Kentucky Retirement Systems Investment Committee Meeting

February 21, 2024, at 10:00 a.m. ET (9:00 a.m. CT) Via Video Teleconference and Facebook Live

(Members of the public can view a stream of the meeting at 1260 Louisville Road, Frankfort, KY)

AGENDA

1.	Call to Order	Prewitt Lane
2.	Opening Legal Statement	Victoria Hale
3.	Roll Call	Sherry Rankin
4.	Public Comment	Sherry Rankin
5.	Approval of Minutes* - November 9, 2023 and January 18, 2024	Prewitt Lane
6.	Quarterly Investment Budget Update	Steve Willer
7.	Investment Review and Update	Steve Willer/Wilshire
8.	Adiourn*	Prewitt Lane

^{*} Committee Action May be Taken

MINUTES OF MEETING KENTUCKY RETIREMENT SYSTEMS INVESTMENT COMMITTEE MEETING NOVEMBER 9, 2023, 10:00 A.M., E.T. VIA LIVE VIDEO TELECONFERENCE

At the November 9, 2023, Regular Meeting of the Kentucky Retirement Systems' (KRS) Investment Committee, the following Committee members were present: Prewitt Lane (Chair), Ramsey Bova, David Adkins, and Pamela Thompson. Staff members present were David Eager, Rebecca Adkins, Erin Surratt, Carrie Bass, Mike Lamb, Steve Willer, Anthony Chiu, Brian Caldwell, Joe Gilbert, Ashley Gabbard, Shaun Case, Katie Park, and Sherry Rankin. Others in attendance included CERS CEO Ed Owens, III, and David Lindberg and Chris Tessman with Wilshire Advisors, LLC.

Mr. Lane called the meeting to order.

Ms. Rankin took called Roll.

There being no *Public Comment*, Mr. Lane introduced agenda item *Approval of Minutes – August* 8, 2023 (Video 00:07:50 to 00:08:29). Mr. Adkins made a motion and was seconded by Ms. Bova to approve the minutes as presented. The motion passed unanimously.

Mr. Lane introduced agenda item *Quarterly Investment Budget Update* (Video 00:08:30 to 00:14:29). Mr. Willer presented the KPPA Investment Budget and the Pension/Insurance Investment Fees and Expenses for the three-month period ending September 30, 2023.

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Mr. Lane introduced agenda item *Investment Review and Update* (Video 00:14:30 to 01:06:11).

Next, Mr. Willer provided a Market Update. He also reviewed plan performance data for the three-

month period ending September 30, 2023, for KERS Nonhazardous, KERS Hazardous, and SPRS.

He advised that a special called KRS Investment Committee meeting would likely be scheduled

prior to the end of the calendar year to suggest new asset allocations. Mr. Willer also reviewed the

KRS Compliance Guideline Review for the period ended September 30, 2023.

Mr. Lane introduced agenda item *Investment Office Update*– None.

There being no further business, Mr. Lane requested a motion to *adjourn* the meeting. Mr. Adkins

made a motion to adjourn and was seconded by Ms. Bova. The motion passed unanimously.

Copies of all documents presented are incorporated as part of the minutes of the Kentucky

Retirement Systems' Investment Committee meeting held November 9, 2023.

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CERTIFICATION

I do certify that I was present at this meeting, and I have recorded above the action of the
Committee on the various items considered by it at this meeting. Further, I certify that all
requirements of KRS 61.805-61.850 were met in connection with this meeting.
Recording Secretary
I, as Chair of the Kentucky Retirement Systems Investment Committee, do certify that the Minutes
of the meeting held on November 9, 2023, were approved by the Kentucky Retirement Systems
Investment Committee on February 21, 2024.
Committee Chair
I have reviewed the Minutes of the Kentucky Retirement Systems Investment Committee Meeting
on November 9, 2023, for form, content, and legality.
Office of Legal Services

MINUTES OF MEETING KENTUCKY RETIREMENT SYSTEMS SPECIAL CALLED INVESTMENT COMMITTEE MEETING JANUARY 18, 2024, 10:00 A.M., E.T. VIA LIVE VIDEO TELECONFERENCE

At the January 18, 2024, Kentucky Retirement Systems' (KRS) Special Called Investment Committee Meeting, the following Committee members were present: C. Prewitt Lane (Chair), Ramsey Bova, David Adkins, and Pamela Thompson. Staff in attendance included KRS CEO John Chilton, David Eager, Rebecca Adkins, Erin Surratt, Michael Lamb, Victoria Hale, Steve Willer, Anthony Chiu, Joseph Gilbert, Brian Caldwell, Shaun Case, Ashley Gabbard, Katie Park, and Sherry Rankin. Others in attendance included David Lindberg, Ned McGuire, Craig Morton, and Chris Tessman with Wilshire Advisors, LLC.

Mr. Lane called the meeting to order.

Ms. Hale read the Opening Statement.

Ms. Rankin called roll.

There being no *Public Comment* submitted, Mr. Lane introduced agenda item *Asset Allocation Analysis* (*Video 00:08:41 to 01:37:58*). Mr. Willer and Wilshire Advisors presented an Asset Allocation Analysis.

*** Ms. Thompson exited ***

Mr. Adkins made a motion to adopt Lower Risk A. Ms. Bova seconded the motion and the motion passed unanimously.

Mr. Adkins made a motion to adopt Lower Risk X. Ms. Bova seconded the motion and the motion passed unanimously.

KRS Investment Committee Meeting - Approval of Minutes - November 9, 2023 and January 18, 2024

Mr. Lane introduced agenda item Real Return Investment Recommendation (Video 01:38:00 to

02:08:19). Mr. Willer and Mr. Chiu presented a real return investment opportunity with Saba

Capital Management (Saba).

Saba is a New York-based investment firm founded in 2009 focused on relative value and arbitrage

strategies. Saba utilizes its credit analysis and trading background to arbitrage dislocations and

hedge risk across capital structures and markets.

Mr. Adkins made a motion for KRS to investment \$75 million with Saba Capital as presented

pending successful contract negotiations. Ms. Bova seconded the motion and the motion passed

unanimously.

There being no further business, Mr. Lane *adjourned* the meeting.

Copies of all documents presented are incorporated as part of the minutes of the Kentucky

Retirement Systems Investment Committee meeting held January 18, 2024.

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CERTIFICATION

I do certify that I was present at this meeting, and I have recorded	d above the action of the
Committee on the various items considered by it at this meeting.	Further, I certify that all
requirements of KRS 61.805-61.850 were met in connection with this	meeting.
	Recording Secretary
	Recording Secretary
I, Chair of the Kentucky Retirement Systems Investment Committee of	of the Board of Trustees of
the Kentucky Retirement Systems, do certify that the Minutes of the m	neeting held on January 18
2024, were approved by the Kentucky Retirement Systems Investment	nt Committee on February
21, 2024.	
	Committee Chair
I have reviewed the Minutes of the Kentucky Retirement Systems	Special Called Investment
Committee Meeting on January 18, 2024, for form, content, and legalit	ty.
_	0.00
	Office of Legal Services

Kentucky Retirement Systems

Investment Budget Update

Quarter Ending: December 31, 2023

Investment Budget

		For the	six month peri	od ending Dec	ember 31, 2023	3			
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Investment Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent
CONSULTING SERVICES									
Wilshire Associates	\$ 1,021,799	\$ 1,238,170	\$ 1,225,671	\$ 1,021,175	\$ 838,172	\$ 1,200,000	\$ 563,753	\$ 636,247	47%
Albourne	-	-	-	-	306,750	275,000	135,000	140,000	49%
MercerInsight	-	-	-	-	153,548	165,000	80,000	85,000	48%
SUBTOTAL	1,021,799	1,238,170	1,225,671	1,021,175	1,298,471	1,640,000	778,753	861,247	47%
LEGAL & AUDITING SERVICES									
Faegre Drinker			96,039	202,502	16,428	100,000	3,380	96,620	3%
Intelligent Management Solutions (IMS)	620,001	202,140	155,700	69,884	81,880	350,000	-	350,000	0%
McClain/Goldberg			891	-	-	100,000	-	100,000	0%
Reinhart	317,909	671,269	663,689	619,509	109,508	2,500,000	22,150	2,477,850	1%
Stoll-Keenon-Ogden	10,314	135,353	254,211	463,560	750,438	750,000	79,626	670,374	11%
Haystack			-	-	120,175	100,000	117,409	(17,409)	117%
Umberg Zipser			289,100	498,058	606,701	850,000	378,342	471,658	45%
Swansburg & Smith	-	-	-	-	5,288	50,000	-	50,000	0%
Eddins Domine	-	-	-	-	40,305	50,000	-	50,000	0%
Taft	-	-	-	-	142,720	50,000	1,060	48,940	2%
Miscellaneous				-	-	50,000	3,160	46,840	6%
SUBTOTAL	948,225	1,008,762	1,459,630	1,853,513	1,873,441	4,950,000	605,127	4,344,873	12%
CONTRACTURAL SERVICES									
Bloomberg	68,722	71,810	98,163	102,243	104,153	150,000	55,067	94,933	37%
BNYM Custodial Fees	2,056,390	2,088,475	2,379,838	2,565,169	2,333,981	2,600,000	619,478	1,980,522	24%
eVestment (Solovis RMS)			-	30,000	33,800	35,000	-	35,000	0%
Solovis (Reporting & Analytics)			-	245,000	266,017	275,000	306,319	(31,319)	111%
FactSet	222,476	162,295	109,662	140,098	146,411	150,000	64,580	85,420	43%
Russell Index Subscription	1,075	1,250	1,000	1,000	750	1,500	500	1,000	33%
S&P Global		94,500	26,250	68,250	27,563	75,000	-	75,000	0%
TradeWeb			-	6,000	7,700	7,500	2,800	4,700	37%
State Street/Elkins McSherry	10,000	5,000	15,000	10,000	10,000	10,000	-	10,000	0%
ISS	32,050	32,050	28,288	35,813	39,875	60,000	31,438	28,563	52%
MSCI	1,000	1,000	1,000	1,000	1,000	1,000	1,000	-	100%
KPMG Tax Guarantor Services		7,606	22,050	7,350	-	7,500	9,450	(1,950)	126%
Jayant Ghevaria and CO		10,050	-	52,085	-	55,000	-	55,000	0%
India Renewal Fee (SEBI)			-	3,000	-	3,000	2,950	50	98%
With Intelligence	-	-	-	-	9,520	9,520	9,520	-	100%
Miscellaneous & New Services	-	-	-	-	-	250,000	32,753	217,247	13%
SUBTOTAL	2,391,713	2,474,036	2,681,251	3,267,008	2,980,769	3,690,020	1,135,855	2,554,165	31%

	KENTUCKY PUBLIC PENSIONS AUTHORITY Investment Budget For the six month period ending December 31, 2023														
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Investment Budget FY 2024	FY24 Expenditures	Remaining	Percentage Spent						
INACTIVE CONTRACTURAL SERVICES															
Dean Dorton	9,719		-	1	250	-	-	-							
Hirschler		4,794	-	1			-								
INFORMA	12,904		•	1		-	-		İ						
Lighthouse Solutions	3,093		-	-			-		l						
London Stock Exchange GBP (GREAT BRITISH POUNDS)		3,544	-	-		-	-								
Deutsche Bank Trust	3,000		3,000	-			-		 						
Morris James LLP	94,192	20,154	-	-		-	-		 						
Calcaterra Pollack			1,200,000	-			-								
Manatt		90,798	30,757	-		-	-								
ORG	162,344		-	-	, and the second	-	-		1						
SUBTOTAL	291,718	119,290	1,233,757	-	250	-		-	_						
TOTAL	\$ 4,653,455	\$ 4,840,258	\$ 6,600,309	\$ 6,141,696	\$ 6,152,931	\$ 10,280,020	2,519,735	\$ 7,760,285	25%						

INVESTMENT BUDGET	
CONSULTING SERVICES	
Wilshire Associates	General Investment Consultanting Services, Manager Research and Due Dilligence, Reporting, Asset Allocation
Albourne	Investment Consultant Research database - Private Markets Manager Research, Private Markets Research, Pension Markets Research
MercerInsight	Investment Consultant Research database - Public Markets Manager Research, Public Markets Research, Pension Markets Research
LEGAL & AUDITING SERVICES	
Faegre Drinker	Delaware litigation counsel
Intelligent Management Solutions (IMS)	IMS is an expert witness in the Bay Hills case.
McClain/Goldberg	Blackstone litigation counsel for the Trustees and Officers
Reinhart	Bay Hills counsel and investment counsel for contract negotiations
Stoll-Keenon-Ogden	Mayberry counsel
Haystack	Conduct Mayberry eDiscovery
Umberg Zipser	PAAMCO-Prisma (California litigation)
Frost Brown Todd	Currently has no investment-related cases
Swansburg & Smith	Reimbursement of Fiduciary Legal Expenses (KKR)
Eddins Domine	Reimbursement of Fiduciary Legal Expenses (KKR)
Taft	Reimbursement of Fiduciary Legal Expenses (Calcaterra Pollack)
CONTRACTURAL SERVICES	
Bloomberg	Bloomberg Professional Services, Data Analytics and Tools, Market Information and News, Research Portal
BNYM Custodial Fees	Full Service Custodial Services, Investment Accounting, Investment Operations, Transaction Services, Performance and Attribution, Reporting
eVestment (Solovis RMS)	Research Management Program organizing internal and exteranl research
Solovis (Reporting & Analytics)	Portfolio and Risk Analytics, Perfromance Measurement and Attribution, Reporting
FactSet	Workstation and Quant/Risk Applications for managing Public Equity Portfolios
Russell Index Subscription	Access to Russell Indexes for Portfolio Management, Reporting and Performance
S&P Global	Data on the S & P US Index / License to 10,000 Identifiers for Portfolio Management, Reporting and Performance
TradeWeb	Electronic Trading Platform for Internal Management
State Street/Elkins McSherry	Public Equity Trade Cost Analysis
ISS	Portfolio Monitoring and Proxy Voting Services
MSCI	International Public Equity Data Package
KPMG Tax Guarantor Services	Tax Accounting Services - Taiwan
Jayant Ghevaria and CO	Tax Accounting Services - India
India Renewal Fee (SEBI)	Registration of India Local Market Accounts
Oxford Economics	Global macroeconomics and markets research
With Intelligence	Portfolio Management Research provider

Investment Fees and Expenses

For the six month period ending December 31, 2023

Pension

				Elisioli				
	20	24	20	23	203	22	202	21
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	1,014,583	2,287,704,103	1,412,142	1,982,992,065	1,591,391	2,344,396,966	1,401,242	2,282,848,163
Investment Advisory Fees	989,977		1,073,446		1,558,075		1,375,451	
Perfromance Fees			313,985				-	
Miscellaneous Fees and Expenses	24,606		24,711		33,316		25,791	
Public Equity	7,003,749	8,229,412,149	6,326,122	6,860,008,005	7,390,244	7,258,279,054	5,850,569	6,295,655,905
Investment Advisory Fees	6,885,398		6,216,244		7,204,226		5,712,166	
Miscellaneous Fees and Expenses	118,350		109,877		186,018		138,403	
Specialty Credit Fixed Income	43,867,219	3,449,111,420	26,763,395	3,169,416,226	25,775,685	3,159,992,882	17,264,718	2,435,764,675
Investment Advisory Fees	9,314,024		8,272,318		8,375,883		7,320,545	
Perfromance Fees	15,712,746		7,246,973		12,762,781		8,459,198	
Miscellaneous Fees and Expenses	18,840,449		11,244,103		4,637,021		1,484,975	
Real Estate	2,347,363	1,007,031,285	5,120,746	980,167,711	16,451,186	780,082,609	980,198	584,165,093
Investment Advisory Fees	3,803,771		4,590,896		2,401,864		2,324,269	
Perfromance Fees	(3,707,401)		(380,882)		12,653,860		(2,070,445)	
Miscellaneous Fees and Expenses	2,250,993		910,732		1,395,462		726,374	
Real Return	2,496,799	873,036,117	2,108,571	451,152,401	2,632,576	1,021,821,360	3,216,441	847,105,839
Investment Advisory Fees	2,099,651		1,176,185		2,001,915		1,985,069	
Perfromance Fees	147,085		493,101		679,897		1,259,862	
Miscellaneous Fees and Expenses	250,063		439,285		(49,236)		(28,490)	
Private Equity	8,028,455	1,162,891,960	(1,217,614)	1,143,362,622	39,968,415	1,262,539,645	24,365,092	1,139,236,934
Investment Advisory Fees	2,925,557		3,652,032		3,928,841		4,294,168	
Perfromance Fees	2,383,986		(6,838,180)		33,350,556		17,523,541	
Miscellaneous Fees and Expenses	2,718,912		1,968,535		2,689,018		2,547,383	
Administrative Expense/Cash	2,118,142	737,649,280	1,574,490	813,973,145	1,878,932	612,903,688	1,435,169	266,674,138
Total Investment Fees and Expenses	66,876,308	17,746,836,314	42,087,852	15,401,072,174	95,688,429	16,440,016,204	54,513,429	13,851,450,747

^{*} Absolute Return was absorbed by Real Return in December 2020

^{**} Opportunistic was absorbed by Specialty Credit in December 2021

Investment Fees and Expenses

For the six month period ending December 31, 2023

Insurance

				isurance				
	20	24	20	23	20	22	200	21
	FYTD Fees	Market Value						
Core Fixed Income	342,823	780,518,762	526,658	755,273,150	587,743	855,261,654	568,510	873,074,122
Investment Advisory Fees	334,225		406,870		457,920		558,897	
Perfromance Fees			112,040		117,337		-	
Miscellaneous Fees and Expenses	8,598		7,748		12,486		9,613	
Public Equity	3,225,651	3,720,705,634	2,916,264	3,159,950,145	3,221,274	3,246,444,061	2,616,659	2,840,620,347
Investment Advisory Fees	3,171,832		2,866,269		3,161,508		2,557,467	
Miscellaneous Fees and Expenses	53,819		49,995		59,766		59,192	
Specialty Credit Fixed Income	19,604,727	1,527,908,553	12,006,819	1,440,474,508	11,449,880	1,449,432,096	7,239,534	1,085,313,532
Investment Advisory Fees	4,026,821		3,715,203		3,748,168		3,373,550	
Perfromance Fees	7,206,526		3,460,460		5,702,991		3,344,830	
Miscellaneous Fees and Expenses	8,371,380		4,831,156		1,998,721		521,154	
Real Estate	1,223,228	451,520,869	2,141,670	414,400,346	6,801,703	330,413,444	536,259	246,753,396
Investment Advisory Fees	1,719,862		1,913,144		1,021,218		1,015,005	
Perfromance Fees	(1,461,607)		(161,966)		5,182,012		(795,199)	
Miscellaneous Fees and Expenses	964,973		390,492		598,473		316,453	
Real Return	1,116,868	342,016,500	938,266	175,390,319	1,140,159	432,244,515	1,245,054	361,358,291
Investment Advisory Fees	936,352		530,992		889,226		842,984	
Carried Interest	64,072		201,933		266,344		419,601	
Miscellaneous Fees and Expenses	116,444		205,341		(15,411)		(17,531)	
Private Equity	4,902,486	587,662,239	275,237	573,107,746	22,563,618	595,876,977	16,438,474	548,052,248
Investment Advisory Fees	1,826,381		2,427,153		2,772,848		2,892,530	
Perfromance Fees	1,279,105		(3,062,207)		18,845,205		12,027,941	
Miscellaneous Fees and Expenses	1,797,000		910,292		945,565		1,518,003	
Administrative Expense/Cash	1,050,278	142,324,349	821,924	223,048,022	963,210	401,003,570	842,635	108,497,980
Total Investment Fees and Expenses	\$ 31,466,061	\$ 7,552,656,905	\$ 19,626,840	\$ 6,741,644,236	\$ 46,727,587	\$ 7,310,676,317	\$ 29,487,125	\$ 6,063,669,916

^{*} Absolute Return was absorbed by Real Return in December 2020

^{**} Opportunistic was absorbed by Specialty Credit in December 2021

Investment Fees and Expenses

For the six month period ending December 31, 2022

Pension **KERS KERS Hazardous SPRS FYTD Fees Market Value FYTD Fees Market Value FYTD Fees Market Value Core Fixed Income** 344,876 797,393,911 51,400 115.037.340 57,414 128,496,057 336,520 50,153 56,021 **Investment Advisory Fees** Perfromance Fees Miscellaneous Fees and Expenses 8,356 1,247 1,393 **Public Equity** 1,060,055 1,284,527,581 363,593 427,549,223 191,726 209,968,666 Investment Advisory Fees 1,040,803 357,380 188,608 Miscellaneous Fees and Expenses 19,252 6,213 3,118 Specialty Credit Fixed Income 7,822,304 669,128,008 2,336,289 193,038,888 911,023 108,150,275 Investment Advisory Fees 1,771,766 508,596 233,045 Perfromance Fees 2,781,521 811,792 293,208 Miscellaneous Fees and Expenses 3,269,017 1,015,901 384,770 Real Estate 403,424 222,511,579 118,185 60,451,094 68,801 36,342,683 Investment Advisory Fees 688,336 192,009 100,265 Perfromance Fees (698, 353)(189, 178)(80,082)Miscellaneous Fees and Expenses 413,441 115,354 48,618 Real Return 301.399 271,748,620 104,752 67,650,255 87,109 43,853,615 Investment Advisory Fees 285,288 82,382 78,195 4,443 7,731 2,893 Perfromance Fees Miscellaneous Fees and Expenses 11,668 14,639 6,021 Private Equity 1,193,645 197,909,099 445,480 67,556,459 121,089 30,498,213 Investment Advisory Fees 200,454 167,311 35,884 Perfromance Fees 652,394 126,356 44,419 40,786 Miscellaneous Fees and Expenses 340,797 151,813 Administrative Expenses/Cash 368,916 95,923 (35,184)63,967,088 415,637,301 28,015,888

3,858,856,099

3,515,622

959,299,148

1,401,978

621,276,597

11,494,619

Total Investment Mgmt Fees & Expenses

Investment Fees and Expenses

For the six month period ending December 31, 2023

Insurance

		IIIsui	arice			
	l l	KERS	KERS	Hazardous	9	SPRS
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	79,155	185,076,610	33,435	65,850,135	12,824	25,777,059
Investment Advisory Fees	77,169		32,595		12,502	
Perfromance Fees	=		=		-	
Miscellaneous Fees and Expenses	1,986		840		322	
Public Equity	644,391	701,267,879	252,827	287,439,373	104,578	115,421,672
Investment Advisory Fees	633,961		248,570		102,836	
Miscellaneous Fees and Expenses	10,430		4,257		1,742	
Specialty Credit Fixed Income	3,468,545	313,193,081	1,922,315	139,160,076	717,906	55,367,538
Investment Advisory Fees	785,595		385,229		145,383	
Perfromance Fees	1,217,357		728,972		266,041	
Miscellaneous Fees and Expenses	1,465,593		808,114		306,482	
Real Estate	199,794	99,256,370	126,316	43,511,718	48,101	16,610,956
Investment Advisory Fees	270,325		179,058		68,283	
Perfromance Fees	(207,552)		(155,222)		(59,350)	
Miscellaneous Fees and Expenses	137,021		102,480		39,168	
Real Return	233,116	110,579,441	82,242	36,539,993	32,791	14,572,807
Investment Advisory Fees	196,246		64,234		26,620	
Perfromance Fees	18,173		6,023		1,837	
Miscellaneous Fees and Expenses	18,697		11,985		4,334	
Private Equity	846,400	111,088,826	474,528	51,363,838	189,937	22,847,116
Investment Advisory Fees	271,036		168,832		73,363	
Perfromance Fees	227,412		161,152		51,092	
Miscellaneous Fees and Expenses	347,952		144,544		65,482	
Administrative Expenses/Cash	91,604	45,781,191	148,625	16,195,968	52,993	6,650,079
Total Investment Mgmt Fees & Expenses	\$ 5,563,005	\$ 1,566,243,400	\$ 3,040,288	\$ 640,061,101	\$ 1,159,131	\$ 257,247,227

Kentucky Retirement Systems

Investment Review and Update

Quarter Ending: December 31, 2023

Kentucky Retirement Systems

Economic and Market Update

Quarter Ending: December 31, 2023

Asset Class Performance

A L	Class	Datuma	Daatta	\
Asset	Class	Returns -	Best to	worst

2018	2019	2020	2021	2022	2023 YTD
T-Bills	U.S. Equity	U.S. Equity	REITs	Commodities	U.S. Equity
1.9%	31.0%	20.8%	46.2%	16.1%	26.1%
Core Bond	REITs	Emrg Mrkts	Commodities	T-Bills	Developed
0.0%	25.8%	18.7%	27.1%	1.3%	18.9%
U.S. TIPS	Developed	U.S. TIPS	U.S. Equity	High Yield	REITs
-1.3%	22.7%	11.0%	26.7%	-11.2%	16.1%
High Yield	Emrg Mrkts	Developed	Developed	U.S. TIPS	High Yield
-2.1%	18.9%	8.3%	11.8%	-11.8%	13.4%
REITs	High Yield	Core Bond	U.S. TIPS	Core Bond	Emrg Mrkts
-4.8%	14.3%	7.5%	6.0%	-13.0%	10.3%
U.S. Equity	Core Bond	High Yield	High Yield	Developed	Core Bond
-5.3%	8.7%	7.1%	5.3%	-14.0%	5.5%
Commodities	U.S. TIPS	T-Bills	T-Bills	U.S. Equity	T-Bills
-11.2%	8.4%	0.7%	0.0%	-19.0%	5.1%
Developed	Commodities	Commodities	Core Bond	Emrg Mrkts	U.S. TIPS
-13.4%	7.7%	-3.1%	-1.5%	-19.7%	3.9%
Emrg Mrkts	T-Bills	REITs	Emrg Mrkts	REITs	Commodities
-14.2%	2.3%	-7.9%	-2.2%	-26.8%	-1.3%

Annualized
5-Year
as of 12/23
U.S. Equity
15.4%
Developed
8.7%
REITs

Commodities 6.1%

7.6%

High Yield 5.4%

Emrg Mrkts 4.1%

U.S. TIPS

3.2% T-Bills

1.9%

Core Bond 1.1%

Data Sources: Bloomberg

Note: Developed asset class is developed equity markets ex-U.S., ex-Canada

December 2023 Asset Class Assumptions

			EQU	JITY				FIXED INCOME / CREDIT					REAL ASSETS						
		Dev		Global					LT				Dev ex-	Keal					
	US	ex-US	Emg	ex-US	Global	Private		Core	Core		High	Private	US Bond	US	Global	Private		Real	US
	Stock	Stock	Stock	Stock	Stock	Equity	Cash	Bond	Bond	TIPS	Yield	Credit	(Hdg)	RES	RES	RE	Cmdty	Assets	CPI
Compound Retrun (%)	5.00	6.00	6.25	6.35	5.60	8.65	3.80	4.75	4.70	4.15	5.90	8.40	2.85	5.60	5.75	6.30	6.05	6.90	2.25
Arithmetic Return (%)	6.35	7.50	9.20	8.00	6.95	12.35	3.80	4.85	5.15	4.30	6.35	9.15	2.95	7.00	7.00	7.20	7.20	7.65	2.25
Risk (%)	17.00	18.00	26.00	19.00	17.05	29.65	0.75	4.70	9.85	6.00	10.00	12.75	4.00	17.50	16.45	13.90	16.00	12.60	1.75
Cash Yield (%)	1.45	3.10	2.50	2.95	2.00	0.00	3.80	5.10	5.25	4.35	9.20	4.95	3.65	3.90	3.90	2.50	3.80	3.40	0.00
Growth Factor Exposure	8.00	8.00	8.00	8.00	8.00	14.00	0.00	-0.90	-2.40	-3.00	4.00	5.10	-1.00	6.00	6.00	3.50	0.00	2.70	0.00
Inflation Factor Exposure	-3.00	0.00	5.00	1.40	-1.35	-3.75	0.00	-2.55	-6.85	2.50	-1.00	-1.50	-3.00	1.00	1.80	1.00	12.00	5.25	1.00
CORRELATIONS																			
US Stock	1.00																		
Dev ex-US Stock (USD)	0.81	1.00																	
Emerging Mkt Stock	0.74	0.74	1.00																
Global ex-US Stock	0.84	0.95	0.89	1.00															
Global Stock	0.95	0.91	0.84	0.94	1.00														
Private Equity	0.72	0.63	0.61	0.67	0.73	1.00													
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.06	0.00	1.00												
Core Bond	0.28	0.13	0.00	0.08	0.20	0.30	0.18	1.00											I
LT Core Bond	0.31	0.15	0.01	0.11	0.24	0.31	0.11	0.94	1.00										
TIPS	-0.05	0.00	0.15	0.06	-0.01	-0.03	0.20	0.60	0.48	1.00									I
High Yield Bond	0.54	0.39	0.49	0.46	0.53	0.31	-0.10	0.24	0.32	0.05	1.00								
Private Credit	0.67	0.55	0.57	0.59	0.67	0.44	0.00	0.24	0.30	0.00	0.75	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.16	0.17	0.26	0.10	0.67	0.65	0.39	0.26	0.22	1.00						
US RE Securities	0.57	0.47	0.44	0.49	0.56	0.49	-0.05	0.17	0.22	0.10	0.56	0.61	0.05	1.00					
Global RE Securities	0.63	0.56	0.54	0.59	0.64	0.55	-0.05	0.17	0.21	0.11	0.60	0.67	0.04	0.97	1.00				1
Private Real Estate	0.55	0.45	0.45	0.49	0.54	0.50	-0.05	0.19	0.25	0.09	0.57	0.62	0.05	0.78	0.77	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.28	0.00	-0.03	-0.03	0.25	0.29	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.61	0.62	0.66	0.68	0.66	0.56	-0.03	0.24	0.26	0.32	0.64	0.69	0.05	0.78	0.83	0.76	0.62	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	0.00	-0.08	0.05	0.04	0.05	0.44	0.21	1.00

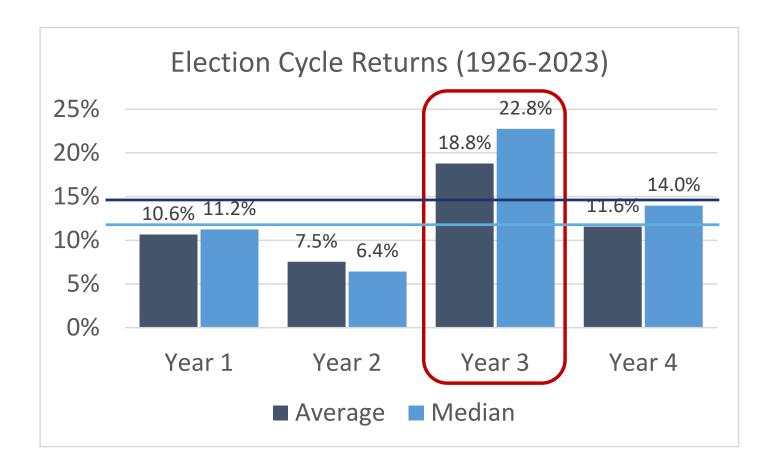
Thematic Return Stacks

Asset Allocation & Thematic Returns



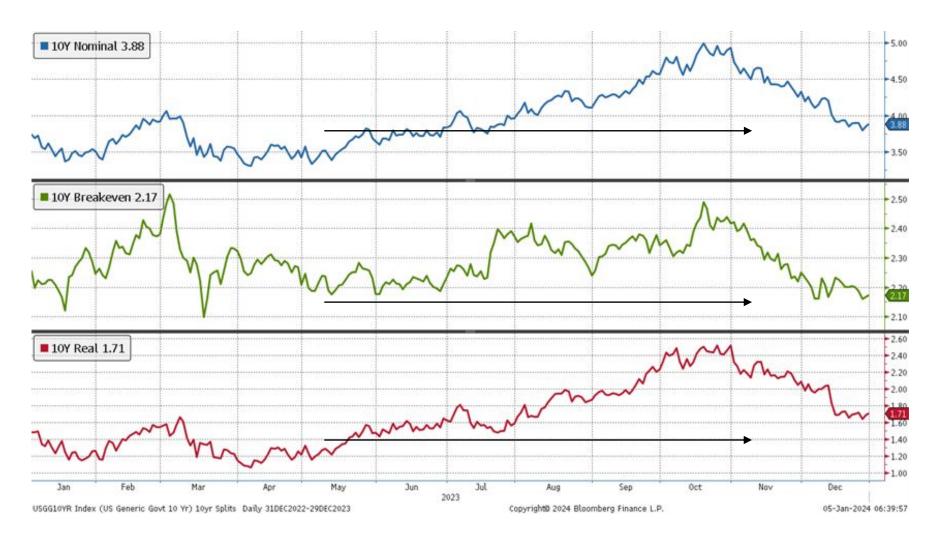
Data Source: Wilshire, Bloomberg

Election Cycles

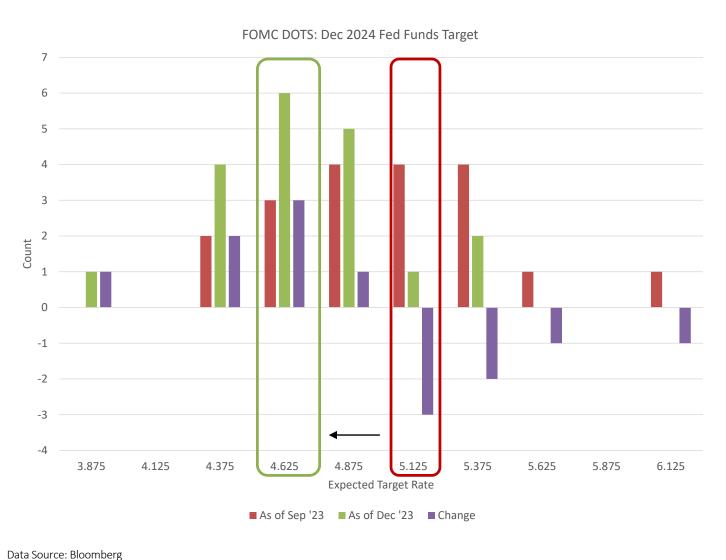


Data Source: Wilshire Compass

Yield Whiplash

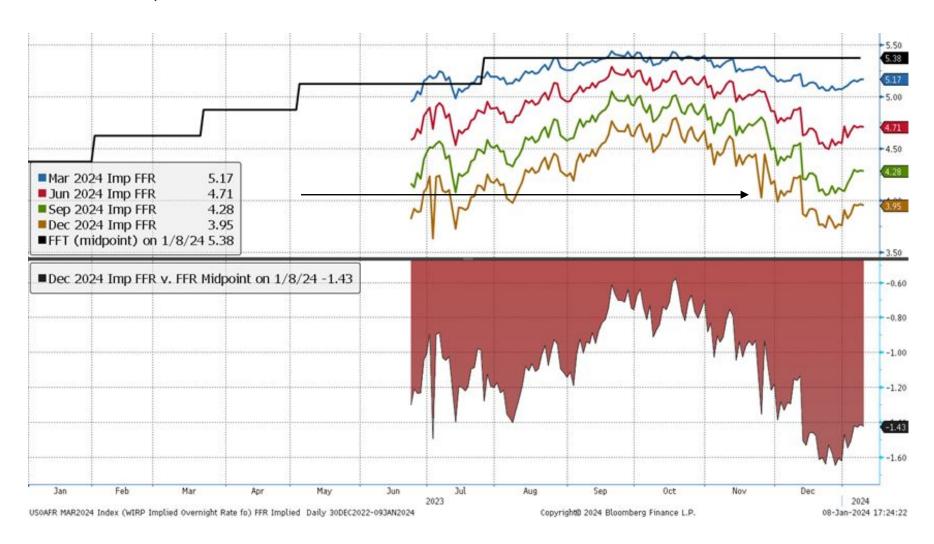


Fed Pivot: Hinting at "Mission Accomplished"

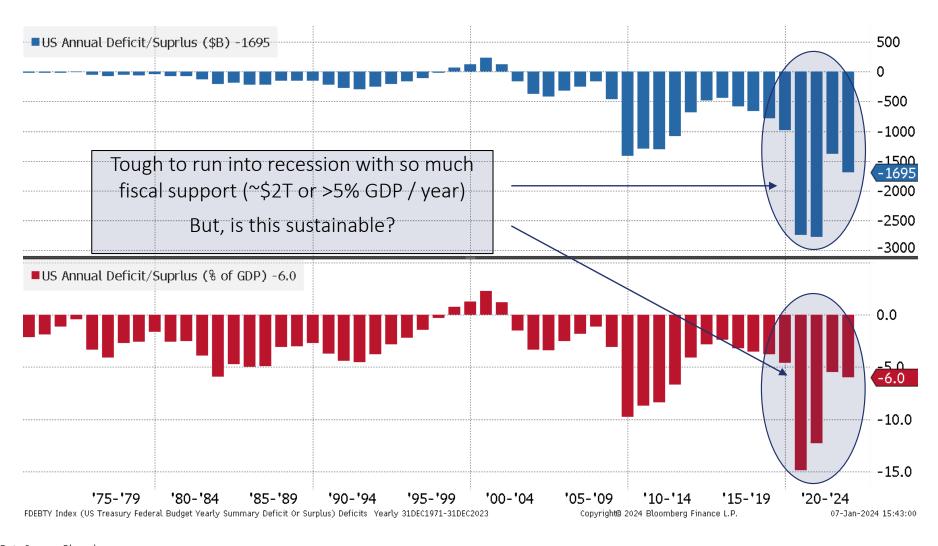


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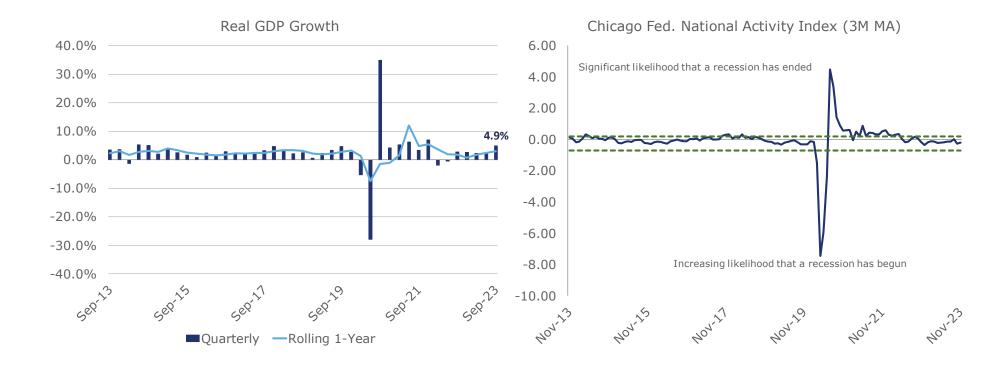
Markets Expect More in Rate Cuts



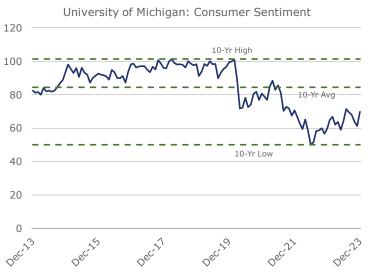
Recession Risks: How Did We All Get It So Wrong?

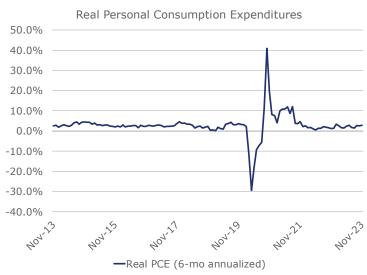


Economic Growth



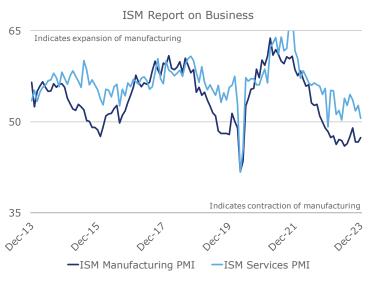
Consumer Activity

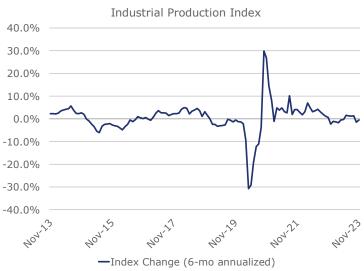






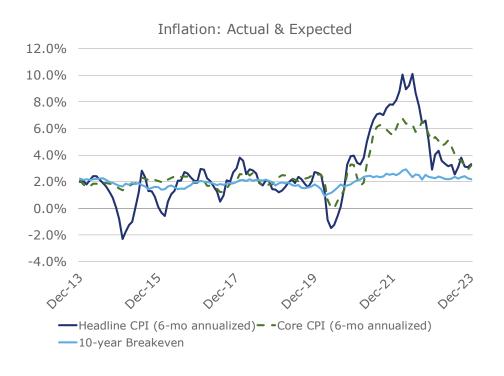
Business Activity

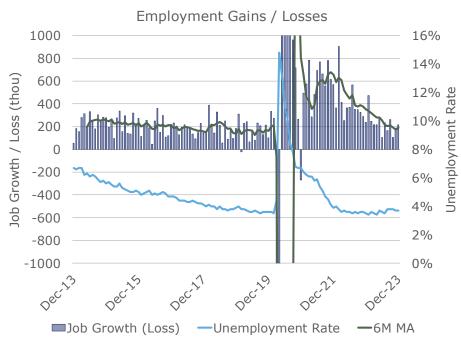






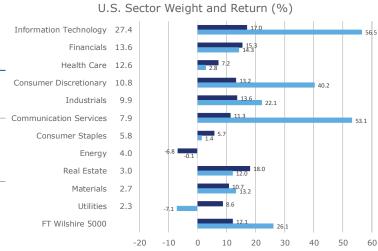
Inflation and Employment



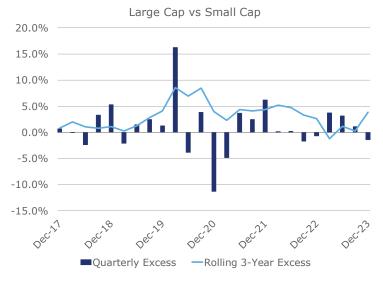


U.S. Equity Market

As of 12/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	12.1	26.1	26.1	9.0	15.4	11.7
Wilshire U.S. Large Cap	11.9	27.3	27.3	9.5	15.9	12.2
Wilshire U.S. Small Cap	13.5	19.5	19.5	5.5	12.0	8.7
Wilshire U.S. Large Growth	14.7	46.1	46.1	8.7	19.2	n/a
Wilshire U.S. Large Value	9.1	11.1	11.1	10.0	12.2	n/a
Wilshire U.S. Small Growth	12.9	21.8	21.8	0.6	11.6	n/a
Wilshire U.S. Small Value	14.2	17.2	17.2	10.3	12.1	n/a
Wilshire REIT Index	16.3	16.1	16.1	7.5	7.6	7.7
MSCI USA Min. Vol. Index	7.8	9.8	9.8	6.5	10.3	10.4
FTSE RAFI U.S. 1000 Index	11.2	16.1	16.1	12.3	14.3	10.4



■ Quarter ■ Year-to-Date

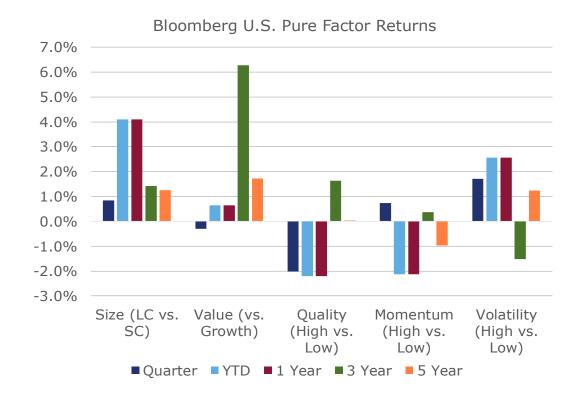




Data Sources: Bloomberg, Wilshire Atlas

U.S. Factor Returns

- Factor returns represent the contribution from large cap, value, etc. stocks within Bloomberg's Portfolio & Risk Analytics module
- Large cap and high volatility have mostly outperformed this year



Annual Equity Market Selloffs

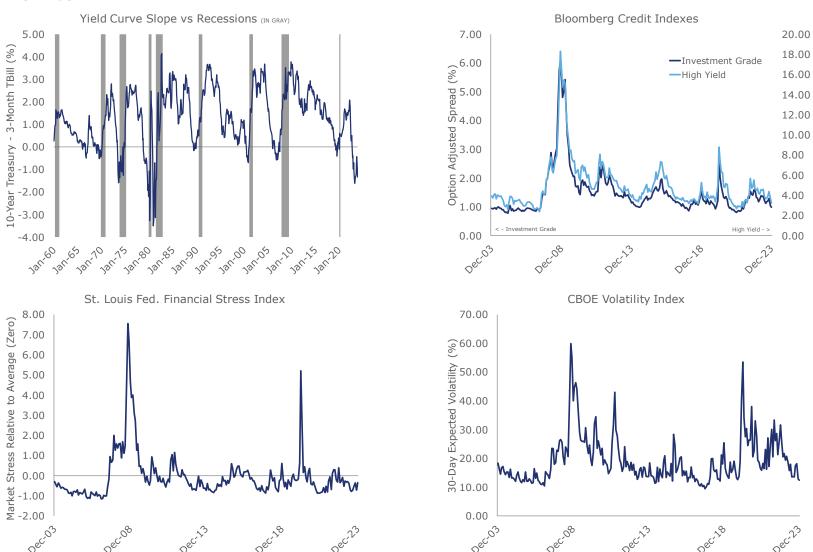
U.S. equity suffered a meaningful selloff in Feb.-Mar. but generally rebounded strongly from 2022

FT Wilshire 5000 Index Worst Intra-Period Selloff vs. Annual Return (%)

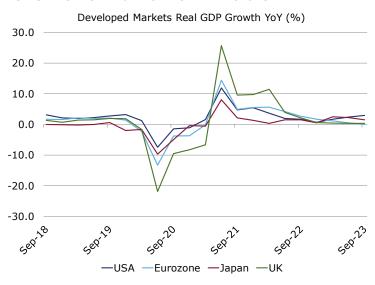


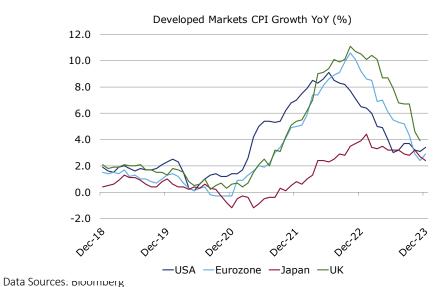
Data Sources: Wilshire Web, Bloomberg

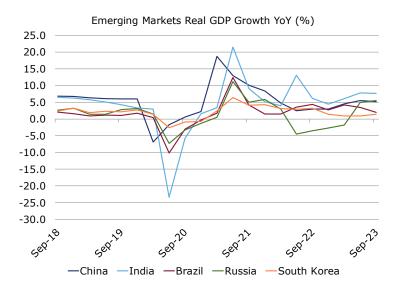
Risk Monitor

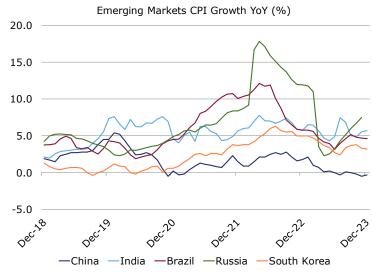


Non-U.S. Growth and Inflation



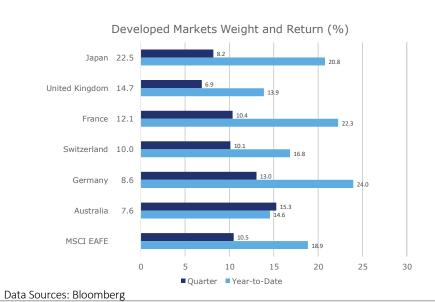






Non-U.S. Equity Market

As of 12/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	9.8	16.2	16.2	2.0	7.6	4.3
MSCI EAFE (\$G)	10.5	18.9	18.9	4.5	8.7	4.8
MSCI Emerging Markets (\$G)	7.9	10.3	10.3	-4.7	4.1	3.0
MSCI Frontier Markets (\$G)	7.6	12.5	12.5	-1.1	1.6	0.9
MSCI ACWI ex-US Growth (\$G)	11.2	14.4	14.4	-2.4	7.8	4.9
MSCI ACWI ex-US Value (\$G)	8.7	18.1	18.1	6.4	7.2	3.8
MSCI ACWI ex-US Small (\$G)	10.2	16.2	16.2	2.0	8.4	5.3
MSCI ACWI Minimum Volatility	6.6	8.4	8.4	3.8	7.1	7.5
MSCI EAFE Minimum Volatility	7.3	12.4	12.4	1.1	4.1	4.7
FTSE RAFI Developed ex-US	9.5	19.0	19.0	7.7	8.8	4.5
MSCI EAFE LC (G)	5.0	16.8	16.8	9.2	10.0	7.1
MSCI Emerging Markets LC (G)	5.6	10.3	10.3	-2.1	5.8	5.6



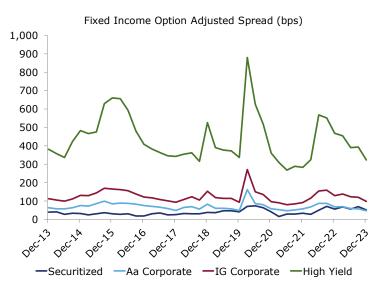


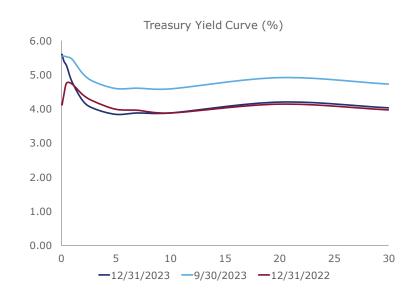
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U.S. Fixed Income

As of 12/31/2023	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.5	6.2	6.8	5.5	5.5	-3.3	1.1	1.8
Bloomberg Treasury	4.1	6.2	5.7	4.1	4.1	-3.8	0.5	1.3
Bloomberg Gov't-Rel.	4.6	5.3	5.5	5.8	5.8	-2.4	1.4	2.0
Bloomberg Securitized	4.7	5.8	7.3	5.1	5.1	-2.8	0.4	1.4
Bloomberg Corporate	5.1	7.1	8.5	8.5	8.5	-3.3	2.6	3.0
Bloomberg LT Gov't/Credit	4.7	14.3	13.2	7.1	7.1	-8.7	1.1	3.2
Bloomberg LT Treasury	4.1	15.7	12.7	3.1	3.1	-11.4	-1.2	2.3
Bloomberg LT Gov't-Rel.	5.2	11.8	11.2	8.9	8.9	-6.1	1.5	3.5
Bloomberg LT Corporate	5.2	13.1	14.0	10.9	10.9	-6.6	2.9	3.9
Bloomberg U.S. TIPS *	3.9	7.3	4.7	3.9	3.9	-1.0	3.2	2.4
Bloomberg High Yield	7.6	3.2	7.2	13.4	13.4	2.0	5.4	4.6
S&P/LSTA Leveraged Loan	9.4	0.3	2.9	13.3	13.3	5.8	5.8	4.4
Treasury Bills	5.2	0.3	1.4	5.1	5.1	2.1	1.9	1.3

^{*} Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index

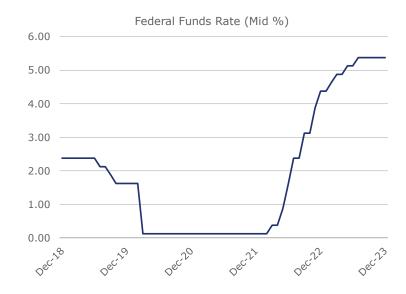


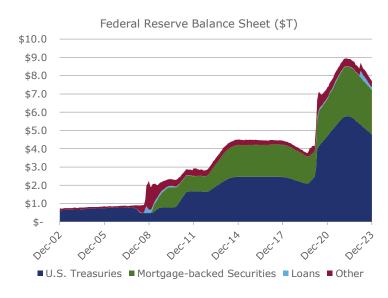


Federal Reserve

- The Federal Open Market Committee has left their overnight rate unchanged since July of 2023
- QE4 was larger than the 3 phases of quantitative easing – combined – following the global financial crisis
- The Fed's balance sheet has begun to shrink again during the past nine months

	Announced	Closed	Amount (bil)
QE1	11/25/2008	3/31/2010	\$1,403
QE2	11/3/2010	6/29/2012	\$568
QE3	9/13/2012	10/29/2014	\$1,674
QE4	3/23/2020	3/15/2022	\$4 <i>,</i> 779



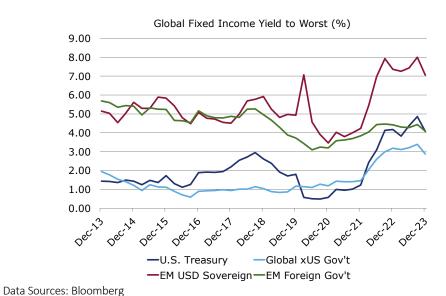


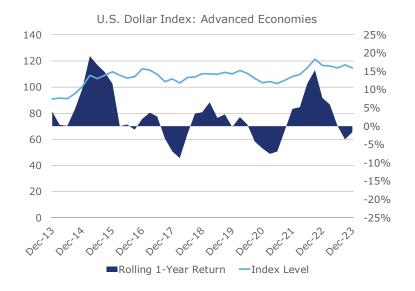
Data Sources: Bloomberg

Non-U.S. Fixed Income

As of 12/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Developed Markets						
Bloomberg Global Aggregate xUS	9.2	5.7	5.7	-7.2	-1.6	-0.8
Bloomberg Global Aggregate xUS *	5.4	8.3	8.3	-1.2	1.5	2.8
Bloomberg Global Inflation Linked xUS	11.9	7.4	7.4	-8.7	-1.4	-0.2
Bloomberg Global Inflation Linked xUS *	7.6	5.3	5.3	-4.5	0.4	3.3
Emerging Markets (Hard Currency)						
Bloomberg EM USD Aggregate	8.1	9.1	9.1	-3.1	1.8	3.0
Emerging Markets (Foreign Currency)						
Bloomberg EM Local Currency Gov't	7.0	6.9	6.9	-1.2	2.1	1.3
Bloomberg EM Local Currency Gov't *	3.9	8.6	8.6	1.4	3.1	3.0
Euro vs. Dollar	4.4	3.1	3.1	-3.3	-0.8	-2.2
Yen vs. Dollar	5.9	-7.0	-7.0	-9.9	-4.9	-2.9
Pound vs. Dollar	4.4	5.4	5.4	-2.3	0.0	-2.6

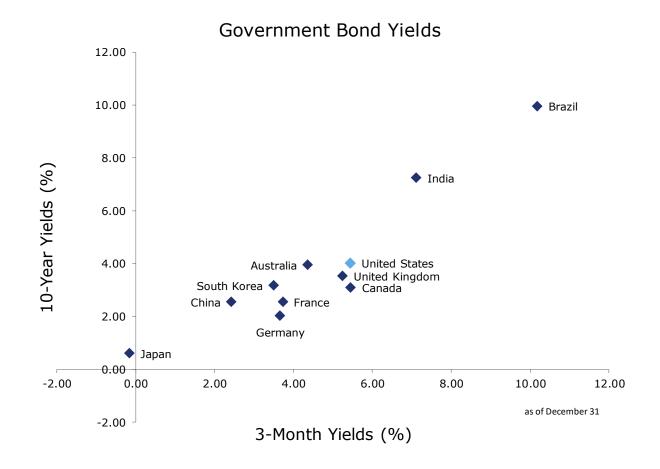
^{*} Returns are reported in terms of local market investors, which removes currency effects.





Global Interest Rates

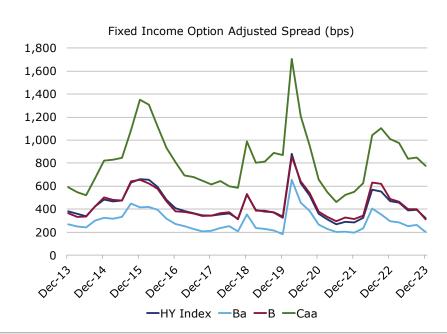
Short-term rates have turned positive in most larger countries; longer-term rates near 4.0% in the U.K. and Australia



Data Sources: Bloomberg

High Yield Bond Market

As of 12/31/2023		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		7.6	7.2	13.4	13.4	2.0	5.4	4.6
S&P LSTA Leveraged Loan		9.4	3.2	13.2	13.2	5.2	5.8	4.0
High Yield Quality Distribution	Weight							_
Ba U.S. High Yield	46.1%	6.3	7.4	11.6	11.6	1.4	5.8	5.0
B U.S. High Yield	41.1%	7.5	7.0	13.8	13.8	2.3	5.1	4.2
Caa U.S. High Yield	11.7%	12.1	6.9	19.8	19.8	2.9	4.1	4.0
Ca to D U.S. High Yield	1.1%	15.3	5.1	16.4	16.4	5.5	3.7	-4.0



Data Sources: Bloomberg

Kentucky Retirement Systems

Performance and Asset Allocations

Quarter Ending: December 31, 2023

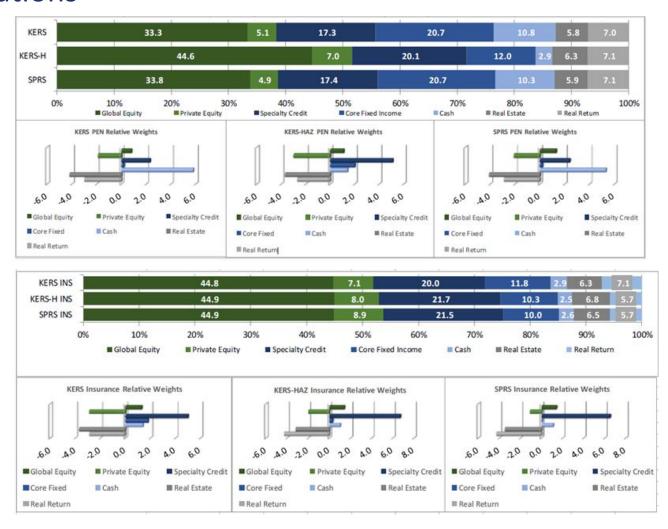
Pension Portfolios Performance

	K	ERS, KERS-HA	Z, & SPRS - P	ENSION FUND	- PLAN NET	RETURNS - 1	2/31/23				
Plan	Market Value	Month	3 Months	- Department of the last of th	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
KERS	3,858,856,099.17	2.76	5.64	4.71	10.67	4.89	7.51	6.29	6.32	7.56	8.70
KY Ret. KERS Plan IPS Index		2.26	5.53	4.59	11.42	4.51	7.28	6.05	6.28	7.51	8.75
KERS- H	959,299,148.46	3.09	6.45	5.24	12.77	5.86	8.36	6.77	6.59	7.74	8.84
KY Ret. KERS Haz Plan IPS Inde	×	2.24	5.91	5.18	13.85	5.83	8.34	6.63	6.58	7.71	8.90
SPRS	621,276,597.17	2.90	5.87	4.89	10.92	5.20	7.73	6.20	6.31	7.55	8.70
KY Ret. SPRS Plan IPS Index		2.26	5.53	4.59	11.42	4.51	7.28	6.01	6.26	7.50	8.74
	KPPA PEN	SION FUND U	NIT - NET RE	TURNS - 12/3	1/23 - PROXY	PLAN ASSET	PERFORMAN	NCE			
Structure	2,000 21,000 02,00	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY		5.33	11.17	6.67	21.12	5.06	11.49	7.66	7.30	8.70	10.25
MSCI ACWI		4.80	11.03	7.26	22.20	5.25	11.31	7.66	7.24	8.47	10.11
PRIVATE EQUITY		0.06	0.22	2.93	7.79	15.44	12.40	12.85	11.50		11.68
Russell 3000 + 3%(Qtr Lag)		-4.32	-2.35	6.58	23.46	12.44	12.18	14.51	11.64		11.87
SPECIALTY CREDIT		1.83	3.45	6.19	11.24	6.82	6.77				6.23
50% BB US HY / 50% Mornings	tar LSTA Lev'd Ln	2.69	5.02	7.07	13.42	3.91	5.62				4.53
CORE FIXED INCOME		3.74	6.62	5.40	7.31	0.50	3.00	2.84			2.79
Bloomberg US Aggregate		3.83	6.82	3.37	5.53	-3.31	1.10	1.81			1.76
CASH		0.46	1.41	2.55	4.53	2.07	1.89	1.41	1.79	2.73	3.34
FTSE Treasury Bill-3 Month		0.47	1.41	2.80	5.26	2.25	1.91	1.26	1.42	2.37	2.96
REAL ESTATE		-1.54	-2.32	-4.89	-10.92	8.10	8.19	9.00	7.77	6.42	6.42
NCREIF NFI-ODCE Net 1 Qtr in	Arrears Index^	-2.10	-2.10	-4.93	-12.88	6.19	4.72	7.19	6.64	7.45	6.25
REAL RETURN		-1.10	1.53	6.31	11.31	10.87	8.53	5.29			5.14
US CPI +3%		0.05	0.75	2.44	6.14	9.54	7.75	4.34			4.17

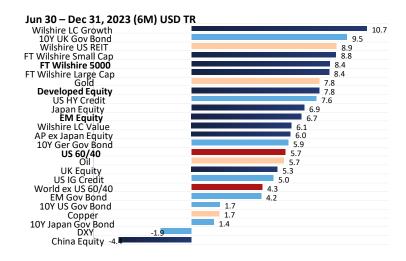
Insurance Portfolios Performance

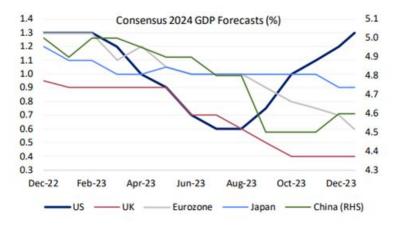
	KERS INS	, KERS-HAZ II	NS, SPRS INS	- INSURANCE	FUND - PLAN	N NET RETUR	NS - 12/31/23	3			
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
KERS INS	1,566,243,400.06	3.23	6.50	5.11	12.67	5.74	8.42	6.51	6.28	6.77	7.30
KY Ins. KERS Plan IPS Index		2.24	5.91	5.18	13.85	5.76	8.32	6.63	6.45	7.13	7.62
KERS - H INS	640,061,100.84	3.08	6.30	5.15	12.46	6.29	8.44	6.77	6.44	6.88	7.39
KY Ins. KERS Haz Plan IPS Index	1117/4/11/4/11	2.24	5.91	5.18	13.85	5.76	8.15	6.62	6.44	7.12	7.62
SPRS INS	257,247,226.59	3.08	6.33	5.13	12.65	6.39	8.63	6.96	6.53	6.94	7.44
KY Ins. SPRS Plan IPS Index		2.24	5.91	5.18	13.85	5.76	8.15	6.64	6.45	7.13	7.62
	KPPA INSUR	ANCE FUND	JNIT - NET R	ETURNS - 12/3	1/23 - PROX	Y PLAN ASSET	PERFORMA	NCE			
Structure		Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY		5.35	11.18	6.66	20.98	5.06	11.46	7.72	7.25		8.65
MSCI ACWI		4.80	11.03	7.26	22.20	5.23	11.28	7.66	7.05		8.47
PRIVATE EQUITY		0.58	0.71	3.93	8.77	17.76	12.35	13.96	11.08		10.89
Russell 3000 + 3%(Qtr Lag)		-4.32	-2.35	6.58	23.46	12.44	12.18	14.51	11.34		11.44
SPECIALTY CREDIT		1.79	3.40	6.24	11.35	6.96	6.68				6.11
50% BB US HY / 50% Morningstar	LSTA Lev'd Ln	2.69	5.02	7.07	13.42	3.91	5.62				4.53
CORE FIXED INCOME		3.73	6.64	5.29	7.16	0.34	2.81	2.56			2.51
Bloomberg US Aggregate		3.83	6.82	3.37	5.53	-3.31	1.10	1.81			1.76
CASH		0.48	1.42	2.55	4.54	2.05	1.78	1.27	1.63		2.50
FTSE Treasury Bill-3 Month		0.47	1.41	2.80	5.26	2.25	1.91	1.26	1.42		2.41
REAL ESTATE		-1.55	-2.32	-4.73	-11.04	7.87	8.14	8.88			8.90
NCREIF NFI-ODCE Net 1 Qtr in Arr	rears Index^	-2.10	-2.10	-4.93	-12.88	6.19	4.72	7.19			5.60
REAL RETURN		-0.95	1.29	5.53	10.20	9.57	8.12	5.05			4.86
US CPI +3%		0.05	0.75	2.44	6.14	8.78	7.65	4.40			4.21

Allocations



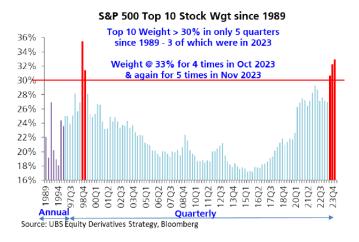
- The KRS Pension Composite produced a return of 5.81% for the quarter with the KERS and SPRS portfolios returning 5.64% and 5.87% respectively, while their benchmark returned 5.53% and the KERSH portfolio returning 6.45%% versus its benchmark return of 5.91%
- The Insurance portfolios had similar performance with returns ranging from 6.30% to 6.50%
- For the quarter the largest contributors to outperformance were the underweight positioning in Real Return, Real Estate and Private Equity as well as the relative outperformance of the Private Equity portfolio
- The most significant detractors of performance were overweights to Specialty Credit, the proxy for Real Return, and Cash as well as relative underperformance in the Specialty Credit portfolio
- Markets across the board rebounded sharply during the quarter on optimism that earlier and larger cuts in interest rates that had previously been anticipated would usher in a "goldilocks" period of steady growth, moderate inflation and easing financial conditions
- Monetary policy will continue to have an unduly high impact via the valuations discounting mechanism and the interaction between fiscal and monetary policy will be crucial to outcomes for 2024

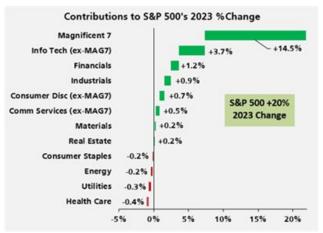




Public Equities

- Public Equity markets experienced a strong rally during the quarter accelerating towards the end of October bolstered by signs of weakening inflation, better-than-expected growth, and a change in central bank posture that hinted at softening rates
 - In the US almost every sector was positive for the quarter with the real estate and information technology sectors posting the best performance while energy was the only sector with negative performance
 - Dispersion within US markets continued to be high with index level performance largely driven by a handful of megacap stocks
 - Smallcap outperformed large-cap during the quarter and growth stocks generally outperformed value with large-cap growth stocks continuing to extend their massive advantage over largecap value stocks
 - NonUS public equity markets produced positive performance during the quarter but failed to keep pace with their US counterparts, especially emerging markets which were the worst performing segment during the quarter

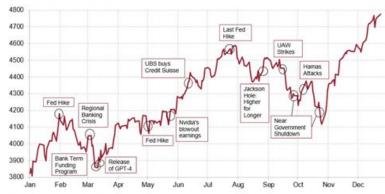




Public Equities

- The Public Equity portfolio returned 11.17% during the quarter versus its benchmark return of 11.03%, relative outperformance was primarily the result of a slight overweight to US markets combined with good stock selection within the NonUS portion of the portfolio
 - FYTD the Public Equity Portfolio has produced a return of 6.67%, trailing the benchmark which returned 7.26%
- Within the US equity allocation, the portfolio trailed its index by 26bps (11.81% vs 12.07%), primarily resulting from stock selection
 - Stock selection amongst the individual strategies was mixed during the quarter and biased to the downside as the Fed's shifting tone created a market leadership whipsaw which proved challenging to navigate
- The NonUS equity allocation outperformed during the quarter, returning 10.19% versus a benchmark return of 9.81%
 - Outperformance was driven by the strong performance of the growth strategies within the allocation, benefiting from a style tailwind

S&P 500 in 2023



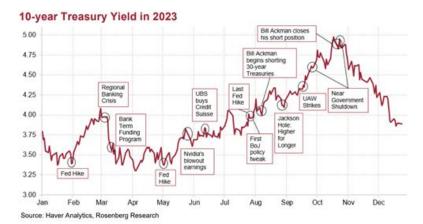
Source: Haver Analytics, Rosenberg Research

Largest outperformance of Growth relative to Value in over two decades



Core Fixed Income

- Core Fixed Income staged a remarkable recovery in the 2nd quarter following the significant selloff experienced during the 1st quarter
- The rally in rates that started in November picked up steam to close the year as the FOMC offered a surprising lack of pushback against dovish market expectations at their December meeting with the FED's communication about the likely course of monetary policy becoming decidedly less hawkish causing the yield curve to remain inverted
- The Treasury curve fell across all maturities during the with the 10-year Treasury closing at 3.88%, down 69 basis points and the 10-year real yield falling 52 basis points to 1.71%
- Corporate bonds were the top performing spread sector, outgaining same duration Treasuries by 203 basis points for the quarter

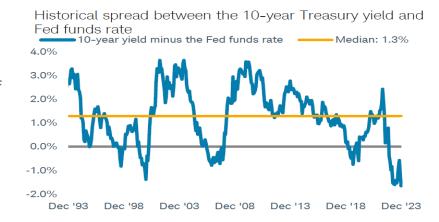


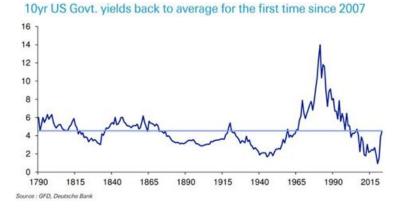
Investment grade credit spreads are at their lowest level since early 2022



Core Fixed Income

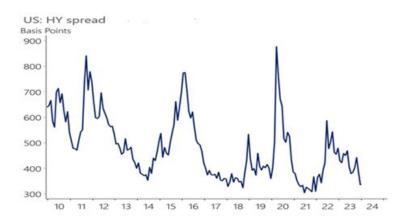
- The Core Fixed Income Portfolio produced a return of 6.62% for the quarter, slightly underperforming the benchmark's return of 6.82%
- The portfolio's relative underperformance was driven by its shorter duration profile as staff rebalanced the portfolio over several legs during the quarter to extend the overall duration to be inline with the benchmark's duration
- Despite losing ground during the quarter, FYTD the portfolio continued to deliver strong relative performance producing a return of 5.40% and outperforming the Bloomberg Aggregate Index by 203 basis points
- The internally managed Core Portfolio was the strongest performer in the overall Core allocation for the quarter, producing 21 basis points of excess return

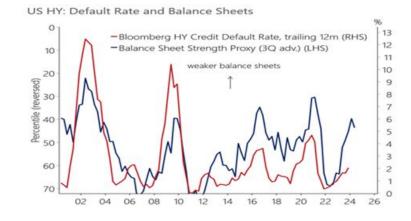




Specialty Credit Fixed Income

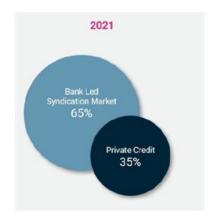
- The Specialty Credit portfolio produced a return of 3.45% for the quarter, trailing the blended benchmark which returned 5.02%. Fiscal Year to Date the portfolio has continued to perform well, returning 6.19% compared to the benchmark's return of 7.07%
- The public High Yield Bond and Private Credit components of the portfolio were all positive contributors to relative performance, mandates with structured credit and mortgage-backed exposures were a drag on overall performance as they failed to keep pace in the rally over the last three months
- Over longer periods the portfolio has contributed significant outperformance, beating the benchmark by 291 and 115 basis point over three- and five-year periods respectively
- Leveraged Loans trailed High Yield Bonds as they benefited less from the rally in rates and failed to keep pace with spread tightening
- The High Yield option adjusted spread (OAS) tightened 71 basis points for the quarter and 67 basis points fiscal year-to-date to 323





Specialty Credit Fixed Income

- Consistent with the risk on environment, lower quality bonds outperformed with CCCs returning 9.60% FYTD while Bs returned 7.91% and BBs produced returns of 6.94%
- The most recent balance sheet data continued to show modest improvements in High Yield fundamentals, driven by stronger profitability, liquidity positions and default rates remaining subdued
- Private credit markets continued their growth as banks and public lenders have accelerated their move away from the middle market
- Despite the continued growth, structuring and economic terms remain favorable to lenders
- The higher prevailing cost of capital is likely to impact sectors and firms differently which will be an important driver of dispersion, with a more defensive approach to investing, including structural protections, granularity in underwriting and credit selectivity becoming critical

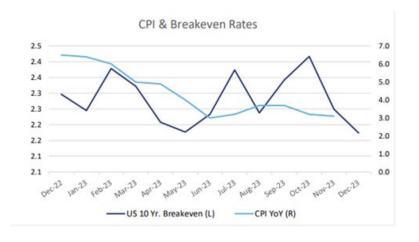


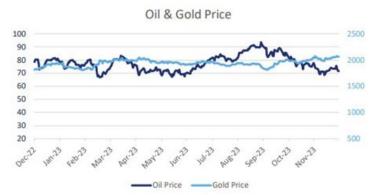




Real Return-Real Estate

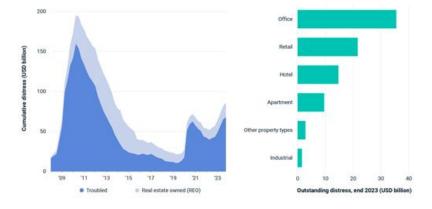
- Real Estate and Real Return performance was mixed during the quarter and through the first six months of the fiscal year but were largely able to end the period well bid with expectations that inflation had been beaten and rates were poised to continue their downward trajectory
- The Real Return portfolio produced a return of 1.53% for the quarter, outperforming the benchmark which produced a return of 0.75%
- FYTD the Real Return Portfolio has significantly outperformed the benchmark, producing a return of 6.31% compared to the benchmark's return of 2.44%
 - Outperformance has been paced by the portfolio's MLP exposure which returned over 12% FYTD as strong cash flows, disciplined capex and consolidation have continued to benefit the industry
- Broad commodities were down for the quarter and FYTD with the Bloomberg Commodities Index falling almost 6% for the first six months of the Fiscal Year and almost 13% during the LTM.
 - Despite declining 21% during the quarter Oil was able to return almost 6% FYTD, Gold rallied 12% during the quarter on rising rate cut optimism reversing 6 months of declines, ending up almost 8% FYTD





Real Return-Real Estate

- Globally, Real Estate valuations continued to adjust down from their 2022 peaks, as a result of higher inflation, interest rates and volatility
- The pool of distressed U.S. commercial properties grew to USD 85.8 billion by the end of 2023, led by distressed office assets, as weaker prices and higher lending rates challenged the market
- The Real Estate portfolio produced a return of -2.32% for the quarter, modestly underperforming the benchmark's -2.10% return
- Fiscal Year to Date, the Real Estate portfolio has performed inline with the benchmark returning -4.89% compared to the benchmark's performance of -4.93%
- The Real Estate portfolio has been more affected by higher cap rates than declining property-level performance with the portfolio's exposures to industrial, self-storage, student housing, medical office, and senior living continuing to experience positive rent growth and pricing

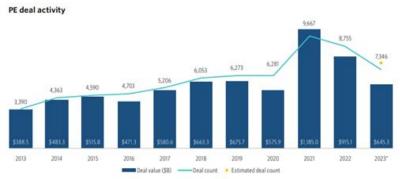




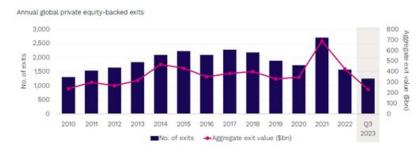
Source: BLS; Federal Reserve; Green Street. As of December 31, 2023

Private Equity

- The Private Equity portfolio produced a return of 0.22% for the quarter, outperforming the benchmark's return of -2.35%
- Performance relative to the benchmark (Russell 3000 + 3% based on a quarter lag) continues to be volatile given the market and timing misalignments
- Capital remained scarce as GPs faced a more arduous fundraising environment with constrained capital allocations from LPs as a result of limited distributions and already full allocations
- 2023 proved to be the worst year for Private Equity deal activity since 2016, with selling activity falling to its lowest point in over a decade
 - Private Equity capital deployment in the US declined by 29.5% YOY
 - Value derived from US exits fell by 26.4% YOY and by 73% from 2021 levels



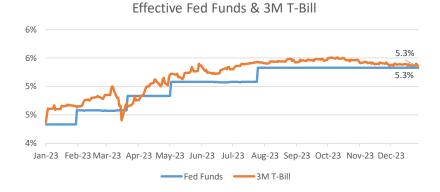
Source: PitchBook • Geography: US • "As of December 31, 2023



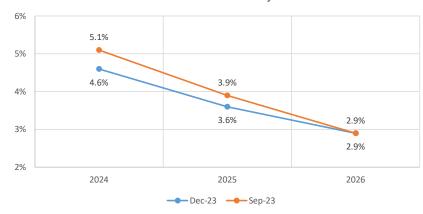
Source: Pregin Pro Data as at October 2022

Liquidity

- After increasing rates four times during the first half of 2023, the FOMC held rates the same during the final quarter of the calendar year
- The 3-month Bill also remained steady since mid-year finishing the quarter at 5.3%. Coincidently, the same rate for the effective Fed funds rate
- Cash produced a return of 2.55% for the 6-month period ending December 31st, slightly underperforming the 3-Month Treasury Bill benchmark which returned 2.80%. The underperformance is due to deposit rates (Fed funds) lagging market rates (T-Bills)
- For the quarter, cash returned 1.41%, matching the benchmark as deposit and market rates compressed over the time period
- With inflation continuing to recede, the Federal Reserve's economic projections for the Federal finds rate changed in December
- Rate projections shifted downward for 2024 and 2025 compared to the September projection
- Chair Powell stated, inflation has eased from its highs, and this has come without significant rise in unemployment



Federal Funds Rate Projection



Investment Highlights Fiscal YTD

- Investment activity occurred across asset classes for the first half of the Fiscal Year as managers called committed capital and Staff rebalanced portfolios
 - Across a number of legs Staff was able to rebalanced the Core Fixed Income during the period, moving the duration
 of the overall portfolio from 3 years short to flat relative to the benchmark index
 - The benchmark for the Loomis portfolio was updated to the Bloomberg US Aggregate Index from the Bloomberg US Intermediate Aggregate Index
 - A total of \$1,925MM was transferred from the Lord Abbett Short Duration Credit portfolio, \$996.5MM to the existing external Core portfolios and \$928MM to the new internally managed Core Portfolio
 - The Lord Abbett account is in wind down, holding a single CMBS security and will be closed and the agreement terminated once the security is sold or matures
 - Specialty Credit managers continued to find compelling opportunities, deploying over \$150MM during the period including the first capital calls for the new Adams Street Fund and Co-Investment vehicle approved in 2023
 - A total of almost \$300MM was called and invested by Real Return mangers, the majority of which was the initial investment for Arctos and Maritime Partners, managers approved in 2023
 - Rebalancing and investing activity in Public Equities totaled \$150MM as Staff managed exposures across cap
 weights and geographies while aligning individual portfolios
- The first Proxy Voting Report was posted to the KPPA website



M E M O R A N D U M

To: Kentucky Retirement Systems Investment Committee

From: Steve Willer

Chief Investment Officer, Office of Investments

Date: February 21, 2024

Subject: Investment Update – Lord Abbett Short Duration Credit Portfolio Termination

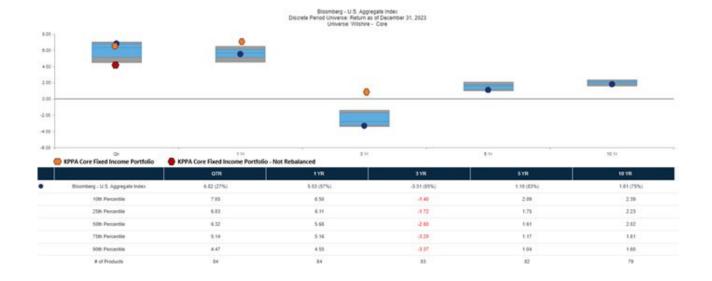
As per the Investment Policy Statement, this memo serves as notification that following approval from the Investment Committee Chair, KPPA staff terminated the investment management agreement with Lord Abbett for the management of the Short Duration Credit strategy. This termination was the result of the rebalancing of the Core Fixed Income allocation with no performance or firm related concerns. The Lord Abbett strategy was implemented to take advantage of the short maturity anomaly and yield advantage during a period of historically low and flat rates while providing downside protection to a rising rate environment. The strategy performed well, delivering 15bps of excess return to the stated benchmark, the ICE BofA 1-3 Year US Corporate Index, since inception. The portfolios were effectively wound down by the end of December, holding a single remaining security. At that time there was insufficient liquidity in the market to sell the remaining security at a value the manger believed appropriate. No fees will be charged while the manager continues their efforts to sell the security manager or until the security matures.

As Staff has presented to the Investment Committee and the Board, yields in Fixed Income markets have risen notably over the past 2 years from historically low levels which had persisted over the previous decade. As market yields reached our strategic objectives, staff began unwinding the tactical short duration positioning of approximately 3 years in the Core Fixed Income allocation by rebalancing away from the short corporate credit allocation managed by Lord Abbett. This capital was redeployed to the existing Core Fixed Income mandates, the Loomis Sayles Core Disciplined Alpha portfolio and the Nisa Aggregate Bond portfolio and was also used to establish the internally managed passive Core Fixed Income portfolio consistent with the IPS and our strategic mandates. Following completion of the rebalancing each of the portfolios in the Core Fixed Income allocation manage approximately 1/3 of the total allocation with expected savings of \$1.5MM to 2.0MM per year.

Kentucky Retirement Systems 1270 Louisville Road Frankfort, KY 40601 Lynn Hampton, Chair C. Prewitt Lane, Vice-Chair John E. Chilton, CEO Staff and Wilshire are undertaking a review of the Core Fixed Income portfolio to ensure the appropriate allocation amongst strategies, styles and managers consistent with the allocation's objectives of providing diversification, downside protection, liquidity and excess returns.

Performance					
	Month	YTD	1 Year	3 Year	Since Inception
Kentucky Retirement Systems (Gross)	0.69%	2.53%	1.56%	0.58%	2.01%
Kentucky Retirement Systems (Net)	0.69%	2.47%	1.45%	0.46%	1.89%
ICE BofA 1-3 Year U.S. Corporate Index	0.68%	2.31%	1.68%	-0.28%	1.75%
Excess Return (Net)	0.00%	0.16%	-0.23%	0.74%	0.15%

Performance					
	Month	YTD	1 Year	3 Year	Since Inception
Kentucky Retirement Systems Insurance Portfolio (Gross)	0.66%	2.41%	1.46%	0.63%	2.00%
Kentucky Retirement Systems Insurance Portfolio (Net)	0.65%	2.34%	1.34%	0.52%	1.88%
ICE BofA 1-3 Year U.S. Corporate Index	0.68%	2.31%	1.68%	-0.28%	1.75%
Excess Return (Net)	-0.03%	0.03%	-0.34%	0.79%	0.14%

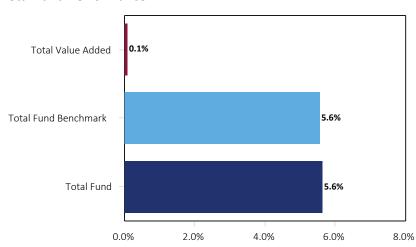


Kentucky Retirement Systems 1270 Louisville Road Frankfort, KY 40601 Lynn Hampton, Chair C. Prewitt Lane, Vice-Chair John E. Chilton, CEO

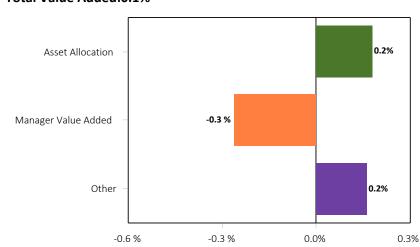
Total Fund Attribution

KERS Pension Plan Periods Ended 1 Quarter Ending December 31, 2023

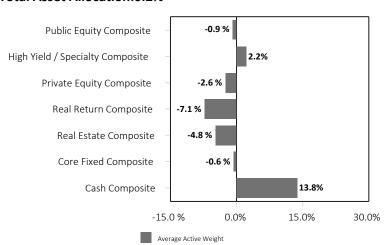
Total Fund Performance



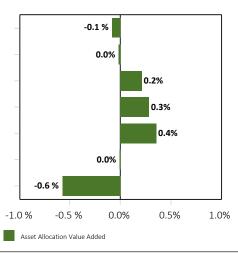
Total Value Added:0.1%



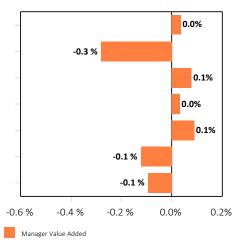
Total Asset Allocation:0.2%



Asset Allocation Value Added:0.2%



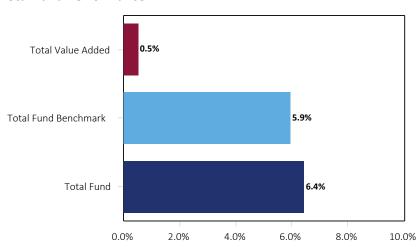
Total Manager Value Added:-0.3 %



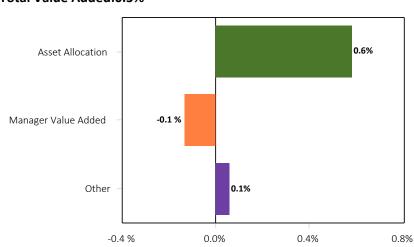
Total Fund Attribution

KERS (H) Pension Plan
Periods Ended 1 Quarter Ending December 31, 2023

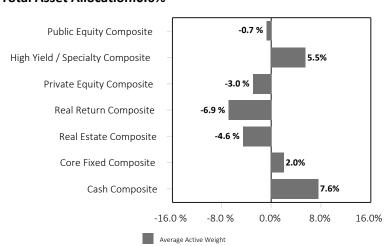
Total Fund Performance



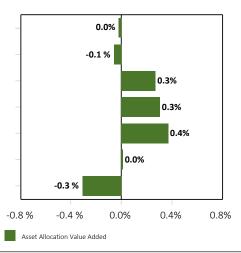
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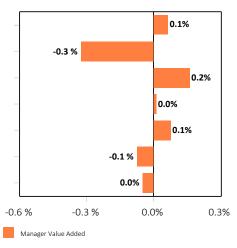
Total Asset Allocation:0.6%



Asset Allocation Value Added:0.6%



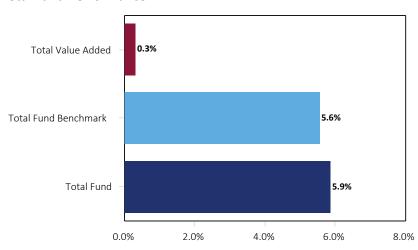
Total Manager Value Added:-0.1%



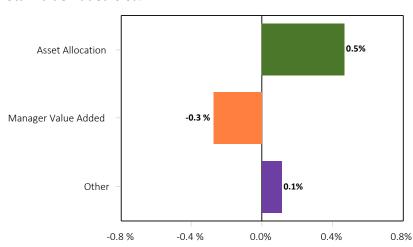
Total Fund Attribution

SPRS Pension Plan
Periods Ended 1 Quarter Ending December 31, 2023

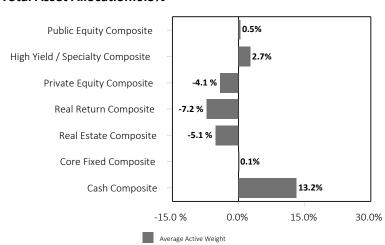
Total Fund Performance



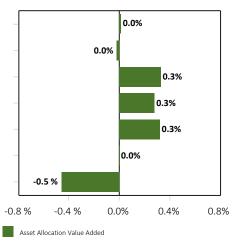
Total Value Added:0.3%



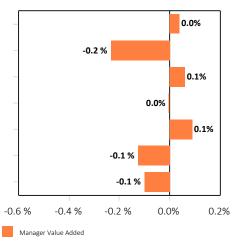
Total Asset Allocation:0.5%



Asset Allocation Value Added:0.5%



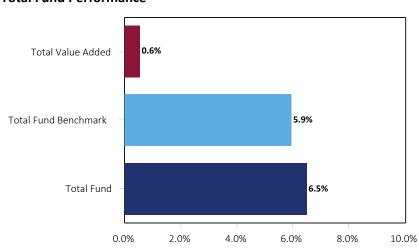
Total Manager Value Added:-0.3 %



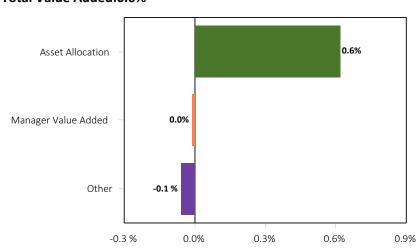
Total Fund Attribution

KERS Insurance Plan
Periods Ended 1 Quarter Ending December 31, 2023

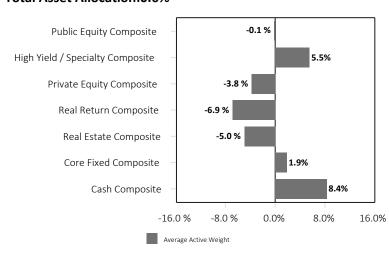
Total Fund Performance



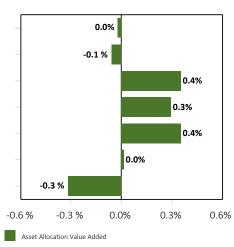
Total Value Added: 0.6%



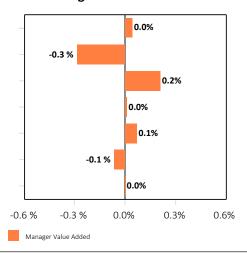
Total Asset Allocation:0.6%



Asset Allocation Value Added:0.6%



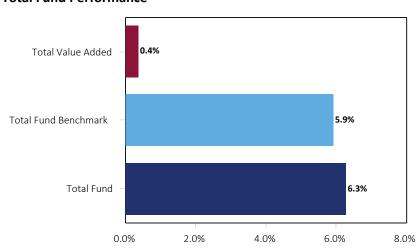
Total Manager Value Added:0.0%



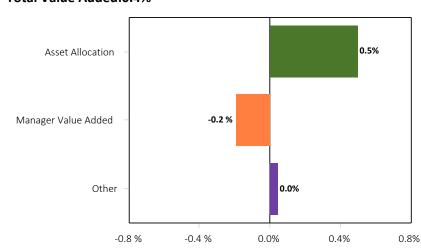
Total Fund Attribution

KERS (H) Insurance Plan
Periods Ended 1 Quarter Ending December 31, 2023

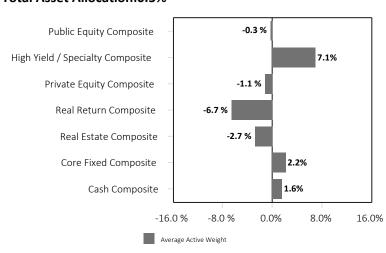
Total Fund Performance



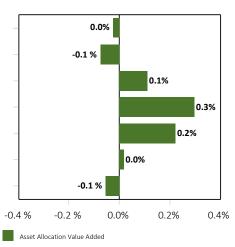
Total Value Added:0.4%



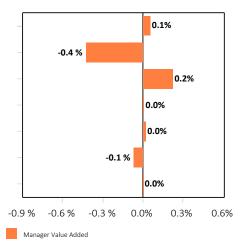
Total Asset Allocation:0.5%



Asset Allocation Value Added: 0.5%



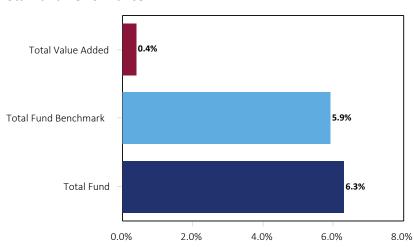
Total Manager Value Added:-0.2%



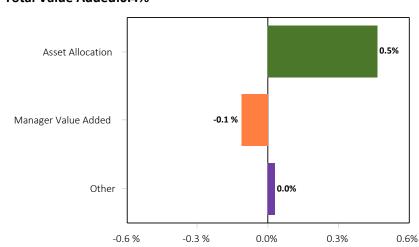
Total Fund Attribution

SPRS Insurance Plan
Periods Ended 1 Quarter Ending December 31, 2023

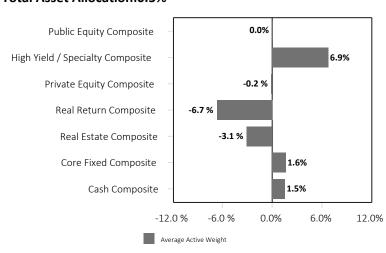
Total Fund Performance



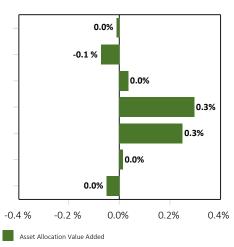
Total Value Added: 0.4%



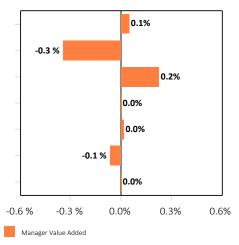
Total Asset Allocation:0.5%



Asset Allocation Value Added: 0.5%



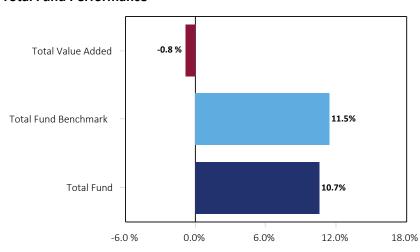
Total Manager Value Added:-0.1%



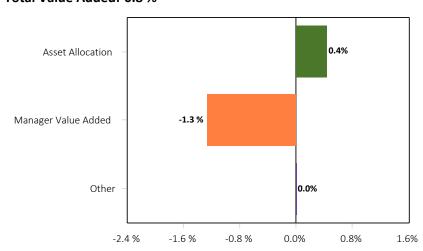
Total Fund Attribution

KERS Pension Plan
Periods Ended 1 Year Ending December 31, 2023

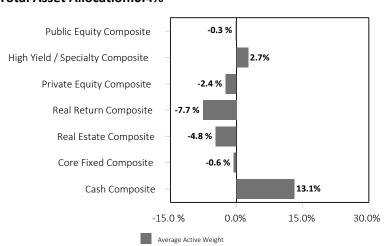
Total Fund Performance



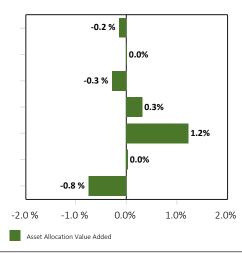
Total Value Added:-0.8 %



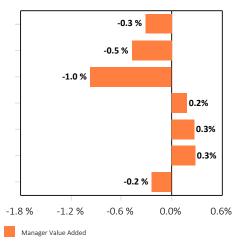
Total Asset Allocation:0.4%



Asset Allocation Value Added:0.4%



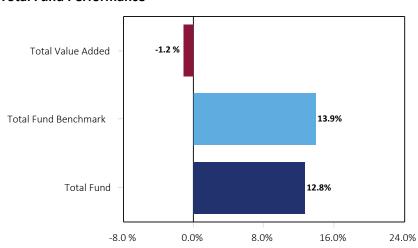
Total Manager Value Added:-1.3 %



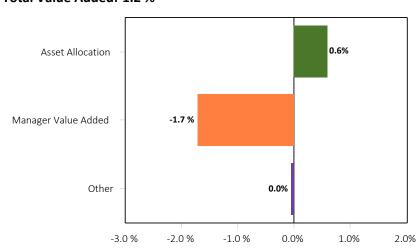
Total Fund Attribution

KERS (H) Pension Plan
Periods Ended 1 Year Ending December 31, 2023

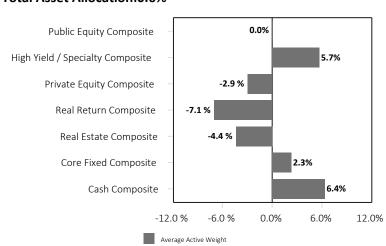
Total Fund Performance



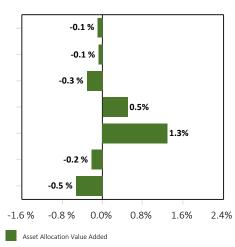
Total Value Added:-1.2 %



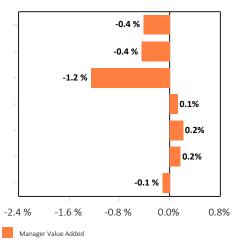
Total Asset Allocation:0.6%



Asset Allocation Value Added:0.6%



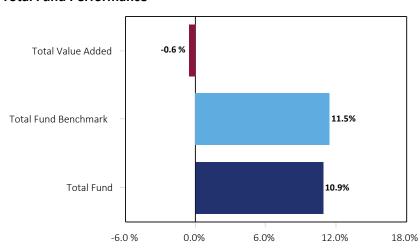
Total Manager Value Added:-1.7 %



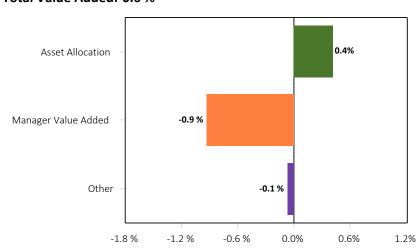
Total Fund Attribution

SPRS Pension Plan
Periods Ended 1 Year Ending December 31, 2023

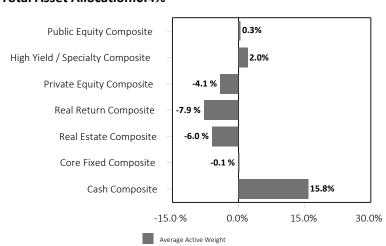
Total Fund Performance



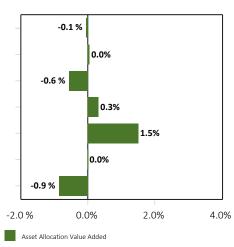
Total Value Added:-0.6 %



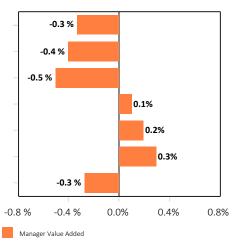
Total Asset Allocation:0.4%



Asset Allocation Value Added: 0.4%



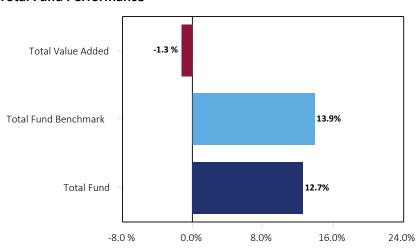
Total Manager Value Added:-0.9 %



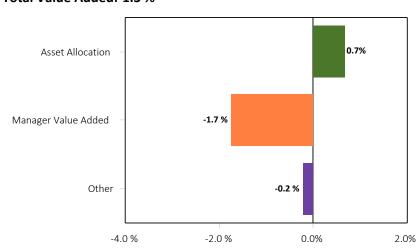
Total Fund Attribution

KERS Insurance Plan
Periods Ended 1 Year Ending December 31, 2023

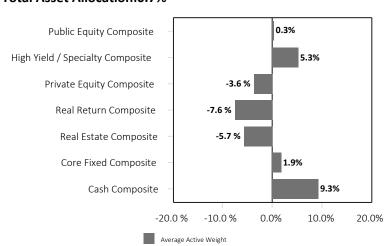
Total Fund Performance



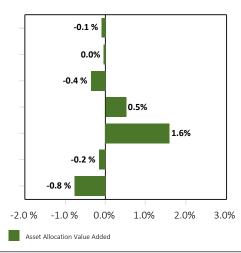
Total Value Added:-1.3 %



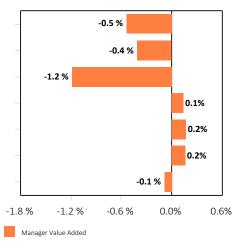
Total Asset Allocation:0.7%



Asset Allocation Value Added:0.7%



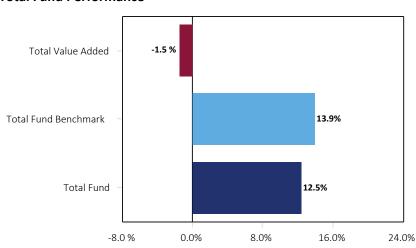
Total Manager Value Added:-1.7 %



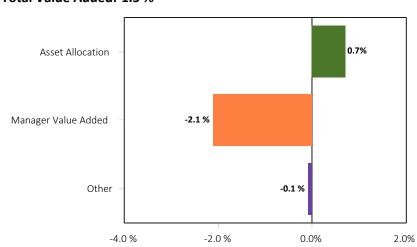
Total Fund Attribution

KERS (H) Insurance Plan
Periods Ended 1 Year Ending December 31, 2023

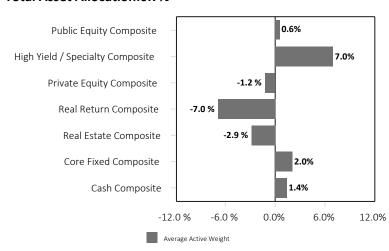
Total Fund Performance



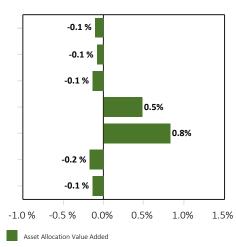
Total Value Added:-1.5 %



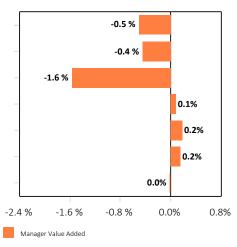
Total Asset Allocation:0.7%



Asset Allocation Value Added:0.7%



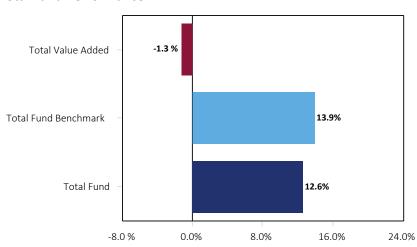
Total Manager Value Added:-2.1 %



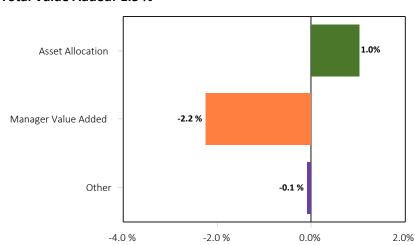
Total Fund Attribution

SPRS Insurance Plan
Periods Ended 1 Year Ending December 31, 2023

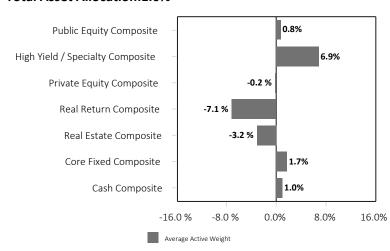
Total Fund Performance



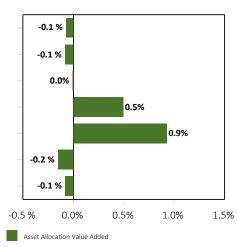
Total Value Added:-1.3 %



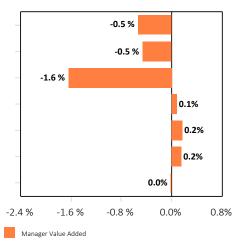
Total Asset Allocation: 1.0%



Asset Allocation Value Added:1.0%

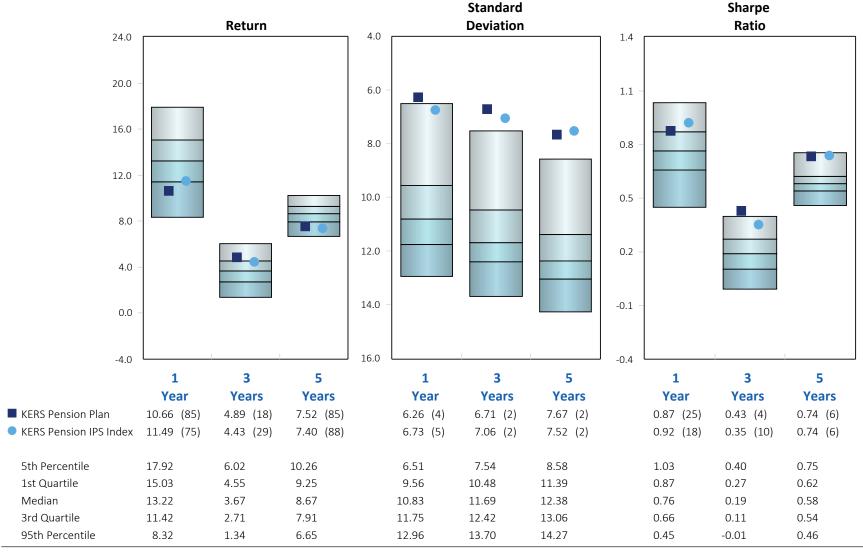


Total Manager Value Added:-2.2 %



Plan Sponsor Peer Group Analysis - Multi Statistics

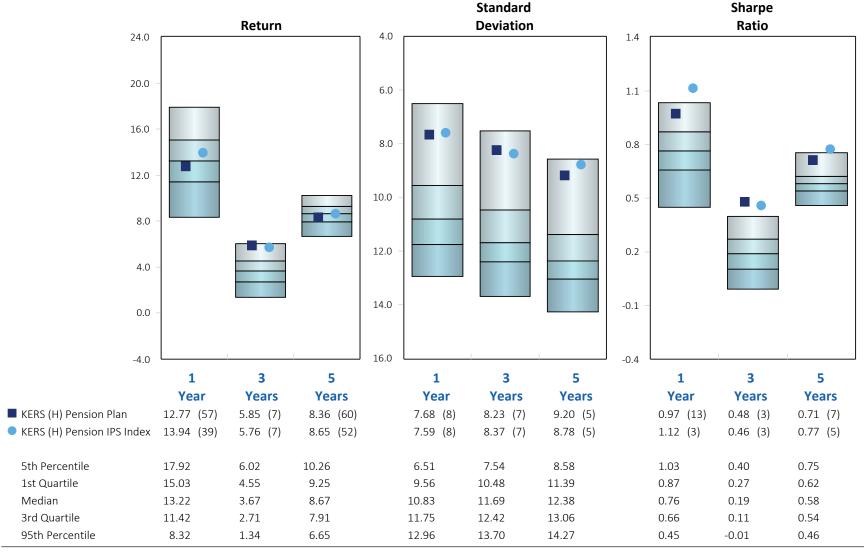
KERS Pension Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



Parentheses contain percentile rankings. Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

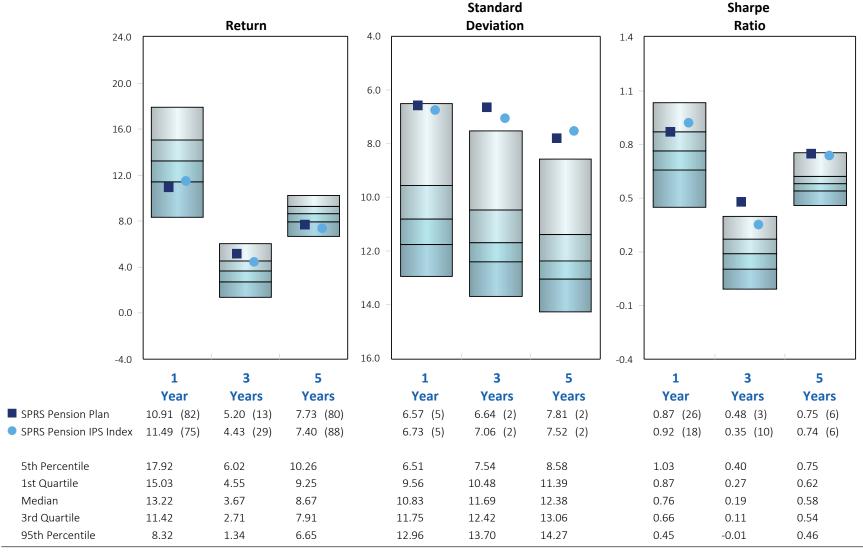
KERS (H) Pension Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



Parentheses contain percentile rankings. Calculation based on monthly periodicity.

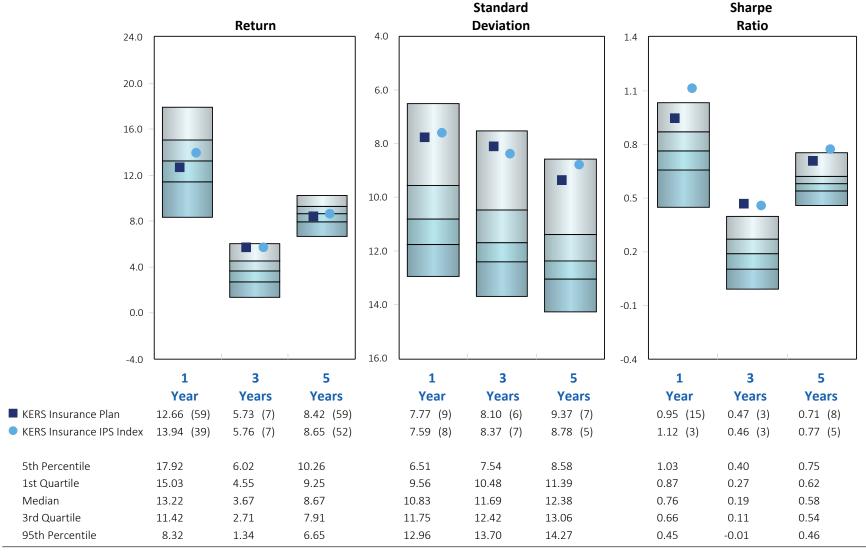
Plan Sponsor Peer Group Analysis - Multi Statistics

SPRS Pension Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



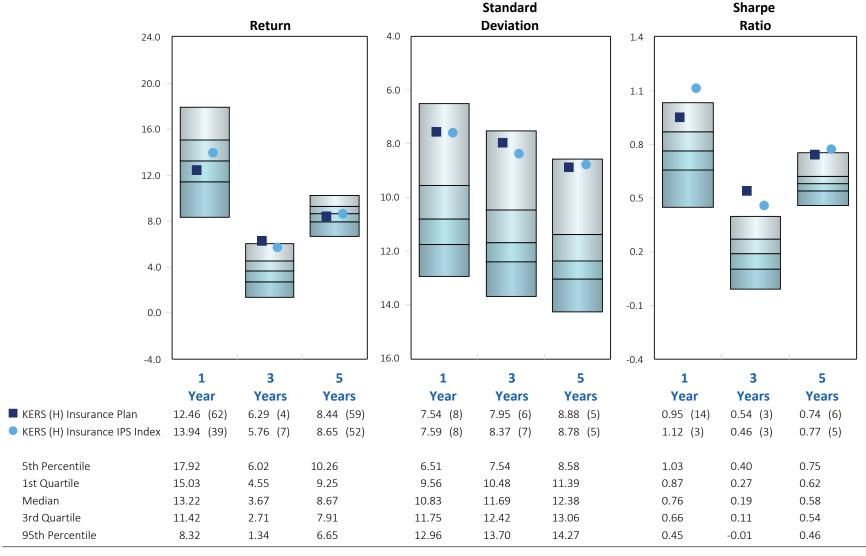
Plan Sponsor Peer Group Analysis - Multi Statistics

KERS Insurance Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



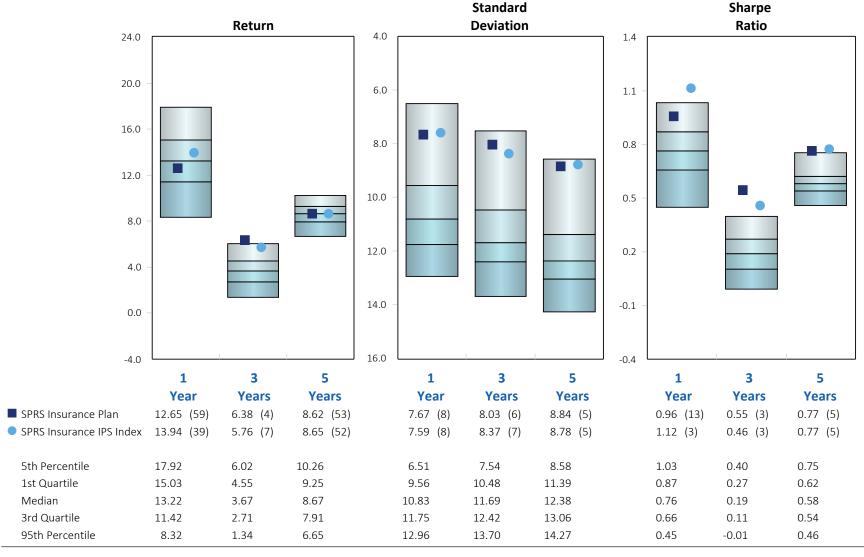
Plan Sponsor Peer Group Analysis - Multi Statistics

KERS (H) Insurance Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



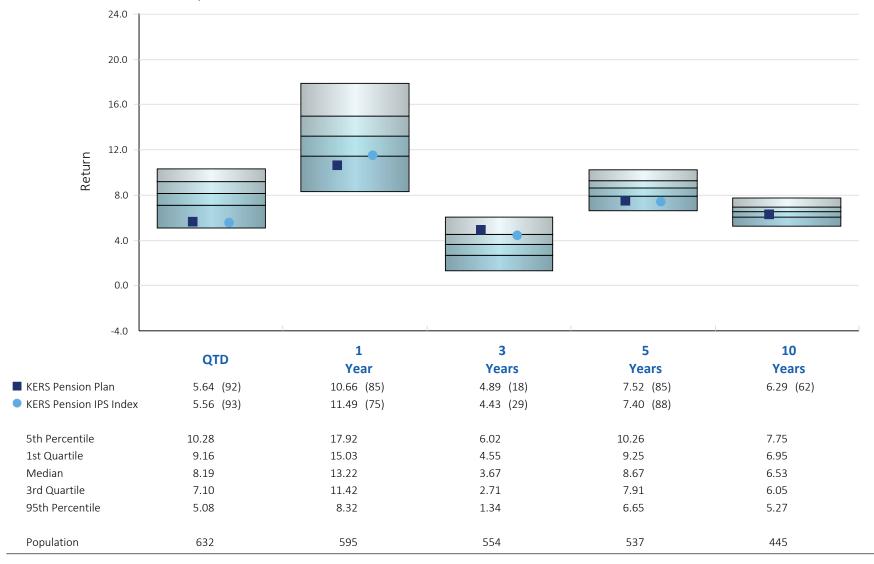
Plan Sponsor Peer Group Analysis - Multi Statistics

SPRS Insurance Plan vs All Public Plans-Total Fund *Periods Ended December 31, 2023*



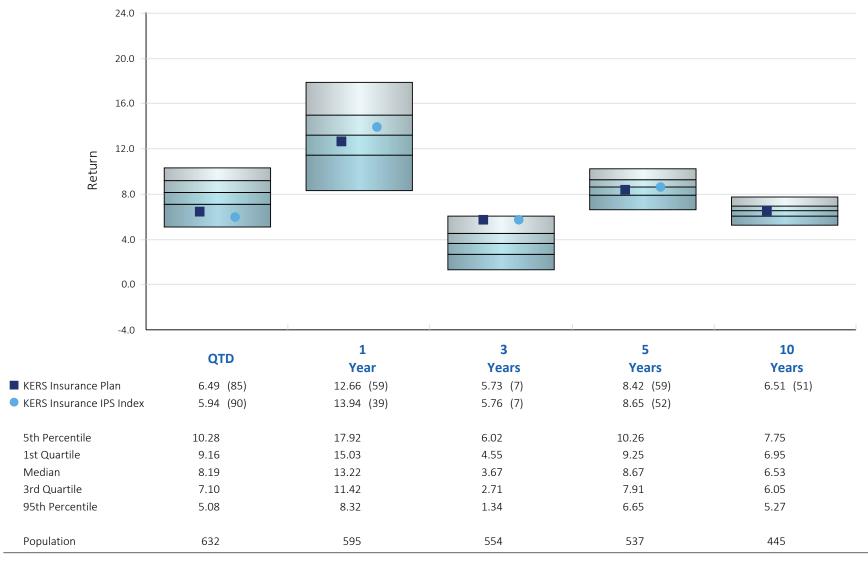
Plan Sponsor Peer Group Analysis

KERS Pension Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



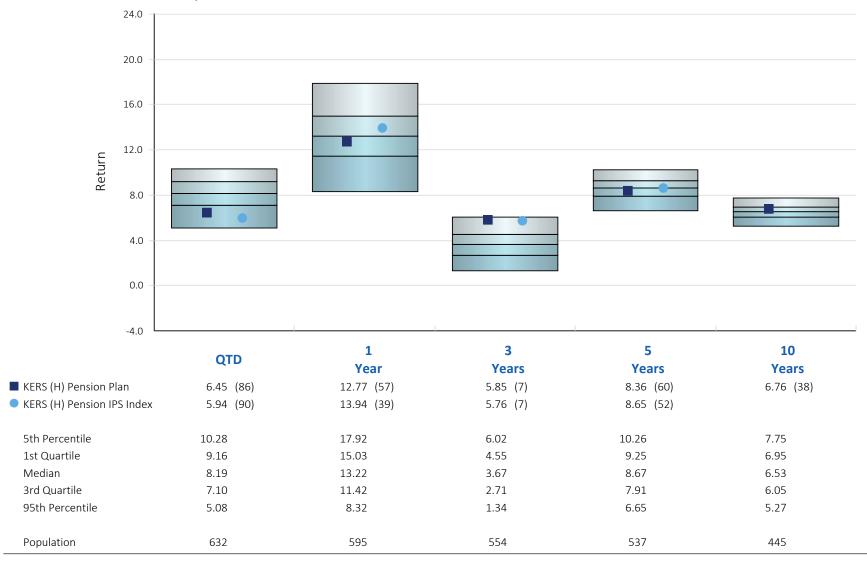
Plan Sponsor Peer Group Analysis

KERS Insurance Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



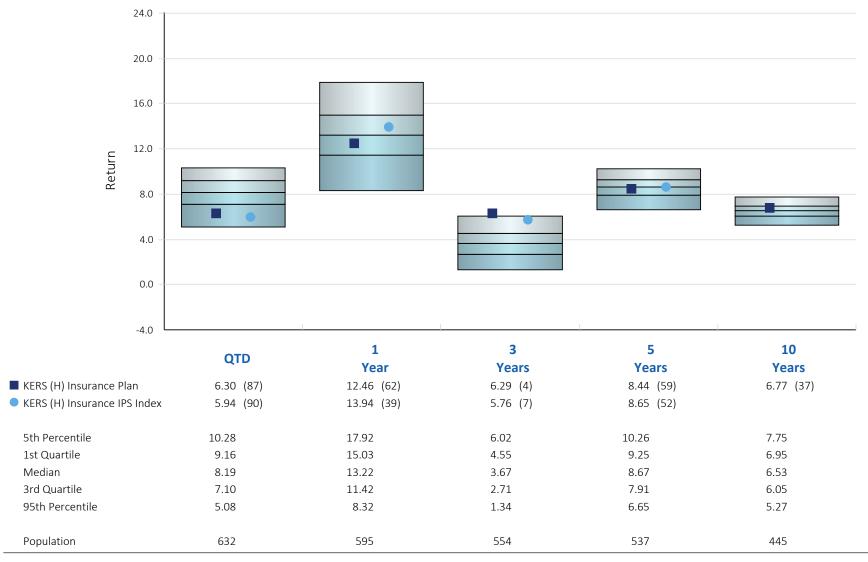
Plan Sponsor Peer Group Analysis

KERS (H) Pension Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



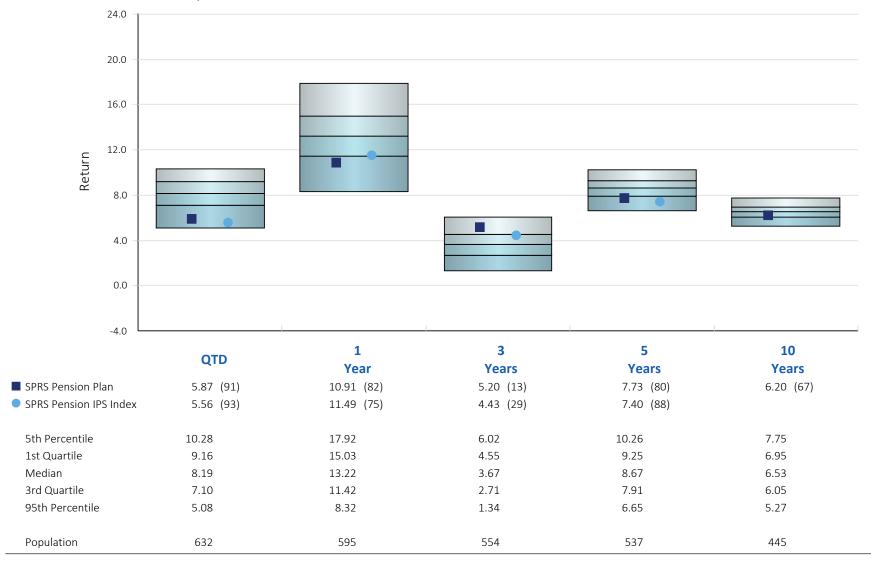
Plan Sponsor Peer Group Analysis

KERS (H) Insurance Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



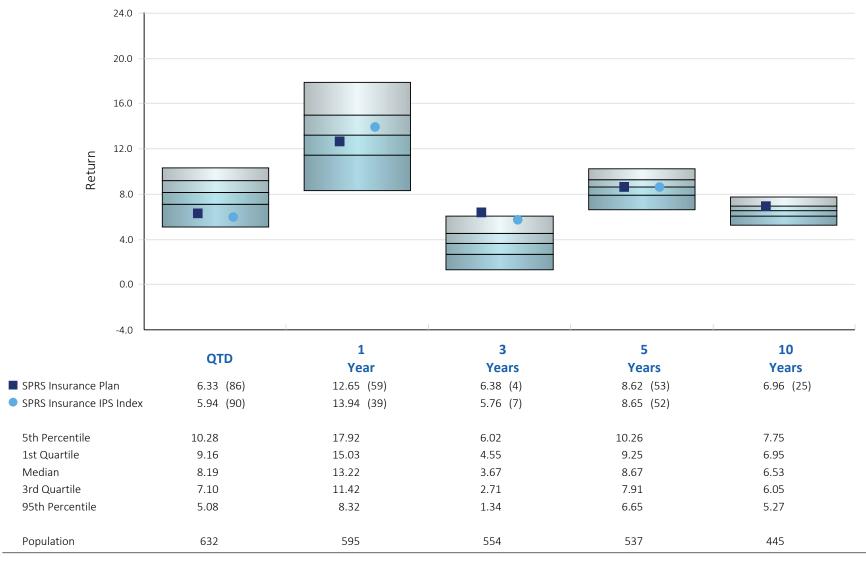
Plan Sponsor Peer Group Analysis

SPRS Pension Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



Plan Sponsor Peer Group Analysis

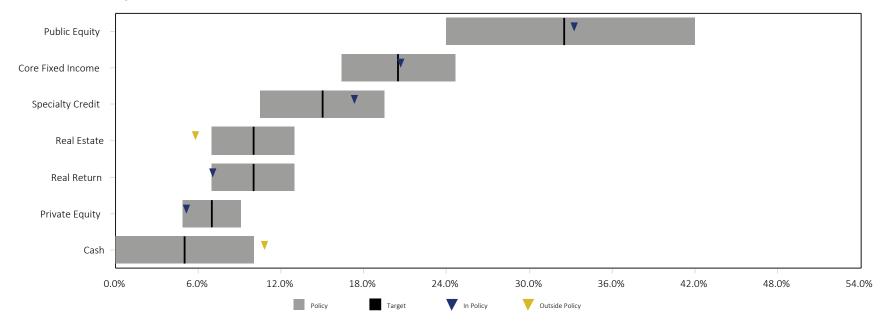
SPRS Insurance Plan vs All Public Plans-Total Fund Periods Ended December 31, 2023



Asset Allocation Compliance

KERS Pension Plan
Periods Ended As of December 31, 2023

Executive Summary

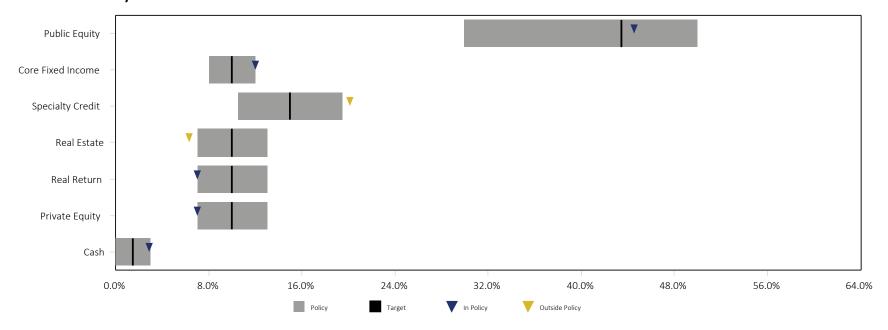


	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	1,284,527,581	33.29	24.00	42.00	32.50	-30,399,349
Core Fixed Income	797,393,911	20.66	16.40	24.60	20.50	-6,328,410
Specialty Credit	669,128,008	17.34	10.50	19.50	15.00	-90,299,593
Real Estate	222,511,579	5.77	7.00	13.00	10.00	163,374,030
Real Return	271,748,620	7.04	7.00	13.00	10.00	114,136,990
Private Equity	197,909,099	5.13	4.90	9.10	7.00	72,210,828
Cash	415,637,301	10.77	0.00	10.00	5.00	-222,694,496
Total Fund	3,858,856,099	100.00			100.00	

Asset Allocation Compliance

KERS (H) Pension Plan
Periods Ended As of December 31, 2023

Executive Summary

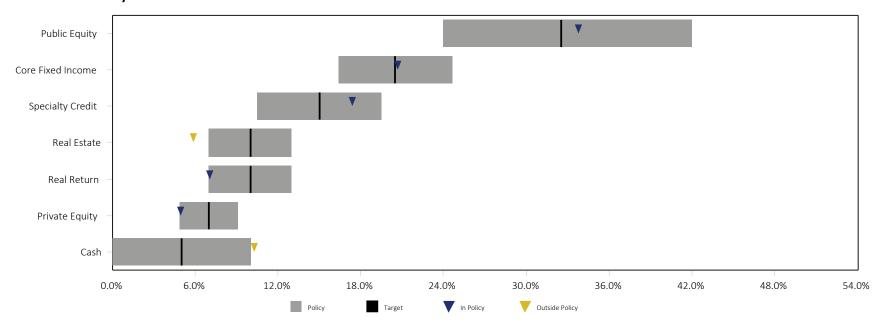


	Asset Allocation	Asset Allocation	Minimum Allocation	Maximum Allocation	Target Allocation	Target Rebalance
	\$	(%)	(%)	(%)	(%)	\$
Public Equity	427,487,766	44.56	30.00	50.00	43.50	-10,192,636
Core Fixed Income	115,037,340	11.99	8.00	12.00	10.00	-19,107,426
Specialty Credit	193,038,888	20.12	10.50	19.50	15.00	-49,144,016
Real Estate	60,512,552	6.31	7.00	13.00	10.00	35,417,363
Real Return	67,650,255	7.05	7.00	13.00	10.00	28,279,659
Private Equity	67,556,459	7.04	7.00	13.00	10.00	28,373,456
Cash	28,015,888	2.92	0.00	3.00	1.50	-13,626,401
Total Fund	959,299,148	100.00			100.00	

Asset Allocation Compliance

SPRS Pension Plan
Periods Ended As of December 31, 2023

Executive Summary

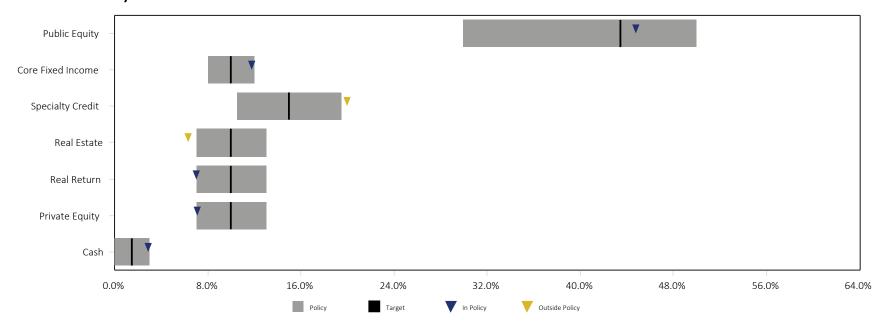


	Asset Allocation	Asset Allocation	Minimum Allocation	Maximum Allocation	Target Allocation	Target Rebalance
	\$	(%)	(%)	(%)	(%)	Ş
Public Equity	209,946,563	33.79	24.00	42.00	32.50	-8,031,669
Core Fixed Income	128,496,057	20.68	16.40	24.60	20.50	-1,134,355
Specialty Credit	108,150,275	17.41	10.50	19.50	15.00	-14,958,786
Real Estate	36,364,786	5.85	7.00	13.00	10.00	25,762,874
Real Return	43,853,615	7.06	7.00	13.00	10.00	18,274,045
Private Equity	30,498,213	4.91	4.90	9.10	7.00	12,991,149
Cash	63,967,088	10.30	0.00	10.00	5.00	-32,903,258
Total Fund	621,276,597	100.00			100.00	

Asset Allocation Compliance

KERS Insurance Plan
Periods Ended As of December 31, 2023

Executive Summary

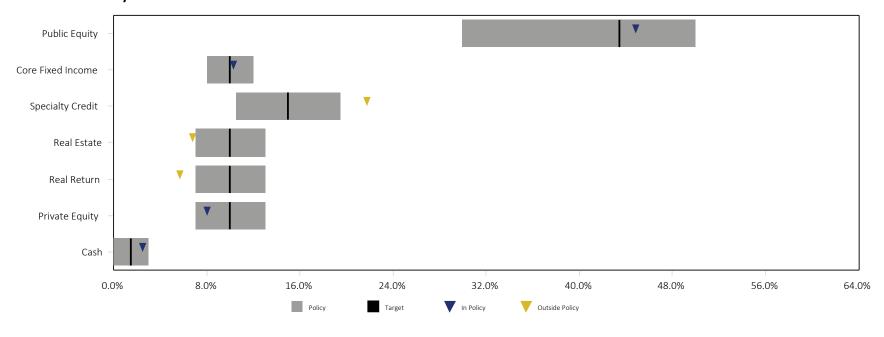


	Asset	Asset	Minimum	Maximum	Target	Target
	Allocation	Allocation	Allocation	Allocation	Allocation	Rebalance
	\$	(%)	(%)	(%)	(%)	\$
Public Equity	701,267,879	44.77	30.00	50.00	43.50	-19,952,000
Core Fixed Income	185,076,610	11.82	8.00	12.00	10.00	-28,452,270
Specialty Credit	313,193,081	20.00	10.50	19.50	15.00	-78,256,571
Real Estate	99,256,370	6.34	7.00	13.00	10.00	57,367,970
Real Return	110,579,441	7.06	7.00	13.00	10.00	46,044,899
Private Equity	111,088,826	7.09	7.00	13.00	10.00	45,535,514
Cash	45,781,191	2.92	0.00	3.00	1.50	-22,287,540
Total Fund	1,566,243,400	100.00			100.00	

Asset Allocation Compliance

KERS (H) Insurance Plan
Periods Ended As of December 31, 2023

Executive Summary

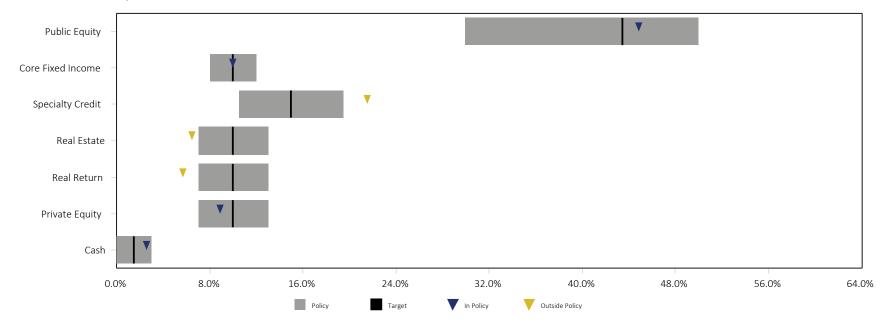


	Asset	Asset	Minimum	Maximum	Target	Target
	Allocation	Allocation	Allocation	Allocation	Allocation	Rebalance
	\$	(%)	(%)	(%)	(%)	\$
Public Equity	287,439,373	44.91	30.00	50.00	43.50	-9,012,794
Core Fixed Income	65,850,135	10.29	8.00	12.00	10.00	-1,844,025
Specialty Credit	139,160,076	21.74	10.50	19.50	15.00	-43,150,911
Real Estate	43,511,718	6.80	7.00	13.00	10.00	20,494,392
Real Return	36,539,993	5.71	7.00	13.00	10.00	27,466,117
Private Equity	51,363,838	8.02	7.00	13.00	10.00	12,642,273
Cash	16,195,968	2.53	0.00	3.00	1.50	-6,595,052
Total Fund	640,061,101	100.00			100.00	

Asset Allocation Compliance

SPRS Insurance Plan
Periods Ended As of December 31, 2023

Executive Summary



	Asset	Asset	Minimum	Maximum	Target	Target
	Allocation	Allocation	Allocation	Allocation	Allocation	Rebalance
	\$	(%)	(%)	(%)	(%)	\$
Public Equity	115,421,672	44.87	30.00	50.00	43.50	-3,519,128
Core Fixed Income	25,777,059	10.02	8.00	12.00	10.00	-52,336
Specialty Credit	55,367,538	21.52	10.50	19.50	15.00	-16,780,454
Real Estate	16,610,956	6.46	7.00	13.00	10.00	9,113,767
Real Return	14,572,807	5.66	7.00	13.00	10.00	11,151,916
Private Equity	22,847,116	8.88	7.00	13.00	10.00	2,877,606
Cash	6,650,079	2.59	0.00	3.00	1.50	-2,791,371
Total Fund	257,247,227	100.00			100.00	

Asset Allocation & Performance

Total Fund
Periods Ended December 31, 2023

	Market Value				ı	Performance	(%) net of fe	ees			
	\$	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
WEDG D DI	2 050 056 000	5.64	4.50	40.55	4.00	7.50	6.00	6.00	7.56	0.74	4/4/4004
KERS Pension Plan	3,858,856,099	5.64	4.69	10.66 11.49	4.89	7.52 7.40	6.29	6.32	7.56	8.71	4/1/1984
KERS Pension IPS Index		5.56	4.65		4.43						
Value Added		0.08	0.04	-0.83	0.46	0.12					
Assumed Rate 5.25%		1.29	2.59	5.25	5.25	5.25					
Value Added		4.35	2.10	5.41	-0.36	2.27					
KERS Insurance Plan	1,566,243,400	6.49	5.10	12.66	5.73	8.42	6.51	6.28	6.77	7.30	4/1/1987
KERS Insurance IPS Index		5.94	5.23	13.94	5.76	8.65					
Value Added		0.55	-0.13	-1.28	-0.03	-0.23					
Assumed Rate 6.50%		1.59	3.20	6.50	6.50	6.50					
Value Added		4.90	1.90	6.16	-0.77	1.92					
KERS (H) Pension Plan	959,299,148	6.45	5.24	12.77	5.85	8.36	6.76	6.59	7.74	8.84	4/1/1984
KERS (H) Pension IPS Index		5.94	5.23	13.94	5.76	8.65					
Value Added		0.51	0.01	-1.17	0.09	-0.29					
Assumed Rate 6.25%		1.53	3.08	6.25	6.25	6.25					
Value Added		4.92	2.16	6.52	-0.40	2.11					
KERS (H) Insurance Plan	640,061,101	6.30	5.14	12.46	6.29	8.44	6.77	6.44	6.88	7.39	4/1/1987
KERS (H) Insurance IPS Index	, , ,	5.94	5.23	13.94	5.76	8.65					' ' '
Value Added		0.36	-0.09	-1.48	0.53	-0.21					
Assumed Rate 6.50%		1.59	3.20	6.50	6.50	6.50					
Value Added		4.71	1.94	5.96	-0.21	1.94					

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2023

	Market Value		Performance (%) net of fees									
	\$	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date	
SPRS Pension Plan	621,276,597	5.87	4.89	10.91	5.20	7.73	6.20	6.31	7.55	8.70	4/1/1984	
SPRS Pension IPS Index		5.56	4.65	11.49	4.43	7.40						
Value Added		0.31	0.24	-0.58	0.77	0.33						
Assumed Rate 5.25%		1.29	2.59	5.25	5.25	5.25						
Value Added		4.58	2.30	5.66	-0.05	2.48						
SPRS Insurance Plan	257,247,227	6.33	5.13	12.65	6.38	8.62	6.96	6.53	6.94	7.44	4/1/1987	
SPRS Insurance IPS Index		5.94	5.23	13.94	5.76	8.65						
Value Added		0.39	-0.10	-1.29	0.62	-0.03						
Assumed Rate 6.50%		1.59	3.20	6.50	6.50	6.50						
Value Added		4.74	1.93	6.15	-0.12	2.12						

Asset Allocation & Performance

				Performance	(%) net of fe	es		
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Public Equity	5.34	11.19	6.70	21.14			1.35	12/1/2021
Public Equity Policy Index	4.80	11.03	7.26	22.20			1.78	
Value Added	0.54	0.16	-0.56	-1.06			-0.43	
US Equity Composite	5.51	11.81	7.89	24.21	8.59	14.87	11.37	4/1/1984
Russell 3000 Index	5.30	12.07	8.43	25.96	8.54	15.16	11.29	
Value Added	0.21	-0.26	-0.54	-1.75	0.05	-0.29	0.08	
S&P 500 Index	4.54	11.66	8.08	26.35	10.02	15.93	8.68	7/1/2001
S&P 500 Index	4.54	11.69	8.04	26.29	10.00	15.69	8.31	
Value Added	0.00	-0.03	0.04	0.06	0.02	0.24	0.37	
Scientific Beta	5.22	10.51	7.04	13.49	7.30	11.79	10.17	7/1/2016
S&P 500 Index	4.54	11.69	8.04	26.29	10.00	15.69	13.60	
Value Added	0.68	-1.18	-1.00	-12.80	-2.70	-3.90	-3.43	
River Road FAV	5.08	8.50	6.70	12.17	2.27	8.14	8.93	7/1/2016
Russell 3000 Value Index	5.93	9.83	6.36	11.66	8.81	10.84	9.15	
Value Added	-0.85	-1.33	0.34	0.51	-6.54	-2.70	-0.22	
Westfield Capital	5.67	14.83	12.22	44.17	8.76	19.93	14.20	7/1/2011
Russell 3000 Growth Index	4.77	14.09	10.28	41.21	8.08	18.85	14.84	
Value Added	0.90	0.74	1.94	2.96	0.68	1.08	-0.64	
Internal US Mid Cap	8.80	12.09	7.80	17.99	8.67	13.30	10.02	8/1/2014
S&P MidCap 400 Index	8.72	11.67	6.98	16.44	8.09	12.62	9.54	
Value Added	0.08	0.42	0.82	1.55	0.58	0.68	0.48	
NTGI Structured	10.80	13.61	9.74	18.02	6.68	12.03	9.89	10/1/1999
Russell 2000 Index	12.22	14.03	8.18	16.93	2.22	9.97	8.06	
Value Added	-1.42	-0.42	1.56	1.09	4.46	2.06	1.83	

Asset Allocation & Performance

			F	Performance	(%) net of fe	es		
	1	QTD	FYTD	1	3	5	Since	Inception
	Month	QID	1110	Year	Years	Years	Inception	Date
Next Century Growth	9.09	10.05	-8.30	11.84	1.35		21.26	11/1/2019
Russell Microcap Growth Index	13.68	15.64	1.82	9.11	-8.22		5.39	
Value Added	-4.59	-5.59	-10.12	2.73	9.57		15.87	
Non-US Equity Composite	5.06	10.22	4.86	16.67	1.07	7.87	3.71	7/1/2000
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.68	
Value Added	-0.15	0.41	-1.12	1.05	-0.46	0.68	0.03	
BlackRock World Ex US	5.41	10.47	5.99	18.60	4.95	8.56	6.67	7/1/2009
MSCI World ex US (11/19)	5.47	10.51	5.97	17.94	4.42	8.12	6.38	
Value Added	-0.06	-0.04	0.02	0.66	0.53	0.44	0.29	
American Century	4.60	10.46	-1.46	9.09	-4.25	9.34	5.36	7/1/2014
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.61	
Value Added	-0.61	0.65	-7.44	-6.53	-5.78	2.15	1.75	
Franklin Templeton	6.93	14.41	2.12	13.49	-7.67	5.72	4.25	7/1/2014
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.61	
Value Added	1.72	4.60	-3.86	-2.13	-9.20	-1.47	0.64	
Lazard Asset Mgmt	4.70	10.00	4.98	18.91	2.11	7.52	4.47	7/1/2014
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.61	
Value Added	-0.51	0.19	-1.00	3.29	0.58	0.33	0.86	
LSV Asset Mgmt	4.37	9.13	9.81	21.44	7.70	7.97	4.26	7/1/2014
MSCI ACWI ex US IMI (10/17)	5.21	9.81	5.98	15.62	1.53	7.19	3.61	
Value Added	-0.84	-0.68	3.83	5.82	6.17	0.78	0.65	
Axiom	4.52	7.35	3.27	10.18			-11.74	12/1/2021
MSCI AC World ex USA Small Cap (Net)	6.35	10.12	8.25	15.66			-1.71	
Value Added	-1.83	-2.77	-4.98	-5.48			-10.03	

Asset Allocation & Performance

				Performance	(%) net of fe	es		
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
JP Morgan Emerging Markets	4.74	10.22	3.24	7.73	-8.96		1.70	11/1/2019
MSCI Emerging Markets IMI Index	4.02	8.09	5.94	12.13	-3.32		3.42	
Value Added	0.72	2.13	-2.70	-4.40	-5.64		-1.72	
Pzena Emerging Markets	4.50	6.08	7.89	23.68	7.01		8.67	11/1/2019
MSCI Emerging Markets (Net)	3.91	7.86	4.71	9.83	-5.08		2.00	
Value Added	0.59	-1.78	3.18	13.85	12.09		6.67	
Private Equity Composite	0.07	0.23	2.94	7.80	15.44	12.42	11.69	7/1/2002
Russell 3000 +3% 1 Quarter Lag	-4.53	-2.54	6.42	24.07	12.66	12.42	11.73	
Value Added	4.60	2.77	-3.48	-16.27	2.78	0.00	-0.04	
Core Fixed Composite	3.74	6.62	5.41	7.34	0.50	3.00	3.03	10/1/2018
Blmbg. U.S. Aggregate Index	3.83	6.82	3.37	5.53	-3.31	1.10	1.36	
Value Added	-0.09	-0.20	2.04	1.81	3.81	1.90	1.67	
Loomis Sayles	3.88	6.80	3.78	5.79	-1.87		1.49	2/1/2019
Blmbg. U.S. Aggregate Index (Since 8/1/23)	3.83	6.82	3.59	5.27	-2.03		1.00	
Value Added	0.05	-0.02	0.19	0.52	0.16		0.49	
Lord Abbett	0.12	1.54	2.45	4.26	0.35	1.95	1.96	10/1/2018
ICE BofA 1-3 Year U.S. Corporate Index	1.32	3.03	3.97	5.61	0.44	2.16	2.21	
Value Added	-1.20	-1.49	-1.52	-1.35	-0.09	-0.21	-0.25	
NISA	3.92	6.87	3.87	6.27	-2.95	1.60	3.05	2/1/2009
Blmbg. U.S. Aggregate Index	3.83	6.82	3.37	5.53	-3.31	1.10	2.76	
Value Added	0.09	0.05	0.50	0.74	0.36	0.50	0.29	
Internal Core Fixed Income	3.85	7.03					4.28	9/1/2023
Blmbg. U.S. Aggregate Index	3.83	6.82					4.10	
Value Added	0.02	0.21					0.18	

Asset Allocation & Performance

				Performance	(%) net of fe	es		
	1	QTD	FYTD	1	3	5	Since	Inception
	Month	QID	1110	Year	Years	Years	Inception	Date
High Yield / Specialty Credit Composite	1.82	3.44	6.17	11.22	6.82	6.90	6.29	10/1/2018
Policy Index	2.69	5.02	7.07	13.42	3.91	5.62	4.53	
Value Added	-0.87	-1.58	-0.90	-2.20	2.91	1.28	1.76	
Adams St SPC II A	3.74	3.74	7.70	14.96	16.83		15.08	6/1/2020
Adams St SPC II B	3.06	3.06	6.14	11.08	10.56		10.06	6/1/2020
Arrowmark	1.21	4.26	7.89	16.45	12.80	10.71	10.47	6/1/2018
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.88	
Value Added	-0.44	1.39	1.46	3.13	7.04	4.91	5.59	
Blue Torch	2.18	2.18	4.99	12.67	11.49		10.42	8/1/2020
BSP Coinvestment	2.82	2.82	5.63	11.44	8.10		7.35	10/1/2019
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76		5.21	
Value Added	1.17	-0.05	-0.80	-1.88	2.34		2.14	
BSP Private Credit	3.26	3.26	5.94	10.63	10.23	7.17	6.47	2/1/2018
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.78	
Value Added	1.61	0.39	-0.49	-2.69	4.47	1.37	1.69	
CapitalSpring	4.33	4.33	27.15	53.06	20.09		18.26	2/1/2020
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76		5.06	
Value Added	2.68	1.46	20.72	39.74	14.33		13.20	
Cerberus Capital Mgmt	0.89	1.54	3.42	7.58	11.81	10.43	9.47	9/1/2014
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.44	
Value Added	-0.76	-1.33	-3.01	-5.74	6.05	4.63	5.03	
Columbia	3.35	6.96	7.43	13.31	2.31	5.92	5.89	11/1/2011
Blmbg. U.S. Corp: High Yield Index	3.73	7.16	7.66	13.45	1.98	5.37	5.68	
Value Added	-0.38	-0.20	-0.23	-0.14	0.33	0.55	0.21	

Asset Allocation & Performance

				Performance	(%) net of fe	es		
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Manulife Asset Mgmt	2.85	5.99	4.88	9.70	0.89	4.81	3.96	12/1/2011
Policy Index	3.79	6.83	3.76	6.17	-2.97	1.44	1.26	
Value Added	-0.94	-0.84	1.12	3.53	3.86	3.37	2.70	
Marathon Bluegrass	-0.18	0.81	2.78	3.81	4.72	4.29	5.42	1/1/2016
Blmbg. U.S. Corp: High Yield Index	3.73	7.16	7.66	13.45	1.98	5.37	6.06	
Value Added	-3.91	-6.35	-4.88	-9.64	2.74	-1.08	-0.64	
Shenkman Capital	1.83	3.29	5.50	11.34	4.76	5.33	4.64	10/1/2010
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.81	
Value Added	0.18	0.42	-0.93	-1.98	-1.00	-0.47	-0.17	
Waterfall	0.50	0.87	7.67	8.96	7.80	5.18	9.27	2/1/2010
Policy Index	2.57	4.91	6.35	11.64	2.56	4.45	4.67	
Value Added	-2.07	-4.04	1.32	-2.68	5.24	0.73	4.60	
White Oak Yield Spectrum	1.88	1.88	3.44	6.08	6.09	5.82	5.46	3/1/2018
Morningstar LSTA U.S. Leveraged Loan	1.65	2.87	6.43	13.32	5.76	5.80	4.82	
Value Added	0.23	-0.99	-2.99	-7.24	0.33	0.02	0.64	
Cook Commonths	0.46		2.55	4.52	2.07	1.00	224	4 /4 /4 000
Cash Composite	0.46	1.41	2.55	4.53	2.07	1.89	3.34	1/1/1988
FTSE 3 Month T-Bill	0.47	1.41	2.80	5.26	2.25	1.91	2.96	
Value Added	-0.01	0.00	-0.25	-0.73	-0.18	-0.02	0.38	

Asset Allocation & Performance

				Performance	(%) net of fe	es		
	1	QTD	FYTD	1	3	5	Since	Inception
	Month			Year	Years	Years	Inception	Date
Real Estate Composite	-1.54	-2.30	-4.87	-10.90	8.15	8.04	6.35	7/1/1984
NCREIF ODCE NOF 1 Quarter Lag	-2.10	-2.10	-4.93	-12.88	6.19	4.72		
Value Added	0.56	-0.20	0.06	1.98	1.96	3.32		
Baring	-3.23	-0.39	-21.88	-42.49	-12.17	2.81	2.81	1/1/2019
Barings Euro RE II	-16.46	-13.96	-21.26	-41.53	-25.95		-24.80	12/1/2020
Divcowest IV	2.14	2.14	2.07	-1.85	12.45	9.94	16.32	3/1/2014
Fundamental Partners III	-2.45	-2.45	-1.78	2.28	15.09	14.42	12.30	5/1/2017
Greenfield Acq VI	-1.88	-1.88	-2.98	-26.62	-35.32	-39.55	-17.96	12/1/2012
Greenfield Acq VII	2.63	2.63	5.57	-6.28	18.39	15.24	13.58	7/1/2014
Harrison Street	0.00	-1.89	-1.64	-2.66	5.37	5.46	7.47	5/1/2012
Lubert Adler VII	-4.55	-4.55	-11.37	-19.95	-4.27	-4.07	-2.79	7/1/2014
Lubert Adler VII B	-2.93	-2.93	0.70	10.15	24.92	19.59	14.63	7/1/2017
Mesa West Core Lend	-0.34	-0.34	-0.19	-5.12	2.07	3.63	5.40	5/1/2013
Mesa West IV	-0.67	-0.67	-8.07	-19.12	-3.35	0.55	1.75	3/1/2017
Patron Capital	-3.13	-0.20	-9.53	-7.15	2.10	3.60	2.62	8/1/2016
Prologis Targeted US	0.00	-1.50	-5.67	-11.58	18.13	15.38	15.53	10/1/2014
Rubenstein PF II	-21.35	-21.35	-28.79	-55.99	-26.40	-17.21	-2.03	7/1/2013
Stockbridge Sm/Mkts	-2.92	-2.92	-3.96	-13.42	7.32	6.21	7.74	5/1/2014
Walton St RE VI	1.63	1.63	2.67	10.37	12.34	4.40	-10.23	5/1/2009
Walton St RE VII	-7.01	-7.01	-11.37	-17.71	-1.35	-5.30	3.38	7/1/2013

Asset Allocation & Performance

			F	Performance	(%) net of fe	es		
	1	QTD	FYTD	1	3	5	Since	Inception
	Month	-		Year	Years	Years	Inception	Date
Real Return Composite	-1.10	1.45	6.26	11.26	10.84	8.53	5.14	7/1/2011
US CPI + 3%	0.48	1.22	3.07	6.42	8.79	7.20	5.65	
Value Added	-1.58	0.23	3.19	4.84	2.05	1.33	-0.51	
Tortoise Capital	-2.97	3.34	12.34	21.10	31.50	11.96	10.06	8/1/2009
Alerian MLP Index	-2.17	4.98	15.37	26.56	32.43	12.03	7.80	
Value Added	-0.80	-1.64	-3.03	-5.46	-0.93	-0.07	2.26	
Amerra AGRI Fund II	-4.68	-4.68	0.53	0.23	8.73	8.79	6.04	12/1/2012
Amerra AGRI Holdings	-5.94	-5.94	-3.34	-9.85	-6.32	-3.36	-2.68	8/1/2015
BTG Pactual	0.81	0.81	10.26	14.24	16.66	7.32	-0.33	12/1/2014
IFM Infrastructure	2.70	5.19	4.98	10.14	7.53		5.65	7/1/2019
Magnetar MTP EOF II	-1.11	-1.11	-2.20	15.24	75.37	43.48	25.50	8/1/2015
Oberland Capital	1.58	1.58	4.93	11.95	12.18	13.05	13.11	8/1/2018
Taurus Mine Finance	-4.99	-4.99	-3.69	4.03	24.90	14.33	14.23	4/1/2015
TPF II	-1.54	-1.54	-2.92	-7.88	2.68	4.25	-1.02	10/1/2008
Blackstone Strat Opp	-0.65	-0.65	-1.20	-6.70	-2.73	-5.23	-3.14	8/1/2017
Luxor Capital	-0.13	-0.18	-2.62	-2.81	4.83	-3.73	-0.31	4/1/2014
Myriad Opportunities	0.00	0.00	0.00	-0.28	-24.93	-15.45	-8.79	5/1/2016
Pine River	0.35	0.02	0.16	-7.23	-4.43	3.29	1.55	5/1/2014
PRISMA Capital	0.22	1.32	2.60	4.32	1.01	0.98	2.51	9/1/2011
Tricadia Select	0.00	0.00	0.00	0.00	0.00	0.44	-3.96	9/1/2017

Kentucky Retirement Systems

Compliance Report

Quarter Ending: December 31, 2023





		Legend
Compliance Review Period Ended December 31, 2023	Compliance Status	In Compliance To be determined
Total assets assigned to the selected manager shall not exceed 25% of that firm's total assets under management and shall not exceed 25% of a firm's total assets under management in a commingled product. Separate accounts or funds of one are not included in this 25% limitation for commingled products.	•	Not In Compliance
The assets managed by any one active or passive investment manager shall not exceed 15% of the overall assets in the Pension and Insurance funds per KRS 61.650(5).*	•	
Cash holdings do not exceed five percent (5%) of the manager's allocation for any given quarter.**	•	
No more than fifteen (15) percent of the overall Systems' Pension or Insurance Trust Fund total allocation to private equity investments may be committed to any one partnership, without the approval of the Board.	•	
All instruments in the Liquidity allocation shall have a maturity at the time of purchase that does not exceed 397 days. Repurchase agreements shall be deemed to have a maturity equal to the period remaining until the date on which the repurchase of the underlying securities is scheduled to occur. Variable rate securities shall be deemed to have a maturity equal to the time left until the next interest rate reset occurs, but in no case will any security have a stated final maturity of more than three years.	•	

		Legend
Compliance Review Period Ended December 31, 2023	Compliance Status	In Compliance To be determined
No more than 50% of the total net assets of the Real Return allocation may be invested in any one registered investment vehicle, mutual fund, or separately managed account.	•	Not In Compliance
No more than 20% of the total net assets of the Real Return allocation may be invested in any single closed-end or openend limited partnership or other unregistered investment vehicle.	•	
The maximum investment in any co-investment vehicle shall not exceed 50 percent of the total capital committed by all partners at the time of the final closing.	•	
The maximum investment in any single direct co-investment shall not exceed 20 percent of the original partnership commitment.	•	
Total investment in direct co-investments shall not exceed 20 percent of the asset class portfolio on a cost basis at the time of investment.	•	
The amount of stock in the domestic or international equity allocation in any single corporation shall not exceed 5% of the aggregate market value of the Systems' assets.	•	
The amount of stock held in the domestic or international equity allocation shall not exceed 3% of the outstanding shares of any single corporation.	•	
Investment in "frontier" markets (those countries not included in the MSCI EM Index) shall not exceed 5% of the Systems' international equity assets.	•	
The duration of the core fixed income portfolios combined shall not vary from that of the Systems' Fixed Income Index by more than +/- 25% duration as measured by effective duration, modified duration, or dollar duration except when the Investment Committee has determined a target duration to be used for an interim basis.	•	

Legend **Compliance Review** Compliance In Compliance Period Ended December 31, 2023 Status To be determined Not In Compliance The amount invested in the debt of a single issuer shall not exceed 5% of the total market value of the Systems' fixed income assets, with the exception of U.S. Government issued, guaranteed or agency obligations (or securities collateralized by same). 50% of the core fixed income assets must have stated liquidity that is trade date plus three days or better. The Systems permits external managers and Staff to invest in derivative securities, or strategies which make use of derivative investments, for exposure, cost efficiency and risk management purposes, if such investments do not cause the portfolio to be leveraged beyond a 100% invested position. Except for investments in Real Return investments, derivatives may not be used for any activity for which the primary purpose is speculation or to profit while materially increasing risk to the Systems. External Investment Managers shall manage assets in accordance with this IPS and any additional guidelines established by contract, as may be modified in writing from time to time. **IPS Asset Allocation Guidelines** KERS Pension - Cash allocation 10.8% > maximum 10.0% KERS Pension - Real Estate allocation 5.8% < minimum 7.0% SPRS Pension - Cash allocation 10.3% > maximum 10.0% SPRS Pension - Real Estate allocation 5.9% < minimum 7.0%

SPRS Pension - Private Equity 4.9% < minimum 5.0%

Compliance Review Period Ended December 31, 2023

Compliance Status In Compliance
To be determined
Not In Compliance

KERSH Pension - Specialty Credit allocation 20.1% > maximum 20.0%

KERSH Pension - Real Estate allocation 6.3% < minimum 7.0%

KERS Insurance - Real Estate allocation 6.3% < minimum 7.0%

SPRS Insurance - Specialty Credit allocation 21.5% > maximum 20.0%

SPRS Insurance - Real Return allocation 5.7% < minimum 7.0%

SPRS Insurance - Real Estate allocation 6.5% < minimum 7.0%

KERSH Insurance - Specialty Credit allocation 21.7% > maximum 20.0%

KERSH Insurance - Real Return allocation 5.7% < minimum 7.0%

KERSH Insurance - Real Estate allocation 6.8% < minimum 7.0%

^{*} Only applies to external manager and not assets managed by KPPA Investment Staff

^{**} Excludes cash holdings that are an integral part of a fixed income manager's investment strategy.

Kentucky Retirement Systems

Capital Calls and Distributions

Quarter Ending: December 31, 2023

Kentucky Public Pensions Authority Capital Calls and Distributions

For the period October 1, 2023 thru December 31, 2023

		Kentucky Employees Retirement System				Kentucky	s Hazardous	Retirement	State Police Employees Retirement System							
	Total Pension								Desired.	Desired.	e de			Desired.		See Proces
Pension Funds Managers	Funds Commitments	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
Adams Street SPC II A1 Adams Street SPC II B1	175,000,000 175,000,000	31,747,734 31,747,734	26,506,680 25,908,720	785,266 1,021,072	1,712,912 920,055	25,579,034 26,009,738	9,441,066	7,882,494 7,704,675	233,520 303,644	509,382 273.604	7,606,632 7,734,715	3,936,882	3,286,964 3,212,814	97,377	7 212,410 3 114,091	3,171,931
AMERRA Agri Fund II, LP	40,100,000	31,/4/,/34	25,908,720	1,021,072	920,055	26,009,738	2,477,739	1,430,444	303,644	268,259	1,162,185	1,253,605	723,729	126,618	135,725	588,004
AMERRA-KRS Agri Holding Company, LP	65,000,000	0	0		0	0	4,016,284	2.068.307	0	134,255	1,934,052	2.032.029	1.046.455	5 (67,926	978,529
Arcano KRS Fund I, L.P.	36,000,000	13.050.524	6,315,616		1,435,558	4.880.059	1,650,419	798,697	0	181.546	617,151	859,011	415,706	,	94,491	
Arctos Sports Partners Fund II	85,000,000	19,500,000	5,016,026	628,877	0	5,644,902	500,000	128,616	16,125	101,540	144,741	5,000,000	1,286,160) 34,431	1,447,411
Arctos Sports Partners Fund II Co-Investments LP	85,000,000	19,500,000	0,000,000	3,915,540	0	3,915,540	500,000	0	100,398		100,398	5,000,000	-,200,200	1,003,985		1,003,985
Ares Special Situations Fund IV, L.P.	26,192,000	0	0	0,020,010	0	0	1,622,790	1,167,260	0		1,167,260	511,579	367,975	5 (0 0	367,975
Barings Euro Real Estate II	164,316,688	30,694,359	4,324,396	1,290,937	0	5,845,797	8,396,585	1,182,959	353,142	C	1,599,145	3,549,241	500,037	149,273	3 0	675,959
Barings Real Estate European Value Add I SCSp	115,988,250	21,666,606	2,945,649	469,909	0	3,547,097	5,927,001	805,796	128,546	C	970,325	2,505,346	340,610	54,336	5 0	410,157
Bay Hills Capital I, L.P.	67,500,000	24,469,733	1,886,885		0	1,886,885	3,094,535	238,623	0	C	238,623	1,610,645	124,198	3 (0	124,198
Bay Hills Capital III, L.P.	51,250,000	1	1		0	1	3,175,320	3,271,495	0	C	3,271,495	1,001,010	1,031,329) (0	1,031,329
Bay Hills Emerging Partners II LP	45,000,000	16,313,156	35,590,163		0	35,590,163	2,063,023	4,500,866	0	C	4,500,866	1,073,764	2,342,613	3 (0	2,342,613
Bay Hills Emerging Partners II-B LP	45,000,000	16,313,156	23,742,611	0	0	23,742,611	2,063,023	3,002,580	0	C	3,002,580	1,073,764	1,562,785	5 (0	1,562,785
BDCM Opportunity Fund IV, L.P.	35,580,000	0	0	0	0	0	2,204,447	3,825,727	0	197,214	3,628,513	694,947	1,206,052	2 (62,171	
Blackstone Capital Partners V, L.P.	47,174,735	17,101,529	8,676	0	0	8,676	2,162,724	1,097	0	C	1,097	1,125,656	571	1 (0	571
Blackstone Capital Partners VI, L.P.	60,000,000	0	0	0	0	0	3,299,994	1,106,959	0	134,794	972,165	0	() (0	0
Blue Torch Credit Opportunities Fund II LP	140,000,000	25,356,966	24,457,829	2,687,081	. 0	27,144,910	7,618,631	7,348,481	807,347	C	8,155,828	3,143,324	3,031,865	333,099		3,364,963
BSP Co-Invest Vehicle K LP	37,262,028	5,527,207	5,777,986	0	155,370	5,622,616	1,985,263	2,075,338	0	55,806	2,019,532	513,102	536,383	3 (14,423	521,960
BSP Private Credit Fund	100,000,000	14,833,350	13,830,099	0	454,000	13,376,099	5,327,845	4,967,497	0	163,068	4,804,429	1,377,012	1,283,878	3 (42,146	
BTG Pactual Brazil Timberland Fund I	34,500,000	0	0	0	0	0	2,058,030	1,706,624	0	315,341	1,391,283	952,485	789,849	9 0	145,944	
Camelot Opportunities Fund, L.P.	23,400,000	8,482,841	2,444,576		0	2,444,576	1,072,772	309,150	0		309,150	558,357	160,907	7	0	160,907
Cerberus KRS Levered Loan Opportunities Fund, L.P.	140,000,000	20,766,690	28,100,265		0	28,420,196	7,458,982	10,093,057	0		10,207,970	1,927,816	2,608,608	3 (0	2,638,308
Ceres Farms Columbia Captal Equity Partners IV, L.P.	100,000,000 27,000,000	9,787,893	1,334,646	0	0	1,334,646	1,237,814	168,784	0		168,784	644,258	87,849) (0	87,849
Crestview Partners II. L.P.	67.500.000	24.469.733	10,606,117		1,705,868	8.900.250	3,094,535	1.341.290	0	215.730	1.125.559	1.610.645	698,115		112,284	
Crestview Partners III, L.P.	39,000,000	24,403,733	10,000,117		1,703,808	8,300,230	2,416,341	1,809,820	306,900	21,083	2,095,637	761,744	570,540	96,749		660,643
CS Adjacent Investment Partners Parallel LP	140,000,000	20,766,690	11,092,323	6,153,059	609,024	16,636,358	7,458,982	3,984,142	2,210,056	218.749	5,975,449	1,927,816	1,029,724	571,202		1,544,389
CVC European Equity Partners VI, L.P.	24,214,778	1	1	0,200,000	0	1	1,500,286	1,297,374	14,327	28,761	1,338,487	472,961	408,993			421,954
DAG Ventures II, L.P.	27,000,000	9.787.893	754,321	0	0	754,321	1,237,814	95,394	0		95,394	644,258	49,651		0 0	49,651
DAG Ventures III, L.P.	27,000,000	9,787,893	114,815	0	25,130	89,685	1,237,814	14,520	0	3,178	11,342	644,258	7,557	7 (1,654	5,903
DAG Ventures IV, L.P.	90,000,000	32,626,311	7,578,408	C	0	7,578,408	4,126,046	958,394	0		958,394	2,147,527	498,826	5 (0	498,826
DAG Ventures V, L.P.	8,000,000	0	0	0	0	0	439,999	800	0	C	800	0) (0	0
DCM VI, L.P.	13,500,000	4,893,947	974,615		0	974,615	618,907	123,253	0	C	123,253	322,129	64,151	1 (0	64,151
DivcoWest Fund IV	20,800,000	0	0	0	0	0	1,244,069	61,457	0	C	61,457	447,430	22,103	3 (0	22,103
Fundamental Partners III LP	70,000,000	13,076,001	11,112,764	0	329,204	10,783,559	3,577,001	3,039,948	0	90,055	2,949,893	1,512,000	1,284,988	3 (38,066	1,246,921
Green Equity Investors V, L.P.	90,000,000	32,626,311	377,245	0	0	377,245	4,126,046	47,708	0	C	47,708	2,147,527	24,831		0	24,831
Green Equity Investors VI, L.P.	32,000,000	0	0	0	0	0	1,759,997	1,872,376	0	86,785	1,785,591	0	C	0 (0	0
Green Equity Investors VII LP	25,000,000	0	0	0	0	0	1,525,000	1,740,132	0	123,289	1,616,843	0	C	0	0	0
Greenfield Acquisition Partners VII, L.P.	27,800,000	0	0	0	0	0	1,662,744	116,809	0	C	116,809	598,005	42,010	0 (0	42,010
H.I.G. BioVentures II, L.P.	13,500,000	0	0	0	0	0	742,499	380,953	0	C	380,953	0	C) (0	0
H.I.G. Capital Partner V, L.P.	13,100,000	0 525 262	000.355	0	0	_	811,643	506,345	0	42,971	463,374	255,868	159,624	1 (13,547	
H.I.G. Ventures II, L.P. H&F Spock I LP	18,000,000 3,250,153	6,525,262 1,178,228	989,255 3,796,509		0	989,255 3,796,509	825,209 149,003	125,105 480.121	0		125,105 480.121	429,505 77,553	65,115 249,894		0	65,115
Harvest Partners VI, L.P.	28,400,000	1,170,228	3,790,509		0	3,796,509	1,607,440	263,013	0		263,013	241,400	39,498) (0	39,498
Harvest Partners VII LP	20,000,000	0	0		1 0	0	1,220,000	1,656,789	-350	3,477	1,652,962	241,400	35,496	, ,	1 0	35,498
Hellman and Friedman Capital Partners VI, L.P.	20,000,000	7,250,291	110		0	110	916.899	1,030,783	-530	3,477	1,032,902	477,228	-	7 () 0	7
Horsley Bridge International Fund V, L.P.	45,000,000	16,313,156	31,690,175		1,034,470	30,655,705	2,063,023	4,007,659	0	130,823	3,876,836	1,073,764	2,085,909		68,091	2,017,818
IFM US Infrastructure Debt Fund	70,000,000	11,678,693	12,001,677	854.882	854,882	12,284,338	3,596,947	3,696,423	263,297	263,297	3,783,480	1,394,272	1,432,831	102.061	102,061	
Institutional Venture Partners XII, L.P.	27,000,000	9,787,893	1,854	00.,000	0	1,854	1,237,814	234	0	0	234	644,258	122	2 (0 0	122
Kayne Anderson Energy Fund VII LP	50,000,000	0	0	0	0	0	3,050,000	1,919,363	4,698	237,288	1,682,074	0) (0	С
KCP IV Co-Invest	13,101,149	0	0	0	0	0	811,714	140,015	0	C	146,086	255,891	44,140) (0	46,053
Keyhaven Capital Partners Fund III, L.P.	27,872,740	10,104,274	3,125,480	C	0	3,260,979	1,277,825	395,260	0	C	412,396	665,083	205,725	5 (0	214,644
Keyhaven Capital Partners IV LP	13,101,149	0	0	0	0	0	811,714	762,356	3,188	C	798,610	255,891	240,331	1,005	0	251,760
Levine Leichtman Capital Partners V, L.P.	46,000,000	1	0	0	0	0	2,850,043	997,927	0	908,235	89,690	898,468	314,593	3 (286,318	28,274
Levine Leichtman Capital Partners VI LP	37,500,000	0	0	0	0	0	2,287,504	3,424,674	0	102,843	3,321,831	0	(0	0	C
Lubert Adler VII	34,750,000	0	0	0	0	0	2,078,050	932,597	0	C	932,597	747,124	335,298		0	335,298
Lubert-Adler Real Estate Fund VII-B LP	36,750,000	6,864,900	1,923,250	0	0	1,923,250	1,877,925	526,114	0	C	526,114	793,800	222,389	9 (0	222,389
Magentar MTP Energy Opportunities Fund II LLC	37,500,000	0	0	0	0	0	2,242,500	8,108	0	C	8,108	806,249	2,915	5 (0	2,915
Maritime Partners LP	175,000,000	40,250,000	0	30,769,531			4,375,000	0	3,344,514	70,654	3,273,860	7,875,000		6,020,126		
MatlinPatterson Global Opportunities Partners II	45,000,000	16,313,156	132,889	0	110,240	22,649	2,063,023	16,806	0	13,941	2,864	1,073,764	8,747	7 (7,256	1,491
MatlinPatterson Global Opportunities Partners III	45,000,000	16,313,156	270	0	0	270	2,063,023	34	0	C	34	1,073,764	18	3 (0	18

Kentucky Public Pensions Authority Capital Calls and Distributions

For the period October 1, 2023 thru December 31, 2023

		K	entucky Em	ployees Retir	ement Syste	em	Kentucky	es Hazardous	State Police Employees Retirement System							
Pension Funds Managers	Total Pension Funds Commitments	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
Merit Mezzanine Fund IV, L.P.	27,000,000	9,787,893	145,153	0	146,910	-1,757	1,237,814	18,357	0	18,579	-222	644,258	9,554	0	9,670	-116
Mesa West Core Lending Fund, LP	57,500,000	5,474,001	5,417,841	53,073	53,073	5,417,841	3,248,749	3,215,419	31,498	31,498	3,215,419	960,250	950,398	9,310	9,310	950,398
Mesa West Real Estate Income Fund IV LP	36,000,000	13,050,524	5,363,959	0	0	5,363,959	1,650,419	678,347	0	0	678,347	859,011	353,066	0	0	353,066
MiddleGround Partners I LP	50,000,000	0	0	0	0	0	2,925,000	5,257,507	1,465,523	4,096,660	2,626,370	0	0	0	0	0
MiddleGround Partners II LP	50,000,000	9,584,069	11,083,133	-392,355	656,991	10,035,723	2,755,477	3,186,467	-112,805	188,889	2,885,331	1,102,634	1,275,100	-45,140	75,586	1,154,597
MiddleGround Partners II-X LP	25,000,000	4,792,034	5,841,965	-192,262	328,496	5,322,168	1,377,739	1,679,600	-55,276	94,444	1,530,155	551,317	672,110	-22,119	37,793	612,308
Mill Road Capital I, L.P.	27,000,000	9,787,893	632,462	0	0	632,462	1,237,814	79,984	. 0	0	79,984	644,258	41,630	0	0	41,630
New Mountain Partners III, L.P.	32,337,197	11,722,705	483,110	0	0	483,110	1,482,498	61,096	. 0	0	61,096	771,611	31,799	0	0	31,799
New Mountain Partners IV, L.P.	32,800,000	1	0	0	0	0	2,032,204	683,400	64,484	190,543	557,342	640,647	215,440	20,329	60,068	175,700
New State Capital Partners Fund III LP	17,500,000	3,354,424	952,109	0	0	952,109	964,417	273,737	0	0	273,737	385,922	109,539	0	0	109,539
Oak Hill Capital Partners II, L.P.	67,500,000	24,469,733	56,386	0	68,183	-11,798	3,094,535	7,131	0	8,623	-1,492	1,610,645	3,711	0	4,488	-777
Oak Hill Capital Partners III, L.P.	33,750,000	12,234,867	0	0	0	0	1,547,267	C	0	0	0	805,323	0	0	0	0
Oberland Capital Healthcare LP	3,450,000	0	0	0	0	0	201,825	362,200	0	9,936	352,264	C	0	0	0	0
Patron Capital V LP	39,767,400	7,428,551	2,928,885	0	134,154	2,915,134	2,032,115	801,210	0	36,698	797,448	858,976	338,672	0	15,512	337,082
Riverside Capital Appreciation Fund VI, L.P.	35,500,000	0	0	0	0	0	2,009,300	659,817	26,082	237	685,662	301,749	99,089	3,917	36	102,970
Rubenstein Properties Fund II	20,800,000	0	0	0	0	0	1,244,066	497,883	0	0	497,883	447,429	179,064	0	0	179,064
Secondary Opportunities Fund III, L.P.	25,000,000	0	0	0	0	0	0	C	0	0	0	0	0	0	0	0
Strategic Value Special Situations Fund IV LP	43,300,000	0	0	0	0	0	2,533,050	3,204,740	0	305,825	2,898,915	0	0	0	0	0
Strategic Value Special Situations Fund V LP	70,000,000	13,417,696	8,114,932	325,379	0	8,440,311	3,857,668	2,333,092	93,548	0	2,426,640	1,543,688	933,612	37,434	0	971,047
Taurus Mining Finance Fund LLC	45,100,000	0	0	0	0	0	2,794,280	203,001	. 0	13,914	189,088	880,891	63,996	0	4,386	59,610
Tenaska Power Fund II, L.P.	27,000,000	8,824,749	25,013	0	0	25,013	1,363,534	3,865	0	0	3,865	625,175	1,772	0	0	1,772
Triton Fund IV, L.P.	27,791,804	1	0	0	0	0	1,721,909	846,420	6,658	0	889,817	542,827	266,831	2,099	0	280,512
VantagePoint Venture Partners 2006, L.P.	27,000,000	9,787,893	1,958,561	0	403,033	1,555,529	1,237,814	247,687	0	50,969	196,718	644,258	128,916	0	26,528	102,388
VantagePoint Venture Partners IV, L.P.	36,000,000	13,050,524	22,808	0	0	22,808	1,650,419	2,884	. 0	0	2,884	859,011	1,501	0	0	1,501
Vista Equity Partners III, L.P.	45,000,000	16,313,156	725,789	0	0	725,789	2,063,023	91,786	0	0	91,786	1,073,764	47,773	0	0	47,773
Vista Equity Partners IV, L.P.	27,000,000	0	0	0	0	0	1,484,997	1,067,355	0	0	1,067,355	C	0	0	0	0
Vista Equity Partners VI LP	25,000,000	0	0	0	0	0	1,525,000	1,654,734	4,661	9,833	1,649,562	C	0	0	0	0
Walton Street Real Estate Fund VI, LP	36,000,000	10,001,992	4,472,985	0	212,282	4,260,702	2,186,190	977,684	. 0	46,400	931,285	725,004	324,228	0	15,387	308,841
Walton Street Real Estate Fund VII, LP	38,120,000	0	0	0	0	0	2,279,995	421,422	0	53,512	367,910	820,000	151,564	C	19,246	132,319
Warburg, Pincus Private Equity IX, L.P.	50,000,000	18,125,728	20,603	0	0	20,603	2,292,248	2,606	0	0	2,606	1,193,071	1,356	C	0	1,356
Warburg, Pincus Private Equity X, L.P.	38,750,000	14,047,440	257,199	0	0	257,199	1,776,492	32,526	0	0	32,526	924,630	16,929	C	0	16,929
Wayzata Opportunities Fund II, L.P.	67,500,000	24,469,733	529	0	0	529	3,094,535	67	0	0	67	1,610,645	35	C	0	35
Wayzata Opportunities Fund III, L.P.	35,500,000	0	0	0	0	0	2,009,300	212,724	. 0	11,645	201,078	301,749	31,946	0	1,749	30,197
White Oak Yield Spectrum Parallel Fund LP	170,000	25,217	0	0	0	20,610,834	9,057	C	0	0	7,403,002	2,341	0	0	0	1,913,348

		K	entucky Em	ployees Retir	rement Syste	em	Kentucky	y Employe	es Hazardous	Retirement	System	State	Police Em	ployees Reti	rement Syst	em
	Total Insurance				,											
	Funds		Beginning	Period	Period	Ending		Beginning	Period	Period	Ending		Beginning	Period	Period	Ending
Insurance Funds Managers	Commitments	Commitment	Valuation	Contributions	Distributions	Valuation	Commitment	Valuation	Contributions	Distributions	Valuation	Commitment	Valuation	Contributions	Distributions	Valuation
Adams Street SPC II A1	75,000,000	13,190,205	11,012,709	326,254	711,662	10,627,300	7,095,858	5,924,443	175,513	382,849	5,717,107	2,740,996	2,288,500	67,797	147,887	7 2,208,410
Adams Street SPC II B1	75,000,000	13,190,205	10,764,274	424,224		10,806,244	7,095,858	5,790,794	228,217	205,639	5,813,372	2,740,996	2,236,875	88,156		5 2,245,596
AMERRA Agri Fund II, LP AMERRA-KRS Agri Holding Company, LP	16,200,000 35.000.000	2,153,555 4,652,745	1,241,167 2,396,072		232,763	1,008,404 2,240,541	1,746,327 3,772,929	1,006,468		188,749 126,121	817,719 1,816,864	656,373 1,418,089	378,290 730,288	0	70,943 47.404	
Arcano KRS Fund I, L.P.	4,000,000	903,884	437,422			337,995	430,530	208,349		47,358	160,991	191,459	92,654	0		,
Arctos Sports Partners Fund II	40,000,000	11,500,000	2,958,170	370,875	0	3,329,045	500,000	128,616	16,125		144,741	500,000	128,616	16,125	(0 144,741
Arctos Sports Partners Fund II Co-Investments LP	40,000,000	11,500,000	0	2,309,165	0	2,309,165	500,000	(100,398	3 0	100,398	500,000	0	100,398	(0 100,398
Ares Special Situations Fund IV, L.P.	13,808,000	0	0	C	0	0	1,038,363	746,887	(0	746,887	646,214	464,817	0	(0 464,817
Barings Euro Real Estate II Barings Real Estate European Value Add I SCSp	70,421,438 49,709,250	9,999,846 7,058,715	1,408,835 959.656	420,571 153.090	. 0	1,904,489 1.155.601	7,478,754 5,279,121	1,053,649 717.714	314,540 114.494	0	1,424,343 864,259	2,859,113	402,808 274.381	120,248 43,771	(0 544,523 0 330,404
Bay Hills Capital I, L.P.	75.000.000	16,947,830	130.687	133,030	0	130.687	8.072.444	62,247	114,45	0	62,247	3.589.864	27,682	43,771		0 27,682
Bay Hills Capital III, L.P.	48,750,000	0	0	C	0	0	3,666,009	3,397,046		0	3,397,046	2,281,498	2,114,112	0	(0 2,114,112
Bay Hills Emerging Partners II LP	5,000,000	1,129,855	2,464,988	C	0	2,464,988	538,163	1,174,102	. (0	1,174,102	239,324	522,130	0	(522,130
Bay Hills Emerging Partners II-B LP	5,000,000	910,000	1,324,439	C	_	1,324,439	555,000	807,762		0	807,762	215,000	312,917	C		312,917
BDCM Opportunity Fund IV, L.P. Blackstone Capital Partners V. L.P.	24,420,000 12.414.403	2,805,296	1,370	C	-	1,370	1,836,387	3,186,973		164,287	3,022,687	1,142,854 594,214	1,983,377	0		2 1,881,135
Blackstone Capital Partners VI, L.P.	40.000.000	2,803,290	1,370		0	1,370	3,360,001	1,127,089		137,245	989.843	1.599.998	536,708	0	65,355	
Blue Torch Credit Opportunities Fund II LP	60,000,000	10,726,688	10,346,329	1,136,709	0	11,483,038	5,638,524	5,438,587	597,515	5 0	6,036,102	2,184,246	2,106,794	231,465		0 2,338,259
BSP Co-Invest Vehicle K LP	17,252,566	2,930,825	3,039,460	C	81,948	2,957,511	1,769,758	1,835,357	(49,484	1,785,873	637,155	660,772	0	17,815	642,957
BSP Private Credit Fund	50,000,000	8,493,880	7,919,397	C		7,659,428	5,128,971	4,782,073	(156,981	4,625,093	1,846,552	1,721,661	C	56,517	
BTG Pactual Brazil Timberland Fund I Camelot Opportunities Fund, L.P.	15,500,000 2,600,000	2,391,768 587,525	1,983,376 169,311		366,478	1,616,898 169,311	1,621,536 279,845	1,344,660 80,645		248,459	1,096,201 80,645	615,184 124,449	510,142 35,863	0	94,261	1 415,881 0 35,863
Cerberus KRS Levered Loan Opportunities Fund, L.P.	60.000.000	10,192,656	13.792.103		0	13.949.131	6,154,765	8.328.266			8,423,086	2,215,862	2.998.375	0		0 3.032.512
Ceres Farms	50,000,000	0	0	C	0	0	0	(0	0	0	0	0) (
Columbia Captal Equity Partners IV, L.P.	3,000,000	677,913	92,438	C	·	92,438	322,898	44,029	(0	44,029	143,595	19,580	0		19,580
Crestview Partners II, L.P.	7,500,000	1,694,783	734,578	C	118,151	616,428	807,244	349,888	(56,276	293,612	358,986	155,597	0	25,026	6 130,571
Crestview Partners III, L.P. CS Adjacent Investment Partners Parallel LP	21,000,000	10,192,656	5,444,307	3.020.029	298,920	8,165,416	1,579,203 6.154.765	1,182,810	200,575	13,779	1,369,606 4.930.630	982,799 2.215.862	736,109 1.183,581	124,826 656,548	8,575 64,984	5 852,359 4 1,775,145
CVC European Equity Partners VI, L.P.	13,366,486	10,132,030	3,444,307	3,020,023	298,920	8,103,410	1,005,162	832,054	9,188		858,421	625,551	517,819	5,718		
DAG Ventures II, L.P.	3,000,000	677,913	52,242	C	0	52,242	322,898	24,884		0	24,884	143,595	11,066	0	, (0 11,066
DAG Ventures III, L.P.	3,000,000	677,913	7,949	C	-,	6,209	322,898	3,786	i (829	2,957	143,595	1,684	0	369	
DAG Ventures IV, L.P.	10,000,000	2,259,711	524,883	C		524,883	1,076,326	250,008	9	0	250,008	478,649	111,180	C		0 111,180
DAG Ventures V, L.P. DCM VI, L.P.	7,000,000 1,500,000	338,957	67,502	C	0	67,502	588,000 161,449	1,068 32,152		0	1,068 32,152	280,000 71,797	509 14,298	0		0 509 0 14,298
DivcoWest Fund IV	9,200,000	1,303,635	64,400		0	64,400	977.043	48.266) 0	48,266	368.004	18,180	0		0 18,180
Fundamental Partners III LP	30,000,000	4,260,001	3,620,403	C	107,251	3,513,152	3,185,999	2,707,652		80,212	2,627,441	1,218,001	1,035,130	0	30,665	
Green Equity Investors V, L.P.	10,000,000	2,259,711	26,128	C	, ,	26,128	1,076,326	12,445	(0	12,445	478,649	5,534	0	(0 5,534
Green Equity Investors VI, L.P.	28,000,000	0	0	C	·	0	2,352,000	2,502,181		115,977	2,386,204	1,119,999		C		
Green Equity Investors VII LP Greenfield Acquisition Partners VII, L.P.	25,000,000 12,200,000	4,550,000 1,729,339	5,191,870 121,488	0		4,824,022 121,488	2,775,000 1,296,093	3,166,470 91,052		224,346	2,942,124 91,052	1,075,001 487,855	1,226,651 34,272	0	86,909	9 1,139,742 0 34,272
H.I.G. BioVentures II, L.P.	11,500,000	1,723,333	121,400		, ,	121,400	966,000	495,625) 0	495,625	459,999	236,012	0		0 236,012
H.I.G. Capital Partner V, L.P.	6,900,000	0	0	C	0	0	518,881	323,705	C	27,471	296,234	322,920	201,454	0		
H.I.G. Ventures II, L.P.	2,000,000	451,942	68,516	C	-	68,516	215,265	32,635	(0	32,635	95,730	14,513	0		0 14,513
H&F Spock LP	1,794,672	405,544	887,448	C		887,448	193,165	422,701		0	422,701	85,902	187,978	C		187,978
Harvest Partners VI, L.P. Harvest Partners VII LP	11,600,000 20,000,000	3,640,000	4,943,207	-1,044	Ÿ	4,931,790	872,320 2,220,000	142,731 3,014,813	-637	6,327	142,731 3,007,850	542,879 860,001	88,827 1,167,901	-247		0 88,827 1 1,165,204
Hellman and Friedman Capital Partners VI, L.P.	7,500,000	1,694,783	26	-1,044	10,575	26	807,244	12		0,327	12	358,986	1,107,301	-247	2,433	1,103,20
Horsley Bridge International Fund V, L.P.	5,000,000	1,129,855	2,194,868	C	71,648	2,123,220	538,163	1,045,440		34,127	1,011,314	239,324	464,914	0	15,176	6 449,737
IFM US Infrastructure Debt Fund	30,000,000	5,109,247	5,250,548	373,998	373,998	5,374,208	2,874,861	2,954,368	210,440	210,440	3,023,948	968,545	995,331	70,898	70,898	8 1,018,773
Institutional Venture Partners XII, L.P.	3,000,000	677,913	128	C	0	128	322,898	61		0	61	143,595	27	0	() 27
Kayne Anderson Energy Fund VII LP KCP IV Co-Invest	50,000,000 8,991,851	9,100,000	5,726,623	14,017	707,975	5,018,648	5,550,000 676,188	3,492,611 116,638	8,549	431,787	3,060,824 121,695	2,150,001 420,818	1,352,994 72,588	3,312	167,269	9 1,185,725 0 75,735
Keyhaven Capital Partners Fund III, L.P.	3,093,020	698,933	216,472		0	225,857	332,910	103,108) 0	107,578	148,047	45,853	0		0 47,841
Keyhaven Capital Partners IV LP	8,991,851	0	0	C	0	0	676,188	635,071	2,656	0	665,272	420,818	395,229	1,653		0 414,025
Levine Leichtman Capital Partners V, L.P.	24,000,000	0	0	C		0	1,804,804	631,942		575,144	56,797	1,123,199	393,282	0		4 35,347
Levine Leichtman Capital Partners VI LP	37,500,000	6,824,999	10,222,433	C		9,915,591	4,162,518	6,234,589		187,141	6,047,448	1,612,494	2,415,182	0	72,495	
Lubert Adler VII Lubert-Adler Real Estate Fund VII-B LP	15,250,000 15,750,000	2,160,925 2,236,500	969,789 626,571	0		969,789 626,571	1,619,550 1,672,649	726,829 468,605		0	726,829 468,605	610,001 639,451	273,759 179,147	0		0 273,759
Magentar MTP Energy Opportunities Fund II LLC	12,500,000	1,699,157	6.144		,	6,144	1,338,541	4,840	1 () 0	4,840	508,953	1,840	0		0 1,840
Maritime Partners LP	75,000,000	17,400,000	0	13,301,611	-	13,020,610	3,350,000	.,010	2,560,942	54,101	2,506,842	17,499,998	0	13,378,055	282,616	
MatlinPatterson Global Opportunities Partners II	5,000,000	1,129,855	9,204	C	7,635	1,569	538,163	4,384	(3,637	747	239,324	1,950	0	1,617	7 33:
MatlinPatterson Global Opportunities Partners III	5,000,000	1,129,855	19	C	0	19	538,163			0	9	239,324	4	0) 4
Merit Mezzanine Fund IV, L.P. Mesa West Core Lending Fund, LP	3,000,000 29,600,000	677,913 3,759,201	10,053 5,504,618	53,925	10,175	-122 5,504,618	322,898 3,223,440	4,789 4,720,101	. 46,240	4,846	-58 4,720,101	143,595 1,207,680	2,130 1,768,412	17 324	2,100	5 -26 4 1,768,412
Mesa West Real Estate Income Fund IV LP	14,000,000	1,988,001	817,098	33,925	33,925	5,504,618 817,098	1,486,800	611,097	40,240	40,240	611,097	568,400	233,621	17,324	17,324	0 233,621
	1-,000,000	1,500,001	317,030			317,036	1,400,000	311,037			511,037	300,400	233,021			233,023

		K	entucky Em	ployees Retir	ement Syste	·m	Kentucky	es Hazardous	State Police Employees Retirement System							
Insurance Funds Managers	Total Insurance Funds Commitments	Commitment	Beginning Valuation		Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation
MiddleGround Partners I LP	25,000,000	17,500,000	31,455,177	8,768,086	24,509,934	15,713,328	1,250,000	2,246,799	626,292	1,750,710	1,122,381	500,000	898,720	250,517	700,284	448,952
MiddleGround Partners II LP	25,000,000	4,796,517	5,546,750	-230,896	294,268	5,022,547	2,260,759	2,614,369	-108,829	138,698	2,367,294	885,701	1,024,236	-42,636	54,338	927,439
MiddleGround Partners II-X LP	12,500,000	2,398,258	2,923,714	-96,221	164,401	2,663,572	1,130,379	1,378,044	-45,352	77,488	1,255,431	442,851	539,879	-17,768	30,358	491,842
Mill Road Capital I, L.P.	3,000,000	677,913	43,804	0	0	43,804	322,898	20,864	. 0	0	20,864	143,595	9,279	0	C	9,279
New Mountain Partners III, L.P.	7,186,045	1,623,838	66,921	0	0	66,921	773,453	31,875	0	0	31,875	343,959	14,175	0	C	14,175
New Mountain Partners IV, L.P.	17,200,000	0	0	0	0	0	1,293,443	434,965	41,043	121,275	354,732	804,959	270,695	25,542	75,474	220,763
New State Capital Partners Fund III LP	7,500,000	1,438,955	408,429	0	0	408,429	678,228	192,506	0	0	192,506	265,710	75,418	0	C	75,418
Oak Hill Capital Partners II, L.P.	7,500,000	1,694,783	3,905	0	4,722	-817	807,244	1,860	0	2,249	-389	358,986	827	0	1,000	-173
Oak Hill Capital Partners III, L.P.	12,500,000	2,824,638	0	0	0	0	1,345,407	0	0	0	0	598,311	0	0	C	0
Oberland Capital Healthcare LP	15,500,000	5,951,995	1,068,159	0	29,301	1,038,858	1,681,752	301,811	. 0	8,279	293,532	393,703	70,655	0	1,938	68,717
Patron Capital V LP	15,465,100	2,196,045	865,860	0	39,659	861,795	1,642,393	647,565	0	29,660	644,525	627,884	247,563	0	11,339	246,401
Riverside Capital Appreciation Fund VI, L.P.	18,712,500	0	0	0	0	0	1,396,123	458,457	18,123	165	476,414	862,056	283,080	11,190	102	294,169
Rubenstein Properties Fund II	9,200,000	1,303,637	521,724	0	0	521,724	977,044	391,019	0	0	391,019	368,003	147,277	0	C	147,277
Secondary Opportunities Fund III, L.P.	75,000,000	10,548,299	2,143,797	0	57,404	2,086,393	8,756,849	1,779,710	0	47,655	1,732,055	1,960,724	398,490	0	10,670	387,820
Strategic Value Special Situations Fund IV LP	21,700,000	8,332,800	10,542,399	0	1,006,051	9,536,348	2,354,450	2,978,776	0	284,262	2,694,514	551,180	697,335	0	66,546	630,789
Strategic Value Special Situations Fund V LP	30,000,000	5,755,820	3,481,079	139,579	0	3,620,657	2,712,910	1,640,749	65,788	0	1,706,537	1,062,842	642,799	25,774	C	668,573
Taurus Mining Finance Fund LLC	19,900,000	0	0	0	0	0	1,496,479	108,718	0	7,451	101,266	931,319	67,659	0	4,637	63,022
Tenaska Power Fund II, L.P.	3,000,000	588,919	1,670	0	0	1,670	316,438	897	0	0	897	137,845	391	0	C	391
Triton Fund IV, L.P.	14,298,590	0	0	0	0	0	1,075,257	541,530	4,259	0	569,294	669,173	337,015	2,651	C	354,294
VantagePoint Venture Partners 2006, L.P.	3,000,000	677,913	135,651	0	27,914	107,737	322,898	64,612	0	13,296	51,316	143,595	28,733	0	5,913	22,821
VantagePoint Venture Partners IV, L.P.	4,000,000	903,884	1,580	0	0	1,580	430,530	752	0	0	752	191,459	335	0	C	335
Vista Equity Partners III, L.P.	5,000,000	1,129,855	50,270	0	0	50,270	538,163	23,944	. 0	0	23,944	239,324	10,648	0	C	10,648
Vista Equity Partners IV, L.P.	23,000,000	0	0	0	0	0	1,932,000	1,388,643	0	0	1,388,643	919,999	661,257	0	C	661,257
Vista Equity Partners VI LP	25,000,000	4,550,000	4,937,075	13,908	29,339	4,921,644	2,775,000	3,011,074	8,482	17,894	3,001,662	1,075,001	1,166,453	3,286	6,932	1,162,807
Walton Street Real Estate Fund VI, LP	4,000,000	754,575	337,453	0	16,015	321,438	431,496	192,969	0	9,158	183,811	184,453	82,489	0	3,915	78,574
Walton Street Real Estate Fund VII, LP	16,755,000	2,375,001	438,982	0	55,742	383,240	1,780,001	329,006	0	41,777	287,229	669,998	123,839	0	15,725	108,114
Warburg, Pincus Private Equity IX, L.P.	10,000,000	2,259,711	2,569	0	0	2,569	1,076,326	1,223	0	0	1,223	478,649	544	0	C	544
Warburg, Pincus Private Equity X, L.P.	7,500,000	1,694,783	31,017	0	0	31,017	807,244	14,774	. 0	0	14,774	358,986	6,570	0	C	6,570
Wayzata Opportunities Fund II, L.P.	7,500,000	1,694,783	37	0	0	37	807,244	17	0	0	17	358,986	8	0	C	8
Wayzata Opportunities Fund III, L.P.	18,712,500	0	0	0	0	0	1,396,123	147,807	0	8,091	139,715	862,056	91,265	0	4,996	86,269
White Oak Yield Spectrum Parallel Fund LP	50,000,000	8,493,880	11,354,905	0	245,973	11,108,932	5,128,971	6,856,581	. 0	148,529	6,708,052	1,846,552	2,468,533	0	53,474	2,415,059

Kentucky Public Pensions Authority

KERS, KERS-Hazardous, & SPRS Unit Holdings

Quarter Ending: December 31, 2023

Kentucky Public Pensions Authority Pension: KERS, KERS-H, & SPRS Unit Holdings Quarter Ended December 31, 2023

		К	ERS			·	KERS-H				SPRS	
UNIT OF PARTICIPATION	Character (Dan			Base Market	Character (Dans			Base Market	Ch(D		Base Market	Base Market
	Shares/Par	Base Cost	Base Market Value	Unrealized G/L	Shares/Par	Base Cost	Base Market Value	Unrealized G/L	Shares/Par	Base Cost	Unrealized G/L	Unrealized G/L
Grand Total	23,582,750.324	3,249,334,706.380	3,864,813,951.330	615,479,244.950	5,222,546.395	794,626,650.760	958,019,819.380	163,393,168.620	3,853,845.322		622,268,637.350	79,587,315.270
KRS ABSOLUTE RETURN UNIT	149,224.927	5,228,190.42	18,826,160.08	13,597,969.66	38,933.658	4,378,405.03	4,911,855.50	533,450.47	16,154.012	1,188,334.59	2,037,984.02	849,649.43
KRS ADAMS STREET A1 UNIT	155,325.129	23,694,452.14	24,655,792.35	961,340.21	46,190.218	7,046,199.64	7,332,080.98	285,881.34	19,261.112	2,938,233.77	3,057,444.61	119,210.84
KRS ADAMS STREET B1 UNIT	185,911.208	24,826,855.89	25,260,126.72	433,270.83	55,285.840	7,382,952.27	7,511,797.38	128,845.11	23,053.943	3,078,658.22	3,132,385.23	53,727.01
KRS ADAMS STREET III A1 UNIT	199.602	19,960.24	19,960.20	-0.04	46.285	4,628.46	4,628.50	0.04	19.484	1,948.38	1,948.40	0.02
KRS ADAMS STREET III B1 UNIT	199.602	19,960.24	19,960.20	-0.04	46.285	4,628.46	4,628.50	0.04	19.484	1,948.38	1,948.40	0.02
KRS AMERRA AGRI UNIT	:	-	-	•	24,294.286	2,371,533.69	2,056,248.59	-315,285.10	12,291.637	1,199,871.26	1,040,354.15	-159,517.11
KRS AMERRA UNIT KRS ARCTOS SPORTS II UNIT	55,589.124	7,589,851.64	9,399,862.32	1,810,010.68	5,978.071 1,425.363	910,765.37 194,611.91	1,223,550.73 241,022.25	312,785.36 46,410.34	3,024.588 14,253.620	460,801.02 1,946,115.78	619,052.01 2,410,220.85	158,250.99 464,105.07
KRS ARCIOS SPORTS II UNIT	405,599.625	53,935,463.52	93,425,166.23	39,489,702.71	125,747.662	16,733,426.30	28,964,514.51	12,231,088.21	50,099.456	6,661,824.56	11,539,828.24	4,878,003.68
KRS BLACKROCK UNIT	670,348.376	49,259,309.85	122,187,683.87	72,928,374.02	237,248.064	25,958,652.19	43,244,367.38	17,285,715.19	92,898.536	9,486,839.85	16,933,071.45	7,446,231.60
KRS BLUE TORCH UNIT	158,020.242	26,717,815.79	26,564,662.79	-153,153.00	47,477.996	8,027,506.11	7,981,489.82	-46,016.29	19,588.655	3,312,018.27	3,293,033.90	-18,984.37
KRS BNYM CUSTODY FEE UNIT	-141,494.491	-141,494.49	-141,494.49	0.00	-34,749.288	-34,749.29	-34,749.29	0.00	-22,769.380	-22,769.38	-22,769.38	0.00
KRS BTG UNIT		-		-	14,008.667	830,351.85	1,379,816.48	549,464.63	6,483.403	384,297.49	638,597.97	254,300.48
KRS CASH UNIT	4,099,843.576	418,378,242.47	424,482,638.54	6,104,396.07	267,644.036	27,198,919.49	27,710,873.47	511,953.98	616,297.920	62,731,692.45	63,809,206.95	1,077,514.50
KRS DIVCOWEST IV UNIT	-			-	114.410	0.00	60,166.95	60,166.95	41.147	0.00	21,638.75	21,638.75
KRS DOMESTIC EQUITY UNIT	660,854.467	145,830,694.40	189,864,163.10	44,033,468.70	248,605.349	53,564,027.18	71,424,570.59	17,860,543.41	130,239.301	28,985,502.54	37,417,884.15	8,432,381.61
KRS GLOBAL FIXED UNIT	272,023.173	41,975,283.58	38,337,688.98	-3,637,594.60	133,265.172	19,324,113.56	18,781,777.52	-542,336.04	55,806.377	8,137,581.18	7,865,092.89	-272,488.29
KRS GREENFIELD UNIT	-	-	-	-	119.219	48,861.46	1,135.26	-47,726.20	42.877	17,572.88	408.30	-17,164.58
KRS GREENFIELD VII UNIT	-	-		-	378.106	103,690.81	113,819.38	10,128.57	135.987	37,292.52	40,935.49	3,642.97
KRS HARRISON UNIT	319,272.312	65,159,788.14	71,263,673.19	6,103,885.05	56,783.798	11,015,768.64	12,674,515.99	1,658,747.35	79,847.383	17,336,229.59	17,822,459.37	486,229.78
KRS IFM INFRAST DEBT UNIT	78,848.461	12,777,515.23	11,961,400.55	-816,114.68	24,284.713	3,935,375.14	3,684,018.38	-251,356.76	9,413.397	1,525,457.58	1,428,022.95	-97,434.63
KRS INTERNAL EQUITY UNIT	1,682,656.983	352,680,427.72	588,514,731.61	235,834,303.89	533,800.356	127,886,007.39	186,698,404.02	58,812,396.63	252,333.474	62,027,432.94	88,254,450.09	26,227,017.15
KRS INTERNAL PRIVATE EQUITY	411,667.907	41,300,000.00	41,475,999.40	175,999.40	84,723.714	8,500,000.00	8,536,008.40	36,008.40	156,351.990	15,650,000.00	15,752,636.86	102,636.86
KRS INTERNAL REAL ESTATE UNIT	300,000.000	30,000,000.00	30,319,937.10	319,937.10	120,000.000	12,000,000.00	12,127,974.84	127,974.84	40,000.000	4,000,000.00	4,042,658.28	42,658.28
KRS INTERNAL REAL RETURN UNIT	1,542,000.000	154,200,000.00	153,541,959.21	-658,040.79	387,000.000	38,700,000.00	38,534,849.69	-165,150.31	251,000.000	25,100,000.00	24,992,887.01	-107,112.99
KRS INTERNATIONAL EQUITY UNIT	2,127,578.759	331,386,168.55	383,800,249.12	52,414,080.57	698,927.824	114,564,923.46	126,081,665.29	11,516,741.83	373,119.839	58,288,915.27	67,308,195.55	9,019,280.28
KRS L-A VII UNIT					12,174.863	1,290,121.07	977,022.82	-313,098.25	4,377.246	463,838.97	351,270.42	-112,568.55
KRS LIQUID CORE FIXED UNIT KRS LIQUID HY FI UNIT	6,049,067.648 873,032.272	773,618,864.95 148,167,730.01	797,474,187.69 148,082,823.40	23,855,322.74 -84,906.61	872,678.666 191,111.351	111,291,996.94	115,048,921.71 32,416,108.03	3,756,924.77 -1,026,007.95	974,777.123 183,104.356	122,472,922.47 30,348,465.42	128,508,993.38 31,057,969.89	6,036,070.91 709,504.47
KRS LIQUID HY FI UNIT	873,032.272 56.770	48,581.60	148,082,823.40 35,081.35	-84,906.61 -13,500.25	191,111.351	33,442,115.98	6,253.71	-1,026,007.95 -2,405.60	183,104.356 5.023	4,298.60	31,057,969.89	-1,194.61
KRS MARITIME PARTNERS UNIT	301,195.146	30,119,514.59	30,119,514.60	-13,500.25	32,738.603	8,659.31 3,273,860.32	3,273,860.30	-2,405.60 -0.02	58,929.485	5,892,948.49	5,892,948.50	-1,194.61 0.01
KRS MESA WEST CORE UNIT	30,939.768	6,024,312.32	5,436,173.39	-588,138.93	18,362.356	3,575,352.25	3,226,299.28	-349,052.97	5,427.457	1,056,786.08	953,614.05	-103,172.03
KRS MESA WEST TO UNIT	34,892.283	3,648,889.92	2,782,542.75	-866,347.17	9,544.948	998,170.54	761,177.65	-236,992.89	4,034.654	421,926.83	321,750.15	-100,176.68
KRS MULTI SECTOR CREDIT FI	787,166.869	91,551,983.62	132,298,119.44	40,746,135.82	132,990.502	15,723,975.22	22,351,541.98	6,627,566.76	71,068.687	8,323,882.65	11,944,422.47	3,620,539.82
KRS OBERLAND UNIT				-	4,303.528	276,907.70	346,770.78	69,863.08		-		-
KRS PE 2010 UNIT	428,101.247	110,101,327.64	133,685,926.52	23,584,598.88	54,139.301	13,910,492.85	16,906,427.31	2,995,934.46	28,178.445	7,240,282.09	8,799,464.04	1,559,181.95
KRS PE 2011 UNIT					13,212.942	2,886,340.72	4,427,571.63	1,541,230.91				
KRS PE 2012 A UNIT	-	-	-	-	540.071	220,234.65	297,035.39	76,800.74	81.106	33,075.34	44,607.75	11,532.41
KRS PE 2012 B UNIT	-	-	-	-	5,083.440	699,478.19	889,279.29	189,801.10	763.411	105,043.49	133,548.46	28,504.97
KRS PE 2013 UNIT	0.004	2.10	1.51	-0.59	17,552.377	4,507,186.48	6,633,539.91	2,126,353.43	5,533.331	1,418,961.17	2,091,202.35	672,241.18
KRS PE 2014 UNIT	-	-	-	-	20,798.620	1,753,491.59	3,533,431.46	1,779,939.87	6,556.702	552,783.63	1,113,903.57	561,119.94
KRS PE 2015 UNIT	-	-	-	-	13,144.907	1,642,142.09	4,487,562.88	2,845,420.79	4,143.905	517,682.38	1,414,695.00	897,012.62
KRS PE 2016 UNIT	-	-	-	-	25,579.421	2,228,979.92	6,477,096.29	4,248,116.37	-	-	-	-
KRS PE 2017 UNIT	-	-	-	-	16,886.577	1,900,321.94	3,113,591.46	1,213,269.52	-	-	-	-
KRS PE 2018 UNIT	•	-		-	16,302.586	2,765,943.89	2,809,323.94	43,380.05	-	-	-	-
KRS PE 2019 UNIT	-	-	-		12,940.817	247,958.87	2,648,491.50	2,400,532.63	-	-		-
KRS PE 2021 UNIT KRS PERIMETER PARK UNIT	191,031.330	19,523,648.26	23,456,457.15	3,932,808.89	54,922.657 14.865.299	5,613,166.31	6,743,872.59	1,130,706.28	21,977.902	2,246,169.83	2,698,634.39	452,464.56
KRS POST-2015 REAL ESTATE UNIT	18,137.810 203,321.522	2,458,220.00 20,244,087.76	1,879,936.50 26,874,365.17	-578,283.50	,	2,014,695.77	1,540,749.31	-473,946.46	3,523.666 23,510.413	477,563.21 2,340,858.66	365,218.75 3,107,528.50	-112,344.46 766,669.84
KRS PRIVATE CREDIT FI UNIT	393,983.818	79,144,533.01	82,778,027.21	6,630,277.41 3,633,494.20	55,619.548 141,511.156	5,537,864.15 28,550,871.92	7,351,607.59 29,732,221.95	1,813,743.44 1,181,350.03	36,574.361	7,357,647.50	7,684,461.42	326,813.92
KRS PROLOGIS UNIT	246,066.872	30,438,121.29	56,432,098.21	25,993,976.92	67,312.722	8,326,486.75	15,437,259.42	7,110,772.67	28,453.125	3,519,608.58	6,525,338.14	3,005,729.56
KRS REAL RETURN UNIT	231,342.946	32,180,050.62	47,326,031.66	15,145,981.04	57,945.741	8,391,428.03	11,854,011.63	3,462,583.60	23,138.616	3,332,786.10	4,733,487.20	1,400,701.10
KRS RUBENSTEIN PF II UNIT	265,069.541	45,243,123.40	45,444,414.86	201,291.46	6,189.255	1,068,855.37	632,996.93	-435,858.44	2,225.969	384,416.04	227,657.70	-156,758.34
KRS SHENKMAN UNIT	123,246.396	23,365,578.42	25,914,326.06	2,548,747.64	126,228.647	21,499,312.63	21,641,064.38	141,751.75	58,704.108	9,866,889.86	10,064,429.99	197,540.13
KRS STOCKBRIDGE UNIT	,-	,,	,,5100	-,,	24,535.920	4,651,624.62	5,159,029.81	507,405.19	11,887.258	2,253,637.29	2,499,466.84	245,829.55
KRS TAURUS UNIT					594.429	19,697.41	199,523.22	179,825.81	187.392	6,209.64	62,899.11	56,689.47
KRS TPF II UNIT	255.889	2,898,854.89	25,404.82	-2,873,450.07	39.538	447,906.88	3,925.36	-443,981.52	18.128	205,365.55	1,799.76	-203,565.79
KRS WALTON VI UNIT	21,761.928	4,031,380.79	4,189,957.64	158,576.85	4,756.622	881,160.38	915,821.64	34,661.26	1,577.433	292,218.04	303,712.86	11,494.82
KRS WALTON VII UNIT	-	-		-	2,610.590	793,289.55	397,203.32	-396,086.23	938.898	285,308.22	142,854.07	-142,454.15
KRS WATERFALL UNIT	250,411.283	41,687,415.86	46,798,240.33	5,110,824.47	77,738.471	13,535,961.35	14,528,193.80	992,232.45	95,138.880	16,783,946.81	17,780,078.11	996,131.30

Kentucky Public Pensions Authority Insurance: KERS INS, KERS-H INS, & SPRS INS Unit Holdings Quarter End December 31, 2023

					Quarter End Decemb	er 31, 2023						
		KERS INS				KERS-H INS				SP	RS INS	
UNIT OF PARTICIPATION				Base Market				Base Market			Base Market	
	Shares/Par	Base Cost	Base Market Value	Unrealized G/L	Shares/Par	Base Cost	Base Market Value	Unrealized G/L	Shares/Par	Base Cost	Value	Base Market Value
Grand Total	9,069,242.073	1,315,172,439.630	1,563,642,716.430	248,470,276.800	3,534,402.949	501,352,358.070	638,981,137.790	137,628,779.720	1,407,712.493	202,746,510.970	256,886,516.880	54,140,005.910
KR3 ARROWMARK UNIT	198,111.345	26,642,729.29	46,123,015.43	19,480,286.14	123,155.934	16,562,623.57	28,672,376.36	12,109,752.79	45,477.526	6,116,059.94	10,587,786.55	4,471,726.61
KRS INS PE 2014 UNIT	-	-	-	-	13,487.656	1,142,050.29	2,293,375.30	1,151,325.01	8,393.893	710,741.74	1,427,256.66	716,514.92
KRS INS ABSOLUTE RETURN UNIT	53,216.644	6,767,968.36	6,718,613.49	-49,354.87	35,336.957	3,716,225.11	4,461,298.91	745,073.80	13,251.548	1,366,050.40	1,673,010.97	306,960.57
KRS INS ADAMS STREET A1 UNIT	64,532.805	9,844,315.66	10,243,722.18	399,406.52	34,716.339	5,295,889.82	5,510,755.84	214,866.02	13,410.266	2,045,701.75	2,128,700.89	82,999.14
KRS INS ADAMS STREET B1 UNIT	77,229.683	10,314,793.62	10,494,803.41	180,009.79	41,546.805	5,548,989.14	5,645,828.57	96,839.43	16,048.749	2,143,469.69	2,180,877.34	37,407.65
KRS INS ADAMS STREET III A1	80.347	8,034.71	8,034.70	-0.01	10.955	1,095.48	1,095.50	0.02	8.537	853.67	853.70	0.03
KRS INS ADAMS STREET III B1	80.347	8,034.71	8,034.70	-0.01	10.955	1,095.48	1,095.50	0.02	8.537	853.67	853.70	0.03
KRS INS AMERRA AGRI UNIT	28,141.587	2,747,347.68	2,382,101.31	-365,246.37	22,820.136	2,227,837.46	1,931,656.37	-296,181.09	8,577.155	837,352.89	726,030.56	-111,322.33
KRS INS AMERRA UNIT	5,165.428	790,253.75	1,061,650.70	271,396.95	4,188.666	640,820.46	860,896.75	220,076.29	1,574.348	240,857.70	323,575.83	82,718.13
KRS INS ARCTOS SPORTS II UNIT	32,783.322	4,476,066.48	5,543,508.16	1,067,441.68	1,425.362	194,611.60	241,022.12	46,410.52	1,425.362	194,611.60	241,022.12	46,410.52
KRS INS BLACKROCK UNIT	713,625.894	30,246,929.29	51,785,177.87	21,538,248.58	408,777.073	15,667,512.33	29,663,432.35	13,995,920.02	139,307.933	4,640,182.18	10,109,058.75	5,468,876.57
KRS INS BLUE TORCH UNIT	66,846.874	11,302,364.21	11,237,577.18	-64,787.03	35,138.313	5,941,130.73	5,907,075.09	-34,055.64	13,611.843	2,301,468.69	2,288,276.58	-13,192.11
KRS INS BNYM CUSTODY FEE UNIT	-79,775.406	-79,775.41	-79,775.41	0.00	-33,053.686	-33,053.69	-33,053.69	0.00	-13,246.249	-13,246.25	-13,246.25	0.00
KRS INS BTG UNIT	16,280.364	965,004.31	1,603,572.61	638,568.30	11,037.522	654,241.42	1,087,166.60	432,925.18	4,187.457	248,208.24	412,453.39	164,245.15
KRS INS CASH UNIT	424,151.079	45,074,269.11	45,185,220.78	110,951.67	148,382.015	16,544,833.44	15,807,278.21	-737,555.23	60,729.248	6,539,127.89	6,469,544.97	-69,582.92
KRS INS DB PRIVATE EQ UNIT	7,623.424	3,048,187.93	2,135,027.13	-913,160.80	6,328.715	2,530,504.74	1,772,429.06	-758,075.68	1,417.046	566,600.50	396,859.95	-169,740.55
KRS INS DIVCOWEST IV UNIT	119.209	0.00	63,048.28	63,048.28	89.344	0.00	47,253.02	47,253.02	33.651	0.00	17,797.63	17,797.63
KRS INS DOMESTIC EQUITY UNIT	411,266.468	91,426,609.97	118,268,987.65	26,842,377.68	169,921.016	35,691,988.43	48,864,636.69	13,172,648.26	68,783.185	14,149,952.42	19,780,162.72	5,630,210.30
KRS INS GLOBAL FIXED UNIT	171,838.902	24,306,716.06	23,746,076.94	-560,639.12	7,402.474	1,418,344.73	1,022,933.20	-395,411.53	38,951.001	5,546,713.35	5,382,561.55	-164,151.80
KRS INS GREENFIELD UNIT	124.766	50,895.98	1,182.48	-49,713.50	93.509	38,144.31	886.24	-37,258.07	35.198	14,357.93	333.59	-14,024.34
KRS INS GREENFIELD VII UNIT	393.233	161,161.83	118,378.34	-42,783.49	294.716	120,786.09	88,720.91	-32,065.18	110.933	45,464.49	33,395.12	-12,069.37
KRS INS HARRISON UNIT	171,741.842	36,053,466.45	37,520,716.55	1,467,250.10	56,020.957	10,791,012.79	12,238,988.61	1,447,975.82	21,455.354	4,133,457.58	4,687,385.71	553,928.13
KRS INS IFM INFRAST DEBT UNIT	34,930.160	5,589,965.32	5,232,927.65	-357,037.67	19,654.433	3,145,351.69	2,944,453.33	-200,898.36	6,621.606	1,059,672.42	991,990.45	-67,681.97
KRS INS INTERNAL EQUITY UNIT	866,336.973	217,077,842.18	303,421,421.45	86,343,579.27	353,729.565	76,138,719.78	123,888,429.98	47,749,710.20	142,441.369	32,676,249.86	49,887,935.07	17,211,685.21
KRS INS INTERNAL PRIVATE	322,386.519	32,300,000.00	32,444,365.45	144,365.45	-	-		•		-	-	-
KRS INS INTERNAL REAL ESTATE	200,000.000 601,000.000	20,000,000.00	20,213,354.20	213,354.20	158.000.000	-		-		6,300,000.00	-	-26.884.05
KRS INS INTERNAL REAL RETURN KRS INS INTL EQ UNIT	1,276,802.809	60,100,000.00 204,591,108.96	59,843,534.67 227,595,920.37	-256,465.33 23,004,811.41	476,687.794	15,800,000.00 73,493,683.34	15,732,576.50 84,971,772.02	-67,423.50 11,478,088.68	63,000.000 199,817.095	30,850,751.53	6,273,115.95 35,618,307.95	-26,884.05 4,767,556.42
KRS INS L-A-VII UNIT	12,657.390	1,341,571.84	1,015,987.11	-325,584.73	9,486.342	1,005,468.80	761,452.50	-244,016.30	3,573.015	378,708.23	286,799.82	-91,908.41
KRS INS LIQUID CORE FIXED UNIT	1,419,986.982	179,747,660.51	185,092,115.23	5,344,454.72	505,230.427	63,641,776.50	65,855,651.92	2,213,875.42	197,772.628	24,937,551.02	25,779,218.06	841,667.04
KRS INS LIQUID HY FI UNIT	334,879.438	55,778,253.52	56,748,315.26	970,061.74	105,966.935	18,451,743.61	17,957,044.69	-494,698.92	41,230.718	7,274,260.97	6,986,913.85	-287,347.12
KRS INS MAGNETAR MTP	9,979	8,601.68	6,212.19	-2,389.49	7.861	6,776.78	4,893.68	-1,883.10	2.989	2,577.23	1,860.73	-716.50
KRS INS MARITIME PARTNERS UNIT	130,206.100	13,020,610.03	13,020,610.00	-0.03	25,068.416	2,506,841.61	2,506,841.60	-0.01	13,095.441	1,309,544.09	1,309,544.10	0.01
KRS INS MESA WEST CORE UNIT	32,110.702	6,167,240.21	5,523,242.14	-643,998.07	27,534.291	5,288,505.61	4,736,070.75	-552,434.86	10,315.876	1,981,406.72	1,774,395.37	-207,011.35
KRS INS MESA WEST IV UNIT	10,669.816	1,072,774.98	822,581.49	-250,193.49	7,979.816	802,315.26	615,197.95	-187,117.31	3,050.668	306,722.13	235,188.97	-71,533.16
KRS INS MULTI SECTOR CREDIT FI	212,837.305	24,903,035.41	35,213,176.33	10,310,140.92	127,352.658	14,847,709.10	21,070,045.04	6,222,335.94	43,970.794	5,113,072.80	7,274,811.73	2,161,738.93
KRS INS OBERLAND UNIT	12,288.952	816,631.18	1,022,657.19	206,026.01	3,472,276	230,739.78	288,954.50	58,214.72	812.870	54.015.48	67,645.10	13,629.62
KRS INS PE 2010 UNIT	33,068.472	8,686,281.99	10,121,284.75	1,435,002.76	15,750.886	4,140,025.73	4,820,882.03	680,856.30	7,004.509	1,840,550.24	2,143,873.78	303,323.54
KRS INS PE 2011 UNIT					16,222.452	3,428,028.11	5,561,206.80	2,133,178.69	7,724.967	1,632,553.65	2,648,190.24	1,015,636.59
KRS INS PE 2012 A UNIT	-		-		292.129	107,610.90	161,194.21	53,583.31	181.803	66,971.99	100,317.29	33,345.30
KRS INS PE 2012 B UNIT	-	-	-		3,515.648	480,326.10	617,893.66	137,567.56	2,170.784	296,558.39	381,526.73	84,968.34
KRS INS PE 2013 UNIT	-	-	-		14,778.260	3,291,604.08	5,547,160.85	2,255,556.77	9,197.078	2,048,498.19	3,452,210.95	1,403,712.76
KRS INS PE 2015 UNIT	-	-	-	-	11,020.478	1,388,757.14	3,738,308.76	2,349,551.62	6,858.470	864,275.48	2,326,494.23	1,462,218.75
KRS INS PE 2016 UNIT	76,321.860	7,493,737.58	19,325,105.64	11,831,368.06	46,547.952	4,570,357.29	11,786,191.92	7,215,834.63	18,032.100	1,770,501.93	4,565,824.75	2,795,322.82
KRS INS PE 2017 UNIT	50,656.895	6,877,886.24	9,283,995.98	2,406,109.74	30,895.279	4,194,773.06	5,662,242.94	1,467,469.88	11,968.346	1,624,989.35	2,193,464.01	568,474.66
KRS INS PE 2018 UNIT	52,123.971	5,375,557.14	9,241,627.75	3,866,070.61	14,727.733	1,518,873.81	2,611,240.54	1,092,366.73	3,447.782	355,570.30	611,294.90	255,724.60
KRS INS PE 2019 UNIT	65,209.053	977,523.91	15,845,680.02	14,868,156.11	4,657.791	69,821.67	1,131,834.65	1,062,012.98	1,863.117	27,929.08	452,734.01	424,804.93
KRS INS PE 2021 UNIT	90,314.590	9,356,325.05	11,104,918.61	1,748,593.56	42,568.289	4,409,950.67	5,234,119.81	824,169.14	16,677.049	1,727,692.95	2,050,579.78	322,886.83
KRS INS POST-2015 REAL ESTATE	65,801.368	6,503,702.36	8,663,451.41	2,159,749.05	49,211.986	4,860,982.93	6,479,282.46	1,618,299.53	18,813.645	1,857,610.31	2,477,016.88	619,406.57
KRS INS PRIVATE CREDIT FI UNIT	207,748.767	41,385,155.16	42,855,107.67	1,469,952.51	125,447.664	24,981,030.08	25,877,762.00	896,731.92	45,164.149	8,990,104.76	9,316,611.10	326,506.34
KRS INS PROLOGIS UNIT	46,483.481	9,334,724.64	16,965,731.66	7,631,007.02	34,764.411	6,981,320.43	12,688,457.40	5,707,136.97	13,290.350	2,668,942.93	4,850,766.49	2,181,823.56
KRS INS REAL RETURN UNIT	68,488.386	9,691,871.07	14,055,264.17	4,363,393.10	31,317.270	4,639,238.96	6,426,965.63	1,787,726.67	12,224.423	1,776,601.46	2,508,709.94	732,108.48
KRS INS RUBENSTEIN PF II UNIT	6,525.019	1,120,036.64	663,307.81	-456,728.83	4,890.340	839,438.68	497,132.76	-342,305.92	1,841.942	316,175.00	187,244.59	-128,930.41
KRS INS SHENKMAN UNIT	287,613.504	48,693,293.61	49,019,546.47	326,252.86	69,051.447	11,731,937.73	11,768,816.72	36,878.99	24,040.411	4,081,509.54	4,097,339.06	15,829.52
KRS INS STOCKBRIDGE UNIT	38,327.097	7,387,125.90	8,024,039.45	636,913.55	27,034.753	5,210,650.97	5,659,910.13	449,259.16	10,358.286	1,996,445.66	2,168,577.90	172,132.24
KRS INS TAURUS UNIT	-		-		317.723	28,155.40	106,854.77	78,699.37	197.731	17,521.72	66,499.75	48,978.03
KRS INS TPF II UNIT KRS INS WALTON VI UNIT	17.081	37,870.05	1,695.69	-36,174.36	9.178	20,346.23	911.13	-19,435.10	3.998 403.734	8,862.29	396.90	-8,465.39
	1,651.627	304,135.88	316,100.62	11,964.74	944.467	173,916.75	180,759.10	6,842.35	403.734 767.146	74,344.84 232,772.58	77,269.61	2,924.77
KRS INS WALTON VII UNIT KRS INS WATERFALL UNIT	2,719.372 145,490.248	825,132.00 24,451,410.60	413,754.56 26,357,008.96	-411,377.44 1,905,598.36	2,038.098 81,096.168	618,417.37 13,610,478.39	310,098.19 14,691,379.36	-308,319.18 1,080,900.97	767.146 26,223.083	232,772.58 4,396,155.78	116,721.86 4,750,572.95	-116,050.72 354,417.17
RNO INO WATERPALL UNIT	145,490.248	24,451,410.60	20,337,008.96	1,302,30	91,090.168	13,010,478.39	14,091,379.36	1,000,900.97	20,223.083	4,390,135./8	4,/50,5/2.95	334,417.17

Kentucky Public Pensions Authority

Security Litigation Report

Quarter Ending: December 31, 2023

Claims Filed during the Quarter (pg 3):

17

Proceeds Received during the Quarter (pg 4):

\$77,286.43

Kentucky Retirement Systems

Quarterly Securities Litigation Report Quarter Ended 12/31/23

Total Claims Filed		
No Claim on File		9
Fiscal Year 1997		1
Fiscal Year 1998		2
Fiscal Year 1999		5
Fiscal Year 2000		9
Fiscal Year 2001		8
Fiscal Year 2002		33
Fiscal Year 2003		45
Fiscal Year 2004		38
Fiscal Year 2005		89
Fiscal Year 2006		150
Fiscal Year 2007		70
Fiscal Year 2008		73
Fiscal Year 2009		85
Fiscal Year 2010		65
Fiscal Year 2011		69
Fiscal Year 2012		54
Fiscal Year 2013		48
Fiscal Year 2014		65
Fiscal Year 2015		80
Fiscal Year 2016		224
Fiscal Year 2017		140
Fiscal Year 2018		74
Fiscal Year 2019		55
Fiscal Year 2020		42
Fiscal Year 2021		43
Fiscal Year 2022		49
Fiscal Year 2023		49
Fiscal Year 2024		31
	Total Filed	1,705

Proceeds Received		
Fiscal Year 1998		\$67,682
Fiscal Year 1999		\$233,370
Fiscal Year 2000		\$303,918
Fiscal Year 2001		\$415,502
Fiscal Year 2002		\$387,318
Fiscal Year 2003		\$519,059
Fiscal Year 2004		\$1,080,920
Fiscal Year 2005		\$1,645,440
Fiscal Year 2006		\$797,535
Fiscal Year 2007		\$5,398,363
Fiscal Year 2008		\$5,402,336
Fiscal Year 2009		\$3,504,682
Fiscal Year 2010		\$2,776,544
Fiscal Year 2011		\$1,292,484
Fiscal Year 2012		\$468,657
Fiscal Year 2013		\$1,070,427
Fiscal Year 2014		\$308,704
Fiscal Year 2015		\$23,639,565
Fiscal Year 2016		\$2,417,957
Fiscal Year 2017		\$1,886,532
Fiscal Year 2018		\$2,247,966
Fiscal Year 2019		\$1,702,272
Fiscal Year 2020		\$1,743,474
Fiscal Year 2021		\$286,420
Fiscal Year 2022		\$616,557
Fiscal Year 2023		\$259,261
Fiscal Year 2024		\$172,961
	Total Proceeds	\$60,645,908

Class Action Name	TNT Status Code	Status as of Date	Class Period Start Date	Class Period End Date	Class Account Id	Claimed Account Name
RYANAIR HOLDINGS PLC, Securities Litigation	FILED	10/13/2023	5/30/2017	9/28/2018	956779	KRS INS AMERICAN CENTURY
RYANAIR HOLDINGS PLC, Securities Litigation	FILED	10/13/2023	5/30/2017	9/28/2018	956626	KRS LAZARD ASSET MGMT
RYANAIR HOLDINGS PLC, Securities Litigation	FILED	10/13/2023	5/30/2017	9/28/2018	956802	KRS INS LAZARD ASSET MGMT
RYANAIR HOLDINGS PLC, Securities Litigation	FILED	10/13/2023	5/30/2017	9/28/2018	956623	KRS AMERICAN CENTURY
MAXAR TECHNOLOGIES INC Securities Litigation	FILED	10/18/2023	5/9/2018	10/30/2018	956765	KRS INS NTGI STRUCTURED
MAXAR TECHNOLOGIES INC Securities Litigation	FILED	10/18/2023	5/9/2018	10/30/2018	956588	KRS NTGI STRUCTURED
COMMUNITY HEALTH SYSTEMS, INC., Securities Litigation	FILED	10/24/2023	2/21/2017	2/27/2018	956765	KRS INS NTGI STRUCTURED
COMMUNITY HEALTH SYSTEMS, INC., Securities Litigation	FILED	10/24/2023	2/21/2017	2/27/2018	956588	KRS NTGI STRUCTURED
BIOMARIN PHARMACEUTICAL INC, Securities Litigation	FILED	10/27/2023	3/3/2020	8/18/2020	140454	KRS ABEL NOSER TRANSITION
BIOMARIN PHARMACEUTICAL INC, Securities Litigation	FILED	10/27/2023	3/3/2020	8/18/2020	956772	KRS INS KRS INTERNAL EQUITY
BIOMARIN PHARMACEUTICAL INC, Securities Litigation	FILED	10/27/2023	3/3/2020	8/18/2020	140455	KRS INS ABEL NOSER TRANSITION
BIOMARIN PHARMACEUTICAL INC, Securities Litigation	FILED	10/27/2023	3/3/2020	8/18/2020	956596	KRS KRS INTERNAL EQUITY
Imperial Metals Corporation Securities Litigation	FILED	11/3/2023	8/15/2011	8/4/2014	KR2F3007002	COLUMBIA
Imperial Metals Corporation Securities Litigation	FILED	11/3/2023	8/15/2011	8/4/2014	KR3F3007002	COLUMBIA
AAC HOLDINGS, INC., Securities Litigation	FILED	11/22/2023	3/8/2017	4/15/2019	956588	KRS NTGI STRUCTURED
AAC HOLDINGS, INC., Securities Litigation	FILED	11/22/2023	3/8/2017	4/15/2019	956765	KRS INS NTGI STRUCTURED
PRECIGEN INC., Securities Litigation	FILED	11/23/2023	5/10/2017	9/25/2020	956588	KRS NTGI STRUCTURED
PRECIGEN INC., Securities Litigation	FILED	11/23/2023	5/10/2017	9/25/2020	956765	KRS INS NTGI STRUCTURED
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956588	KRS NTGI STRUCTURED
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956773	KRS INS TRANSITION
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956598	KRS TRANSITION
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956765	KRS INS NTGI STRUCTURED
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956592	KRS RIVER ROAD
THE GEO GROUP, INC Securities Litigation	FILED	11/23/2023	11/9/2018	8/5/2020	956769	KRS INS RIVER ROAD
PROASSURANCE CORPORATION Securities Litigation	FILED	11/28/2023	8/8/2018	5/7/2020	956765	KRS INS NTGI STRUCTURED
PROASSURANCE CORPORATION Securities Litigation	FILED	11/28/2023	8/8/2018	5/7/2020	956588	KRS NTGI STRUCTURED
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956596	KRS KRS INTERNAL EQUITY
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956592	KRS RIVER ROAD
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956769	KRS INS RIVER ROAD
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956597	KRS RIVER ROAD FAV
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	909181	KRS INS RIVER ROAD FAV
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956772	KRS INS KRS INTERNAL EQUITY
THE KRAFT HEINZ COMPANY, Securities Litigation	FILED	11/28/2023	11/6/2015	8/7/2019	956599	KRS S P 500 INDEX
MagnaChip Semiconductor Corporation and Margaret Hye-Ryoung Sakai, CPA, FAIR FUND	FILED	12/4/2023	2/1/2012	2/12/2015	KR2F1002002	NTGI STRUCTURED
MagnaChip Semiconductor Corporation and Margaret Hye-Ryoung Sakai, CPA, FAIR FUND	FILED	12/4/2023	2/1/2012	2/12/2015	KR3F1002002	NTGI STRUCTURED
WELLS FARGO & COMPANY Securities Litigation	FILED	12/4/2023	2/2/2018	3/12/2020	956772	KRS INS KRS INTERNAL EQUITY
WELLS FARGO & COMPANY Securities Litigation	FILED	12/4/2023	2/2/2018	3/12/2020	956596	KRS KRS INTERNAL EQUITY
WELLS FARGO & COMPANY Securities Litigation	FILED	12/4/2023	2/2/2018	3/12/2020	956774	KRS INS S P 500 INDEX
WELLS FARGO & COMPANY Securities Litigation	FILED	12/4/2023	2/2/2018	3/12/2020	956599	KRS S P 500 INDEX
JAGGED PEAK ENERGY INC, Securities Litigation	FILED	12/8/2023	12/19/2016	7/26/2017	956765	KRS INS NTGI STRUCTURED
ALEXION PHARMACEUTICALS, INC. Securities Litigation	FILED	12/13/2023	1/30/2014	5/26/2017	956599	KRS S P 500 INDEX
ALEXION PHARMACEUTICALS, INC. Securities Litigation	FILED	12/13/2023	1/30/2014	5/26/2017	KR3F1011002	KRS INTERNAL EQUITY
ALEXION PHARMACEUTICALS, INC. Securities Litigation	FILED	12/13/2023	1/30/2014	5/26/2017	KR2F1009002	INVESCO
SHATTUCK LABS, INC., et al., Securities Litigation	FILED	12/18/2023	9/18/2020	11/8/2021	956765	KRS INS NTGI STRUCTURED
SHATTUCK LABS, INC., et al., Securities Litigation	FILED	12/18/2023	9/18/2020	11/8/2021	956588	KRS NTGI STRUCTURED
OCLARO INC Securities Litigation	FILED	12/19/2023	3/12/2018	12/11/2018	956588	KRS NTGI STRUCTURED
OCLARO INC Securities Litigation	FILED	12/19/2023	3/12/2018	12/11/2018	956765	KRS INS NTGI STRUCTURED
CELSIUS HOLDINGS INC Securities Litigation	FILED	12/25/2023	8/12/2021	3/1/2022	956765	KRS INS NTGI STRUCTURED
CELSIUS HOLDINGS INC Securities Litigation	FILED	12/25/2023	8/12/2021	3/1/2022	956588	KRS NTGI STRUCTURED



Report ID: IACS0008 Base Currency: USD

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Status:	REVISED

_ FUND	9/30/2023 - 12/31/2023			Sta	tus: REVISED
					tus. KEVIOED
Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
•		Local/Base	Local/Base	Local/Base	Local/Base
Transaction No./Client Ref No.	Reported Date				
UIVALENTS					
0.000 22365COVETRUS, INC., Securitie	10/2/2023	0.000000	3,549.51	3,549.51	3,549.51
· ·		0.000000	,	-,	3,549.51
	10/2/2023				
KR2F10020002 : NTGLSTRUCTURED				Gain/Loss Base Amou	ints: 3,549.51 Long
0.000 21022PERRIGO COMPANY PLC. (201	10/5/2023	0.000000	12.75	12.75	12.75
NA9123459 9) Distribution 2ND DISTRIBUTI		0.000000	12.75	12.75	12.75
20231005S000180 / 000000000000	10/5/2023				
KR2F19020002 : S&P 500 INDEX				Gain/Loss Base An	nounts: 12.75 Long
0.000 13-CV-1620-JPOITT EDUCATIONAL	10/10/2023	0.000000	123.56	123.56	123.56
NA9123459 SERVICES, INC. (2013) Distribu		0.000000	123.56	123.56	123.56
20231010S000220 / 000000000081	10/10/2023			Gain/Loss Local Amo	ounts: 123.56 Long
KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Am	ounts: 123.56 Long
0.000 14-CV-09662 (JSR)PETROBRAS - P	10/12/2023	0.000000	5,411.26	5,411.26	5,411.26
NA9123459 ETROLEO BRASILEIRO S.A (2014)		0.000000	5,411.26	5,411.26	5,411.26
20231012S000010 / 000000009312	10/12/2023			Gain/Loss Local Amou	ints: 5,411.26 Long
KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Amou	ınts: 5,411.26 Long
0.000 16-CV-00212-JPO-JLCTHE BANK OF	10/16/2023	0.000000	14.13	14.13	14.13
NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	14.13	14.13	14.13
20231016S000010 / 000000000012	10/16/2023			Gain/Loss Local An	nounts: 14.13 Long
KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base An	nounts: 14.13 Long
0.000 16-CV-00212-JPO-JLCTHE BANK OF	10/16/2023	0.000000	42.65	42.65	42.65
NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	42.65	42.65	42.65
20231016S000090 / 000000000012	10/16/2023			Gain/Loss Local An	nounts: 42.65 Long
KR2F10120002 : RIVER ROAD FAV				Gain/Loss Base An	nounts: 42.65 Long
	### Transaction No./Client Ref No. ### Transaction No./Client Ref No. ### UIVALENTS 0.000	Security Id Broker Transaction No./Client Ref No. Reported Date	Security Id Broker Transaction No./Client Ref No. Reported Date Local/Base	Security Id Broker Transaction No./Client Ref No. Reported Date Local/Base Local/Base Local/Base Local/Base Transaction No./Client Ref No. Reported Date Reported Date	Security Id Broker C. Settle Date Local/Base Local/Base Local/Base Local/Base Local/Base Transaction No./Client Ref No. Reported Date



Transaction Detail Reported By Transaction Category 9/30/2023 - 12/31/2023

Report ID: IACS0008
Base Currency: USD

Status: REVISED

KR2G00000000 - TOTAL FUND

Trans Code	Shares/Par	Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id	I Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
		Transaction No./Client Ref No.	Reported Date				
CD	0.000	20584CITI SPONSORED AMERICAN D	10/24/2023	0.000000	8.88	8.88	8.88
	NA9123459	EPOSITARY RECEIPTS (CITIBANK N		0.000000	8.88	8.88	8.88
		20231024S000010 / 000000000009	10/24/2023			Gain/Loss Local A	mounts: 8.88 Long
		KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base A	mounts: 8.88 Long
CD	0.000	20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	16,120.72	16,120.72	16,120.72
	NA9123459	urities Litigation Distributio		0.000000	16,120.72	16,120.72	16,120.72
		20231030S000010 / 000000000000	10/30/2023		G	ain/Loss Local Amour	ts: 16,120.72 Long
		KR2F10120002 : RIVER ROAD FAV			G	ain/Loss Base Amour	ts: 16,120.72 Long
CD	0.000) 20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	317.18	317.18	317.18
	NA9123459	urities Litigation Distributio		0.000000	317.18	317.18	317.18
		20231030S000070 / 000000000000	10/30/2023			Gain/Loss Local Am	ounts: 317.18 Long
		KR2F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Am	ounts: 317.18 Long
CD	0.000) 16-CV-00212-JPO-JLCTHE BANK OF	10/30/2023	0.000000	41.92	41.92	41.92
	NA9123459	NEW YORK MELLON ADR FX Distri		0.000000	41.92	41.92	41.92
		20231030S000070 / 000000000012	10/30/2023			Gain/Loss Local Ar	nounts: 41.92 Long
		KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Ar	nounts: 41.92 Long
CD	0.000) 20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	17.62	17.62	17.62
	NA9123459	urities Litigation Distributio		0.000000	17.62	17.62	17.62
		20231030S000090 / 000000000000	10/30/2023			Gain/Loss Local Ar	nounts: 17.62 Long
		KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Ar	nounts: 17.62 Long
CD	0.000) 17049Cognizant Technology Solu	11/2/2023	0.000000	5,297.63	5,297.63	5,297.63
		tions Corporation Distribution		0.000000	5,297.63	5,297.63	5,297.63
		20231102S000100 / 00000000000	11/2/2023		(Gain/Loss Local Amou	ints: 5,297.63 Long
		KR2F19020002 : S&P 500 INDEX			(Gain/Loss Base Amou	ints: 5,297.63 Long
CD	0.000) 17733OVASCIENCE, INC., Securit	11/9/2023	0.000000	429.76	429.76	429.76
		e ies Litigation Distribution 1S		0.000000	429.76	429.76	429.76
		20231109S000300 / 000000000000	11/9/2023			Gain/Loss Local Am	ounts: 429.76 Long
		KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Am	ounts: 429.76 Long



Report ID: IACS0008
Base Currency: USD

Status: REVISED

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9	/30/2023	-	12/31	/2023	

Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
	Transaction No./Client Ref No.	Reported Date				
CD	0.000 115-cv-00374-LYDell, Inc. (201	11/30/2023	0.000000	183.80	183.80	183.80
	NA9123459 4) Distribution 2ND DISTRIBUTI		0.000000	183.80	183.80	183.80
	20231130S000020 / 000000000000	11/30/2023			Gain/Loss Local Am	
	KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Am	ounts: 183.80 Long
CD	0.000 WAMU TIA SETTLEMENT (2012)	12/1/2023	0.000000	147.42	147.42	147.42
	NA9123459 AS PER DOCUMENT		0.000000	147.42	147.42	147.42
	20231207A000010	12/1/2023			Gain/Loss Local Am	ounts: 147.42 Long
	KR2F90010002 : CASH ACCOUNT KR2				Gain/Loss Base Am	ounts: 147.42 Long
CD	0.000 ITT EDUCATIONAL SERVICES INC	12/1/2023	0.000000	48.56	48.56	48.56
	NA9123459 AS PER DOCUMENT		0.000000	48.56	48.56	48.56
	20231207A000380	12/1/2023			Gain/Loss Local Ar	nounts: 48.56 Long
	KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Ar	nounts: 48.56 Long
CD	0.000 24000GTT Communications, Inc.	12/11/2023	0.000000	81.15	81.15	81.15
	NA9123459 (2021) Distribution 2ND DISTRI		0.000000	81.15	81.15	81.15
	20231211S000500 / 000000000009	12/11/2023			Gain/Loss Local Ar	nounts: 81.15 Long
	KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Ar	nounts: 81.15 Long
CD	0.000 24874HRG GROUP Securities Liti	12/28/2023	0.000000	909.26	909.26	909.26
	NA9123459 gation Distribution 1ST DISTRI		0.000000	909.26	909.26	909.26
	20231228S000830 / 000000000001	12/28/2023			Gain/Loss Local Am	ounts: 909.26 Long
	KR2F10020002 : NTGI STRUCTURED				Gain/Loss Base Am	ounts: 909.26 Long
	TOTAL U.	S. DOLLAR CASH & CASH EQUI	VALENTS:	32,757.76	32,757.76	32,757.76
				32,757.76	32,757.76	32,757.76
	TOTAL CASH	& CASH EQUIVALENTS CLASS		32,757.76	32,757.76	32,757.76
		TOTAL CLASS	ACTIONS:	32,757.76	32,757.76	32,757.76
		TOTAL TRANSACTIO	ONS BASE:	32,757.76	32,757.76	32,757.76
			_			. ,



Report ID: IACS0008 Base Currency: USD

KR3G00000000 - TOTA		9/30/2023 - 12/31/2023	•		Sta	tus: REVISED
Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
	Transaction No./Client Ref No.	Reported Date				
CLASS ACTIONS						
CASH & CASH E	QUIVALENTS					
U.S. DOLLAR						
CD	0.000 22365COVETRUS, INC., Securitie	10/2/2023	0.000000	1,572.57	1,572.57	1,572.57
	NA9123459 s Litigation Distribution 1ST		0.000000	1,572.57	1,572.57	1,572.57
	20231002S000590 / 000000006064	10/2/2023			Gain/Loss Local Amou	
	KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amou	ınts: 1,572.57 Long
CD	0.000 21022PERRIGO COMPANY PLC. (201	10/5/2023	0.000000	14.14	14.14	14.14
	NA9123459 9) Distribution 2ND DISTRIBUTI		0.000000	14.14	14.14	14.14
	20231005S000180 / 000000000000	10/5/2023			Gain/Loss Local Ar	0
	KR3F19020002 : S&P 500 INDEX				Gain/Loss Base Ar	nounts: 14.14 Long
CD	0.000 13-CV-1620-JPOITT EDUCATIONAL	10/10/2023	0.000000	45.03	45.03	45.03
	NA9123459 SERVICES, INC. (2013) Distribu		0.000000	45.03	45.03	45.03
	20231010S000210 / 000000000081	10/10/2023			Gain/Loss Local Ar	•
	KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Ar	nounts: 45.03 Long
CD	0.000 14-CV-09662 (JSR)PETROBRAS - P	10/12/2023	0.000000	2,624.83	2,624.83	2,624.83
	NA9123459 ETROLEO BRASILEIRO S.A (2014)		0.000000	2,624.83	2,624.83	2,624.83
	20231012S000010 / 000000009312 KR3F29010002 : NON-US TRANS ACCT	10/12/2023			Gain/Loss Local Amoเ Gain/Loss Base Amoเ	,
	MASI 230 10002 . NOTIFICE TIVANG AGGI				Gaill/E033 Base Alliot	ints. 2,024.00 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	10/16/2023	0.000000	5.18	5.18	5.18
	NA9123459 NEW YORK MELLON ADR FX Distri	40/40/0000	0.000000	5.18	5.18	5.18
	20231016S000010 / 000000000012 KR3F90010002 : CASH ACCOUNT KR3	10/16/2023				amounts: 5.18 Long amounts: 5.18 Long
CD	0.000 16-CV-00212-JPO-JLCTHE BANK OF	10/16/2023	0.000000	17.54	17.54	17.54
	NA9123459 NEW YORK MELLON ADR FX Distri		0.000000	17.54	17.54	17.54
	20231016S000020 / 000000000012 KR3F90010002 : CASH ACCOUNT KR3	10/16/2023			Gain/Loss Local Ar Gain/Loss Base Ar	J

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Report ID: IACS0008
Base Currency: USD

Status: REVISED

KR3G00000000 - TOTAL FUND

9/30/2023 - 12/31/2023

Trans Code	Shares/Par	r Description	Trade Date	Price	Cost	Amount	Net Gain/Loss
Link Ref	Security Id	Broker	C. Settle Date	Local/Base	Local/Base	Local/Base	Local/Base
		Transaction No./Client Ref No.	Reported Date				
CD	0.000) 19486TEVA PHARMACEUTICAL INDUS	10/16/2023	0.000000	667.62	667.62	667.62
	NA9123459	TRIES LIMITED Securities Litig		0.000000	667.62	667.62	667.62
		20231016S000030 / 000000000000	10/16/2023			Gain/Loss Local Am	ounts: 667.62 Long
	KR3F90010002 : CASH ACCOUNT KR3					Gain/Loss Base Amounts: 667.62 Long	
CD	0.000) 20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	7,150.05	7,150.05	7,150.05
	NA9123459	urities Litigation Distributio		0.000000	7,150.05	7,150.05	7,150.05
		20231030S000010 / 000000000000	10/30/2023			Gain/Loss Local Amou	ints: 7,150.05 Long
		KR3F10120002 : RIVER ROAD FAV	Gain/Loss Base Amount				ınts: 7,150.05 Long
CD	0.000) 20274NIELSEN HOLDINGS PLC. Sec	10/30/2023	0.000000	123.27	123.27	123.27
	NA9123459	urities Litigation Distributio		0.000000	123.27	123.27	123.27
		20231030S000070 / 000000000000	10/30/2023			Gain/Loss Local Am	ounts: 123.27 Long
	KR3F10110002 : KRS INTERNAL EQUITY			Gain/Loss Base Amounts: 123.27 Lo			
CD	0.000	20274NIELSEN HOLDINGS PLC, Sec	10/30/2023	0.000000	34.68	34.68	34.68
	NA9123459	urities Litigation Distributio		0.000000	34.68	34.68	34.68
		20231030S000090 / 000000000000	10/30/2023			Gain/Loss Local Ar	nounts: 34.68 Long
		KR3F19020002 : S&P 500 INDEX				Gain/Loss Base Ar	nounts: 34.68 Long
CD	0.000	0 17049Cognizant Technology Solu	11/2/2023	0.000000	2,733.79	2,733.79	2,733.79
	NA9123459	tions Corporation Distribution		0.000000	2,733.79	2,733.79	2,733.79
		20231102S000090 / 000000000000	11/2/2023			Gain/Loss Local Amou	
		KR3F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Amou	ınts: 2,733.79 Long
CD	0.000) 17733OVASCIENCE, INC., Securit	11/9/2023	0.000000	184.18	184.18	184.18
	NA9123459	ies Litigation Distribution 1S		0.000000	184.18	184.18	184.18
		20231109S000330 / 000000000000	11/9/2023			Gain/Loss Local Am	ounts: 184.18 Long
	KR3F10020002 : NTGI STRUCTURED Gain/Loss Base Amou				ounts: 184.18 Long		
CD	0.000) 20274NIELSEN HOLDINGS PLC, Sec	11/28/2023	0.000000	1,041.58	1,041.58	1,041.58
	NA9123459	urities Litigation Distributio		0.000000	1,041.58	1,041.58	1,041.58
		20231128S000030 / 000000000000	11/28/2023			Gain/Loss Local Amou	ınts: 1,041.58 Long
		KR3F90010002 : CASH ACCOUNT KR3				Gain/Loss Base Amou	ınts: 1,041.58 Long



KR3G00000000 - TOTAL FUND

Transaction Detail Reported By Transaction Category

9/30/2023

Report ID: IACS0008
Base Currency: USD

- 12/31/2023	St	atus: REVISED

Trans Code	Shares/Par Description Security ld Broker	Trade Date	Price	Cost	Amount	Net Gain/Loss	
Link Ref	Transaction No./Client Ref No.	C. Settle Date Reported Date	Local/Base	Local/Base	Local/Base	Local/Base	
CD	0.000 22310PROPETRO HOLDING CORP., S	12/8/2023	0.000000	964.04	964.04	964.04	
	NA9123459 ecurities Litigation Distribut		0.000000	964.04	964.04	964.04	
	20231208S000330 / 000000000001 KR3F10020002 : NTGI STRUCTURED			Gain/Loss Local Amounts: 964.04 Long Gain/Loss Base Amounts: 964.04 Long			
CD	0.000 24000GTT Communications, Inc.	12/11/2023	0.000000	35.79	35.79	35.79	
	NA9123459 (2021) Distribution 2ND DISTRI		0.000000	35.79	35.79	35.79	
	20231211S000440 / 000000000009	12/11/2023				al Amounts: 35.79 Long	
	KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base An	nounts: 35.79 Long	
CD	0.000 24874HRG GROUP Securities Liti	12/12/2023	0.00000	405.21	405.21	405.21	
	NA9123459 gation Distribution 1ST DISTRI		0.000000	405.21	405.21	405.21	
	20231212S000220 / 000000000001 12/12/2023			Gain/Loss Local Amounts: 405.21 Long			
	KR3F10020002 : NTGI STRUCTURED	0020002 : NTGI STRUCTURED			Gain/Loss Base Amo	ounts: 405.21 Long	
CD	0.000 22275VENATOR MATERIALS PLC, Se	12/14/2023	0.00000	26,848.85	26,848.85	26,848.85	
	NA9123459 curities Litigation Distributi		0.000000	26,848.85	26,848.85	26,848.85	
	20231214S000010 / 00000000001	12/14/2023			Sain/Loss Local Amoun		
	KR3F90010002 : CASH ACCOUNT KR3			(Gain/Loss Base Amoun	ts: 26,848.85 Long	
CD	0.000 412-CV-01332 (HARMON, J.)HOUST	12/22/2023	0.000000	60.32	60.32	60.32	
	NA9123459 ON AMERICAN ENERGY CORP Distri		0.000000	60.32	60.32	60.32	
	20231222\$000340 / 00000000081	12/22/2023			Gain/Loss Local An	U	
	KR3F10020002 : NTGI STRUCTURED	JCTURED			Gain/Loss Base An	nounts: 60.32 Long	
	TOTAL U.S	TOTAL U.S. DOLLAR CASH & CASH EQUIVALENTS:			44,528.67	44,528.67	
				44,528.67	44,528.67	44,528.67	
	TOTAL CASH & CASH EQUIVALENTS CLASS ACTIONS:			44,528.67 44,528.67	44,528.67	44,528.67	
	TOTAL CLASS ACTIONS:				44,528.67	44,528.67	
		TOTAL TRANSACTIONS BASE:			44,528.67	44,528.67	

Kentucky Public Pensions Authority

Internal Asset Holdings Report & Internal Asset Transaction Report

Quarter Ending: December 31, 2023

Reports can be found:

https://kyret.ky.gov/Investments/Investments-Library/Pages/Internal-Reports.aspx

Kentucky Public Pensions Authority

Commissions Report

Quarter Ending: December 31, 2023

Reports can be found:

https://kyret.ky.gov/Investments/Investments-Library/Pages/Commissions-Reports.aspx