Harbor (SA)	0.31	0.31	-8.33	-5.87	N/A	N/A	16.94	N/A	N/A	3.40	07/01/2011
JPMorgan EMBI Global Dvf'd TR Index	1.19	1.19	-6.67	-4.06	4.95	9.76	17.44	7.35	12.24	5.29	
Difference	-0.88	-0.88	-1.66	-1.81	N/A	N/A	-0.50	N/A	N/A	-1.89	
IM Emerging Markets Debt (SA+CF) Median	0.49	0.49	-6.57	-2.99	5.30	10.36	19.21	2.90	15.20	4.39	
Stone Harbor (SA) Rank	58	58	91	99	N/A	N/A	78	N/A	N/A	58	
Global Fixed Income Composite	0.96	0.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.96	07/01/2013
Barclays Global Agg Bond Index	2.80	2.80	-2.17	-2.64	2.09	5.07	4.32	5.64	5.54	2.80	
Difference	-1.84	-1.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.84	
Fixed Income Composite	1.56	1.56	-0.50	1.32	5.46	6.29	10.01	7.99	6.40	6.98	07/01/1992
Barclays Universal Bond Index (I)*	0.75	0.75	-1.56	-1.00	4.32	5.49	5.53	10.00	6.31	6.71	
Difference	0.81	0.81	1.06	2.32	1.14	0.80	4.48	-2.01	0.09	0.27	



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		As	of Septem	ber 30, 201	3						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
Internal TIPS (SA)	1.60	1.60	-5.96	-5.34	4.20	5.44	7.01	13.30	6.40	5.54	10/01/2003
Barclays US Trsy: US TIPS Index	0.70	0.70	-6.74	-6.10	4.02	5.31	6.98	13.56	6.31	5.23	
Difference	0.90	0.90	0.78	0.76	0.18	0.13	0.03	-0.26	0.09	0.31	
IM U.S. TIPS (SA+CF) Median	0.76	0.76	-6.67	-5.78	4.07	5.47	7.12	13.50	6.42	5.39	
Internal TIPS (SA) Rank	1	1	29	39	35	55	57	56	51	26	
PIMCO:All Asset;Inst (PAAIX)	2.94	2.94	-0.52	2.28	N/A	N/A	19.91	N/A	N/A	8.12	12/01/2011
Barclays US Trsy Infl Notes: 1-10 Yr Index	0.92	0.92	-4.34	-3.90	3.08	4.12	5.04	8.93	5.22	0.16	
Difference	2.02	2.02	3.82	6.18	N/A	N/A	14.87	N/A	N/A	7.96	
Tenaska Power Fund II (CF)	-3.59	-3.59	-8.41	-12.44	0.61	-1.95	2.33	5.94	-0.92	-1.95	10/01/2008
Tortoise Capital (CF)	1.07	1.07	26.66	23.93	22.06	N/A	10.34	18.73	34.93	26.30	08/01/2009
Alerian MLP Index	-0.73	-0.73	21.18	17.04	16.48	22.55	4.80	13.88	35.85	22.42	
Difference	1.80	1.80	5.48	6.89	5.58	N/A	5.54	4.85	-0.92	3.88	
Amerra Ag Fund II (CF)	1.93	1.93	-0.79	N/A	N/A	N/A	N/A	N/A	N/A	-0.79	12/01/2012
Magnetar MTP Energy Fund, L.P.	2.17	2.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.17	07/01/2013
Real Return Composite	1.55	1.55	-3.93	-3.18	N/A	N/A	9.02	N/A	N/A	5.07	07/01/2011
Consumer Price Index + 3%	1.15	1.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Difference	0.40	0.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	



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As of September 30, 2013													
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date		
H/2 Credit Partners (CF)	-0.53	-0.53	3.91	5.99	N/A	N/A	12.45	N/A	N/A	6.98	07/01/2011		
Harrison Street Core (CF)	-11.65	-11.65	-9.29	-8.77	N/A	N/A	N/A	N/A	N/A	-6.33	05/01/2012		
Mesa West Core Lending, L.P.	1.77	1.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.77	05/01/2013		
Prima Mortgage Invest Trust, LLC	0.26	0.26	3.58	5.83	7.76	N/A	7.39	7.92	22.87	11.07	05/01/2009		
Greenfield Acquisition Partners VI, L.P.	3.89	3.89	10.73	N/A	N/A	N/A	N/A	N/A	N/A	10.73	12/01/2012		
Mesa West Real Estate Income Fund II L.P.	0.08	0.08	26.18	34.51	20.23	N/A	20.16	11.12	-15.50	9.88	01/01/2010		
Rubenstein Properties Fund II, L.P.	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	07/01/2013		
Walton Street Real Estate Fund VI, L.P.	4.59	4.59	13.63	15.22	25.32	N/A	7.95	54.14	-11.15	-39.30	05/01/2009		
Walton Street Real Estate Fund VII, L.P.	2.58	2.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.58	07/01/2013		
Real Estate Composite	-1.55	-1.55	3.81	5.73	11.03	N/A	10.23	14.85	18.36	8.29	05/01/2009		
NCREIF ODCE Index (Net) (AWA) (Qtr Lag)	3.60	3.60	8.34	11.08	13.85	-1.07	10.47	17.18	6.01	1.64			
Difference	-5.15	-5.15	-4.53	-5.35	-2.82	N/A	-0.24	-2.33	12.35	6.65			



		As	of Septem	ber 30, 201	3						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	2012	2011	2010	Since Incep.	Inception Date
BAAM (SA)	0.66	0.66	7.86	10.72	N/A	N/A	8.05	N/A	N/A	7.74	09/01/2011
PAAMCO (SA)	0.78	0.78	9.43	10.62	N/A	N/A	6.22	N/A	N/A	7.13	09/01/2011
Prisma Capital Partners (SA)	-0.90	-0.90	5.69	7.67	N/A	N/A	7.97	N/A	N/A	5.09	09/01/2011
Absolute Return Composite	0.18	0.18	7.66	9.67	6.62	N/A	7.16	3.81	N/A	4.55	04/01/2010
HFRI FOF Diversified Index (Mth Lag)	-1.14	-1.14	4.77	5.71	2.90	0.45	3.13	-2.46	4.07	2.44	
Difference	1.32	1.32	2.89	3.96	3.72	N/A	4.03	6.27	N/A	2.11	
Cash Equivalents (SA)	0.07	0.07	0.20	0.48	0.33	0.29	0.47	0.26	0.25	3.10	07/01/1992
Citi 3 Mo T-Bill Index	0.01	0.01	0.04	0.07	0.08	0.15	0.07	0.08	0.13	2.98	
Difference	0.06	0.06	0.16	0.41	0.25	0.14	0.40	0.18	0.12	0.12	

Performance for absolute return managers and the HFRI FOF Diversified Index is lagged by one month.

Performance for the NCREIF ODCE Index (Net) (AWA) is lagged by one quarter and available quarterly; interim month returns assume a 0.00% return.



#### Economic Measures <sup>1</sup> As of September 30, 2013



<sup>1</sup> All data courtesy of Bloomberg Professional Service, except as noted below.

<sup>2</sup> Data prior to 1952 is from "The Statistical History of the United States, From Colonial Times to the Present", by Ben Wattenberg, Morgan Stanley Research.

<sup>3</sup> "N/A" is shown for data that is not yet available. <sup>4</sup> CPI figures are cyclically adjusted. <sup>5</sup> 20- and 40-year average Gold spot prices are adjusted for inflation.

# Valuation Metrics <sup>1</sup> As of September 30, 2013



<sup>1</sup> All data courtesy of Bloomberg Professional Service.

<sup>2</sup> Source: Bloomberg and Robert J. Shiller, Irrational Exuberance, Second Edition. P/E for the S&P 500 Index is based on 10-year trailing real earnings. Small Cap is represented by the S&P 600 Small Cap Index, and Emerging is represented by the MSCI Emerging Markets Index. Due to limited history, only the current 10-year P/E is shown for Small Cap and Emerging.

<sup>3</sup> US REITs is represented by the MSCI US REITs Index and Global REITs is represented by the MSCI World Real Estate Index.



Risk Metrics <sup>1</sup> As of September 30, 2013



<sup>1</sup> All data courtesy of Bloomberg Professional Service.

<sup>2</sup> Common inception of November 2004 is based on historical data availability. Specific inception dates are as follows: 2- and 20-year (2004), 5-year (2002), 10- and 30-year (1998).



#### **Topical Economic Data** As of September 30, 2013

Curi	rent Equity Rally vs	. History (S&P 500 ]	Index) <sup>1</sup>
Rank	Annualized	Cumulative	End Date
Rolling 1-Year			
1	162.89%		6/30/1933
2	61.23%		4/30/1943
3	61.18%		6/30/1983
4	53.62%		2/28/2010
5	52.62%		12/31/1954
3/1/2009	53.62%		2/28/2010
Rolling 2-Year	57 120/	146.000/	6/20/1024
-	57.13%	146.90%	6/30/1934
2	45.97% 43.54%	113.07% 106.04%	1/31/1929 9/30/1955
3	43.54%	88.94%	9/30/1955
5	37.22%	88.30%	2/28/2011
3/1/2009	37.22%	88.30%	2/28/2011
3/1/2009	31.2270	88.30%	2/20/2011
Rolling 3-Year			
1	43.35%	194.58%	2/29/1936
2	40.30%	176.16%	8/31/1929
3	33.30%	136.84%	7/31/1987
4	32.81%	134.27%	3/31/1998
5	32.71%	133.75%	8/31/1956
3/1/2009	25.56%	97.95%	2/29/2012
Rolling 4-Year	12 200/	200.00%	20/1027</td
1	42.29%	309.90%	6/30/1936
2	31.75%	201.27%	4/30/1946
3	31.01% 28.58%	194.57% 173.37%	1/31/1999
4	28.58%	173.37%	6/30/1986
5 3/1/2009	26.23%	153.89%	4/30/1956 2/28/2013
5/1/2009	22.42%	124.39%	2/20/2015
Rolling 5-Year			
1	36.12%	367.36%	5/31/1937
2	29.63%	265.99%	7/31/1987
3	28.56%	251.12%	12/31/1999
4	26.75%	227.17%	7/31/1955
5	22.38%	152.37%	9/30/2013 (55 Mos)
3/1/2009	22.38%	152.37%	9/30/2013 (55 Mos)





Data courtesy of Bloomberg, HSBC, and Federal Reserve.

<sup>1</sup> Rolling return ranks for the S&P 500 Index represent the highest returns per decade and exclude months with overlapping periods.

<sup>2</sup> The Federal Reserve dual mandate calls for long-term targets of 2.0% inflation and 6.5% unemployment. Annual forecasts are based on the median projections of Federal Reserve board members and bank presidents.

<sup>3</sup> Performance level is shown relative to changes in the MSCI Emerging Markets Index. Current Account Balance is the difference between a country's exports and imports.

Surplus countries include: China, Hungary, South Korea, Malaysia, Phillippines, Russia, Taiwan, and Thailand.

Deficit countries include: Brazil, Chile, Colombia, Czech Republic, Egypt, India, Indonesia, Mexico, Morocco, Peru, Poland, South Africa, and Turkey.



							As of Septe	· · ·							
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	YTD
Best	66.42	31.84	12.35	25.91	62.14	33.16	34.54	35.97	39.78	8.44	79.02	28.60	22.49	20.42	27.69
Î	27.31	31.04	8.44	16.56	56.28	31.27	26.65	32.59	16.23	5.24	58.21	26.86	15.99	18.64	22.42
	24.69	16.16	7.89	14.81	47.25	25.95	21.39	26.86	15.97	2.06	47.32	22.40	13.56	17.90	19.79
	24.34	14.28	7.28	10.25	39.17	20.70	21.36	19.67	11.63	-2.35	32.46	19.20	9.24	17.59	16.59
	21.26	13.15	6.61	5.54	36.18	18.33	14.02	18.37	11.63	-10.01	28.60	16.83	7.84	16.34	10.44
	21.04	12.40	5.64	3.58	28.97	13.06	13.82	16.32	9.91	-20.47	27.18	16.36	4.98	16.00	5.16
	20.19	11.63	5.28	3.12	28.68	11.13	6.75	15.79	6.97	-26.16	26.46	15.12	2.11	15.81	3.73
	13.17	6.18	4.42	1.78	23.93	10.88	5.33	11.85	6.60	-33.79	18.91	15.06	0.10	10.94	2.71
	4.85	-3.02	2.49	-1.41	11.93	9.15	4.91	9.85	5.49	-35.65	11.41	10.16	-4.18	8.82	0.06
	2.40	-5.86	-2.37	-6.00	9.28	8.56	4.55	4.85	5.00	-37.00	9.72	8.21	-5.55	6.98	-1.89
	2.39	-7.22	-11.89	-7.44	8.39	8.46	3.07	4.33	1.87	-39.20	5.93	6.54	-11.73	4.80	-4.05
	-0.82	-9.10	-12.11	-15.66	5.87	6.79	2.84	2.71	1.79	-43.06	1.92	6.31	-13.32	4.21	-6.74
÷	-2.58	-13.96	-19.51	-20.48	4.10	4.34	2.74	2.07	-1.57	-46.78	0.21	4.77	-15.66	0.11	-8.56
Worst	-7.65	-30.61	-21.21	-22.10	1.15	1.33	2.43	0.41	-17.55	-53.18	-29.76	0.13	-18.17	-1.06	-8.74

#### Annual Asset Class Performance As of September 30, 2013

Barclays

US Corp:

Hi Yield -

FI

**Barclays** 

US Agg

**Bond - FI** 

**Barclays** 

**US Trsy:** 

**US TIPS -**

FI

NCREIF

ODCE

(Gross) -

**Real Estate** 

Wilshire US

**REIT** -

**REITs** 

HFN FOF

(Net) - ARS

**DJ-UBS** 

Multi-Strat Cmdty (TR) Mo T-Bill -

BofA ML 3

- Commod. Cash Equiv

**RVKuhns** 

▶ ▶ ▶ & ASSOCIATES, INC.

**Barclays** 

US

**Gov/Credit:** 

Lng - FI

**MSCI** 

EAFE

(Gross) -

Int'l Dev.

S&P 500 -

**US Large** 

Cap

R 2000 - US

**Small Cap** 

MSCI EM

(Gross) -

Int'l Emg

Mkts

**MSCI** 

EAFE SC

(Gross) -

Int'l SC

# Domestic Equity Market Performance and Risk As of September 30, 2013



Performance is annualized for periods greater than one year. Calculation is based on monthly periodicity.



Allocations shown may not sum up to 100% exactly due to rounding. Performance is annualized for periods greater than one year. Allocations provided by Standard & Poor's.

# International Equity Market Performance and Risk As of September 30, 2013



Performance is annualized for periods greater than one year. Calculation is based on monthly periodicity. All returns are shown gross of foreign taxes on dividends.





Allocations shown may not sum up to 100% exactly due to rounding. Performance is annualized for periods greater than one year. Allocations provided by MSCI Barra. All returns are shown gross of foreign taxes on dividends.



Allocations shown may not sum up to 100% exactly due to rounding. Performance is annualized for periods greater than one year. Allocations provided by MSCI Barra. All returns are shown gross of foreign taxes on dividends.

# Effect of Currency on International Equity Performance As of September 30, 2013



Performance is annualized for periods greater than one year. Calculation is based on monthly periodicity. All returns are shown gross of foreign taxes on dividends.

### Fixed Income Market Performance and Risk As of September 30, 2013



▶ ▶ ▶ & ASSOCIATES, INC.



Allocations shown may not sum up to 100% exactly due to rounding. Performance is annualized for periods greater than one year. Allocations provided by Barclays Indices.
# Real Estate Market Performance and Risk As of September 30, 2013



Performance is annualized for periods greater than one year. Calculation is based on quarterly periodicity. All data shown represent NCREIF indices unless otherwise noted. Region and sector data represent the Property Index.

RVKuhns

# Hedge Fund Market Performance and Risk As of September 30, 2013



Performance is annualized for periods greater than one year. Calculation is based on monthly periodicity. All data shown represent HFN indices, net of fees. Values are preliminary and subject to change.

# Kentucky Retirement Systems Addendum As of September 30, 2013

#### **Performance Related Comments**

- Performance shown is net of fees, except where noted.
- Indices show N/A for Since Inception returns when the fund contains more history than the corresponding benchmark.
- All data reported for Kentucky Retirement Systems, including manager and composite performance, is provided by BNY Melon.
- Real Estate and Private Equity valuations are as of the most recent date available.

#### Asset Allocation Comments

• The Private Equity Composite includes Internal Alternative Assets.

#### **Manager Transition Comments**

- International Account (SA) (Pension) and Arrowhawk Durable Alpha Fund L.P. were liquidated in December 2012.
- Equitization Assets Program (Pension) and Equitization Assets Program (Insurance) were fully liquidated in January 2013.
- Amerra Ag Fund II (CF) (Pension and Insurance) and Greenfield Acquisition Parters VI (CF) (Pension and Insurance) were funded in January 2013.
- Internal Mid Cap (SA) (Pension and Insurance) and International Account (Insurance) were fully liquidated in March 2013.
- BTC Emerging Markets (CF) (Pension and Insurance) and Walton Street Real Estate Fund VII, L.P. (Pension and Insurance) were funded in June 2013.



		As of September 30, 2013	
Composite/Manager	Benchma	ark	Since
Total Fund Target Allocation Index (P)	R.V. Kuł	nns & Associates, Inc. began calculating the custom index as of September 1, 2008.	
		om index is calculated monthly and consists of:	
	6.00%	S&P 500 Index (Cap Wtd)	
	27.20%	S&P 1500 Composite Index	
	4.00%	R 2000 Index	
	18.00%	MSCI EAFE Index (Gross)	
	2.00%		
		MSCI Emerging Markets Index (Gross)	
	25.00%	Barclays US Aggregate Bond Index	
	10.00%	Barclays US Treasury: US TIPS Index	
	4.80%	Barclays US Corporate: High Yield Index	0/1/ /0000
	3.00%	Citigroup 3 Mo T-Bill Index	9/1/2008
	6.00%	S&P 500 Index (Cap Wtd)	
	27.20%	S&P 1500 Composite Index	
	4.00%	R 2000 Index	
	12.00%	MSCI World Ex US Index (Gross)	
	4.00%		
		MSCI ACW Ex US Index (Gross)	
	2.00%	MSCI ACW Ex US Small Cap Index (Gross)	
	2.00%	MSCI Emerging Markets Index (Gross)	
	25.00%	Barclays US Aggregate Bond Index	
	10.00%	Barclays US Treasury: US TIPS Index	
	4.80%	Barclays US Corporate: High Yield Index	- // /= 0.0.5
	3.00%	Citigroup 3 Mo T-Bill Index	7/1/2009
	20.00%	R 3000 Index	
	20.00%	MSCI ACW Ex US Index (Gross)	
	4.00%	MSCI Emerging Markets Index (Gross)	
	20.00%	Barclays US Unv Index	
	10.00%	Consumer Price Index + 3%	
	5.00%	NCREIF ODCE Index (Gross) (AWA)	
	10.05%	HFRI FOF Div Index (Lagged)	
	9.93%	R 3000 Index +4% (Qtr Lag)	7/1/2011
	1.02%	Citi 3 Mo T-Bill Index	7/1/2011
	20.50%	R 3000 Index	
	20.00%	MSCI ACW Ex US Index (Gross)	
	2.90%	MSCI Emerging Markets Index (Gross)	
	19.30%	Barclays Universal Bond Index	
	10.00%	Consumer Price Index + 3%	
	4.50%	NCREIF ODCE Index (Gross) (AWA)	
	10.00%	HFRI FOF Div Index (Month Lag)	
	10.00%	R 3000 Index +4% (Qtr Lag)	
	2.80%	Citi 3 Mo T-Bill Index	1/1/2013
	2.00%		1/1/2015



<u>Composite/Manager</u> Total Fund Target Allocation Index (P) (Cont.)

Benchma	<u>rk</u>	Since
20.50%	R 3000 Index	
20.00%	MSCI ACW Ex US Index (Gross)	
2.90%	MSCI Emerging Markets Index (Gross)	
19.30%	Barclays Universal Bond Index	
10.00%	Consumer Price Index + 3%	
4.50%	NCREIF ODCE Index (Net) (AWA) (Qtr Lag)	
10.00%	HFRI FOF Div Index (Month Lag)	
10.00%	Private Equity Composite	
2.80%	Citi 3 Mo T-Bill Index	7/1/2013



Since

		As of September 30, 2013	
Composite/Manager	Benchma		Since
Total Fund Target Allocation Index (I)	The custo	m index is calculated monthly and consists of:	
	27.50%	S&P 500 Index (Cap Wtd)	
	62.50%	Barclays US Gov't/Credit Bond index	
	10.00%	Citigroup 3 Mo T-Bill Index	Inception
	50.00%	S&P 500 Index (Cap Wtd)	
	20.00%	S&P SmallCap 600 Index (Cap Wtd)	
	25.00%	Barclays US Gov't/Credit Bond index	
	5.00%	•	8/1/1996
	5.00%	Citigroup 3 Mo T-Bill Index	8/1/1990
	35.00%	S&P 500 Index (Cap Wtd)	
	20.00%	S&P SmallCap 600 Index (Cap Wtd)	
	25.00%	Barclays US Gov't/Credit Bond index	
	15.00%	BNY Mellon ADR Index	
	5.00%	Citigroup 3 Mo T-Bill Index	7/1/2000
	60.00%	S&P 1500 Composite Index	
	15.00%	MSCI EAFE Index (Gross)	
	10.00% 5.00%	Barclays US Treasury: US TIPS Index	
		R 3000 Index + 4% (Qtr Lag) (I)*	
	5.00%	BNY Mellon ADR Index	7/1/2001
	5.00%	Citigroup 3 Mo T-Bill Index	//1/2001
	60.00%	S&P 1500 Composite Index	
	15.00%	MSCI EAFE Index (Gross)	
	10.00%	Barclays US Treasury: US TIPS Index	
	5.00%	R 3000 Index + 4% (Qtr Lag) (I)*	
	5.00%	S&P American Depositary Receipt Index	
	5.00%	Citigroup 3 Mo T-Bill Index	7/1/2002
	60.00%	S&P 1500 Composite Index	
	16.00%	MSCI EAFE Index (Gross)	
	10.00%	Barclays US Treasury: US TIPS Index	
	5.00%	R 3000 Index + 4% (Qtr Lag) (I)*	
	4.00%	S&P American Depositary Receipt Index	
	5.00%	Citigroup 3 Mo T-Bill Index	7/1/2003
	60.00%	S&P 1500 Composite Index	
	20.00%	MSCI EAFE Index (Gross)	
	10.00%	Barclays US Treasury: US TIPS Index	
	5.00%	R 3000 Index + 4% (Qtr Lag) (I)*	
	5.00%	Citigroup 3 Mo T-Bill Index	4/1/2004
	210070		
	40.00%	S&P 1500 Composite Index	
	30.00%	MSCI EAFE Index (Gross)	
	12.00%	Barclays US Treasury: US TIPS Index	
	15.00%	R 3000 Index + 4% (Qtr Lag) (I)*	
	3.00%	Citigroup 3 Mo T-Bill Index	7/1/2007
	5.0070	Condition by the Libri material	1, 1/2007



Composite/Manager	Benchma	<u>irk</u>	Since
Total Fund Target Allocation Index (I) (Cont.)	40.00%	S&P 1500 Composite Index	
	27.00%	MSCI EAFE Index (Gross)	
	3.00%	MSCI Emerging Markets Index (Gross)	
	12.00%	Barclays US Treasury: US TIPS Index	
	15.00%	R 3000 Index + 4% (Qtr Lag) (I)*	
	3.00%	Citigroup 3 Mo T-Bill Index	5/1/2008
	40.00%	S&P 1500 Composite Index	
	24.00%	MSCI World Ex US Index (Gross)	
	3.00%	MSCI ACW Ex US Index (Gross)	
	3.00%	MSCI Emerging Markets Index (Gross)	
	12.00%	70% Barclays US Treasury: US TIPS Index/30% Barclays US Aggregate Bond Index	
	15.00%	R 3000 Index + 4% (Qtr Lag) (I)*	7/1/2000
	3.00%	Citigroup 3 Mo T-Bill Index	7/1/2009
	21.11%	R 3000 Index	
	20.97%	MSCI ACW Ex US Index (Gross)	
	3.45%	MSCI Emerging Markets Index (Gross)	
	19.30%	Barclays US Unv Index	
	11.39%	Consumer Price Index + 3%	
	4.31%	NCREIF ODCE Index (Gross) (AWA)	
	10.21%	HFRI FOF Div Index (Lagged)	
	8.30%	R 3000 Index +4% (Qtr Lag)	
	0.96%	Citi 3 Mo T-Bill Index	7/1/2011
	20.00%	R 3000 Index	
	20.00%	MSCI ACW Ex US Index (Gross)	
	4.00%	MSCI Emerging Markets Index (Gross)	
	20.00%	Barclays Universal Bond Index	
	10.00%	Consumer Price Index + 3%	
	5.00%	NCREIF ODCE Index (Gross) (AWA)	
	10.00%	HFRI FOF Div Index (Month Lag)	
	10.00%	R 3000 Index +4% (Qtr Lag)	
	1.00%	Citi 3 Mo T-Bill Index	1/1/2013
	20.00%	R 3000 Index	
	20.00%	MSCI ACW Ex US Index (Gross)	
	4.00%	MSCI Emerging Markets Index (Gross)	
	20.00%	Barclays Universal Bond Index	
	10.00%	Consumer Price Index + 3%	
	5.00%	NCREIF ODCE Index (Net) (AWA) (Qtr Lag)	
	10.00%	HFRI FOF Div Index (Month Lag)	
	10.00%	Private Equity Composite	
	1.00%	Citi 3 Mo T-Bill Index	7/1/2013



		As of September 30, 2013	
Composite/Manager	Benchma		Since
Global Equity Composite (P)	R.V. Kuh	ns & Associates, Inc. began calculating the custom index as of July 1, 2011.	
	Prior perf	ormance was provided by BNY Melon.	
		m index is calculated monthly and consists of:	
	90.00%	S&P 500 Index (Cap Wtd)	
	10.00%	Russell 2000	Inception
	85.00%	S&P 500 Index (Cap Wtd)	
	15.00%	Russell 2000	8/1/1996
	62.00%	S&P 500 Index (Cap Wtd)	
	15.00%	Russell 2000	- // /=
	23.00%	BNY Melon ADR Index	7/1/2000
	30.00%	S&P 500 Index (Cap Wtd)	
	31.00%	S&P 1500 Composite Index	
	12.00%	Russell 2000	
	18.00%	MSCI EAFE Index (Gross)	
	9.00%	BNY Melon ADR Index	7/1/2001
	30.00%	S&P 500 Index (Cap Wtd)	
	31.00%	S&P 1500 Composite Index	
	12.00%	Russell 2000	
	18.00%	MSCI EAFE Index (Gross)	
	9.00%	S&P ADR Index	7/1/2002
	20.00%	S&D 500 Inday (Cap W/d)	
	31.00%	S&P 500 Index (Cap Wtd) S&P 1500 Composite Index	
	9.00%	Russell 2000	
	6.00%	Russell 2000 Growth Index	
	20.00%	MSCI EAFE Index (Gross)	
	7.00%	S&P ADR Index	
	7.00%	S&P 500 BARRA Growth Index	7/1/2003
	12.00%	S&P 500 Index (Cap Wtd)	
	40.00%	S&P 1500 Composite Index	
	8.00%	Russell 2000 Index	
	24.00%	MSCI World Ex US Index (Gross)	
	8.00%	MSCI ACW Ex US Index (Gross)	
	4.00%	MSCI ACW Ex US Small Cap (Gross)	
	4.00%	MSCI Emerging Markets Index (Gross)	7/1/2009
	45.45%	R 3000 Index	
	45.45%	MSCI ACW Ex US Index (Gross)	
	9.10%	MSCI Emerging Markets Index (Gross)	7/1/2011
	47 200/	D 2000 I J	
	47.20%	R 3000 Index	
	46.10% 6.70%	MSCI ACW Ex US Index (Gross) MSCI Emorging Markats Index (Gross)	1/1/2013
	0./0%	MSCI Emerging Markets Index (Gross)	1/1/2013



<u>Composite/Manager</u> Global Equity Composite (I)

Donohmanlı	1
Benchmark R.V. Kuhns & Associates, Inc. began calculating the custom index as of July 1, 2011.	Since
Prior performance was provided by BNY Melon. The custom index is calculated monthly and consists of:	
100.00% S&P 500 Index (Cap Wtd) In	nception
70.00%         S&P 500 Index (Cap Wtd)           30.00%         S&P 600 Index         8	8/1/1996
50.00%         S&P 500 Index (Cap Wtd)           20.00%         BNY Melon ADR Index           30.00%         S&P 600 Index         7	7/1/2000
<ul> <li>75.00% S&amp;P 1500 Composite Index</li> <li>5.00% BNY Melon ADR Index</li> <li>20.00% MSCI EAFE Index (Gross)</li> <li>7</li> </ul>	7/1/2001
<ul> <li>75.00% S&amp;P 1500 Composite Index</li> <li>5.00% S&amp;P ADR Index</li> </ul>	///2002
25.00% MSCI EAFE Index (Gross)	4/1/2004
42.90%MSCI EAFE Index (Gross)57.10%S&P 1500 Composite Index7	7/1/2007
57.10%S&P 1500 Composite Index38.61%MSCI EAFE Index (Gross)4.29%MSCI Emerging Markets5	5/1/2008
57.10%S&P 1500 Composite Index4.29%MSCI ACW Ex US Index (Gross)4.29%MSCI Emerging Markets Index (Gross)34.32%MSCI World Ex US Index (Gross)7	7/1/2009
46.40%R 3000 Index46.10%MSCI ACW Ex US Index (Gross)7.50%MSCI Emerging Markets Index (Gross)7	7/1/2011
45.50%R 3000 Index45.50%MSCI ACW Ex US Index (Gross)9.00%MSCI Emerging Markets Index (Gross)1	/1/2013



	As of September 30, 2013	
Composite/Manager_ U.S. Equity Composite (P)	Benchmark The custom index is calculated monthly and consists of:	Since
	90.00%         S&P 500 Index (Cap Wtd)           10.00%         R 2000 Index	Inception
	85.00%         S&P 500 Index (Cap Wtd)           15.00%         R 2000 Index	8/1/1996
	80.52%         S&P 500 Index (Cap Wtd)           19.48%         R 2000 Index	7/1/2000
	41.10%       S&P 500 Index (Cap Wtd)         42.46%       S&P 1500 Composite Index         16.44%       R 2000 Index	7/1/2001
	36.98%         S&P 500 Index (Cap Wtd)           42.47%         S&P 1500 Composite Index           12.33%         R 2000 Index           8.22%         R 2500 Growth Index	7/1/2003
	27.50%       S&P 500 Index (Cap Wtd)         50.00%       S&P 1500 Composite Index         12.50%       R 2000 Index	112003
	<ul> <li>10.00% R 2500 Growth Index</li> <li>12.50% S&amp;P 500 Index (Cap Wtd)</li> </ul>	11/1/2003
	12.50%       S&P 500 fidex (Cap wid)         65.00%       S&P 1500 Composite Index         12.50%       R 2000 Index         10.00%       R 2500 Growth Index	8/1/2005
	16.50%         S&P 500 Index (Cap Wtd)           71.00%         S&P 1500 Composite Index           12.50%         R 2000 Index	3/1/2006
	20.00%         S&P 500 Index (Cap Wtd)           66.67%         S&P 1500 Composite Index           13.33%         R 2000 Index	7/1/2007
	100.00% R 3000 Index	7/1/2011
U.S. Equity Composite (I)	The custom index is calculated monthly and consists of:	
	100.00% S&P 1500 Composite Index	Inception
	100.00% R 3000 Index	7/1/2011



	As of September 30, 2013	
<u>Composite/Manager</u> Non-U.S. Equity Composite (P)	Benchmark The custom index is calculated monthly and consists of:	Since
	100.00% BNY Mellon ADR Index	Inception
	33.00%BNY Mellon ADR Index67.00%MSCI EAFE Index (Gross)	8/1/2001
	<ul> <li>33.00% S&amp;P American Depositary Receipt Index</li> <li>67.00% MSCI EAFE Index (Gross)</li> </ul>	7/1/2002
	<ul><li>27.00% S&amp;P American Depositary Receipt Index</li><li>73.00% MSCI EAFE Index (Gross)</li></ul>	7/1/2003
	100.00% MSCI EAFE Index (Gross)	4/1/2004
	90.00%MSCI EAFE Index (Gross)10.00%MSCI Emerging Markets Index (Gross)	5/1/2008
	80.00%MSCI EAFE Index (Gross)10.00%MSCI Emerging Markets Index (Gross)10.00%MSCI ACW Ex US Small Cap Index (Gross)	1/1/2009
	<ul> <li>60.00% MSCI World Ex US Index (Gross)</li> <li>20.00% MSCI ACW Ex US Index (Gross)</li> <li>10.00% MSCI Emerging Markets Index (Gross)</li> <li>10.00% MSCI ACW Ex US Small Cap Index (Gross)</li> </ul>	7/1/2009
	100.00% MSCI ACW Ex US Index (Gross)	7/1/2011
Non-U.S. Equity Composite (I)	The custom index is calculated monthly and consists of:	
	100.00% BNY Mellon ADR Index	Inception
	25.00%BNY Mellon ADR Index75.00%MSCI EAFE Index (Gross)	7/1/2001
	25.00%S&P American Depositary Receipt Index75.00%MSCI EAFE Index (Gross)	7/1/2002
	20.00%S&P American Depositary Receipt Index80.00%MSCI EAFE Index (Gross)	7/1/2003
	100.00% MSCI EAFE Index (Gross)	4/1/2004
	90.00%MSCI EAFE Index (Gross)10.00%MSCI Emerging Markets Index (Gross)	5/1/2008
	80.00%MSCI World Ex US Index (Gross)10.00%MSCI ACW Ex US Index (Gross)10.00%MSCI Emerging Markets Index (Gross)	7/1/2009
	100.00% MSCI ACW Ex US Index (Gross)	7/1/2011
		RVKuhns

► ► & ASSOCIATES, INC.

	As of September 30, 2013	
<u>Composite/Manager</u> Fixed Income Composite (P)	Benchmark The custom index is calculated monthly and consists of:	Since
	<ul> <li>80.00% Barclays US Govt/Credit Bond Index</li> <li>20.00% BofA ML 1-3 Year US Treasury Index</li> </ul>	Inception
	<ul> <li>54.00% Barclays US Govt/Credit Bond Index</li> <li>27.00% Barclays US Tsry: US TIPS Index</li> <li>19.00% Barclays US Agg Bond Index</li> </ul>	7/1/2001
	<ul> <li>38.00% Barclays US Agg Bond Index</li> <li>35.00% Barclays US Govt/Credit Bond Index</li> <li>27.00% Barclays US Tsry: US TIPS Index</li> </ul>	7/1/2003
	<ul> <li>71.43% Barclays US Agg Bond Index</li> <li>28.57% Barclays US Tsry: US TIPS Index</li> </ul>	7/1/2007
	100.00% Barclays US Unv Bond Index	7/1/2011
Fixed Income Composite (I)	The custom index is calculated monthly and consists of:	
	100.00% Barclays US Govt/Credit Bond Index	Inception
	100.00% Barclays US Tsry: US TIPS Index	7/1/2001
	<ul> <li>70.00% Barclays US Tsry: US TIPS Index</li> <li>30.00% Barclays US Agg Bond Index</li> </ul>	4/1/2011
	100.00% Barclays US Unv Bond Index	7/1/2011
Real Estate Composite (P)	The custom index is calculated monthly and consists of:	
& Real Estate Composite (I)	100.00% NCREIF Property Index (Net) (AWA) (Qtr Lag)	Inception
Private Equity Composite (P)	The custom index is calculated monthly and consists of:	
	<ul> <li>60.00% S&amp;P 1500 Composite Index</li> <li>40.00% Barclays US Corp: High Yield Index</li> </ul>	Inception
	100.00% R 3000 Index + 4% (Qtr Lag)	7/1/2011
Private Equity Composite (I)	The custom index is calculated monthly and consists of:	
	<ul> <li>80.00% S&amp;P 1500 Composite Index</li> <li>20.00% Barclays US Corp: High Yield Index</li> </ul>	Inception
	100.00% R 3000 Index + 4% (Qtr Lag)	7/1/2011



<u>Composite/Manager</u> Internal S&P 500 Index (SA)	As of September 30, 2013 <u>Benchmark</u> The custom index is calculated monthly and consists of:	Since
Internal S&F 500 Index (SA)	100.00%       S&P 1500 Composite Index         100.00%       S&P 500 Index (Cap Wtd)	Inception <b>7/1/2011</b>
The Boston Co. Non-U.S. Value (SA)	The custom index is calculated monthly and consists of:	
& Pyramis Int'l Growth Fund (SA)	100.00% MSCI EAFE Index (Gross)	Inception
	100.00% MSCI World Ex US Index (Gross)	7/1/2009
	100.00% MSCI ACW Ex US Index (Gross)	1/1/2012
PIMCO Core Fixed Income (SA) PIMCO Blended Index	The blended index is calculated monthly and consists of:	
PIMCO Bienaea inaex	60.00%Barclays US Agg Bond Index40.00%PIMCO Global Advantage Index	12/1/2009
Commerce Street Income Partners L.P. & Waterfall (SA)	The blended index is calculated monthly and consists of:	
Opportunistic FI Blended Index	60.00%Barclays US Corp: High Yield Index40.00%Barclays US ABS Floating Rate Index	Inception
Shenkman Capital (SA) Shenkman Blended Index	The blended index is calculated monthly and consists of:	
Shehkhan Dienucu Inuca	50.00%Barclays US Corp: High Yield Index50.00%Barclays US High Yield Loans Index	Inception



Composite/Manager	As of September 30, 2013 Benchmark	Since
KERS (P) Target Allocation Index	The blended index is calculated monthly and consists of:	
	Total Fund Target Allocation Index (P)	Inception
	22.00%R 3000 Index20.00%MSCI ACW Ex US Index (Gross)10.00%Barclays US Agg Bond Index5.00%Barclays US Corp: Hi Yld Index5.00%Barclays Global Agg Bond Index10.00%Consumer Price Index + 3%3.00%NCREIF ODCE (Net) (Qtr Lag)10.00%HFRI FOF Diversified (Mth Lag)10.00%Private Equity Composite5.00%Citi 3 Mo T-Bill Index	7/1/2013
KERS Haz (P) Target Allocation Index, CERS (P) Target Allocation Index, & CERS Haz (P) Target Allocation Index	The blended index is calculated monthly and consists of: Total Fund Target Allocation Index (P)	Inception
	20.00%R 3000 Index20.00%MSCI ACW Ex US Index (Gross)4.00%MSCI Emg Mkts Index (Gross)9.00%Barclays US Agg Bond Index5.00%Barclays US Corp: Hi Yld Index5.00%Barclays Global Agg Bond Index10.00%Consumer Price Index + 3%5.00%NCREIF ODCE (Net) (Qtr Lag)10.00%HFRI FOF Diversified (Mth Lag)10.00%Private Equity Composite2.00%Citi 3 Mo T-Bill Index	7/1/2013
SPRS (P) Target Allocation Index	The blended index is calculated monthly and consists of: Total Fund Target Allocation Index (P)	Inception
	20.00%R 3000 Index20.00%MSCI ACW Ex US Index (Gross)4.00%MSCI Emg Mkts Index (Gross)8.00%Barclays US Agg Bond Index5.00%Barclays US Corp: Hi Yld Index5.00%Barclays Global Agg Bond Index10.00%Consumer Price Index + 3%5.00%NCREIF ODCE (Net) (Qtr Lag)10.00%HFRI FOF Diversified (Mth Lag)10.00%Private Equity Composite3.00%Citi 3 Mo T-Bill Index	7/1/2013



Composite/Manager	Benchmark	Since
KERS (I) Target Allocation Index	The blended index is calculated monthly and consists of:	
	Total Fund Target Allocation Index (I)	Inception
	20.00%R 3000 Index20.00%MSCI ACW Ex US Index (Gross)4.00%MSCI Emg Mkts Index (Gross)10.00%Barclays US Agg Bond Index5.00%Barclays US Corp: Hi Yld Index5.00%Barclays Global Agg Bond Index10.00%Consumer Price Index + 2.5%5.00%NCREIF ODCE (Net) (Qtr Lag)10.00%HFRI FOF Diversified (Mth Lag)10.00%Private Equity Composite1.00%Citi 3 Mo T-Bill Index	7/1/2013
KERS Haz (I) Target Allocation Index, CERS (I) Target Allocation Index,	The blended index is calculated monthly and consists of:	
CERS Haz (I) Target Allocation Index , & SPRS (I) Target Allocation Index	Total Fund Target Allocation Index (I)	Inception
	20.00%R 3000 Index20.00%MSCI ACW Ex US Index (Gross)4.00%MSCI Emg Mkts Index (Gross)10.00%Barclays US Agg Bond Index5.00%Barclays US Corp: Hi Yld Index5.00%Barclays Global Agg Bond Index10.00%Consumer Price Index + 3%5.00%NCREIF ODCE (Net) (Qtr Lag)10.00%HFRI FOF Diversified (Mth Lag)10.00%Private Equity Composite1.00%Citi 3 Mo T-Bill Index	7/1/2013



Alpha - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

Alpha Ratio - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

Average Quality - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. Average Quality for managers unable to provide this statistic has been estimated using a credit quality distribution provided by the manager. There are two primary rating agencies in the US. Moody's assigns ratings on a system that employs up to four symbols (consisting of letters and numbers) such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. Standard & Poor's (S&P) employs a system that uses + and - along with letters such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

<u>S&amp;P</u>	Moody's	<b>Explanation</b>	<u>S&amp;P</u>	Moody's	<b>Explanation</b>	
Higher Credit Quality – Investment Grade			Lower Cree	Lower Credit Quality – Below Investment Grade		
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality	
AA+	Aal	High credit quality	BB	Ba2		
AA	Aa2		BB-	Ba3		
AA-	Aa3		B+	B1	Highly speculative	
A+	A1	Upper-medium credit quality	В	B2		
А	A2		B-	B3		
A-	A3		CCC+	Caa1	Substantial credit/default risk	
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative	
BBB	Baa2		CCC-	Caa3		
BBB-	Baa3		CC	Ca	Vulnerable to default	
			С	Ca		
			D	С	In default	

Beta - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

**Buy and Hold Attribution -** At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

Sector - Attribution is calculated using the Global Industry Classification Standard (GICS) which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector, as defined by S&P Capital IQ data.

Country/Region - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data.

**Style -** Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.



### Capital Markets Review -

Baltic Dry Index - Measures the demand for shipping capacity versus the supply of dry bulk carriers. As the supply of cargo ships is inelastic, the Baltic Dry Index provides an assessment of the price of moving major raw materials by sea.

Breakeven Inflation - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

Capacity Utilization - Measures the extent to which a country efficiently utilizes installed productive capacity. It measures the difference between the output that is produced using the installed equipment versus the output that *could* be produced using the installed equipment.

Consumer Confidence - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

Consumer Price Index (CPI) - Measures the change in the price level of consumer goods and services.

Disposable Personal Income - The difference between total personal income and personal income tax payments.

Disposable Producer Price Index (PPI) - Measures the average change in selling prices received by US producers for their output.

M2 - Measures the amount of money in circulation and is often used as an indicator for forecasting inflation.

Option-Adjusted Spread - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.

Personal Consumption Expenditures - Measures the average increase in prices for all domestic personal consumption.

Personal Savings - Percentage of personal saving within the US as a percentage of disposable personal income.

Purchasing Managers Index (PMI) - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.

**Relative Strength Index (RSI)** - Measures the current and historical strength or weakness of a stock market based on the closing prices of the most recent 14-day period. RSI is classified as a momentum oscillator and measures the velocity and magnitude of directional price movements. RSI levels at or above 70 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indicate that a market is "overbought" while RSI levels below 30 may indic

Shiller 20 City YoY - Measures the yearly change in housing prices for 20 major metropolitan areas within the US.

## US Credit Market Debt as a Percentage of GDP -

Business - Non-financial corporate business and non-corporate business.

Financials - Commercial banks, savings institutions and credit unions, government-sponsored enterprises, agency- and GSE-backed mortgage pools, ABS issuers, life insurance companies, REITs, and financial companies.

Foreign - US credit market instruments owed by non-US entities and debt issued by foreign companies in the US.

Government - Savings bonds, Treasury securities, budget agency securities, insurance reserves, and non-marketable securities held by retirement plans.

Household - Home mortgages, consumer credit, municipal securities, bank loans, and commercial mortgages.

US Dollar Total Weighted Index - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.

VIX - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."

**Consistency** - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

Convexity - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.

**Correlation** - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.

Coupon Rate - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.

Current Yield - The annual income of a security divided by the security's current price.

**Down Market Capture -** Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.

**Downside Risk** - A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the factor, the riskier the product.

Earnings Per Share - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.

Effective Duration - The weighted average duration of all the bonds in a given portfolio, weighted by their dollar values.

Excess Return vs. Market - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.

Excess Return vs. Risk Free - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., BofA ML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.

Excess Risk - A measure of the standard deviation of a portfolio's performance relative to the risk free return.

Expense Ratios - Morningstar is the source for mutual fund expense ratios.

Gain/Loss - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.

Indices - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability and/or completeness.

Information Ratio - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.

Liability Driven Investing (LDI) - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.

**Estimated Funded Status** - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded. **Estimated PV of Liabilities** - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.

Duration of Liabilities - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.

Duration of Assets - The dollar-weighted average duration of all the individual Plan assets.

Estimated Plan Hedge Ratio - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

Modified Duration - The approximate percentage change in a bond's price for a 100 basis point change in yield.

Net Cash Flow - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.



#### Peer Groups -

**Plan Sponsor Peer Groups -** RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client returns compiled from consultant and custodial data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans. Plan Sponsor Peer Groups are gross of fees.

**Institutional Peer Groups (Separate Account and Commingled Fund) -** RVK utilizes the Investment Metrics Separate Account and Commingled Fund Manager Peer Groups for peer comparison and rankings. The Separate Account and Commingled Fund Peer Group database includes performance and other quantitative data for over 1,000 investment management firms, 6,400 investment products, across 100 standard peer groups. Separate Account and Commingled Fund Peer Groups are gross of fees.

Mutual Fund (MF) Peer Groups - RVK utilizes the Lipper Mutual Fund Manager Peer Groups for peer comparison and rankings. The Lipper Manager Peer Group database includes performance and other quantitative data for over 700 investment management firms and 24,500 investment products, across more than 140 standard peer groups. Mutual Fund Peer Groups are net of fees.

**Percentile Rankings** - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value 100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4<sup>th</sup> percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.

**Performance Methodology -** RVK endorses the Global Investment Performance Standards (GIPS) and calculates performance for investment managers and composites using different methodologies. Investment manager performance is calculated by revaluing the portfolio on the date of all large external cash flows while composite performance is calculated using the Modified Dietz calculation methodology. According to the CFA Institute, "Only investment management firms that actually manage assets can claim compliance with the Standards. Plan Sponsors and consultants cannot make a claim of compliance unless they actually manage assets for which they are making a claim of compliance. They can claim to endorse the Standards and/or require that their investment managers comply with the Standards."

Investment Managers - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of  $\geq 10\%$  of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month. Composites - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

Portfolio Characteristics - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

**Private Equity Quartile Ranks** – Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

Return - Compounded rate of return for the period.

%Return - The time-weighted rate of return of a portfolio for a given period.



**R-Squared** - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

Risk Free Benchmark - BofA ML 3 Mo US T-Bill Index unless specified otherwise.

**RVK Liquidity Rating** - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

Asset Class	<b>RVK Liquidity Rating</b>	Asset Class	<b>RVK Liquidity Rating</b>
Liquid Investments		Less Liquid Investments	
T-Bills and Treasurys	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Absolute Return Strategies	35
US Large Cap Equity	95	Not Liquid Investments	
Diversified Real Return	93	Core Real Estate	25
Stable Value (Participant Directed)	91	Core Plus Real Estate	15
Non-US Large Cap Equity	90	Plus Only Real Estate	5
Global Tactical Asset Allocation	88	Private Equity Funds of Funds	5
US Small Cap Equity	85		
REITS	85		
Non-US Small Cap Equity	85		
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

Sharpe Ratio - Represents the excess rate of return over the risk-free return (i.e., BofA ML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

Simple Alpha - The difference between the manager's return and the benchmark's return.

Spread Duration - A measure of the price sensitivity of a bond to a 100 basis-point movement of the bond's spread relative to Treasurys.

Standard Deviation - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

Time Period Abbreviations - QTD - Quarter-to-Date. CYTD - Calendar Year-to-Date. FYTD - Fiscal Year-to-Date. YOY - Year Over Year.



Thematic Classification - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

<u>Alpha</u>	Capital Appreciation	Capital Preservation	<u>Inflation</u>
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Core Real Estate
	Preferred Securities	Asset Backed Fixed Income	Real Return
	High Yield	Domestic Core Plus Fixed Income	Inflation Hedges
	Convertible Fixed Income	Mortgage Backed Fixed Income	REITS
	TALF Funds	International Developed Fixed Income	Commodities
	Distressed Debt	Cash Equivalents	
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

**Total Fund Attribution -** A method for identifying the sources of a total fund's over- or underperformance relative to its benchmark. The calculation identifies the contributions of positive or negative total fund excess return caused by allocation differences relative to the total fund's custom benchmark, and performance differences of the investment managers relative to the benchmark components that represent them.

**Total Fund Performance -**

Total Fund - The percentage return of the total fund for the specified time period.

Total Fund Benchmark - The percentage return of the total fund benchmark for the specified time period; calculated using the target asset allocation and the corresponding benchmark returns. Total Value Added - The percentage of over- or underperformance of the total fund as compared to the total fund benchmark.

**Total Value Added -**

Asset Allocation - Shows how the variance of the total fund's actual allocation from its target allocation added to or subtracted from fund performance.

Manager Value Added - The portion of the total value added attributable to the outperformance or underperformance of the fund's investment managers, relative to the individual benchmarks that represent them in the total fund benchmark.

Market Timing/Other - The contribution of other residual factors, including estimation error and transaction timing.

**Total Fund Beta** - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.

Tracking Error - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

**Treynor Ratio** - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., BofA ML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

Unit Value - The dollar value of a portfolio, assuming an initial nominal investment of \$100, growing at the compounded rate of %Return for a given period.

**Up Market Capture -** Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolios return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

Yield to Maturity - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return.

Yield to Worst - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.