

**KENTUCKY RETIREMENT SYSTEMS**  
**Management and Performance Fees**  
**For the Fiscal Year ended June 30, 2019**  
**Unaudited**

<b>PUBLIC EQUITY</b>						
<b>US Public Equity</b>						
	<b>Pension Fund</b>			<b>Insurance Fund</b>		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
INTERNAL MID CAP	271,846,723			120,439,442		
INVESCO	7,596					
KRS INTERNAL EQUITY	420,958,654			185,451,317		
NTGI STRUCTURED	185,453,373	350,391		81,693,226	131,401	
RIVER ROAD		93,975			42,006	
RIVER ROAD FAV	158,522,635	324,165		71,459,443	145,023	
S&P 500 INDEX	1,136,506,652			508,860,408		
SYSTEMATIC		472,621			172,067	
TRANSITION ACCOUNT	17,152			14,573		
WESTFIELD CAPITAL	152,281,009	808,583		67,774,351	359,810	
<b>Subtotal</b>	<b>\$ 2,325,593,793</b>	<b>\$ 2,049,734</b>	<b>\$ -</b>	<b>\$ 1,035,692,760</b>	<b>\$ 850,306</b>	<b>\$ -</b>
<b>Non-US Public Equity</b>						
	<b>Pension Fund</b>			<b>Insurance Fund</b>		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
AMERICAN CENTURY	352,102,039	1,397,334		153,768,420	609,166	
BLACKROCK ACWI-EX	1,008,689,192	543,037		452,441,917	240,595	
BLACKROCK ACWI-EX SC (Insurance ONLY)				34,801,593	41,915	
BOSTON CO	758,964			143,824		
FRANKLIN TEMPLETON	255,001,836	1,005,284		109,879,793	432,127	
LAZARD ASSET MGMT	464,855,732	1,102,305		198,456,046	482,685	
LSV ASSET MGMT	394,581,022	2,434,083		166,691,899	1,057,222	
NON-US TRANS ACCT	1,338,569			443,439		
NTGI INTL SM CAP (Pension ONLY)	77,780,166	58,469				
PYRAMIS	2,094,118			739,384		
<b>Subtotal</b>	<b>\$ 2,557,201,639</b>	<b>\$ 6,540,512</b>	<b>\$ -</b>	<b>\$ 1,117,366,315</b>	<b>\$ 2,863,711</b>	<b>\$ -</b>
<b>Total</b>	<b>\$ 4,882,795,433</b>	<b>\$ 8,590,246</b>	<b>\$ -</b>	<b>\$ 2,153,059,075</b>	<b>\$ 3,714,017</b>	<b>\$ -</b>

<b>FIXED INCOME</b>						
<b>Core Fixed Income</b>						
	<b>Pension Fund</b>			<b>Insurance Fund</b>		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
BNY IG CCREDIT FI UNIT	528,175,362	85,848		171,574,363	34,681	
IG CREDIT FI UNIT	6	80,646		9	35,642	
LOOMIS CORE FIXED INCOME	576,326,427	160,751		209,573,279	58,455	
LORD ABBETT	565,663,902	622,473		218,547,057	253,132	

NISA	616,745,994	844,129		244,270,165	335,426	
PIMCO						
<b>Subtotal</b>	<b>\$ 2,286,911,690</b>	<b>\$ 1,793,846</b>	<b>\$ -</b>	<b>\$ 843,964,873</b>	<b>\$ 717,336</b>	<b>\$ -</b>
<b>Specialty Fixed Income</b>						
	<b>Pension Fund</b>			<b>Insurance Fund</b>		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
BSP PRIVATE CREDIT FUND	55,055,955	496,994		27,527,977	248,498	
CERBERUS KRS LP	91,377,553	2,043,592	1,501,994	39,161,808	875,826	643,713
COLUMBIA	359,037,026	1,225,644		91,852,388	313,816	
H/2 CREDIT PARTNER	83,865,628			32,614,411		
LOOMIS	40,063			38,689		
MANULIFE ASSET MGMT	468,479,717	1,076,245		197,409,302	448,299	
MARATHON BLUEGRASS	348,580,835	2,767,713	3,764,806	137,559,781	1,088,805	1,454,956
MESA WEST CORE LEND	58,668,822	358,905		37,154,841	212,592	
MESA WEST IV	16,029,550	364,500	35,722	6,233,715	141,750	13,892
SHENKMAN CAP	239,064,280	901,817		118,467,187	449,012	
WATERFALL	196,170,087	1,715,532		94,223,963	663,083	
WHITE OAK YIELD SPECTRUM FUND	92,840,460	220,624	635,062	46,420,229	110,312	317,531
<b>Subtotal</b>	<b>\$ 2,009,209,976</b>	<b>\$ 11,171,566</b>	<b>\$ 5,937,584</b>	<b>\$ 828,664,290</b>	<b>\$ 4,551,993</b>	<b>\$ 2,430,092</b>
<b>Total</b>	<b>\$ 4,296,121,665</b>	<b>\$ 12,965,412</b>	<b>\$ 5,937,584</b>	<b>\$ 1,672,629,163</b>	<b>\$ 5,269,330</b>	<b>\$ 2,430,092</b>

<b>OPPORTUNISTIC</b>						
	<b>Pension Fund</b>			<b>Insurance Fund</b>		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
ARROWMARK	117,663,130		827,423	59,914,790		421,327
<b>Total</b>	<b>\$ 117,663,130</b>	<b>\$ -</b>	<b>\$ 827,423</b>	<b>\$ 59,914,790</b>	<b>\$ -</b>	<b>\$ 421,327</b>

<b>ABOLUTE RETURN</b>						
	<b>Pension Fund</b>			<b>Insurance Fund</b>		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
ANCHORAGE CAPITAL		76,237	75,229		34,636	35,427
BLACKSTONE STRAT OPP	4,038,203			1,591,519		
COATUE QUALIFIED PARTNERS						
CREDIT SUISSE	8,283,280	289,434	345,250	3,440,444	122,195	145,423
DAVIDSON-KEMPNER LP		61,522	82,773		24,210	32,572
GOTHAM NEUTRAL STRATEGIES	12,909,848	132,911		5,362,080	55,204	
GOVERNORS LANE ONSHORE FUND	21,457,680	294,049		8,912,405	122,133	
KNIGHTHEAD		5,844	(605)		1,948	(201)
LIQUIDALTS H2O FORCE	16,888,580			7,095,222		
LUXOR CAPITAL	1,665,897			555,299		
MYRIAD OPPORTUNITIES	44,107,645	452,982		17,564,726	165,127	
PAAMCO	164,785			44,220		

PINE RIVER	274,855	3,030		91,618	1,010	
PRISMA CAPITAL	96,840,006	909,977	20,527	40,225,891	377,989	8,527
PRUDENTIAL FUND I			17,337			7,201
SENATOR LP PENSION		29,884	2,015		12,315	830
SRS PARTNERS US	8,413,921	90,317	103,566	3,316,068	35,596	40,817
SYSTEMATICA BLUE MATRIX		30,618	(29,408)		12,717	(12,215)
TIDE POINT PARTNERS						
TOURBILLON GLOBAL EQ		56,552			22,583	
TRICADIA SELECT	3,527,703	23,915		1,390,327	9,425	
<b>Total</b>	<b>\$ 218,572,402</b>	<b>\$ 2,457,273</b>	<b>\$ 616,683</b>	<b>\$ 89,589,819</b>	<b>\$ 997,088</b>	<b>\$ 258,382</b>

PRIVATE EQUITY						
Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
ARBOR INVST II	1		(54,563)	1		(6,063)
ARCANO FUND	25,176,676	177,346	37,341	2,797,409	19,705	2,729
ARES SSF IV	22,170,301	233,871		11,691,348	123,293	
BAY HILLS EM PTNR I	19,554,602		237,624	2,172,734		26,402
BAY HILLS EM PTNR II	65,737,025	40,200	638,398	7,304,115	4,467	70,933
BAY HILLS EM PTNR III	58,150,787	295,188	542,291	49,741,773	252,133	463,193
BAY HILLS II B	51,497,457	99,720	931,491	5,721,939	11,080	103,499
BDCM OPPT FD IV	34,304,142	619,088		23,544,327	424,906	
BLACKSTONE CAP V	2,332,098		(292,963)	613,447		(77,067)
BLACKSTONE CAP VI	52,853,847	171,702	(117,141)	35,235,892	114,467	(97,149)
CM GROWTH I	7,406,174			822,908		
COLUMBIA CAP EQ IV	3,827,119		(6,621)	425,237		
CRESTVIEW PTNRS II	31,896,538	261,821	(150,561)	3,544,053	31,969	(16,729)
CRESTVIEW PTNRS III	30,564,270	161,469	1,979,545	16,457,687	35,670	1,065,907
CVC CAPITAL PARTNERS VI	26,448,157	184,327	508,734	13,975,144	97,397	614,912
DAG VENTURES II QP	4,360,157			484,453		
DAG VENTURES III QP	2,756,392		200,893	306,253		22,321
DAG VENTURES IV QP	57,001,140	200,176		6,333,460	22,242	
DAG VENTURES V QP	28,216,828	80,000	258,878	24,689,718	70,000	226,518
DB PRIVATE EQUITY	18,497,942	147,422	147,110	55,493,822	442,269	441,331
DCM VI LP	11,748,648			1,305,405		
ESSEX WOOD HLTH VIII	11,981,788	90,198		2,662,619	20,044	
GREEN EQTY INVST IV	613,926	(12,843)	(40,676)	68,214	(1,428)	
GREEN EQTY INVST V	46,818,549	17,693	5,393,198	5,202,060	1,966	599,245
GREEN EQTY INVST VI	33,044,724	223,009	(236,035)	28,914,146	195,133	(206,530)
GREEN EQUITY INV VII	15,975,992	53,215		15,975,992	53,215	
GTCR IX LP	138,628	21,133		15,363	2,348	(194,461)
H & F SPOCK I, LP	5,096,397			1,911,148		
HARVEST PARTNERS V	5,993,447		95,320	665,938		(10,812)

HARVEST PARTNERS VI	13,418,078		(130,636)	5,480,630		(53,359)
HARVEST PARTNERS VII	16,144,361	27,449	226,055	16,144,361	27,449	226,055
HELLMAN FRIEDMAN VI	1,191,866		(24,437)	421,227	2	(15,257)
HIG BIOVENTURES II	14,567,559	150,393	696,331	12,409,403	128,113	593,171
HIG CAP PTNRS V	11,885,803	262,000	721,431	6,260,461	138,000	379,991
HIG VENTURE PTNR II	6,020,028		642,196	668,892		71,355
HORSLEY BRDG INTL V	74,147,063	295,314		8,557,720	43,748	
INST VEN PTRN XII	6,836,663			759,494		
JW CHILDS EQUITY III	773			88		
KAYNE ANDERSON	43,002,735	502,306	(613,569)	42,217,141	335,595	520,881
KCP IV CO-INVEST	4,547,981		15,318	3,121,464		10,513
KEYHAVEN CAPITAL III	20,490,097			2,276,678		1
KEYHAVEN CAPITAL IV	4,394,922		(110,543)	3,016,413		(75,870)
LEVINE LEICHTMAN CAP PTRNS V	36,997,776	289,974	(303,886)	19,345,464	151,291	190,404
LEVINE LEICHTMAN FUND VI	13,100,200	439,276		13,100,200	607,996	
MATLINPATTERSON II	1,338,213			148,687		
MATLINPATTERSON III	12,854,641	36,392		1,428,349	4,043	
MERIT MEZZ FD IV	686,457			76,273		
MHR INST PTNRS III				1,500,385	14,333	(184,046)
MILL ROAD CAPITAL	9,396,541			1,044,026		
NEW MTN PTNRS II LP	359,939		(105,954)	71,991	106	(21,190)
NEW MTN PTNRS III LP	22,716,543		414,327	5,048,116		92,072
NEW MTN PTRNS IV LP	34,070,867	51,025	1,276,178	17,866,435	26,757	669,159
OAK HILL CAP PT II	1,759,179	33,823	(9,273)	190,920	2,803	(1,193)
OAK HILL CAP PT III	10,759,281	84,742	71,573	3,984,919	31,386	58,901
OCM OPPTS FD VIIB				161,095	5,852	4,684
RIVERSIDE APPREC VI	30,551,738	310,023	271,445	15,450,702	104,729	(522,562)
STRATEGIC VALUE IV	11,169,521	278,409	26,399	5,597,667	139,526	13,230
SUN CAP PTRNS				298,527		
TCV VI				553,677		(18,670)
TRITON FUND IV	17,368,363	315,854	(152,599)	9,155,241	166,493	(80,438)
VANTAGEPOINT 2006	7,334,280	69,382		814,921	7,710	
VANTAGEPOINT IV	2,429,958			269,995		
VISTA EQ PTNR FD III	5,396,234	21,607	(443,729)	599,581	2,400	(49,301)
VISTA EQ PTNR FD IV	19,666,163	148,485	697,633	16,752,657	126,488	594,281
VISTA EQ PTNR FD VI	28,019,776	149,342	3,252,107	28,019,776	149,342	3,252,107
WARBURG PINCUS PE IX	3,010,780	16,015	(244,624)	602,157	3,203	(24,080)
WARBURG PINCUS PE X	13,599,881	47,412	(569,586)	2,632,254	9,177	(110,243)
WAYZATA OPPTS FD I						
WAYZATA OPPTS FD II	1,058,358			117,596		
WAYZATA OPPTS FD III	6,827,032	33,247		3,598,615	17,525	
<b>Total</b>	<b>\$ 1,181,283,403</b>	<b>\$ 6,627,206</b>	<b>\$ 15,674,419</b>	<b>\$ 567,840,802</b>	<b>\$ 4,164,944</b>	<b>\$ 8,548,775</b>

REAL ESTATE						
Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
BARING REAL ESTATE	37,696,396			16,155,599		
DIVCOWEST IV	3,154,180	37,451	202,822	1,395,122	16,565	115,253
FUNDAMENTAL PARTNERS III	38,731,858	915,848	931,428	16,599,370	392,506	399,183
GREENFIELD ACQ VI	2,544,455	272,736	(209,142)	1,118,373	119,878	(91,925)
GREENFIELD ACQ VII	19,590,354	401,734	213,859	8,597,207	176,301	93,852
HARRISON STREET	81,454,328	606,869		36,980,717	270,935	
L-A VII	29,714,833	279,973		13,040,321	122,866	
LUBERT ADLER RE VIIB	20,539,159	133,177		8,802,497	57,076	
PATRON CAPITAL	14,093,427	368,880		5,480,951	279,872	
PROLOGIS TUSL	82,979,244		8,747,388	32,839,934		3,461,874
RUBENSTEIN PF II	17,021,658	167,322		7,528,809	74,008	
STOCKBRIDGE SM/MKTS	88,890,967	931,257		40,406,796	414,680	
WALTON ST RE FD VI	13,637,377	153,888		1,515,265	17,099	
WALTON ST RE FD VII	14,977,823	311,441		6,583,247	136,889	
<b>Total</b>	<b>\$ 465,026,059</b>	<b>\$ 4,580,575</b>	<b>\$ 9,886,355</b>	<b>\$ 197,044,207</b>	<b>\$ 2,078,674</b>	<b>\$ 3,978,237</b>

REAL RETURN						
Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
AMERRA AGRI FUND II	21,711,032	229,082	288	8,756,088	92,389	116
AMERRA AGRI HOLDINGS	43,818,717	916,152		23,594,694	493,312	
BTG PACTUAL	24,022,028	383,138		10,792,505	172,134	
INTERNAL TIPS	234,800,407			118,640,848		
MAGNETAR MTP						
MAGNETAR MTP EOF II	35,305,820	77,455	949,618	11,768,606	70,805	316,540
NUVEEN REAL ASSET INCOME	219,307,051	1,455,087		89,762,418	610,404	
OBERLAND CAPITAL	3,602,583	539,420	(125,865)	1,618,553	242,349	(56,548)
PIMCO ALL ASSET	345,838,204			140,976,770		
TAURUS MINE FINANCE	25,634,897	563,750	381,123	11,311,185	248,750	275,561
TORTOISE CAPITAL	151,096,037	544,938		47,937,562	172,616	
TPF II	777,151	2,705		86,352	300	
<b>Total</b>	<b>\$ 1,105,913,926</b>	<b>\$ 4,711,726</b>	<b>\$ 1,205,163</b>	<b>\$ 465,245,582</b>	<b>\$ 2,103,059</b>	<b>\$ 535,669</b>

Total Assets and Fees under Management	\$ 12,267,376,018	\$ 39,932,438	\$ 34,147,628	\$ 5,205,323,438	\$ 18,327,111	\$ 16,172,483
Fees in Basis Points (Annualized for Mgmt. Fees)		0.33%	0.28%		0.35%	0.31%

**NOTE:**

**Management Fee** - Management Fees is a fee to compensate investment managers for their time and expertise used to invest KRS funds. The fees typically range from 1%-4% per annum with 2% being the standard.

**Performance/Incentive fee** - a fee charged by the manager for generating returns that exceed the expected rate of return. The standard fee is typically 20% of the amount exceeding the expected rate of return.

**Carried Interest** - a fee charged share of the profits of an investment fund in excess of the amount that the manager contributes to the partnership. The standard fee is typically around 20%

*Fees reported for Private Equity and Real Estate may appear high depending on the investment stage. Management Fees are often charged on committed capital; therefore, during the early phase of raising capital, fees may appear to be high because all the capital has not been called for investment.*