

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

PUBLIC EQUITY

US Public Equity

Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
ABEL NOSER	42,380			18,008		
INTERNAL MID CAP	175,044,983			77,530,679		
INVESCO	49,486					
NEXT CENTURY GROWTH	117,256,092	410,723		53,319,886	187,093	
NTGI STRUCTURED	236,475,130	142,346		104,416,778	63,474	
RIVER ROAD	-			601		
RIVER ROAD FAV	236,192,250	273,364		109,146,123	127,141	
S&P 500 INDEX	1,940,463,444			885,986,913		
SCIENTIFIC BETA	207,664,751			93,100,888		
SYSTEMATIC	-			2,696		
TRANSITION ACCOUNT	38,525			1,732		
WESTFIELD CAPITAL	235,909,331	390,483		109,578,035	187,490	
Subtotal	\$ 3,149,136,371	\$ 1,216,916	\$ -	\$ 1,433,102,339	\$ 565,198	\$ -

Non-US Public Equity

Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
AMERICAN CENTURY	475,731,453	869,359		212,601,491	387,185	
BLACKROCK WORLD EX	937,347,584	187,783		420,339,588	84,040	
BLACKROCK ACWI-EX SC (Insurance ONLY)				43,618,100	24,248	
BOSTON CO				742		
FRANKLIN TEMPLETON	364,668,266	624,158		161,009,511	260,015	
LAZARD ASSET MGMT	512,477,261	676,194		229,335,405	290,835	
LSV ASSET MGMT	396,895,612	1,087,535		178,493,259	488,693	
NON-US TRANS ACCT	1,192,828			490,470		
NTGI INTL SM CAP (Pension ONLY)	97,807,592	35,474				
PYRAMIS	4,036			1,148		
Subtotal	\$ 2,786,124,632	\$ 3,480,503	\$ -	\$ 1,245,889,714	\$ 1,535,016	\$ -

Emerging Markets

Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
JP MORGAN EMERGING MARKETS	191,596,826	598,359		85,526,381	270,057	
PZENA EMERGING MARKETS	168,798,075	416,388		76,101,913	187,197	
Subtotal	\$ 360,394,902	\$ 1,014,747	\$ -	\$ 161,628,294	\$ 457,253	\$ -
Total	\$ 6,295,655,905	\$ 5,712,166	\$ -	\$ 2,840,620,347	\$ 2,557,467	\$ -

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						
IG CREDIT FI UNIT	6			9		
LOOMIS CORE FIXED INCOME	473,886,937	238,838		166,144,365	84,313	
LORD ABBETT	1,638,663,048	977,691		602,911,884	376,325	
NISA	170,298,173	158,923		104,017,863	98,259	
Subtotal	\$ 2,282,848,163	\$ 1,375,451	\$ -	\$ 873,074,122	\$ 558,897	\$ -
Specialty Fixed Income						
	Pension Fund			Insurance Fund		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
ADAMS ST SPC II A1	37,648,762	46,570	128,459	16,135,184	19,958	55,054
ADAMS ST SPC II B1	37,823,706			16,210,161		
BLUE TORCH	20,807,390	31,366		8,917,452	13,442	
BSP COINVEST	25,926,170			12,249,312		
BSP PRIVATE CREDIT FUND	85,033,740	413,912		42,516,869	206,956	
CAPITAL SPRINGS	34,418,902	271,301	472,304	14,508,861	116,272	242,097
CERBERUS KRS LP	128,942,700	1,603,240	1,206,712	55,261,157	687,103	517,161
COLUMBIA	513,674,186	816,355		211,496,984	440,899	
H/2 CREDIT PARTNER	79,367,198			30,865,021		
LOOMIS	37,062			37,800		
MANULIFE ASSET MGMT	357,575,589	430,980		149,802,261	181,708	
MARATHON BLUEGRASS	434,445,312	1,612,977	6,666,931	173,642,466	639,473	2,494,396
MESA WEST CORE LEND	59,741,594	238,858		40,909,512	158,683	
MESA WEST IV	22,154,107	145,800	(15,208)	8,612,614	56,700	36,122
SHENKMAN CAP	201,366,013	412,152		113,607,804	233,190	
WATERFALL	234,943,487	573,718		114,365,595	278,782	
WHITE OAK YIELD SPECTRUM FUND	161,858,757	723,315		76,174,579	340,384	
Subtotal	\$ 2,435,764,675	\$ 7,320,545	\$ 8,459,198	\$ 1,085,313,632	\$ 3,373,550	\$ 3,344,830
Total	\$ 4,718,612,838	\$ 8,695,996	\$ 8,459,198	\$ 1,958,387,754	\$ 3,932,447	\$ 3,344,830

OPPORTUNISTIC						
	Pension Fund			Insurance Fund		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
ARROWMARK	370,905,924		1,132,942	188,867,580		576,902
Total	\$ 370,905,924	\$ -	\$ 1,132,942	\$ 188,867,580	\$ -	\$ 576,902

ABOLUTE RETURN						
	Pension Fund			Insurance Fund		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
BLACKSTONE STRAT OPP	1,870,619			737,238		

GOTHAM NEUTRAL STRATEGIES		30,427			12,638	
GOVERNORS LANE ONSHORE FUND	253,314			105,213		
LUXOR CAPITAL	1,093,904			364,635		
MYRIAD OPPORTUNITIES	35,986,526	187,874		14,357,651	75,385	
PAAMCO	7,095			1,910		
PINE RIVER	104,781	271		34,927	90	
PRISMA CAPITAL	97,281,070			40,413,296		
SRS PARTNERS US	4,347,283	43,891		1,713,337	17,298	
TRICADIA SELECT	1,575,171			620,801		
Total	\$ 142,519,762	\$ 262,462	\$ -	\$ 58,349,008	\$ 105,411	\$ -

PRIVATE EQUITY						
Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
ARBOR INVST II	70,202	(18)		7,801		
ARCANO FUND	20,248,877	89,042		2,249,876	9,894	
ARES SSF IV	22,080,447	105,047		11,640,456	55,379	
BAY HILLS EM PTNR I	5,908,911		(96,838)	656,546		(10,759)
BAY HILLS EM PTNR II	74,474,771	21,038	114,084	8,274,975	2,338	12,676
BAY HILLS EM PTNR III	58,617,388	219,562	419,231	50,140,316	187,537	358,082
BAY HILLS II B	55,199,542	25,529	162,669	6,133,282	2,837	18,075
BDCM OPPT FD IV	38,841,902	262,356		26,658,779	180,065	
BLACKSTONE CAP V	1,733,410		683,937	455,861		179,983
BLACKSTONE CAP VI	35,132,616	85,056	2,508,225	23,421,746	56,707	1,672,149
CM GROWTH I	9,735,800			1,081,755		
COLUMBIA CAP EQ IV	3,502,118			389,125		
CRESTVIEW PTNRS II	31,997,246	71,169		3,555,240	15,365	
CRESTVIEW PTNRS III	22,950,263	189,757		12,357,819	102,174	
CVC CAPITAL PARTNERS VI	28,248,124	100,133		14,926,243	52,910	
DAG VENTURES II QP	1,698,635			188,729		
DAG VENTURES III QP	393,165			43,672		
DAG VENTURES IV QP	54,527,942			6,058,660		
DAG VENTURES V QP	5,769,121	30,000		5,047,971	26,250	52,340
DB PRIVATE EQUITY	12,512,322	83,148	(127,498)	37,536,964	249,442	(382,494)
DCM VI LP	13,489,319			1,498,813		
ESSEX WOOD HLTH VIII	9,447,990	35,800		2,099,553	7,955	
GREEN EQTY INVST V	36,042,002	(14,224)		4,004,668	(1,580)	
GREEN EQTY INVST VI	34,634,195	74,047	1,027,153	30,304,934	64,791	898,759
GREEN EQUITY INV VII	27,925,972	16,575	2,075,979	27,925,971	16,575	2,075,979
H & F SPOCK I, LP (KRONOS)	7,213,240			2,704,962		
HARVEST PARTNERS V	130,677			14,520		
HARVEST PARTNERS VI	8,652,507			3,534,125		(50,717)
HARVEST PARTNERS VII	23,513,845	49,345		23,513,845	49,345	
HELLMAN FRIEDMAN VI	327,670		51,704	122,894		19,389

HIG BIOVENTURES II	14,936,345	108,351	25,032	12,723,552	92,299	21,324
HIG CAP PTNRS V	14,690,613	92,006	533,147	7,737,805	48,462	280,818
HIG VENTURE PTNR II	4,340,715		(335,626)	482,302		(37,292)
HORSLEY BRDG INTL V	93,284,509	295,314		10,364,946	21,874	
INST VEN PTRN XII	1,427,103			158,432		
JW CHILDS EQUITY III	20,866			2,321		
KAYNE ANDERSON	15,743,819	165,820		15,743,819	165,820	
KCP IV CO-INVEST	5,469,726		11,420	5,469,726		29,657
KEYHAVEN CAPITAL III	17,104,556			1,900,507		
KEYHAVEN CAPITAL IV	6,360,289		33,031	4,365,324		22,670
LEVINE LEICHTMAN CAP PTRNS V	43,869,115	374,504	813,207	22,888,293	195,394	424,282
LEVINE LEICHTMAN FUND VI	22,164,775	489,998	(322,947)	22,164,775	489,998	(322,947)
MATLINPATTERSON II	1,439,767			159,974		
MATLINPATTERSON III	567,012			63,021		
MERIT MEZZ FD IV	250,825			27,869		
MHR INST PTNRS III				1,432,088	4,785	
MIDDLE GROUND	44,420,326	284,642		22,210,165	142,318	
MILL ROAD CAPITAL	3,558,560			395,396		
NEW MTN PTNRS II LP	367,288		(5,622)	73,462	91	(1,125)
NEW MTN PTNRS III LP	17,211,105		1,762,050	3,824,688		391,566
NEW MTN PTRNS IV LP	30,060,329	82,248	1,584,716	15,763,345	43,130	831,009
OAK HILL CAP PT II	929,639		22,968	103,294		2,552
OAK HILL CAP PT III	7,220,830	22,505	480,344	2,674,382	8,336	147,887
OCM OPFS FD VIIB				14,359		(30,202)
RIVERSIDE APPREC VI	16,251,562	190,468	750,223	8,566,363	100,398	395,452
STRATEGIC VALUE IV	42,456,405	258,552	963,024	21,277,243	129,574	482,623
SUN CAP PTRNS				251,720		
TCV VI				41,701		
TRITON FUND IV	15,192,311	211,882	(514,871)	8,008,197	111,688	(271,400)
VANTAGEPOINT 2006	8,588,628	56,212		954,294	6,246	
VANTAGEPOINT IV	467,803			260,792		
VISTA EQ PTNR FD III	3,810,711	17,381	46,812	423,421	231	5,202
VISTA EQ PTNR FD IV	17,077,180	44,098	342,123	14,547,229	37,564	291,437
VISTA EQ PTNR FD VI	31,969,272	91,408	4,520,965	31,969,272	185,087	4,520,965
WARBURG PINCUS PE IX	1,643,219		(5,101)	328,644		
WARBURG PINCUS PE X	3,889,823	9,686		752,828	1,875	
WAYZATA OPFS FD II	1,299,855			144,429		
WAYZATA OPFS FD III	6,131,835	55,732		3,232,168	29,377	
Total	\$ 1,139,236,934	\$ 4,294,168	\$ 17,523,541	\$ 548,052,248	\$ 2,892,530	\$ 12,027,941

REAL ESTATE						
	Pension Fund			Insurance Fund		
Asset Manager	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
BARING REAL ESTATE	74,749,858			32,035,652		

BARING EURO REAL ESTATE II	685,188			293,652		
DIVCOWEST IV	3,013,510	13,386	181,961	1,332,902	8,880	66,211
FUNDAMENTAL PARTNERS III	55,298,740	393,594	1,010,001	23,699,463	168,683	432,858
GREENFIELD ACQ VI	441,896	13,338		194,229	5,862	
GREENFIELD ACQ VII	12,224,626	193,878	13,123	5,364,767	85,082	
HARRISON STREET	84,545,215	469,599		40,803,470	226,627	
L-A VII	24,189,419	134,273		10,615,499	58,926	
LUBERT ADLER RE VIIB	29,504,247	135,564	(186,560)	12,644,678	58,099	(79,954)
PATRON CAPITAL	20,922,968	205,204		8,136,926	79,801	
PROLOGIS TUSL ¹	146,837,549	314,837	(3,088,969)	56,856,232	1,495,080	(1,214,314)
RUBENSTEIN PF II	16,595,377	104,461		7,340,262	46,204	
STOCKBRIDGE SM/MKTS	88,093,060	369,926		42,478,909	177,551	
WALTON ST RE FD VI	11,357,123	65,679		1,261,902	7,298	
WALTON ST RE FD VII	8,406,316	131,668		3,694,855	57,872	
Total	\$ 576,865,092	\$ 2,545,408	\$ (2,070,445)	\$ 246,753,396	\$ 2,475,965	\$ (795,200)

¹Performance and Manager fee error found in 8/2020. Adjustments done for FY19 & FY20.

REAL RETURN						
Asset Manager	Pension Fund			Insurance Fund		
	AUM	Management Fees	Performance Fees	AUM	Management Fees	Performance Fees
AMERRA AGRI FUND II	24,416,918	140,692	26,635	9,841,931	37,952	5,445
AMERRA AGRI HOLDINGS	45,994,551	478,574		24,766,299	257,694	
BTG PACTUAL	22,241,454	219,038		9,992,537	98,409	
IFM INFRAS T DEBT FUND	44,703,728	37,140		19,158,740	15,917	
INTERNAL TIPS	127,934			271,608		
MAGNETAR MTP EOF II	26,758,956	199,802	1,201,123	8,919,652	66,601	400,374
NUVEEN REAL ASSET INCOME	210,222	52,666		76,239	3,362	
OBERLAND CAPITAL	7,743,973	67,894	32,104	3,479,178	30,503	13,782
PUTNAM	555,518,941	549,876		244,808,323	242,148	
TAURUS MINE FINANCE	19,510,499	117,438		8,608,845	51,818	
TORTOISE CAPITAL	99,105,578	121,948		31,349,038	38,580	
TPF II	773,085			85,901		
Total	\$ 847,105,839	\$ 1,985,069	\$ 1,259,862	\$ 361,358,291	\$ 842,984	\$ 419,601

Total Assets and Fees under Management	\$ 14,090,902,293	\$ 23,495,269	\$ 26,305,098	\$ 6,202,388,623	\$ 12,806,804	\$ 15,574,074
Fees in Basis Points (Annualized for Mgmt. Fees)		0.33%	0.19%		0.41%	0.25%

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.