



WILSHIRE ASSOCIATES

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Kentucky Retirement Systems Insurance

Monthly Performance Summary

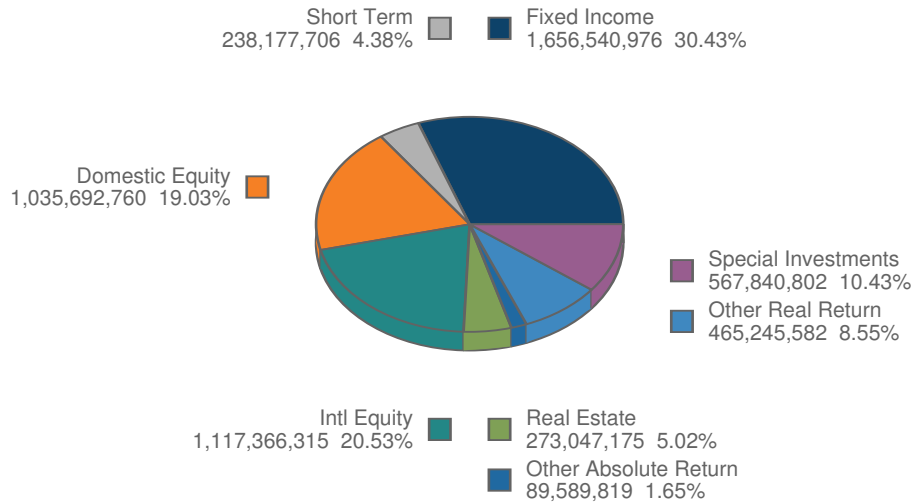
June 30, 2019

ACTUAL ALLOCATION VS POLICY ALLOCATION

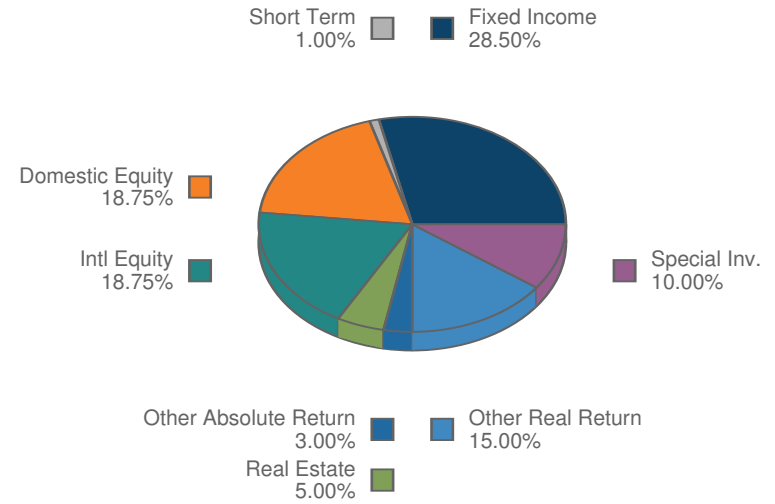
KRS Insurance Plan Composite

As of June 30, 2019

Total Fund



Policy Index



MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns								Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$
KRS Insurance Plan	3.45	2.83	9.21	5.65	5.65	9.43	5.92	7.41	3/31/87	5,443,501,135
KRS Allocation Index	3.58	2.89	10.05	5.92	5.92	9.33	6.39	7.81	3/31/87	
Value Added	-0.13	-0.06	-0.85	-0.27	-0.27	0.09	-0.47	-0.40	3/31/87	
KRS IPS Benchmark	3.53	2.95	10.18	6.52	6.52				3/31/87	
KERS Insurance Plan	3.36	2.68	9.38	4.93	4.93	8.84	5.41	7.31	3/31/87	925,974,528
KERS Allocation Index	3.65	2.88	10.28	5.52	5.52	9.04	6.04	7.77	3/31/87	
Value Added	-0.29	-0.19	-0.90	-0.59	-0.59	-0.21	-0.64	-0.45	3/31/87	
KERS IPS Benchmark	3.48	2.91	9.84	6.18	6.18				3/31/87	
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87	
KERS (H) Insurance Plan	3.45	2.83	9.18	5.62	5.62	9.37	5.85	7.41	3/31/87	526,482,903
KERS (H) Allocation Index	3.54	2.89	9.90	5.92	5.92	9.33	6.21	7.79	3/31/87	
Value Added	-0.09	-0.06	-0.72	-0.30	-0.30	0.04	-0.36	-0.39	3/31/87	
KERS (H) IPS Benchmark	3.53	2.95	10.13	6.47	6.47				3/31/87	
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87	
CERS Insurance Plan	3.45	2.82	9.10	5.74	5.74	9.49	5.99	7.43	3/31/87	2,471,970,818
CERS Allocation Index	3.55	2.89	9.99	6.01	6.01	9.39	6.24	7.80	3/31/87	
Value Added	-0.10	-0.07	-0.88	-0.27	-0.27	0.11	-0.25	-0.37	3/31/87	
CERS IPS Benchmark	3.54	2.95	10.22	6.55	6.55				3/31/87	
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87	

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$
CERS (H) Insurance Plan	3.49	2.85	9.13	5.80	5.80	9.56	6.06	7.44	3/31/87	1,320,169,479
CERS (H) Allocation Index	3.56	2.90	9.99	6.02	6.02	9.39	6.25	7.80	3/31/87	
Value Added	-0.07	-0.05	-0.86	-0.22	-0.22	0.17	-0.18	-0.36	3/31/87	
CERS (H) IPS Benchmark	3.54	2.96	10.23	6.57	6.57				3/31/87	
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87	
SPRS Insurance Plan	3.46	2.83	9.09	5.75	5.75	9.55	6.02	7.43	3/31/87	198,903,421
SPRS Allocation Index	3.55	2.89	9.95	5.97	5.97	9.36	6.23	7.80	3/31/87	
Value Added	-0.09	-0.07	-0.86	-0.22	-0.22	0.19	-0.20	-0.37	3/31/87	
SPRS IPS Benchmark	3.54	2.95	10.19	6.52	6.52				3/31/87	
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87	

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
KERS Insurance Plan	3.36	2.68	9.38	4.93	4.93	8.84	5.41	7.31	3/31/87	925,974,528	
KERS Allocation Index	3.65	2.88	10.28	5.52	5.52	9.04	6.04	7.77	3/31/87		
Value Added	-0.29	-0.19	-0.90	-0.59	-0.59	-0.21	-0.64	-0.45	3/31/87		
KERS IPS Benchmark	3.48	2.91	9.84	6.18	6.18				3/31/87		
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87		
US Equity Composite	6.98	4.23	19.03	7.62	7.62	13.29	9.58	11.93	6/30/13	184,508,549	19.93
Russell 3000	7.02	4.10	18.71	8.98	8.98	14.02	10.19	12.56	6/30/13		
Value Added	-0.04	0.14	0.32	-1.36	-1.36	-0.74	-0.61	-0.64	6/30/13		
Non-US Equity Composite	6.15	3.24	14.64	0.98	0.98	10.39	3.26	5.99	6/30/13	199,718,073	21.57
Policy Index	5.80	2.74	13.33	0.26	0.26	9.36	2.36	5.43	6/30/13		
Value Added	0.35	0.50	1.31	0.72	0.72	1.03	0.90	0.56	6/30/13		
Fixed Income Composite	1.16	2.47	5.87	7.03	7.03	4.63	3.80	4.26	6/30/13	292,456,923	31.58
Policy Index	1.85	2.82	8.26	7.83	7.83	5.18	4.92	4.97	6/30/13		
Value Added	-0.68	-0.35	-2.39	-0.80	-0.80	-0.55	-1.12	-0.71	6/30/13		
Real Return Composite	2.35	2.07	8.51	4.74	4.74	4.38	2.06	3.14	6/30/13	75,870,609	8.19
Real Return Index (I)	1.58	2.23	7.87	5.25	5.25	3.01	1.77	2.38	6/30/13		
Value Added	0.77	-0.16	0.64	-0.51	-0.51	1.37	0.29	0.76	6/30/13		
Real Estate Composite	0.73	1.23	2.70	7.33	7.33	9.02	8.91	8.58	6/30/13	38,481,415	4.16
NCREIF ODCE NOF 1 Quarter Lag	0.00	1.20	2.74	6.55	6.55	7.01	9.17	9.76	6/30/13		
Value Added	0.73	0.03	-0.04	0.78	0.78	2.02	-0.27	-1.18	6/30/13		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Absolute Return Composite	-0.98	-0.49	0.50	-0.47	-0.47	3.43	1.85	2.91	6/30/13	14,125,922	1.53
HFRI FOF Div (1 Month Lag)	-0.68	1.02	3.02	0.17	0.17	3.48	2.12	2.60	6/30/13		
Value Added	-0.30	-1.52	-2.52	-0.64	-0.64	-0.05	-0.27	0.31	6/30/13		
Private Equity Composite	2.53	2.89	-0.73	7.34	7.34	11.42	9.89	12.20	6/30/13	47,821,534	5.16
KERS Short Term PE Index	2.53	2.89	-0.73	7.34	7.34	11.42	9.89	12.20	6/30/13		
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6/30/13		
Russell 3000 +3% Qtr Lag	1.71	14.86	-0.78	12.06	12.06	17.84	14.35	16.30	6/30/13		
Cash Composite	0.20	0.68	1.33	2.46	2.46	1.67	1.10	0.96	6/30/13	72,991,503	7.88
91-Day Treasury Bill	0.22	0.64	1.24	2.32	2.32	1.38	0.87	0.73	6/30/13		
Value Added	-0.02	0.04	0.09	0.14	0.14	0.29	0.23	0.23	6/30/13		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
KERS (H) Insurance Plan	3.45	2.83	9.18	5.62	5.62	9.37	5.85	7.41	3/31/87	526,482,903	
KERS (H) Allocation Index	3.54	2.89	9.90	5.92	5.92	9.33	6.21	7.79	3/31/87		
Value Added	-0.09	-0.06	-0.72	-0.30	-0.30	0.04	-0.36	-0.39	3/31/87		
KERS (H) IPS Benchmark	3.53	2.95	10.13	6.47	6.47				3/31/87		
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87		
US Equity Composite	6.98	4.23	19.03	7.61	7.61	13.23	9.49	11.85	6/30/13	99,069,477	18.82
Russell 3000	7.02	4.10	18.71	8.98	8.98	14.02	10.19	12.56	6/30/13		
Value Added	-0.04	0.14	0.32	-1.37	-1.37	-0.80	-0.70	-0.72	6/30/13		
Non-US Equity Composite	6.15	3.24	14.64	0.98	0.98	10.38	3.33	6.09	6/30/13	110,763,743	21.04
Policy Index	5.80	2.74	13.33	0.26	0.26	9.36	2.36	5.43	6/30/13		
Value Added	0.35	0.50	1.31	0.72	0.72	1.02	0.98	0.65	6/30/13		
Fixed Income Composite	1.23	2.54	5.91	7.24	7.24	4.64	3.82	4.27	6/30/13	167,468,667	31.81
Policy Index	1.85	2.82	8.26	7.83	7.83	5.18	4.92	4.97	6/30/13		
Value Added	-0.62	-0.28	-2.35	-0.59	-0.59	-0.54	-1.11	-0.70	6/30/13		
Real Return Composite	2.33	2.07	8.27	4.80	4.80	4.39	2.07	3.12	6/30/13	44,986,384	8.54
Real Return Index (I)	1.58	2.23	7.87	5.25	5.25	3.01	1.77	2.41	6/30/13		
Value Added	0.76	-0.16	0.40	-0.45	-0.45	1.38	0.29	0.71	6/30/13		
Real Estate Composite	0.70	1.22	2.67	7.29	7.29	9.30	9.07	8.74	6/30/13	28,979,166	5.50
NCREIF ODCE NOF 1 Quarter Lag	0.00	1.20	2.74	6.55	6.55	7.01	9.17	9.76	6/30/13		
Value Added	0.70	0.02	-0.07	0.73	0.73	2.29	-0.10	-1.02	6/30/13		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Absolute Return Composite	-0.98	-0.49	0.50	-0.47	-0.47	3.43	1.85	2.91	6/30/13	9,379,906	1.78
HFRI FOF Div (1 Month Lag)	-0.68	1.02	3.02	0.17	0.17	3.48	2.12	2.60	6/30/13		
Value Added	-0.30	-1.52	-2.52	-0.64	-0.64	-0.05	-0.27	0.30	6/30/13		
Private Equity Composite	2.99	3.23	2.08	10.36	10.36	13.55	12.99	14.54	6/30/13	52,773,778	10.02
KERS (H) Short Term PE Index	2.99	3.23	2.08	10.36	10.36	13.55	12.99	14.54	6/30/13		
Value Added	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	-0.00	6/30/13		
Russell 3000 +3% Qtr Lag	1.71	14.86	-0.78	12.06	12.06	17.84	14.35	16.30	6/30/13		
Cash Composite	0.20	0.75	1.44	2.58	2.58	1.77	1.16	1.01	6/30/13	13,061,782	2.48
91-Day Treasury Bill	0.22	0.64	1.24	2.32	2.32	1.38	0.87	0.73	6/30/13		
Value Added	-0.02	0.11	0.20	0.27	0.27	0.38	0.29	0.28	6/30/13		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
CERS Insurance Plan	3.45	2.82	9.10	5.74	5.74	9.49	5.99	7.43	3/31/87	2,471,970,818	
CERS Allocation Index	3.55	2.89	9.99	6.01	6.01	9.39	6.24	7.80	3/31/87		
Value Added	-0.10	-0.07	-0.88	-0.27	-0.27	0.11	-0.25	-0.37	3/31/87		
CERS IPS Benchmark	3.54	2.95	10.22	6.55	6.55				3/31/87		
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87		
US Equity Composite	6.98	4.23	19.03	7.61	7.61	13.26	9.58	11.94	6/30/13	465,619,422	18.84
Russell 3000	7.02	4.10	18.71	8.98	8.98	14.02	10.19	12.56	6/30/13		
Value Added	-0.05	0.13	0.32	-1.37	-1.37	-0.76	-0.61	-0.63	6/30/13		
Non-US Equity Composite	6.15	3.24	14.64	0.98	0.98	10.37	3.34	6.10	6/30/13	498,714,133	20.17
Policy Index	5.80	2.74	13.33	0.26	0.26	9.36	2.36	5.43	6/30/13		
Value Added	0.35	0.50	1.31	0.72	0.72	1.02	0.98	0.67	6/30/13		
Fixed Income Composite	1.23	2.54	5.89	7.20	7.20	4.65	3.83	4.29	6/30/13	741,725,761	30.01
Policy Index	1.85	2.82	8.26	7.83	7.83	5.18	4.92	4.97	6/30/13		
Value Added	-0.62	-0.28	-2.36	-0.63	-0.63	-0.53	-1.09	-0.68	6/30/13		
Real Return Composite	2.37	2.11	8.39	4.99	4.99	4.51	2.16	3.19	6/30/13	216,246,270	8.75
Real Return Index (I)	1.58	2.23	7.87	5.25	5.25	3.01	1.77	2.41	6/30/13		
Value Added	0.80	-0.12	0.52	-0.26	-0.26	1.51	0.38	0.78	6/30/13		
Real Estate Composite	0.70	1.22	2.67	7.28	7.28	9.30	9.09	8.76	6/30/13	125,609,282	5.08
NCREIF ODCE NOF 1 Quarter Lag	0.00	1.20	2.74	6.55	6.55	7.01	9.17	9.76	6/30/13		
Value Added	0.70	0.02	-0.07	0.72	0.72	2.29	-0.08	-1.01	6/30/13		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Absolute Return Composite	-0.98	-0.49	0.50	-0.47	-0.47	3.43	1.85	2.91	6/30/13	40,099,851	1.62
HFRI FOF Div (1 Month Lag)	-0.68	1.02	3.02	0.17	0.17	3.48	2.12	2.60	6/30/13		
Value Added	-0.30	-1.52	-2.52	-0.64	-0.64	-0.05	-0.27	0.30	6/30/13		
Private Equity Composite	3.11	3.31	2.91	11.27	11.27	14.12	13.71	14.95	6/30/13	283,383,178	11.46
CERS Short Term PE Index	3.11	3.31	2.91	11.27	11.27	14.12	13.71	14.95	6/30/13		
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6/30/13		
Russell 3000 +3% Qtr Lag	1.71	14.86	-0.78	12.06	12.06	17.84	14.35	16.30	6/30/13		
Cash Composite	0.20	0.71	1.39	2.52	2.52	1.72	1.14	0.99	6/30/13	100,572,922	4.07
91-Day Treasury Bill	0.22	0.64	1.24	2.32	2.32	1.38	0.87	0.73	6/30/13		
Value Added	-0.02	0.07	0.14	0.21	0.21	0.34	0.26	0.25	6/30/13		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
CERS (H) Insurance Plan	3.49	2.85	9.13	5.80	5.80	9.56	6.06	7.44	3/31/87	1,320,169,479	
CERS (H) Allocation Index	3.56	2.90	9.99	6.02	6.02	9.39	6.25	7.80	3/31/87		
Value Added	-0.07	-0.05	-0.86	-0.22	-0.22	0.17	-0.18	-0.36	3/31/87		
CERS (H) IPS Benchmark	3.54	2.96	10.23	6.57	6.57				3/31/87		
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87		
US Equity Composite	6.98	4.23	19.03	7.62	7.62	13.26	9.60	11.95	6/30/13	249,222,394	18.88
Russell 3000	7.02	4.10	18.71	8.98	8.98	14.02	10.19	12.56	6/30/13		
Value Added	-0.04	0.14	0.32	-1.37	-1.37	-0.76	-0.59	-0.62	6/30/13		
Non-US Equity Composite	6.15	3.24	14.64	0.98	0.98	10.38	3.36	6.12	6/30/13	268,777,478	20.36
Policy Index	5.80	2.74	13.33	0.26	0.26	9.36	2.36	5.43	6/30/13		
Value Added	0.35	0.50	1.31	0.72	0.72	1.02	1.01	0.68	6/30/13		
Fixed Income Composite	1.24	2.55	5.88	7.22	7.22	4.66	3.82	4.29	6/30/13	395,354,961	29.95
Policy Index	1.85	2.82	8.26	7.83	7.83	5.18	4.92	4.97	6/30/13		
Value Added	-0.61	-0.27	-2.37	-0.61	-0.61	-0.53	-1.10	-0.68	6/30/13		
Real Return Composite	2.36	2.11	8.33	4.97	4.97	4.48	2.14	3.18	6/30/13	112,522,254	8.52
Real Return Index (I)	1.58	2.23	7.87	5.25	5.25	3.01	1.77	2.41	6/30/13		
Value Added	0.79	-0.13	0.46	-0.29	-0.29	1.48	0.36	0.77	6/30/13		
Real Estate Composite	0.70	1.22	2.67	7.28	7.28	9.29	9.08	8.75	6/30/13	68,931,970	5.22
NCREIF ODCE NOF 1 Quarter Lag	0.00	1.20	2.74	6.55	6.55	7.01	9.17	9.76	6/30/13		
Value Added	0.70	0.02	-0.07	0.72	0.72	2.29	-0.09	-1.02	6/30/13		

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Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Absolute Return Composite	-0.98	-0.49	0.50	-0.47	-0.47	3.43	1.85	2.91	6/30/13	22,466,625	1.70
HFRI FOF Div (1 Month Lag)	-0.68	1.02	3.02	0.17	0.17	3.48	2.12	2.60	6/30/13		
Value Added	-0.30	-1.52	-2.52	-0.64	-0.64	-0.05	-0.27	0.30	6/30/13		
Private Equity Composite	3.16	3.36	2.97	11.40	11.40	14.19	13.91	15.12	6/30/13	159,729,168	12.10
CERS (H) Short Term PE Index	3.16	3.36	2.97	11.40	11.40	14.19	13.91	15.12	6/30/13		
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6/30/13		
Russell 3000 +3% Qtr Lag	1.71	14.86	-0.78	12.06	12.06	17.84	14.35	16.30	6/30/13		
Cash Composite	0.20	0.73	1.42	2.56	2.56	1.73	1.14	0.99	6/30/13	43,164,630	3.27
91-Day Treasury Bill	0.22	0.64	1.24	2.32	2.32	1.38	0.87	0.73	6/30/13		
Value Added	-0.02	0.09	0.18	0.25	0.25	0.34	0.27	0.26	6/30/13		

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Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
SPRS Insurance Plan	3.46	2.83	9.09	5.75	5.75	9.55	6.02	7.43	3/31/87	198,903,421	
SPRS Allocation Index	3.55	2.89	9.95	5.97	5.97	9.36	6.23	7.80	3/31/87		
Value Added	-0.09	-0.07	-0.86	-0.22	-0.22	0.19	-0.20	-0.37	3/31/87		
SPRS IPS Benchmark	3.54	2.95	10.19	6.52	6.52				3/31/87		
Assumed Rate 6.25%	0.51	1.53	3.08	6.25	6.25				3/31/87		
US Equity Composite	6.98	4.23	19.03	7.61	7.61	13.25	9.58	11.93	6/30/13	37,272,920	18.74
Russell 3000	7.02	4.10	18.71	8.98	8.98	14.02	10.19	12.56	6/30/13		
Value Added	-0.04	0.14	0.32	-1.37	-1.37	-0.77	-0.61	-0.63	6/30/13		
Non-US Equity Composite	6.15	3.24	14.64	0.98	0.98	10.38	3.38	6.13	6/30/13	39,392,890	19.81
Policy Index	5.80	2.74	13.33	0.26	0.26	9.36	2.36	5.43	6/30/13		
Value Added	0.35	0.50	1.31	0.72	0.72	1.02	1.02	0.70	6/30/13		
Fixed Income Composite	1.23	2.54	5.87	7.19	7.19	4.69	3.86	4.33	6/30/13	59,534,672	29.93
Policy Index	1.85	2.82	8.26	7.83	7.83	5.18	4.92	4.97	6/30/13		
Value Added	-0.62	-0.28	-2.39	-0.64	-0.64	-0.49	-1.06	-0.64	6/30/13		
Real Return Composite	2.34	2.09	8.18	4.91	4.91	4.43	2.11	3.15	6/30/13	15,620,066	7.85
Real Return Index (I)	1.58	2.23	7.87	5.25	5.25	3.01	1.77	2.41	6/30/13		
Value Added	0.76	-0.14	0.31	-0.34	-0.34	1.42	0.33	0.74	6/30/13		
Real Estate Composite	0.71	1.22	2.66	7.28	7.28	9.29	9.06	8.73	6/30/13	11,045,342	5.55
NCREIF ODCE NOF 1 Quarter Lag	0.00	1.20	2.74	6.55	6.55	7.01	9.17	9.76	6/30/13		
Value Added	0.71	0.02	-0.07	0.73	0.73	2.28	-0.11	-1.03	6/30/13		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Absolute Return Composite	-0.98	-0.49	0.50	-0.47	-0.47	3.43	1.84	2.90	6/30/13	3,517,516	1.77
HFRI FOF Div (1 Month Lag)	-0.68	1.02	3.02	0.17	0.17	3.48	2.12	2.60	6/30/13		
Value Added	-0.30	-1.52	-2.52	-0.64	-0.64	-0.05	-0.27	0.30	6/30/13		
Private Equity Composite	3.08	3.30	2.59	10.91	10.91	13.80	12.92	14.40	6/30/13	24,133,144	12.13
SPRS Short Term PE Index	3.08	3.30	2.59	10.91	10.91	13.80	12.92	14.40	6/30/13		
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6/30/13		
Russell 3000 +3% Qtr Lag	1.71	14.86	-0.78	12.06	12.06	17.84	14.35	16.30	6/30/13		
Cash Composite	0.20	0.74	1.46	2.62	2.62	1.74	1.14	0.99	6/30/13	8,386,870	4.22
91-Day Treasury Bill	0.22	0.64	1.24	2.32	2.32	1.38	0.87	0.73	6/30/13		
Value Added	-0.02	0.10	0.22	0.31	0.31	0.35	0.27	0.26	6/30/13		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
KRS Insurance Plan	3.45	2.83	9.21	5.65	5.65	9.43	5.92	7.41	3/31/87	5,443,501,135	
KRS Allocation Index	3.58	2.89	10.05	5.92	5.92	9.33	6.39	7.81	3/31/87		
Value Added	-0.13	-0.06	-0.85	-0.27	-0.27	0.09	-0.47	-0.40	3/31/87		
KRS IPS Benchmark	3.53	2.95	10.18	6.52	6.52				3/31/87		
US Equity Composite	6.98	4.23	19.04	7.73	7.73	13.32	9.61	9.67	6/30/92	1,035,692,760	19.03
Russell 3000	7.02	4.10	18.71	8.98	8.98	14.02	10.19	9.85	6/30/92		
Value Added	-0.04	0.14	0.32	-1.25	-1.25	-0.70	-0.58	-0.19	6/30/92		
S&P 500 Index	7.03	4.32	18.58	10.43	10.43	14.35	10.79	7.57	6/30/01	508,860,408	9.35
Standard & Poor's 500	7.05	4.30	18.54	10.42	10.42	14.19	10.71	7.11	6/30/01		
Value Added	-0.02	0.02	0.04	0.01	0.01	0.17	0.08	0.46	6/30/01		
Scientific Beta	6.33	4.57	18.79	9.34	9.34	11.59		11.59	6/30/16	185,451,317	3.41
Standard & Poor's 500	7.05	4.30	18.54	10.42	10.42	14.19		14.19	6/30/16		
Value Added	-0.72	0.26	0.25	-1.08	-1.08	-2.60		-2.60	6/30/16		
River Road FAV	7.24	4.98	21.48	13.10	13.10	15.97		15.97	6/30/16	71,459,443	1.31
Russell 3000 Value	7.12	3.68	16.05	7.34	7.34	10.19		10.19	6/30/16		
Value Added	0.12	1.30	5.43	5.76	5.76	5.78		5.78	6/30/16		
Westfield Capital	6.55	5.43	25.31	12.80	12.80	18.48	10.62	13.09	6/30/11	67,774,351	1.25
Russell 3000 Growth	6.93	4.50	21.41	10.60	10.60	17.81	13.02	14.17	6/30/11		
Value Added	-0.38	0.93	3.90	2.19	2.19	0.66	-2.40	-1.08	6/30/11		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Internal US Mid Cap	7.75	3.09	18.08	1.97	1.97	11.48		9.53	7/31/14	120,439,442	2.21
S&P 400 Mid Cap	7.64	3.05	17.97	1.36	1.36	10.90		9.13	7/31/14		
Value Added	0.11	0.04	0.10	0.60	0.60	0.57		0.40	7/31/14		
NTGI Structured	7.14	2.92	16.77	-0.98	-0.98	12.57	7.96	10.86	6/30/11	81,693,226	1.50
Russell 2000	7.07	2.10	16.98	-3.31	-3.31	12.30	7.06	9.82	6/30/11		
Value Added	0.07	0.82	-0.22	2.33	2.33	0.26	0.89	1.04	6/30/11		
Transition Account									5/31/11	14,573	0.00

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Non-US Equity Composite	6.15	3.24	14.64	0.98	0.98	10.39	3.32	2.35	3/31/00	1,117,366,315	20.53
Policy Index	5.80	2.74	13.33	0.26	0.26	9.36	2.36	2.56	3/31/00		
Value Added	0.35	0.50	1.31	0.72	0.72	1.03	0.97	-0.21	3/31/00		
BlackRock ACWI Ex US	6.02	3.03	13.59	1.28	1.28	9.42	2.39	7.23	5/31/12	452,441,917	8.31
MSCI ACWI X US (N)	6.02	2.98	13.60	1.29	1.29	9.39	2.16	7.15	5/31/12		
Value Added	-0.00	0.05	-0.01	-0.01	-0.01	0.04	0.22	0.08	5/31/12		
American Century	7.12	5.44	20.16	1.08	1.08	12.92	4.72	4.72	6/30/14	153,768,420	2.82
Policy Index	5.80	2.74	13.33	0.26	0.26	9.33	2.32	2.32	6/30/14		
Value Added	1.32	2.70	6.83	0.82	0.82	3.59	2.40	2.40	6/30/14		
Franklin Templeton	7.17	4.09	20.65	-2.83	-2.83	13.73	6.13	6.13	6/30/14	109,879,793	2.02
Policy Index	5.80	2.74	13.33	0.26	0.26	9.33	2.32	2.32	6/30/14		
Value Added	1.37	1.34	7.31	-3.09	-3.09	4.40	3.81	3.81	6/30/14		
Lazard Asset Mgmt	5.21	3.41	14.69	3.13	3.13	9.25	3.76	3.76	6/30/14	198,456,046	3.65
Policy Index	5.80	2.74	13.33	0.26	0.26	9.33	2.32	2.32	6/30/14		
Value Added	-0.59	0.67	1.35	2.87	2.87	-0.08	1.44	1.44	6/30/14		
LSV Asset Mgmt	6.49	1.53	9.73	1.16	1.16	10.10	1.98	1.98	6/30/14	166,691,899	3.06
Policy Index	5.80	2.74	13.33	0.26	0.26	9.33	2.32	2.32	6/30/14		
Value Added	0.69	-1.21	-3.60	0.90	0.90	0.76	-0.34	-0.34	6/30/14		
Blackrock ACWI Ex-US Small Cap	4.43	1.21	11.59	-5.66	-5.66	7.86	2.87	6.81	6/30/13	34,801,593	0.64
MSCI ACWI X US Small Cap (N)	4.41	1.21	11.60	-5.94	-5.94	7.76	2.77	6.34	6/30/13		
Value Added	0.02	-0.00	-0.01	0.29	0.29	0.11	0.10	0.47	6/30/13		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Boston Company									5/31/08	143,824	0.00
Pyramis Intl									7/31/01	739,384	0.01
Non-US Equity Transition									5/31/14	443,439	0.01

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns								Market Value		
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Fixed Income Composite	1.22	2.53	5.89	6.96	6.96	4.56	3.78	6.33	6/30/92	1,656,540,976	30.43
Policy Index	1.85	2.82	8.26	7.83	7.83	5.18	4.92	6.35	6/30/92		
Value Added	-0.63	-0.28	-2.36	-0.87	-0.87	-0.62	-1.14	-0.02	6/30/92		
Bloomberg Global Aggregate	2.22	3.29	5.57	5.85	5.85	1.62	1.20	5.06	6/30/92		
Core Fixed Composite	1.15	2.63	5.53					6.52	9/30/18	843,964,864	15.50
Bloomberg Universal	1.41	3.11	6.54					7.78	9/30/18		
Value Added	-0.26	-0.48	-1.00					-1.27	9/30/18		
BNY IG Credit	1.50	3.02	6.71	8.30	8.30			4.08	11/30/17	171,574,363	3.15
Bloomberg Int Credit	1.49	2.99	6.65	8.23	8.23			4.32	11/30/17		
Value Added	0.02	0.02	0.06	0.08	0.08			-0.24	11/30/17		
Loomis Sayles Intmd	1.00	2.46						4.04	1/31/19	209,573,279	3.85
Bloomberg Intermediate Agg.	0.95	2.39						3.85	1/31/19		
Value Added	0.05	0.07						0.18	1/31/19		
Lord Abbett	0.79	1.89	4.05					4.61	9/30/18	218,547,057	4.01
Bloomberg Aggregate	1.26	3.08	6.11					7.85	9/30/18		
Value Added	-0.47	-1.19	-2.07					-3.24	9/30/18		
NISA	1.36	3.16	6.27	7.90	7.90	2.41	3.14	3.37	6/30/11	244,270,165	4.49
Bloomberg Aggregate	1.26	3.08	6.11	7.87	7.87	2.31	2.95	3.22	6/30/11		
Value Added	0.10	0.09	0.16	0.03	0.03	0.09	0.19	0.15	6/30/11		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns								Market Value		
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Opportunistic Fixed Composite	1.29	2.43	6.18					5.13	9/30/18	812,576,113	14.93
Bloomberg High Yield	2.28	2.50	9.94					4.96	9/30/18		
Value Added	-0.99	-0.07	-3.76					0.18	9/30/18		
Arrowmark	0.74	2.20	5.54	10.62	10.62			9.76	5/31/18	59,914,790	1.10
S&P LSTA Leverage Loan Index	0.21	1.64	5.71	3.94	3.94			3.74	5/31/18		
Value Added	0.53	0.55	-0.17	6.68	6.68			6.03	5/31/18		
BSP Private Credit	3.20	3.20	1.59	4.42	4.42			2.89	1/31/18	27,527,977	0.51
S&P LSTA Leverage Loan Index	0.21	1.64	5.71	3.94	3.94			3.62	1/31/18		
Value Added	2.99	1.56	-4.12	0.49	0.49			-0.73	1/31/18		
Cerberus Capital Mgmt	1.63	2.27	4.46	10.21	10.21	8.57		8.45	8/31/14	39,161,808	0.72
S&P LSTA Leverage Loan	0.21	1.64	5.71	3.94	3.94	5.23		3.78	8/31/14		
Value Added	1.42	0.63	-1.24	6.28	6.28	3.34		4.67	8/31/14		
Columbia	2.91	3.26	11.80	9.76	9.76	6.97	5.17	7.04	10/31/11	91,852,388	1.69
Bloomberg High Yield	2.28	2.50	9.94	7.48	7.48	7.52	4.70	6.82	10/31/11		
Value Added	0.63	0.76	1.86	2.28	2.28	-0.55	0.47	0.22	10/31/11		
Manulife Asset Mgmt	1.96	2.95	7.28	6.80	6.80	2.90	2.68	4.11	11/30/11	197,409,302	3.63
Policy Index	1.41	3.11	6.54	8.07	8.07	2.84	1.24	1.90	11/30/11		
Value Added	0.55	-0.16	0.75	-1.27	-1.27	0.06	1.44	2.21	11/30/11		
Marathon Bluegrass	-0.25	1.42	3.82	7.36	7.36	7.17		7.45	12/31/15	137,559,781	2.53
Bloomberg High Yield	2.28	2.50	9.94	7.48	7.48	7.52		9.08	12/31/15		
Value Added	-2.53	-1.08	-6.12	-0.12	-0.12	-0.35		-1.63	12/31/15		

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Shenkman Capital	0.51	1.67	5.97	4.75	4.75	4.94	3.25	4.07	6/30/11	118,467,187	2.18
S&P LSTA Leverage Loan	0.21	1.64	5.71	3.94	3.94	5.23	3.67	5.09	6/30/11		
Value Added	0.30	0.03	0.26	0.82	0.82	-0.29	-0.42	-1.02	6/30/11		
Waterfall	0.95	3.20	6.05	8.83	8.83	10.05	8.17	10.09	6/30/11	94,223,963	1.73
Policy Index	1.49	1.78	6.55	5.52	5.52	5.92	3.71	4.62	6/30/11		
Value Added	-0.54	1.43	-0.50	3.31	3.31	4.14	4.46	5.46	6/30/11		
White Oak Yield Spectrum	1.85	1.85	2.47	4.95	4.95			3.95	2/28/18	46,420,229	0.85
S&P LSTA Leverage Loan Index	0.21	1.64	5.71	3.94	3.94			3.69	2/28/18		
Value Added	1.64	0.21	-3.24	1.01	1.01			0.26	2/28/18		
Loomis									10/31/11	38,689	0.00

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Real Return Composite	2.36	2.10	8.36	4.92	4.92	4.45	2.14	3.61	6/30/11	465,245,582	8.55
Real Return Index (I)	1.58	2.23	7.87	5.25	5.25	3.01	1.77	2.94	6/30/11		
Value Added	0.78	-0.13	0.50	-0.33	-0.33	1.44	0.37	0.67	6/30/11		
Internal TIPS	0.70	1.89	3.92	3.71	3.71	1.62	1.47	4.20	9/30/03	118,640,848	2.18
Bloomberg 1-10 Yrs TIPS	0.99	2.53	5.17	4.67	4.67	1.93	1.41	4.00	9/30/03		
Value Added	-0.29	-0.64	-1.25	-0.96	-0.96	-0.31	0.06	0.21	9/30/03		
PIMCO All Asset	3.22	2.68	8.21	4.99	4.99	6.59	2.68	4.80	11/30/11	140,976,770	2.59
Bloomberg 1-10 Yrs TIPS	0.99	2.53	5.17	4.67	4.67	1.93	1.42	1.32	11/30/11		
Value Added	2.23	0.14	3.05	0.32	0.32	4.66	1.26	3.48	11/30/11		
Tortoise Capital	3.66	-0.64	17.69	1.47	1.47	1.12	-5.37	10.52	7/31/09	47,937,562	0.88
Alerian MLP	2.64	0.12	16.96	3.09	3.09	-0.42	-7.20	7.01	7/31/09		
Value Added	1.02	-0.76	0.73	-1.62	-1.62	1.53	1.84	3.51	7/31/09		
Nuveen Real Asset	3.18	3.35	14.59	10.15	10.15	6.90		5.87	1/31/15	89,762,418	1.65
Policy Index	2.78	3.02	15.55	9.12	9.12	6.34		5.71	1/31/15		
Value Added	0.40	0.33	-0.95	1.03	1.03	0.56		0.16	1/31/15		
Amerra AGRI Fund II	0.98	0.98	1.60	1.61	1.61	-0.11	4.03	3.63	11/30/12	8,756,088	0.16
Amerra AGRI Holdings	0.70	0.70	-0.25	-2.57	-2.57	-2.17		-1.53	7/31/15	23,594,694	0.43
BTG Pactual	0.01	0.01	3.62	1.17	1.17	3.86		-7.31	11/30/14	10,792,505	0.20
Magnetar MTP EOF II	2.56	2.56	1.61	7.97	7.97	10.59		3.17	7/31/15	11,768,606	0.22
Oberland Capital									7/31/18	1,618,553	0.03

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Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns								Market Value		
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Taurus Mine Finance	4.14	4.14	8.99	19.36	19.36	15.34		14.64	3/31/15	11,311,185	0.21
TPF II									9/30/08	86,352	0.00
Real Estate Composite	0.71	1.23	2.70	7.37	7.37	9.06	8.94	8.87	4/30/09	273,047,175	5.02
NCREIF ODCE NOF 1 Quarter Lag	0.00	1.20	2.74	6.55	6.55	7.01	9.17	7.60	4/30/09		
Value Added	0.71	0.03	-0.04	0.82	0.82	2.05	-0.23	1.27	4/30/09		
Baring	2.19	1.41	-0.39					-0.39	12/31/18	16,155,599	0.30
Divcowest IV	0.00	0.00	-0.30	9.96	9.96	21.16	23.04	20.85	2/28/14	1,395,122	0.03
Greenfield Acq VI	-0.39	-0.39	-17.40	-26.91	-26.91	-10.90	-1.09	2.01	11/30/12	1,118,373	0.02
Greenfield Acq VII	0.28	0.28	4.98	10.95	10.95	12.47	11.62	11.62	6/30/14	8,597,207	0.16
H/2 Credit Partner	-0.39	-1.90	-2.17	-1.71	-1.71	4.74	3.93	5.10	6/30/11	32,614,411	0.60
Harrison Street	0.00	1.30	1.30	6.69	6.69	8.70	8.91	8.10	4/30/12	36,980,717	0.68
Lubert Adler VII	1.11	1.11	9.71	13.21	13.21	10.45	0.63	0.63	6/30/14	13,040,321	0.24
Mesa West Core Lend	0.00	1.81	1.81	7.10	7.10	7.30	6.71	6.47	4/30/13	37,154,841	0.68
Prologis Targeted US	0.00	2.90	6.41	15.55	15.55	17.70		15.40	9/30/14	32,839,934	0.60
Rubenstein PF II	0.00	0.00	2.46	11.64	11.64	11.01	9.65	13.37	6/30/13	7,528,809	0.14
Stockbridge Sm/Mkts	2.07	2.07	4.00	9.35	9.35	8.56	9.56	9.24	4/30/14	40,406,796	0.74
Walton St RE VI	1.35	1.35	-2.21	2.17	2.17	2.39	5.54	-16.40	4/30/09	1,515,265	0.03
Walton St RE VII	0.00	0.00	-1.49	-1.31	-1.31	6.73	10.39	10.63	6/30/13	6,583,247	0.12
Fundamental Partners III	1.97	1.97	4.80	10.16	10.16			7.01	4/30/17	16,599,370	0.30
Lubert Adler VII B	2.40	2.40	8.17	10.87	10.87			3.63	6/30/17	8,802,497	0.16
Mesa West IV	0.00	0.00	1.42	6.54	6.54			4.62	2/28/17	6,233,715	0.11
Patron Capital	2.67	1.89	6.65	12.14	12.14			2.61	7/31/16	5,480,951	0.10

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns								Market Value		
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Absolute Return Composite	-0.98	-0.49	0.50	-0.47	-0.47	3.43	1.85	3.58	3/31/10	89,589,819	1.65
HFRI FOF Div (1 Month Lag)	-0.68	1.02	3.02	0.17	0.17	3.48	2.12	2.74	3/31/10		
Value Added	-0.30	-1.52	-2.52	-0.63	-0.63	-0.05	-0.27	0.85	3/31/10		
Blackstone Strat Opp	-1.05	-2.93	-4.70	-2.91	-2.91			1.98	7/31/17	1,591,519	0.03
Credit Suisse	0.29	1.75	3.30	6.97	6.97			6.91	4/30/17	3,440,444	0.06
Gotham Neutral Strategies	0.82	-3.22	-3.00	-3.89	-3.89			-2.80	3/31/17	5,362,080	0.10
Governors Lane Onshore	-1.68	1.18	2.74	-0.88	-0.88			-0.03	3/31/17	8,912,405	0.16
Liquidalts H2O Force	-1.05	0.12	0.21	5.06	5.06			5.81	7/31/16	7,095,222	0.13
Luxor Capital	-0.02	9.35	9.29	19.96	19.96	23.89	4.91	4.85	3/31/14	555,299	0.01
Myriad Opportunities	-3.70	-3.64	-4.08	-9.87	-9.87	2.62		2.96	4/30/16	17,564,726	0.32
PAAMCO									8/31/11	44,220	0.00
Pine River									4/30/14	91,618	0.00
PRISMA Capital	0.00	0.00	1.44	1.10	1.10	4.04	2.25	3.54	8/31/11	40,225,891	0.74
SRS Partners US	-1.16	5.68	4.94	3.91	3.91			11.08	7/31/17	3,316,068	0.06
Tricadia Select	0.23	0.76	1.14	-7.58	-7.58			-13.51	8/31/17	1,390,327	0.03

MONTHLY SUMMARY

Investment Performance and Market Values

For Periods Ending June 30, 2019

	Net of Fee Returns									Market Value	
	Month	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	Inception Return	Inception Date	\$	Percent
Private Equity Composite	3.06	3.29	2.53	10.91	10.91	14.01	13.43	10.31	6/30/02	567,840,802	10.43
KRS Short Term PE Index	3.06	3.29	2.53	10.91	10.91	14.01	13.43	10.31	6/30/02		
Value Added	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	-0.00	6/30/02		
Russell 3000 +3% Qtr Lag	1.71	14.86	-0.78	12.06	12.06	17.84	14.35	11.02	6/30/02		
Cash Composite	0.20	0.70	1.38	2.49	2.49	1.71	1.13	2.65	6/30/92	238,177,706	4.38
91-Day Treasury Bill	0.22	0.64	1.24	2.32	2.32	1.38	0.87	2.61	6/30/92		
Value Added	-0.02	0.06	0.13	0.18	0.18	0.32	0.26	0.04	6/30/92		