

May
2016

KRS MONTHLY PERFORMANCE UPDATE

What's going on in the marketplace?

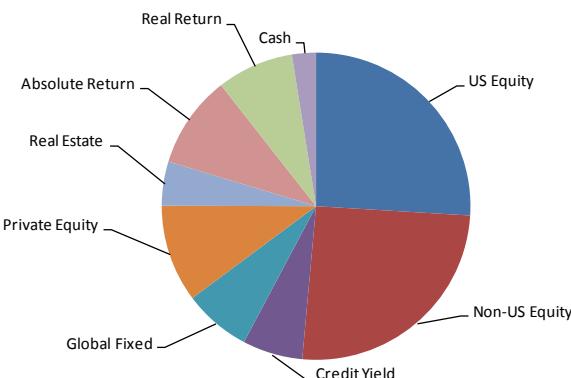
All major indices were positive in the U.S., driven primarily by unexpected positive corporate earnings along with improving technical factors. Much like April, stocks were fairly volatile for the month, dropping between 1 and 2 percent mid-month only to rally for a positive month-end. For domestic equities, midcap stocks were the most favorable, with the S&P 400 Midcap index returning 2.31%. Small caps were the second highest performers (2.25%, Russell 2000 Index), followed by large caps (1.80%, S&P 500 Index).

Markets internationally did not fare as well as those domestically, primarily in the emerging market space. Domestic international markets offered the most protection in the international space, falling -0.78% (MSCI EAFE Index). The ACWI Ex US Index was down -1.59% for the month, and emerging markets fell -3.71% (MSCI Emerging Market Index).

The negative performance was driven primarily by uncertainty regarding Brittan's exit from the European Union.

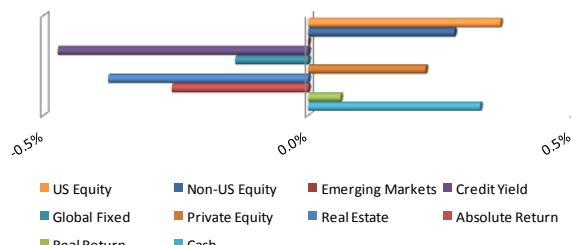
Broad fixed income markets were relatively flat in May, with the Barclays U.S. Aggregate Bond Index posting a 0.03% gain. High yield bonds faired better for the month, continuing their gains in 2016 and returning 0.62% in May (Barclays U.S. Corporate High Yield Index).

KRS Pension Asset Allocation



	May	1-Yr	3-Yr	5-Yr	10-Yr
Total Fund	0.21	-1.05	4.83	5.15	5.08
Benchmark	0.21	-0.83	5.41	5.60	5.46

KRS Pension Relative Weights



its benchmark by 0.15% for the month.

From an allocation standpoint, the pension portfolio benefited from an overweight to U.S. Equity due to the strong performance of the overall domestic equity market. U.S. Equity was the only asset class that offered significant allocation contribution. In total, the pension portfolio returned 0.21 % in May, flat with the benchmark return of 0.21%.

INSURANCE –The insurance portfolio had positive contribution from manager selection in all asset classes other than Real Return. The Non U.S. Equity portfolio had the highest manager contribution, outperforming its benchmark by 24 basis points. Fixed Income was the second highest contributor from a manager selection standpoint, outperforming its benchmark by 10 basis points.

What added value this month?

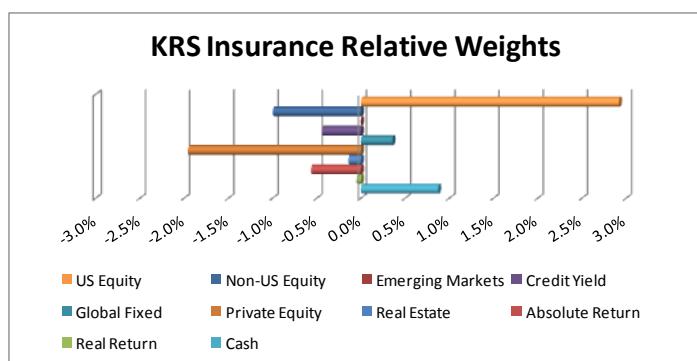
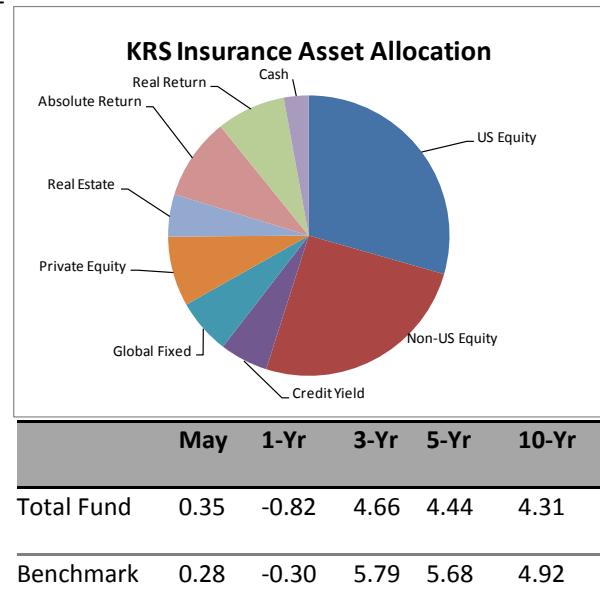
PENSION – From a manager selection standpoint, the pension portfolio was able to add relative value in the Non U.S. Equity, Fixed Income, and Absolute Return portfolios. The largest manager contribution came from Non U.S. Equity, which outperformed its benchmark by 30 basis points. Within the Non U.S. Equity portfolio, Franklin Templeton was able to stay positive amongst a negative benchmark, returning 0.10% and offering significant downside protection. The Absolute Return portfolio also offered significant manager contribution, outperforming its benchmark by 0.15% for the month.

From an allocation standpoint, the insurance portfolio benefited from an overweight to U.S. Equity as well as an underweight to Non U.S. Equity. This is due to the fact that domestic equity markets fared better than the overall insurance portfolio, while international equity markets fared worse than the overall insurance portfolio. The Insurance portfolio returned 0.35% in May compared to the benchmark return of 0.28%.

What detracted this month?

PENSION – The largest detractors from a manager selection standpoint came from the U.S. Equity and Real Return portfolios. Real Return was the largest detractor of performance, underperforming the benchmark by 71 basis points. The U.S. Equity portfolio also underperformed the benchmark, returning 1.72% versus the benchmark return of 1.79%. These were the only asset classes that significantly detracted from performance from a manager selection standpoint.

From an allocation perspective the only significant detractor from performance came from an overweight to Non U.S. Equity. This was due to the poor performance of international equity markets when compared to the overall pension portfolio. All other asset classes were either positive contributors, or did not significantly detract from fund performance.



INSURANCE – From a manager selection standpoint, the only detractor from performance came from the Real Return portfolio, which underperformed its benchmark by 56 basis points. The PIMCO All- Asset portfolio contributed most to the Real Return underperformance, returning -2.18% versus the benchmark return of -0.57%. All other asset classes had positive manager contribution.

There were no significant detractors from performance from an allocation standpoint. Most asset classes were very close to their weight targets for the month end, causing negative allocation contributions to be too small to significantly detract from portfolio performance.

NOTES:

- 1) Returns displayed are "net". For the purposes of this report, total fund return information is net of fees and expenses, with audited data beginning in July 2011. At the manager level (detailed return sheets pgs.4-5), returns are net of fees beginning with July 2011, and gross of fees for prior data.
- 2) Individual plan allocation and performance (pg.6).
- 3) Prior to January 1, 2014, the inception date for the Private Equity asset class was stated as 10/1/1990 for Pension Fund and 6/1/2001 for Insurance Fund. Prior to 07/01/02, the characteristics of the allocation, and the benchmark itself, were more

closely aligned with Real Estate. As such, it is not appropriate to report this portion of the return stream within the Private Equity allocation, whose true inception date has been determined to be 07/01/02 based on funding the Systems' first private equity mandate. The portion of the original return streams that are no longer reported within the Private Equity allocation (Pension from 10/1/90 to 06/30/02; Insurance 06/01/01 to 06/30/02) are reported within the Fund Level performance figures.

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| <p>4) Private Equity Composite (Pension)</p> <p>Inception (07/01/02) to 06/30/11</p> <p>60.00% S&P 1500 Composite Index</p> <p>40.00% Barclays US Corporate High Yield Index</p> <p>07/01/11 to 12/31/15</p> <p>100.00% Russell 3000 Index + 4% (Qtr Lag)</p> <p>01/01/16 to Present</p> <p>100.00% Russell 3000 Index + 3% (Qtr Lag)</p> | <p>Private Equity Composite (Insurance)</p> <p>Inception (07/01/02) to 06/30/11</p> <p>80.00% S&P 1500 Composite Index</p> <p>20.00% Barclays US Corporate High Yield Index</p> <p>07/01/11 to 12/31/15</p> <p>100.00% Russell 3000 Index + 4% (Qtr Lag)</p> <p>01/01/16 to Present</p> <p>100.00% Russell 3000 Index + 3% (Qtr Lag)</p> |
| <p>5) The Private Equity Benchmark, from one month returns up until five year returns, is equal to the performance of the KRS Private Equity allocation. Given there is not appropriate benchmark to use for short term performance evaluation, this will allow greater focus on longer term returns, which is more appropriate given the long term nature of private equity investments.</p> | |
| <p>6) <u>Pension Benchmark Composite 01/01/14 to 12/31/15</u></p> <p>US Equity: Russell 3000 (20.5%)</p> <p>Non US Equity: MSCI AXCI Ex-US (20.0%)</p> <p>Emerging Market: MSCI Emerging Markets (2.9%)</p> <p>Fixed Income: Barclays Universal Index (19.3%)</p> <p>Real Estate: NCREIF ODCE (4.5%)</p> <p>Absolute Return: HFRI Diversified FOF (10.0%)</p> <p>Real Return: Allocation Specific (10.0%)</p> <p>Private Equity<5Yrs: Actual Performance</p> <p>Private Equity>5Yrs: Russell 3000 Index+4% (10.0%)</p> <p>Cash: Cit Grp 3-mos Treasury Bill (2.8%)</p> | <p><u>Insurance Benchmark Composite 01/01/14 to 12/31/15</u></p> <p>US Equity: Russell 3000 (20.0%)</p> <p>Non US Equity: MSCI AXCI Ex-US (20.0%)</p> <p>Emerging Market: MSCI Emerging Markets (4.0%)</p> <p>Fixed Income: Barclays Universal Index (20.0%)</p> <p>Real Estate: NCREIF ODCE (5.0%)</p> <p>Absolute Return: HFRI Diversified FOF (10.0%)</p> <p>Real Return: Allocation Specific (10.0%)</p> <p>Private Equity<5Yrs: Actual Performance</p> <p>Private Equity>5Yrs: Russell 3000 Index+4% (10.0%)</p> <p>Cash: Cit Grp 3-mos Treasury Bill (1.0%)</p> |
| <p><u>Pension Benchmark Composite 01/01/16 to Present</u></p> <p>US Equity: Russell 3000 (25.6%)</p> <p>Non US Equity: MSCI AXCI Ex-US IMI (25.2%)</p> <p>Global Fixed Income: Barclays Universal Index (6.8%)</p> <p>Credit Fixed Income: Barclays US High Yield (7.2%)</p> <p>Real Estate: NCREIF ODCE (5.0%)</p> <p>Absolute Return: HFRI Diversified FOF (10.0%)</p> <p>Real Return: Allocation Specific (8.0%)</p> <p>Private Equity<5Yrs: Actual Performance</p> <p>Private Equity>5Yrs: Russell 3000 Index+3% (10.0%)</p> <p>Cash: Cit Grp 3-mos Treasury Bill (2.2%)</p> | <p><u>Insurance Benchmark Composite 01/01/16 to Present</u></p> <p>US Equity: Russell 3000 (26.5%)</p> <p>Non US Equity: MSCI AXCI Ex-US IMI (26.5%)</p> <p>Global Fixed Income: Barclays Universal Index (6.0%)</p> <p>Credit Fixed Income: Barclays US High Yield (6.0%)</p> <p>Real Estate: NCREIF ODCE (5.0%)</p> <p>Absolute Return: HFRI Diversified FOF (10.0%)</p> <p>Real Return: Allocation Specific (8.0%)</p> <p>Private Equity<5Yrs: Actual Performance</p> <p>Private Equity>5Yrs: Russell 3000 Index+3% (10.0%)</p> <p>Cash: Cit Grp 3-mos Treasury Bill (2.0%)</p> |

KRS - PENSION									
	Market Value	Month	FYTD	1 YR	3 YR	5 YR	10 YR	ITD	
KERS	\$ 1,948,636,163.30	0.16	-1.33	-1.57	4.30	4.82	4.92	9.00	
KY Ret. KERS Plan Index		0.17	0.53	0.24	5.56	5.70	5.51	9.22	
KERS- H	\$ 528,202,820.88	0.20	-0.30	-0.87	4.75	5.09	5.05	9.05	
KY Ret. KERS Haz Plan Index		0.19	-0.61	-1.20	5.17	5.46	5.39	9.18	
CERS	\$ 6,129,953,754.73	0.22	-0.77	-1.42	4.47	4.93	4.97	9.02	
KY Ret. CERS Plan Index		0.21	-0.67	-1.36	5.12	5.43	5.38	9.17	
CERS- H	\$ 2,005,112,999.25	0.22	-0.33	-1.00	4.78	5.11	5.06	9.05	
KY Ret. CERS Haz Plan Index		0.21	-0.66	-1.32	5.13	5.44	5.38	9.18	
SPRS	\$ 209,883,072.40	0.20	-1.59	-2.22	4.33	4.84	4.93	9.00	
KY Ret. SPRS Plan Index		0.20	-0.44	-1.03	5.20	5.48	5.40	9.18	

Pension Plan Allocations	US Equity	Non US Equity	Private Equity	Credit Bonds	Global Bonds	Absolute Return	Real Return	Real Estate	Cash		
KERS	17.6	20.8	14.7	10.5	10.3	10.3	8.1	3.8	3.9		
KERS-H	26.2	26.7	10.3	5.2	5.8	9.4	8.0	5.1	2.9		
CERS	27.6	27.0	9.1	5.3	6.3	9.7	8.0	4.9	2.1		
CERS-H	27.1	27.1	9.5	5.3	6.4	9.4	8.0	4.7	2.4		
SPRS	23.2	23.5	10.2	8.0	9.0	10.3	8.0	5.2	2.4		
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
	US Equity	Non US Equity	Private Equity	Credit Bonds	Global Bonds	Absolute Return	Real Return	Real Estate	Cash		

Insurance Plan Allocations	US Equity	Non US Equity	Private Equity	Credit Bonds	Global Bonds	Absolute Return	Real Return	Real Estate	Cash		
KERS INS	32.6	25.9	4.2	5.5	6.4	9.5	8.0	4.4	3.4		
KERS-H INS	29.8	25.7	7.0	5.6	6.4	9.5	7.9	5.0	3.2		
CERS INS	28.1	25.9	8.8	5.5	6.4	9.3	7.9	5.0	3.0		
CERS-H INS	28.0	25.9	9.0	5.5	6.4	9.5	7.9	4.9	3.0		
SPRS INS	27.7	26.2	9.1	5.5	6.3	9.7	7.8	5.2	2.5		
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
	US Equity	Non US Equity	Private Equity	Credit Bonds	Global Bonds	Absolute Return	Real Return	Real Estate	Cash		

Kentucky Retirement Systems - Pension Fund - Net Returns - 5/31/16																									
Structure®	Benchmark	Inception	Market Value®	% of Total®	Month®		QTD		Fiscal YTD®		1 Year®		3 Years®		5 Years®		10 Years®		20 Years		ITD®				
					KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	KRS	Benchmark	
TOTAL FUND	KY Ret. Blended Index	4/1/1984	10,821,788,810.88	100.00	0.21	0.21	1.40	1.60	-0.43	-0.24	-1.05	-0.83	4.83	5.41	5.15	5.60	5.08	5.46	6.96	7.16	9.05	9.20			
US PUBLIC	KY Domestic Equity Blend	4/1/1984	2,807,878,489.63	25.95	1.72	1.79	2.35	2.42	1.39	1.93	-0.40	0.22	9.83	10.57	10.39	11.15	7.17	7.41	8.23	8.80	11.10	11.09	6.25	6.46	
INTERNAL MID CAP GROWTH	Russell Midcap Index	8/1/2014	274,610,764.04	2.54	2.32	2.31	3.49	3.56	0.65	0.91	-0.56	-0.42											7.42	7.27	
INVESCO	S&P 500 - Total Return Index	8/1/2005	189,768,374.80	1.75	0.49	1.80	0.04	2.19	-4.33	3.72	-7.19	1.72	7.38	11.06	10.14	11.67	7.04	7.41					9.49	7.56	
NTGI STRUCTURED	Russell 2000 Index	10/1/1999	202,368,252.08	1.87	1.95	2.25	3.53	3.86	-4.57	-6.67	-3.82	-5.97	8.55	6.93	9.63	7.86	7.44	6.27					11.15	11.11	
RIVER ROAD	Russell 3000 Value Index	7/1/2011	31,172,680.46	0.29	0.84	1.58	1.38	3.71	7.24	1.58	3.60	-0.28	9.09	8.98									6.23	6.19	
S&P 500 INDEX	KY Ret. S&P Blend	7/1/2001	1,671,886,879.81	15.45	1.78	1.80	2.19	2.19	3.64	3.72	1.64	1.72	10.99	11.06	11.57	11.66	7.60	7.61					9.69	15.02	
SASCOP CAPITAL	Russell Midcap Value Index	7/1/2012	43,224,555.08	0.40	1.00	1.64	4.92	3.82	-1.98	2.31	-4.76	-0.31	5.71	10.22									11.54	15.02	
SYSTEMATIC	Russell Midcap Value Index	7/1/2012	190,844,465.92	1.76	1.94	1.64	3.91	3.82	-1.84	2.31	-4.14	-0.31	6.87	10.22											
TRANSITION ACCOUNT			15,005.93	0.00																					
WESTFIELD CAPITAL	Russell 3000 Growth Index	7/1/2011	109,550,369.94	1.01	1.41	2.00	1.02	1.20	-5.88	2.29	-8.13	0.74	9.37	12.12									10.60	12.35	
WESTWOOD MGMT	Russell 3000 Value Index	7/1/2011	94,437,141.57	0.87	1.44	1.58	3.71	-3.69	1.58	-4.70	-0.28	7.69	8.98										9.17	11.11	
EQUITY NON US	KY Ret.in'l Eq. Blended Index	7/1/2000	2,755,223,076.15	25.46	-1.15	-1.45	1.20	1.24	-6.11	-8.18	-8.45	-10.71	1.59	0.74	0.65	0.62	2.25	2.10					2.01	2.40	
AMERICAN CENTURY	KY MSCI ACWI ex-US Index	7/1/2014	346,023,946.47	3.20	-0.22	-1.59	1.90	1.09	-5.04	8.46	-7.71	-10.97											-4.21	-6.95	
BLACKROCK ACWIX	MSCI All Country World Ex United States Net Index	7/1/2009	1,124,095,928.11	10.39	-1.62	-1.69	1.05	0.90	-8.54	8.85	-11.07	-11.39	0.38	0.19	0.34	0.12							5.86	5.65	
BOSTON CO NON-US VALUE	KY MSCI Blended Index	5/1/2005	1,453,572.15	0.01	-2.01	-1.59	-0.76	1.09	-10.48	8.46	-12.62	-10.97	-0.81	0.64	-1.06	0.75	0.77	1.60					2.87	3.80	
FRANKLIN TEMPLETON	KY MSCI ACWI ex-US Index	7/1/2014	236,591,944.77	2.19	0.10	-1.59	2.17	1.09	-2.05	8.46	-5.50	-10.97											-2.06	-6.95	
LAZARD ASSET MANAGEMENT	KY MSCI ACWI ex-US Index	7/1/2014	478,936,523.18	4.43	-1.23	-1.59	0.86	1.09	-6.22	8.46	-6.95	-10.97											-3.37	-6.95	
LSV ASSET MANAGEMENT	KY MSCI ACWI ex-US Index	7/1/2014	398,940,185.06	3.69	-1.47	-1.59	0.46	1.09	-10.39	8.46	-12.68	-10.97											-7.27	-6.95	
NON-US TRANSITION ACCOUNT			1,932,590.44	0.02																					
NTGI INTL SM CAP	MSCI AC World ex USA Small Cap Net Index	12/1/2008	164,353,236.15	1.52	-0.57	-0.66	2.21	2.12	-2.47	2.61	-4.53	4.75	4.41	4.15	2.56	2.45							12.97	13.44	
PYRAMIS NON-US GROWTH	KY MSCI Blended Index	8/1/2001	2,892,899.62	0.03																					
PUBLIC EQUITY	Global Equity Blended Index	4/1/1984	5,563,101,565.74	51.41	0.28	0.18	1.78	1.85	-3.10	-4.33	-5.20	-6.47	5.09	4.71	5.07	4.98	4.52	4.25	7.08	6.75	10.36	10.17			
FIXED INCOME	KY Ret.Fixed Blended Index	4/1/1984	1,448,003,766.83	13.38	0.36	0.35	1.38	2.65	3.62	6.11	2.69	4.93	3.20	3.68	4.55	4.07	5.40	5.38	5.95	5.96	7.71	7.51			
CERBERUS	S&P LSTA Leveraged Loan Index	9/1/2014	86,293,893.12	0.80	-0.17	0.89	0.80	2.89	7.26	0.91	8.34	0.49											7.84	1.49	
COLUMBIA	Barclays U.S. Corporate High Yield	11/1/2011	246,303,440.90	2.28	0.15	0.62	2.44	4.56	2.08	0.69	0.66	-0.81	4.04	2.95									7.05	6.28	
LOOMIS	Barclays U.S. Corporate High Yield	11/1/2011	177,961.48	0.00	-1.20	0.62	-5.92	4.56	-10.04	0.69	-11.53	-0.81	-0.60	2.95									5.10	6.28	
MANULIFE ASSET MGMT	Barclays U.S. Universal Index	12/1/2011	464,434,980.72	4.29	0.17	0.08	0.70	0.76	3.55	3.44	2.62	2.95	2.44	0.73									4.73	0.92	
MARATHON	Barclays U.S. Corporate High Yield	1/1/2016	118,106,599.34	1.09	1.80	0.62	2.70	4.56	0.00														2.70		
NISA	Barclays U.S. Aggregate Bond Index	2/1/2009	299,025,649.41	2.76	0.08	0.03	0.47	0.41	4.74	4.13	3.65	2.99	3.18	2.91	3.53	3.33							4.73	4.51	
PIMCO	PIMCO Blended Index	12/1/2009	316,072.25	0.00																					
SHENKMAN CAP	Shenkman Blended Index	10/1/2010	104,912,205.99	0.97	0.86	0.89	2.60	2.89	-0.32	0.91	-0.68	0.49	2.59	3.16	4.02	4.85							4.65	5.68	
WATERFALL	Opportunistic FI Blended Index	2/1/2010	128,432,502.54	1.19	0.79	0.50	2.19	2.97	1.05	0.12	1.37	-0.75	7.44	2.03	8.96	3.60							11.53	4.88	
REAL RETURN	PENSION REAL RETURN CUSTOM BM	7/1/2011	871,790,297.04	8.06	-0.18	0.53	2.48	2.43	-1.98	-0.08	-3.57	-1.71	-0.18	0.99									2.71	2.34	
AMERRA AGRI FUND II		12/1/2012	32,876,342.52	0.30	0.00	0.00	0.00	0.00	0.00	0.00		9.91	7.86										5.88		
AMERRA-AGRI HOLDING		8/1/2015	19,824,850.18	0.18	0.00						0.12												-0.22		
BIG PACTUAL		12/1/2014	4,598,251.00	0.04	0.00						-5.18	-33.06	-33.06										-29.06		
INTERNAL TIPS	Barclays U.S. Treasury: US TIPS Index	5/1/2002	134,610,752.95	1.24	-0.43	-0.59	-0.22	-0.31	2.22	1.67	1.75	1.12	0.62	0.10	2.47	2.20	4.63	4.47					5.37	5.23	
MAGNETAR MTP		7/1/2013	67,897,640.00	0.63	5.97	11.71																	-15.97		
MAGNETAR MTP EOF II		8/1/2015	9,552,198.10	0.09	0.00	0.00	0.00	0.00	0.00																
NUVEEN	Nuveen Real Asset Custom Index	2/1/2015	210,156,568.28	1.94	0.75	0.61	2.56	4.56	1.86													1.79	2.59		
OVERBAND CAPITAL		10/1/2014	3,582,056.00	0.03	0.00	0.00	54.45	56.95	58.35													4.93			
PIMCO ALL ASSET	Barclays U.S. Treasury Inflation Notes: 1-10 Year	12/1/2011	309,240,077.58	2.86	-2.18	-0.57	0.75	-0.31	-3.08	1.67	-4.71	1.12	-0.68	0.15								2.99	0.58		
TAURUS MINE FINANCE		4/1/2015	7,478,681.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00								2.16			
TORTOISE CAPITAL	Alerian MLP Index	8/1/2009	70,624,575.43	0.65	0.69	2.53	11.29	13.85	-19.16	-17.35	-23.60	-24.20	0.08	-5.99	8.17	2.43							14.00	9.73	
TPF II		10/1/2008	1,350,304.00	0.01	0.00	0.00	-29.75	-24.75	-24.75	-24.20	0.08	-5.99	8.17	-5.99									-5.99		
ABSOLUTE RETURN	HFRi Fund of Funds Diversified Index - 1 Month Arrears	4/1/2010	1,953,635,304.78	9.74	0.49	0.34	0.64	0.50	-6.08	-6.06	-4.95	-5.18	2.81	1.75	4.00	1.34							3.82	2.32	
BAAM		9/1/2011	318,742,473.00	2.95	0.82	0.92	-0.77	0.66	0.00	28.74	34.41											6.47			
COATUE QAL PTRNS		7/1/2015	15,685,281.61	0.14	-1.16	-1.25	4.57															4.57			
DAVIDSON-KEMPNER LP		2/1/2016	30,362,975.06	0.28	0.57	1.44																1.21			
DSAM FUND LP		5/1/2016	14,840,088.43	0.14	-1.07																	-1.07			
GLENVIEW INSTITUTION		11/1/2015	12,957,298.00	0.12	2.57	6.33		</td																	

