

KENTUCKY RETIREMENT SYSTEMS
Management and Performance Fees
For the Fiscal Year ended March 31, 2020
Unaudited

PUBLIC EQUITY

US Public Equity

Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
INTERNAL MID CAP	116,274,095			51,992,715		
INVESCO	40,938					
NEXT CENTURY GROWTH	46,720,711	226,112		21,237,482	102,777	
NTGI STRUCTURED	145,307,503	192,004		64,253,035	105,333	
RIVER ROAD FAV	159,466,821	356,000		75,129,855	160,914	
S&P 500 INDEX	1,466,292,916			650,786,378		
SCIENTIFIC BETA	363,430,944			161,064,870		
SYSTEMATIC	32			12		
TRANSITION ACCOUNT	38,551			1,733		
WESTFIELD CAPITAL	159,978,051	694,811		74,820,603	314,455	
Subtotal	\$ 2,457,550,563	\$ 1,468,927	\$ -	\$ 1,099,286,684	\$ 683,479	\$ -

Non-US Public Equity

Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
AMERICAN CENTURY	338,313,502	1,141,600		148,060,393	497,753	
BLACKROCK ACWI-EX	602,535,562	334,855		278,805,991	153,779	
BLACKROCK ACWI-EX SC (Insurance ONLY)				27,115,392	31,129	
BOSTON CO				664		
FRANKLIN TEMPLETON	235,272,234	794,606		104,686,437	344,181	
LAZARD ASSET MGMT	416,630,628	835,330		183,233,164	364,236	
LSV ASSET MGMT	336,317,526	1,820,742		143,596,958	770,931	
NON-US TRANS ACCT	1,156,948			375,723		
NTGI INTL SM CAP (Pension ONLY)	60,847,952	52,142				
PYRAMIS	3,461			1,147		
Subtotal	\$ 1,991,077,812	\$ 4,979,275	\$ -	\$ 885,875,869	\$ 2,162,008	\$ -

Emerging Markets

Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
JP MORGAN EMERGING MARKETS	108,018,284	305,786		48,293,331	136,863	
PZENA EMERGING MARKETS	109,566,953	317,120		49,151,764	150,590	
Subtotal	\$ 217,585,237	\$ 622,907	\$ -	\$ 97,445,095	\$ 287,453	\$ -
Total	\$ 4,666,213,612	\$ 7,071,108	\$ -	\$ 2,082,607,648	\$ 3,132,941	\$ -

FIXED INCOME

Core Fixed Income

	Pension Fund			Insurance Fund		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
BNY IG CREDIT FI UNIT		127,074		-	47,011	
IG CREDIT FI UNIT	6			9		
LOOMIS CORE FIXED INCOME	518,519,356	259,662		183,988,463	94,195	
LORD ABBETT	964,590,428	1,007,749		400,512,659	420,562	
NISA	385,193,362	629,486		176,615,588	251,915	
Subtotal	\$ 1,868,303,152	\$ 2,023,970	\$ -	\$ 761,116,719	\$ 813,682	\$ -
Specialty Fixed Income						
	Pension Fund			Insurance Fund		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
BSP COINVEST	11,451,163			5,978,308		
BSP PRIVATE CREDIT FUND	97,520,423	503,037		48,760,210	251,518	
CAPITAL SPRINGS	40,169,500			17,215,500		
CERBERUS KRS LP	121,853,924	1,628,415	1,116,418	52,223,110	697,892	478,465
COLUMBIA	316,485,843	965,645		80,991,365	246,799	
H/2 CREDIT PARTNER	82,356,356			32,027,472		
LOOMIS	36,482			37,654		
MANULIFE ASSET MGMT	314,007,934	798,773		131,674,127	350,393	
MARATHON BLUEGRASS	357,123,278	2,199,286	1,507,490	140,764,091	863,986	565,466
MESA WEST CORE LEND	59,717,361	477,291		39,554,773	299,663	
MESA WEST IV	21,687,291	486,000	52,377	8,561,733	189,000	20,368
SHENKMAN CAP	173,557,130	683,893		97,952,185	355,272	
WATERFALL	210,900,396	752,547		104,313,671	364,689	
WHITE OAK YIELD SPECTRUM FUND	129,560,910	685,270	932,521	60,983,610	342,633	466,260
Subtotal	\$ 1,936,427,992	\$ 9,180,157	\$ 3,608,806	\$ 821,037,809	\$ 3,961,845	\$ 1,530,559
Total	\$ 3,804,731,143	\$ 11,204,127	\$ 3,608,806	\$ 1,582,154,529	\$ 4,775,527	\$ 1,530,559

OPPORTUNISTIC						
	Pension Fund			Insurance Fund		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
ARROWMARK	173,646,206		1,800,036	88,421,717		916,590
Total	\$ 173,646,206	\$ -	\$ 1,800,036	\$ 88,421,717	\$ -	\$ 916,590

ABOLUTE RETURN						
	Pension Fund			Insurance Fund		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
BLACKSTONE STRAT OPP	2,427,931			956,884		
CREDIT SUISSE	415,818	10,434	8,271	172,709	4,334	3,435
GOTHAM NEUTRAL STRATEGIES	12,429,685	87,171		5,162,645	31,607	
GOVERNORS LANE ONSHORE FUND	5,576,338	145,481	22,293	2,316,121	60,425	9,259
LIQUIDALTS H2O FORCE	11,702,174			4,916,311		

LUXOR CAPITAL	1,234,091			411,364		
MYRIAD OPPORTUNITIES	44,895,782	322,384		17,878,374	128,409	
PAAMCO	7,095			1,910		
PINE RIVER	136,488	805		45,496	268	
PRISMA CAPITAL	97,019,183			40,304,501		
SRS PARTNERS US	9,330,748	81,712	229,207	3,677,405	32,204	90,334
TRICADIA SELECT	3,564,792	1,892		1,404,944	746	
Total	\$ 188,740,123	\$ 649,878	\$ 259,770	\$ 77,248,664	\$ 257,993	\$ 103,029

PRIVATE EQUITY						
Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
ARBOR INVST II	56,623		237,260	6,292		26,362
ARCANO FUND	22,715,951	89,363		2,720,081	14,784	1,717
ARES SSF IV	24,422,285	224,227		12,879,051	118,209	
BAY HILLS EM PTNR I	8,111,807		1,079,832	901,313		119,980
BAY HILLS EM PTNR II	71,529,501	47,481	1,040,374	7,947,723	5,276	115,597
BAY HILLS EM PTNR III	55,703,275	434,487	1,197,570	47,651,253	371,113	1,022,893
BAY HILLS II B	57,272,236	56,396	878,309	6,363,580	6,265	97,590
BDCM OPPT FD IV	36,407,642	462,781		24,988,049	317,626	
BLACKSTONE CAP V	2,144,156		(99,572)	563,945		(26,203)
BLACKSTONE CAP VI	43,520,115	110,094	(308,693)	29,013,412	73,392	(377,596)
CM GROWTH I	8,098,083			899,788		
COLUMBIA CAP EQ IV	3,415,068			379,454		
CRESTVIEW PTNRS II	18,448,600	213,604	(850,645)	3,860,251	23,732	(94,516)
CRESTVIEW PTNRS III	34,742,330	211,355	(194,934)	10,345,041	166,064	(78,575)
CVC CAPITAL PARTNERS VI	26,856,702	232,881		14,190,998	123,054	
DAG VENTURES II QP	3,235,412			359,482		
DAG VENTURES III QP	2,338,300			247,992		
DAG VENTURES IV QP	50,014,954			5,557,217		
DAG VENTURES V QP	8,556,716	40,000		7,487,120	35,000	
DB PRIVATE EQUITY	18,117,482	131,836	185,203	54,352,447	524,948	555,609
DCM VI LP	10,989,912			1,221,102		
ESSEX WOOD HLTH VIII	10,032,845	179,944		2,229,520	39,988	
GREEN EQTY INVST IV						
GREEN EQTY INVST V	34,160,386	6,558		3,795,598	729	
GREEN EQTY INVST VI	36,053,618	77,871	487,835	31,546,929	68,138	426,856
GREEN EQUITY INV VII	22,981,299	38,735	291,996	22,981,298	38,735	291,996
GTCR IX LP						
H & F SPOCK I, LP (KRONOS)	6,408,881			2,403,328		
HARVEST PARTNERS V	88,341			9,817		(40,125)
HARVEST PARTNERS VI	15,008,656		246,545	6,130,301		271,375
HARVEST PARTNERS VII	21,233,878	35,067	36,823	21,233,878	35,067	36,823

HELLMAN FRIEDMAN VI	996,380		(32,597)	373,660		(6,131)
HIG BIOVENTURES II	14,331,111	136,225	934,316	12,207,984	116,043	795,898
HIG CAP PTNRS V	14,467,329	151,622	924,029	7,620,197	79,862	486,702
HIG VENTURE PTNR II	5,840,649		(46,769)	641,919		(7,085)
HORSLEY BRDG INTL V	80,025,739	295,314		8,891,747	21,874	
INST VEN PTRN XII	5,563,080			617,984		
JW CHILDS EQUITY III	20,729			73		
KAYNE ANDERSON	35,457,926	332,146	(1,146,510)	35,457,926	665,568	(950,286)
KCP IV CO-INVEST	4,963,964		6,483	3,406,968		4,450
KEYHAVEN CAPITAL III	16,968,340		(402)	1,885,369		(44)
KEYHAVEN CAPITAL IV	4,473,849		206,192	3,070,584		141,518
LEVINE LEICHTMAN CAP PTRNS V	40,065,047	412,785	(2,901,840)	20,903,503	291,115	(664,880)
LEVINE LEICHTMAN FUND VI	12,660,928	314,952		12,660,928	314,952	
MATLINPATTERSON II	1,322,059			146,895		
MATLINPATTERSON III	11,561,335	18,196		1,284,651	2,021	
MERIT MEZZ FD IV	196,154			85,900		
MHR INST PTNRS III				1,244,161	12,588	279,414
MIDDLE GROUND	16,377,522	386,616		8,188,769	193,309	
MILL ROAD CAPITAL	6,599,002			733,223		
NEW MTN PTNRS II LP	268,212		(23,019)	53,646		(4,604)
NEW MTN PTNRS III LP	26,396,709		920,003	5,865,930		204,445
NEW MTN PTRNS IV LP	25,172,519	104,422	1,730,321	13,200,222	54,755	907,365
OAK HILL CAP PT II	874,273	11,442	11,393	96,694	2,226	2,818
OAK HILL CAP PT III	5,913,360	49,851	(51,555)	2,190,132	18,463	(17,748)
OCM OPPTS FD VIIB				136,072	154	74
RIVERSIDE APPREC VI	21,986,940	301,310	955,347	11,589,563	264,616	930,395
STRATEGIC VALUE IV	16,714,065	146,137	415,591	9,223,138	109,857	419,974
SUN CAP PTRNS				257,770		
TCV VI				337,723		
TRITON FUND IV	15,008,674	283,505	804,414	7,911,397	149,441	424,024
VANTAGEPOINT 2006	2,172,021	112,618		704,231	8,895	
VANTAGEPOINT IV	6,338,016			241,336		
VISTA EQ PTNR FD III	4,253,078	7,798	(379,560)	472,569	(1)	(42,179)
VISTA EQ PTNR FD IV	17,900,872	88,195	(489,290)	15,248,895	75,129	(416,802)
VISTA EQ PTNR FD VI	30,953,806	113,576	1,077,916	30,953,806	113,576	1,077,916
WARBURG PINCUS PE IX	2,306,983	(1,100)	(61,613)	461,397	(220)	(12,323)
WARBURG PINCUS PE X	9,374,051	37,322	(422,414)	1,814,327	7,222	(226,050)
WAYZATA OPPTS FD II	1,024,072			113,786		
WAYZATA OPPTS FD III	5,863,868	62,173		3,090,919	32,873	
Total	\$ 1,117,077,718	\$ 5,957,784	\$ 6,658,339	\$ 545,652,255	\$ 4,496,439	\$ 5,676,645

REAL ESTATE		
	Pension Fund	Insurance Fund

Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
BARING REAL ESTATE	42,241,755			18,103,608		
DIVCOWEST IV	3,067,533	39,504	149,741	1,356,799	17,473	
FUNDAMENTAL PARTNERS III	62,268,093	733,164	2,347,320	26,686,328	314,213	1,005,995
GREENFIELD ACQ VI	798,274	168,784	(159,634)	350,868	74,186	(70,164)
GREENFIELD ACQ VII	19,827,234	298,892	381,488	8,701,163	131,168	167,416
HARRISON STREET	83,484,880	464,223		39,098,150	215,305	
L-A VII	28,914,592	202,805		12,689,136	89,001	
LUBERT ADLER RE VIIB	31,312,374	162,773	962,162	13,419,589	72,050	412,355
PATRON CAPITAL	18,566,252	269,793		7,220,460	104,920	
PROLOGIS TUSL	147,280,226		10,808,986	57,010,265		4,266,639
RUBENSTEIN PF II	16,367,756	159,552		7,239,584	70,572	
STOCKBRIDGE SMMKTS	89,851,248	570,212		41,990,563	264,350	
WALTON ST RE FD VI	12,658,279	104,049		1,406,475	11,561	
WALTON ST RE FD VII	10,191,111	336,313		4,479,330	147,820	
Total	\$ 566,829,606	\$ 3,510,064	\$ 14,490,063	\$ 239,752,318	\$ 1,512,619	\$ 5,782,242

REAL RETURN						
Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
AMERRA AGRI FUND II	24,456,817	142,922	1,003,482	9,863,467	57,640	404,706
AMERRA AGRI HOLDINGS	49,138,784	688,755		26,459,347	370,869	
BTG PACTUAL	26,810,942	314,847		12,045,496	141,453	
IFM INFRAS T DEBT FUND	43,954,110	55,973		18,837,475	23,988	
INTERNAL TIPS	38,092,446			44,962,523		
MAGNETAR MTP EOF II	33,791,199	318,472	477,190	11,263,732	106,158	159,063
NUVEEN REAL ASSET INCOME	168,039,295	1,088,247		68,760,165	429,715	
OBERLAND CAPITAL	6,577,893	156,389		2,955,287	70,262	
PIMCO ALL ASSET	293,313,289			119,565,622		
TAURUS MINE FINANCE	27,525,705	225,271	391,556	12,145,488	99,399	172,771
TORTOISE CAPITAL	71,101,127	246,362		22,463,021	78,086	
TPF II	775,832			86,206		
Total	\$ 783,577,440	\$ 3,237,238	\$ 1,872,228	\$ 349,407,830	\$ 1,377,571	\$ 736,540

Total Assets and Fees under Management	\$ 11,300,815,848	\$ 31,630,200	\$ 28,689,242	\$ 4,965,244,961	\$ 15,553,090	\$ 14,745,605
Fees in Basis Points (Annualized for Mgmt. Fees)		0.37%	0.25%		0.42%	0.30%

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.