Kentucky Retirement Systems Investment Committee Meeting May 15, 2023 at 10:00 a.m. ET (9:00 a.m. CT) Via Video Teleconference and Facebook Live

AGENDA

1.	Call to Order	Prewitt Lane
2.	Opening Legal Statement	Legal Services
3.	Roll Call	Sherry Rankin
4.	Public Comment	Sherry Rankin
5.	Approval of Minutes* - February 14, 2023 and February 28, 2023	Prewitt Lane
6.	Investment Review and Update	Steve Willer
7.	Quarterly Investment Budget Update	Steve Willer
8.	Adjourn*	Prewitt Lane

^{*} Committee Action May be Taken

MINUTES OF MEETING KENTUCKY RETIREMENT SYSTEMS INVESTMENT COMMITTEE MEETING FEBRUARY 14, 2023, 10:00 A.M., E.T. VIA LIVE VIDEO TELECONFERENCE

At the February 14, 2023, meeting of the Kentucky Retirement Systems' (KRS) Investment Committee, the following Committee members were present: Prewitt Lane (Chair), John Cheshire, Ramsey Bova, and Pamela Thompson. Staff members present were David Eager, Erin Surratt, Michael Lamb, Victoria Hale, Steve Willer, Anthony Chiu, Joseph Gilbert, Jared Crawford, Brian Caldwell, Ashley Gabbard, Phillip Cook, Katie Park, and Sherry Rankin. Also in attendance were KRS Trustee Lynn Hampton, KRS CEO John Chilton, and CERS CEO Ed Owens, III. Others in attendance included David Lindberg, Chris Tessman, Craig Morton, and Marc Friedberg 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*, Mr. Lane introduced agenda item *Approval of Minutes* – *November 10, 2022, and December 20, 2022 (Video 00:8:38 to 00:09:40).* Mr. Cheshire made a motion and was seconded by Ms. Bova approve the minutes as presented. The motion passed unanimously.

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Mr. Lane introduced agenda item *Quarterly Investment Budget* (*Video* 00:09:41 to 00:13:18). Mr. Steve Willer presented the Quarterly Investment Budget for the six-month period ending December 31, 2022. He stated that this budget would continue to be presented quarterly.

Mr. Lane introduced agenda item *Investment Review and Update* (Video 00:13:19 to 00:35:54).

Mr. Willer presented the Economic and Market Update, Performance and Asset Allocations,

KERS Nonhazardous, KERS Hazardous, & SPRS Unit Holdings, Security Litigation Report,

Capital Calls and Distributions, Internal Asset Holdings Report & Internal Asset Transaction

Report, and Commissions Report.

Mr. Lane introduced agenda item *Investment Compliance Report* (Video 00:35:55 to 00:39:50). Mr. Willer reviewed the KRS Investment Policy Statement (IPS) and Compliance Review with the KRS Investment Committee. He reported that the Investment Policy Statement (IPS) and Compliance Review increases transparency and empowers the KPPA Office of Investments to focus on areas needing attention. Mr. Willer advised the Committee of a minor error in the presented report; however, it has no effect on the reported Compliance Status. He welcomed all and any feedback from Trustees.

Mr. Lane introduced agenda item *Staffing Update and Other Planning Issues* (*Video* 00:39:51 to 00:52:56). Mr. Eager stated that the Chief Investment Officer (CIO) reports to both the Investment Committees and the Executive Director. The CIO reports investment-related issues such as the hiring/firing of managers, investment policy and proxy statements etc. to the CERS and KRS Investment Committees. Operations issues such as staffing, and compensation are reported to the

Executive Director. Mr. Eager reported that historically the KPPA Office of Investments has

struggled to recruit and retain staff due to 18A salary restrictions. In 2022, six positions received

an exemption: Chief Executive Officer, Deputy Chief Executive Officer, and the Public Equity,

Private Equity, Fixed Income, and Real Estate & Real Return Portfolio Managers. The Board of

Trustees had previously approved salary ranges for these positions based on various compensation

surveys within the industry. However, new data indicates that the current salaries are low. Mr.

Eager consulted with the CERS and KRS Investment Committee Chairs and the Chairs of the

Public Pension Oversight Board (PPOB) regarding his recommendation to increase compensation

for the Chief Executive Officer, Deputy Chief Executive Officer, and the Public Equity Portfolio

Manager positions. Personnel has been instructed to execute these personnel actions, said Mr.

Eager. Mr. Willer and Mr. Gilbert discussed recent Investment Proxy Voting Policy efforts within

the KPPA Office of Investments.

There being no further business, Mr. Cheshire made a motion and was seconded by Ms. Bova to

adjourn the meeting. 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 February 14, 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.
Departing Secretors
Recording Secretary
I, as Chair of the Kentucky Retirement Systems Investment Committee, do certify that the Minutes
of the meeting held on February 14, 2023, were approved by the Kentucky Retirement Systems
Investment Committee on May 15, 2023.
Committee Chair
I have reviewed the Minutes of the Kentucky Retirement Systems Investment Committee Meeting
on February 14, 2023, for form, content, and legality.
Office of Legal Services

MINUTES OF MEETING KENTUCKY RETIREMENT SYSTEMS SPECIAL CALLED INVESTMENT COMMITTEE MEETING FEBRUARY 28, 2023, 2:30 P.M., E.T. VIA LIVE VIDEO TELECONFERENCE

At the February 28, 2023, Kentucky Retirement Systems' (KRS) Special Called Investment Committee Meeting, the following Committee members were present: C. Prewitt Lane (Chair), John Cheshire, Ramsey Bova, and David Adkins. Staff in attendance included Rebecca Adkins, Erin Surratt, Michael Lamb, Victoria Hale, Steve Willer, Joseph Gilbert, Jared Crawford, Brian Caldwell, Madeline Perry, Phillip Cook, Ashley Gabbard, Katie Park, and Sherry Rankin.

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 *Investment Recommendation – Adams Street Partners Re-Up ASP Private Credit Fund III (Video 00:05:19 to 00:21:28)*. Mr. Steve Willer provided background information on Adams Street Partners and presented the proposed investment into Adams Street Partners Private Credit Fund III. He stated that the investment recommendation is a "re-up" including the opportunity for a fee-free coinvestment sidecar vehicle should it be approved and would be part of the Specialty Credit allocation. The KPPA Office of Investments recommended a "re-up" investment of up to \$250 million into the Adams Street Partners Senior Private Credit Fund III, and up to an additional \$250 million investment into a co-investment side car vehicle to be allocated proportionally among all KERS and SPRS Plans. Further, KPPA will occupy an "anchor investor" position with preferred pricing and the co-investment vehicle will have a 0% management fee, and 0% carried interest. This "re-up" investment will maintain the Plans' current exposure to the Adams Street Private Credit Platform and will reside in the Specialty Credit allocation, said Mr. Willer. Mr. Adkins

made a motion to approve the Re-up into Adams Street Partners Private Credit Fund III as presented. Mr. Cheshire seconded the motion and the motion passed unanimously.

There being no further business, Mr. Adkins made a motion to *adjourn* and was seconded by Mr. Cheshire. 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 February 28, 2023.

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CERTIFICATION

I do certify that I was present at this meeting, and I have recorded above the action of th
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 Secretar
I, Chair of the Kentucky Retirement Systems Investment Committee of the Board of Trustees of
the Kentucky Retirement Systems, do certify that the Minutes of the meeting held on February 28
2023, were approved by the Kentucky Retirement Systems Investment Committee on May 15
2023.
Committee Chair
I have reviewed the Minutes of the Kentucky Retirement Systems Special Called Investment
Committee Meeting on February 28, 2023, for form, content, and legality.
Office of Legal Service

Kentucky Retirement Systems

Investment Review and Update

Quarter Ending: March 31, 2023

Kentucky Retirement Systems

Economic and Market Update

Quarter Ending: March 31, 2023

Asset Class Performance

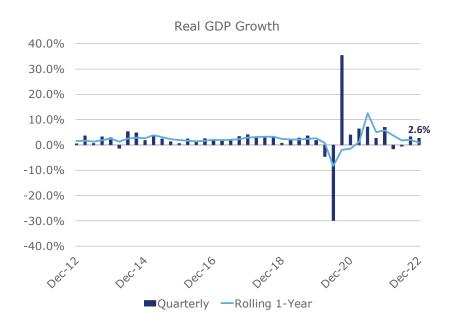
Accot	Clace	Returns -	Post to	\Moret
Asset	Class	returns -	best to	VVOISL

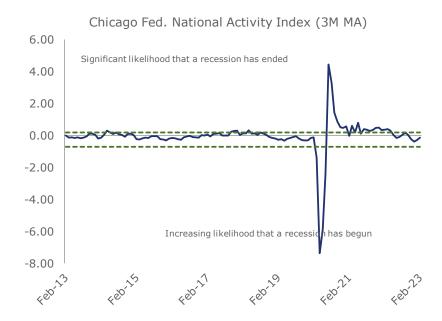
2018	2019	2020	2021	2022	2023 YTD
T-Bills	U.S. Equity	U.S. Equity	REITs	Commodities	Developed
1.9%	31.0%	20.8%	46.2%	16.1%	8.6%
Core Bond	REITs	Emrg Mrkts	Commodities	T-Bills	U.S. Equity
0.0%	25.8%	18.7%	27.1%	1.3%	7.3%
U.S. TIPS	Developed	U.S. TIPS	U.S. Equity	High Yield	Emrg Mrkts
-1.3%	22.7%	11.0%	26.7%	-11.2%	4.0%
High Yield	Emrg Mrkts	Developed	Developed	U.S. TIPS	High Yield
-2.1%	18.9%	8.3%	11.8%	-11.8%	3.6%
REITs	High Yield	Core Bond	U.S. TIPS	Core Bond	U.S. TIPS
-4.8%	14.3%	7.5%	6.0%	-13.0%	3.3%
U.S. Equity	Core Bond	High Yield	High Yield	Developed	REITs
-5.3%	8.7%	7.1%	5.3%	-14.0%	3.2%
Commodities	U.S. TIPS	T-Bills	T-Bills	U.S. Equity	Core Bond
-11.2%	8.4%	0.7%	0.0%	-19.0%	3.0%
Developed	Commodities	Commodities	Core Bond	Emrg Mrkts	T-Bills
-13.4%	7.7%	-3.1%	-1.5%	-19.7%	1.1%
Emrg Mrkts	T-Bills	REITs	Emrg Mrkts	REITs	Commodities
-14.2%	2.3%	-7.9%	-2.2%	-26.8%	-5.4%

Annualized 5-Year as of 3/23 U.S. Equity 10.7% REITs 5.7% Commodities 5.4% Developed 4.0% U.S. TIPS 2.9% T-Bills 1.4% Core Bond 0.9% **Emrg Mrkts** -0.5%

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

Economic Growth

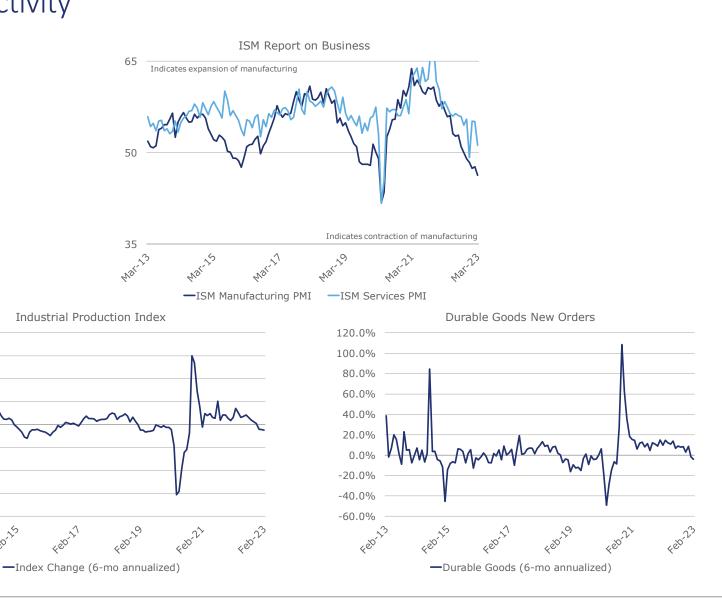




Consumer Activity



Business Activity



wilshire.com | ©2023 Wilshire Advisors LLC

Data Sources: Bloomberg

40.0%

30.0%

20.0%

10.0%

0.0%

-10.0%

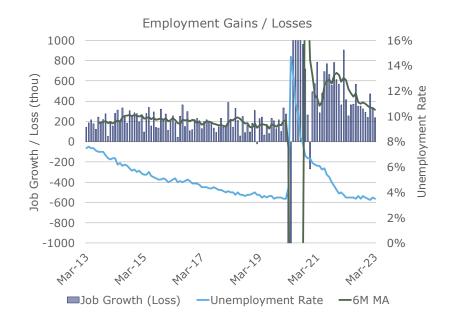
-20.0%

-30.0%

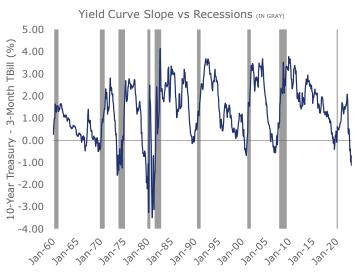
-40.0%

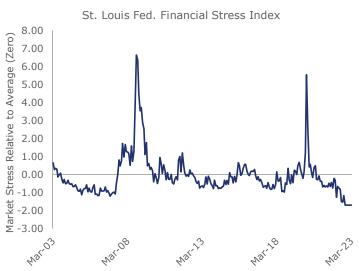
Inflation and Employment

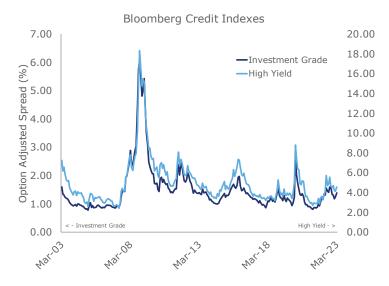


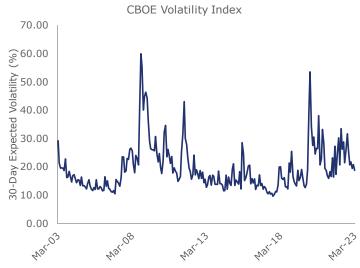


Risk Monitor

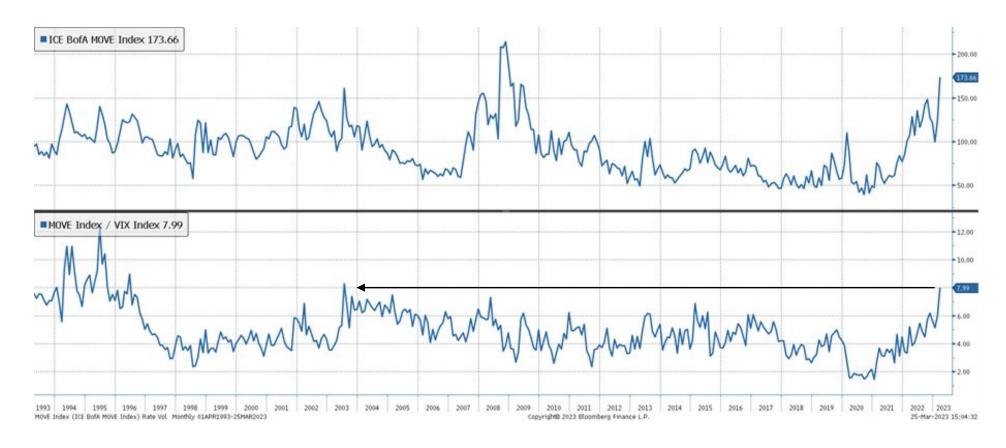




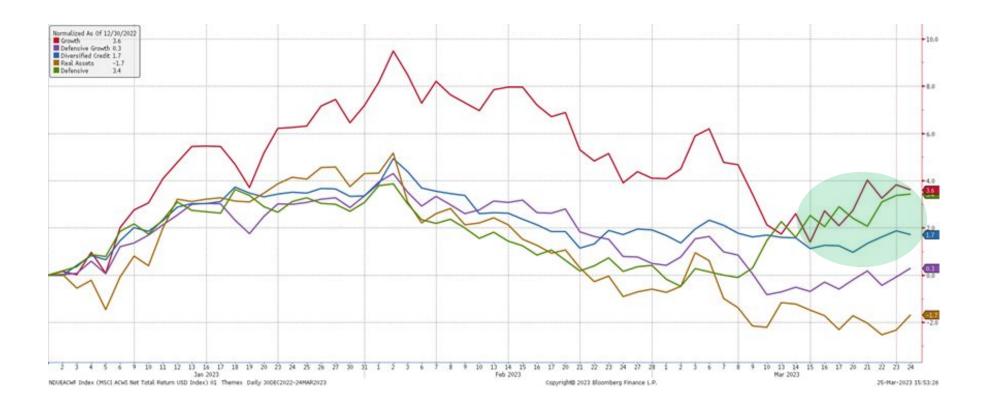




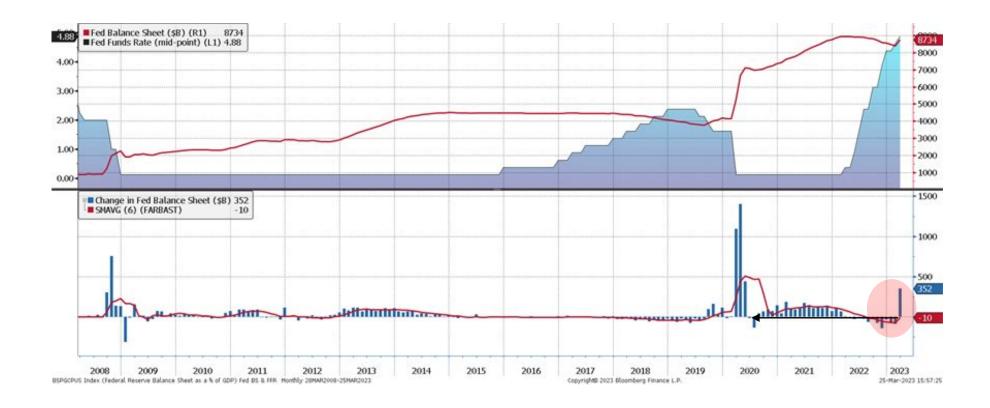
Extreme Interest Rate Volatility



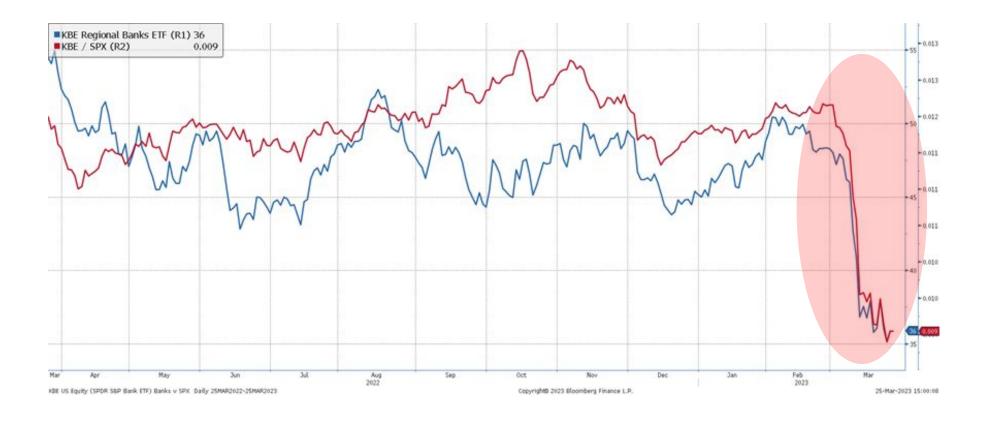
Many Risk-Assets Showing Resilience



Fed Response: "Dovish Hike" - End of QT?



Regional Banks Under Stress

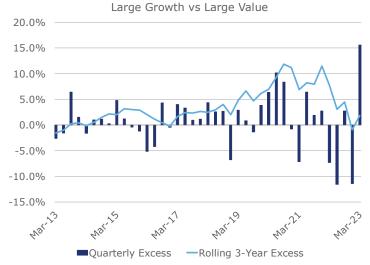


U.S. Equity Market

As of 3/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	7.3	7.3	-8.6	18.8	10.7	11.9
Wilshire U.S. Large Cap	7.6	7.6	-8.4	18.8	11.2	12.3
Wilshire U.S. Small Cap	3.6	3.6	-10.3	19.8	6.0	8.7
Wilshire U.S. Large Growth	15.7	15.7	-11.4	19.7	12.9	14.2
Wilshire U.S. Large Value	0.1	0.1	-4.8	17.5	9.4	10.3
Wilshire U.S. Small Growth	6.3	6.3	-8.7	17.6	6.1	9.2
Wilshire U.S. Small Value	1.0	1.0	-11.7	22.0	5.8	8.1
Wilshire REIT Index	3.2	3.2	-21.3	11.0	5.7	5.9
MSCI USA Min. Vol. Index	1.3	1.3	-4.4	12.4	9.1	10.6
FTSE RAFI U.S. 1000 Index	1.7	1.7	-5.9	22.1	10.0	11.0





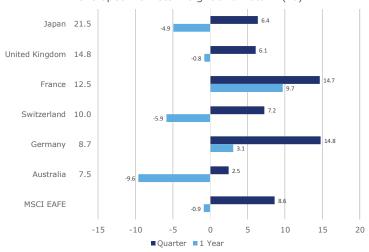


Data Sources: Bloomberg, Wilshire Atlas

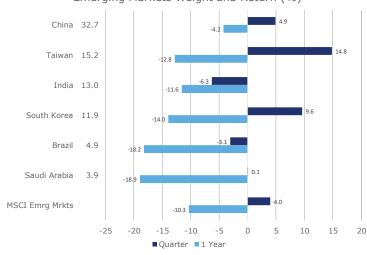
Non-U.S. Equity Market

As of 3/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	7.0	7.0	-4.6	12.3	3.0	4.7
MSCI EAFE (\$G)	8.6	8.6	-0.9	13.5	4.0	5.5
MSCI Emerging Markets (\$G)	4.0	4.0	-10.3	8.2	-0.5	2.4
MSCI Frontier Markets (\$G)	2.5	2.5	-16.3	7.9	-3.7	0.0
MSCI ACWI ex-US Growth (\$G)	8.7	8.7	-6.0	9.8	3.7	5.4
MSCI ACWI ex-US Value (\$G)	5.1	5.1	-3.9	14.9	1.9	3.9
MSCI ACWI ex-US Small (\$G)	4.8	4.8	-9.9	15.5	2.1	5.5
MSCI ACWI Minimum Volatility	1.7	1.7	-5.5	8.9	5.7	7.4
MSCI EAFE Minimum Volatility	5.8	5.8	-4.6	5.3	1.6	4.7
FTSE RAFI Developed ex-US	6.7	6.7	-1.6	16.8	3.4	5.3
MSCI EAFE LC (G)	7.7	7.7	4.4	15.2	6.8	7.9
MSCI Emerging Markets LC (G)	3.8	3.8	-6.2	9.2	2.3	5.4





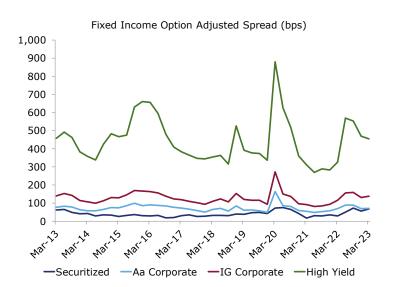
Emerging Markets Weight and Return (%)

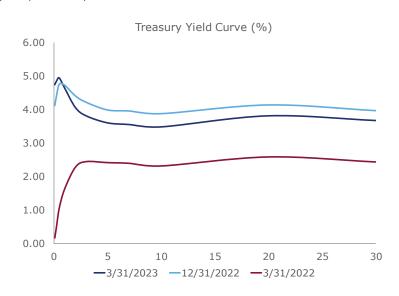


U.S. Fixed Income

As of 3/31/2023	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.4	6.3	3.0	3.0	-4.8	-2.8	0.9	1.4
Bloomberg Treasury	3.8	6.3	3.0	3.0	-4.5	-4.2	0.7	0.9
Bloomberg Gov't-Rel.	4.4	5.4	2.9	2.9	-3.3	-1.6	1.1	1.4
Bloomberg Securitized	4.6	5.8	2.5	2.5	-4.7	-3.1	0.3	1.0
Bloomberg Corporate	5.2	7.2	3.5	3.5	-5.6	-0.5	1.6	2.3
Bloomberg LT Gov't/Credit	4.6	14.6	5.8	5.8	-13.4	-6.3	0.6	2.3
Bloomberg LT Treasury	3.8	16.4	6.2	6.2	-16.0	-11.3	-0.4	1.5
Bloomberg LT Gov't-Rel.	5.1	11.7	5.2	5.2	-9.9	-3.1	0.6	2.3
Bloomberg LT Corporate	5.3	13.2	5.4	5.4	-11.5	-2.6	1.1	3.0
Bloomberg U.S. TIPS *	3.5	7.6	3.3	3.3	-6.1	1.8	2.9	1.5
Bloomberg High Yield	8.5	3.7	3.6	3.6	-3.3	5.9	3.2	4.1
S&P/LSTA Leveraged Loan	9.4	0.3	3.2	3.2	2.5	8.5	3.6	3.8
Treasury Bills	4.7	0.3	1.1	1.1	2.5	0.8	1.4	0.9

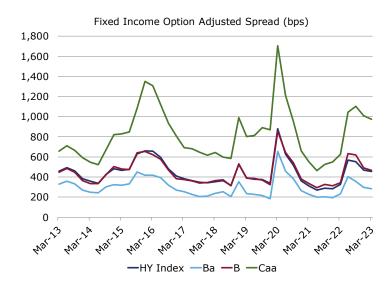
^{*} Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index





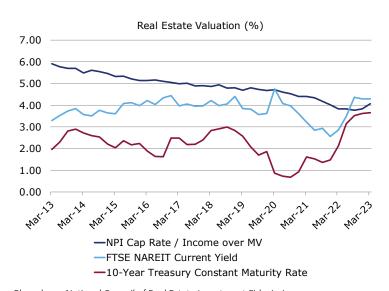
High Yield Bond Market

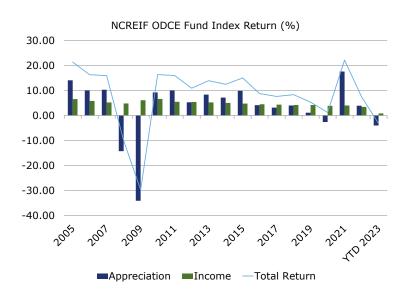
As of 3/31/2023		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		8.5	3.6	3.6	-3.3	5.9	3.2	4.1
S&P LSTA Leveraged Loan		9.1	2.9	2.9	2.4	6.5	3.4	3.3
High Yield Quality Distribution	Weight							
Ba U.S. High Yield	48.8%	6.8	3.4	3.4	-1.9	5.8	4.0	4.5
B U.S. High Yield	39.6%	8.7	3.5	3.5	-3.7	5.4	3.0	3.7
Caa U.S. High Yield	10.7%	13.4	5.0	5.0	-8.6	7.1	0.5	3.4
Ca to D U.S. High Yield	0.9%	35.1	-3.6	-3.6	-10.3	12.4	-0.8	-5.3



Real Assets

As of 3/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg U.S. TIPS	3.3	3.3	-6.1	1.8	2.9	1.5
Bloomberg Commodity Index	-5.4	-5.4	-12.5	20.8	5.4	-1.7
Bloomberg Gold Index	8.1	8.1	0.7	5.9	7.1	1.3
Wilshire Global RESI Index	2.3	2.3	-20.8	9.0	3.2	4.3
NCREIF ODCE Fund Index	-3.2	-3.2	-3.1	8.4	7.5	9.5
NCREIF Timberland Index	1.8	1.8	11.3	8.1	5.5	5.8
FTSE Global Core Infrastructure 50/50	0.7	0.7	-7.1	11.1	6.6	7.1
Alerian Midstream Energy	0.8	0.8	-1.2	34.8	9.7	n.a.
Bitcoin	71.7	71.7	-38.0	63.6	32.9	77.7





Data Sources: Bloomberg, National Council of Real Estate Investment Fiduciaries

March 2023 Asset Class Assumptions

			Equ	uity					Fi	xed Incom	е				ı	Real Asset	s		
		Dev		Global					LT				Dev ex-	1	Real Estate	е			
	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 Return (%)	6.15	6.90	7.15	7.25	6.70	9.60	3.65	4.60	4.60	3.65	6.25	8.55	2.85	5.75	5.90	6.25	5.90	6.65	2.25
Expected Risk (%)	17.00	18.00	26.00	19.10	17.10	29.65	0.75	4.70	9.85	6.00	10.00	12.75	4.00	17.50	16.45	13.90	16.00	12.35	1.75
Cash Yield (%)	1.65	3.15	2.75	3.05	2.20	0.00	3.65	4.90	4.95	4.25	9.35	4.90	3.45	4.05	4.05	2.25	3.65	3.15	0.00
Growth Exposure	8.00	8.00	8.00	8.00	8.00	14.00	0.00	-0.95	-2.40	-3.00	4.00	5.10	-1.00	6.00	6.00	3.50	0.00	2.70	0.00
Inflation Exposure	-3.00	0.00	5.00	1.45	-1.30	-3.75	0.00	-2.50	-6.80	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											
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									
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	0.68	0.55	0.58	0.60	0.68	0.44	0.00	0.24	0.30	0.00	0.76	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.16	0.17	0.26	0.10	0.68	0.66	0.39	0.26	0.22	1.00						
US RE Securities	0.58	0.47	0.44	0.49	0.57	0.49	-0.05	0.17	0.22	0.10	0.56	0.62	0.05	1.00					
Global RE Securities	0.64	0.57	0.54	0.60	0.65	0.55	-0.05	0.17	0.21	0.11	0.61	0.68	0.04	0.96	1.00				
Private Real Estate	0.55	0.45	0.45	0.49	0.54	0.50	-0.05	0.19	0.25	0.09	0.58	0.63	0.05	0.79	0.78	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	0.62	0.63	0.65	0.69	0.67	0.57	-0.03	0.22	0.24	0.30	0.64	0.69	0.04	0.78	0.84	0.76	0.64	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	0.22	1.00

Kentucky Retirement Systems

Performance and Asset Allocations

Quarter Ending: March 31, 2023

March 2023

KPPA MONTHLY PERFORMANCE UPDATE

KERS/KERS-H/SPRS

What's going on in the marketplace?

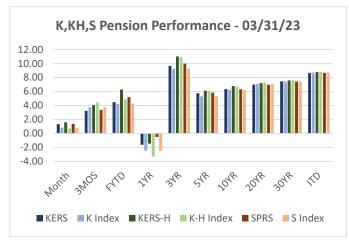
During the first quarter of 2023, global risks markets were able to shrug off a multitude of headwinds and produce positive performance. Markets were buoyed early in the quarter as optimism grew that the economy could avoid a recession and central banks would shortly shift to easing mode. This market optimism faded as concerns grew regarding the health of the banking sector following the sudden failure of two regional banks. Markets were able to rebound late in the quarter to finish on a positive note as fears of immediate contagion subsided, and optimism again took root. Despite this, most remain cautious on the market as earnings are likely to come under pressure as underlying growth seems to be slowing at a more meaningful pace. The market seems to be experiencing a broad underlying slowdown as company trends are beginning to decelerate. That said, it is a difficult starting point for comparison as we are coming off elevated numbers post pandemic, and high inflation and rates. Despite the long-predicted recession to come, as mentioned above, equity markets continue to be resilient as businesses have been performing against low expectations. Supply chains seem to be functioning and inflationary pressures are starting to abate. The financial industry experienced a couple of significant bank failures, as bond investments came under significant pressures during the quarter; however, they appear to be idiosyncratic, and contagion seems minimal. This is still likely to renew banks focus on capital/liquidity and may result in tightening credit availability. Mixed data has created some confusion in the marketplace. Equity markets seem to be doing well, while bond markets say we are headed for recession. Mixed growth trends are evidence of the contradiction as machine and semi-conductor sales are down, while retail and travel activity are up. There is a dichotomy in soft and hard data as well; PMI and business surveys say we are in recession, while auto and construction data say different. Slowing demand in North America is being offset by increasing demand in China (re-opening post covid).

The KPPA Pension Trust portfolio returned 1.61% during the month of March, outperforming its blended benchmark return of 0.99%. The KRS Pension Composite produced a 1.38% return during the month. The KERS and SPRS Pension portfolios returned 1.32% and 1.36% respectively, while their benchmark gained 0.82%. The KERS-H Pension portfolio gained 1.60% versus its benchmark return of 0.72%. The funds outperformed their respective benchmarks due to similar drivers of attribution. The portfolios benefited from solid relative performance in the high yield, real estate, and private equity spaces combined with an underweight to real estate, which was the weakest performing asset class during the period. Partially offsetting relative outperformance, was weakness in the public equity (primarily due to a mismatch in index attribution between the R3000 and US component of the MSCI ACWI) and core fixed income portfolios.

For the fiscal year, the KPPA Pension Trust portfolio gained 6.26%, outperforming the benchmark return of 5.00%, while the

KRS Pension Composite returned 4.89%. The KERS and SPRS Pension portfolios returned 4.47% and 5.20%, against a benchmark return of 4.24%. The KERS-H Pension portfolio gained 6.29% while its benchmark returned 4.88%.

Global equity markets were stronger during the month, as evidenced by the MSCI ACWI Index rising 3.08%. US markets outpaced their international market counterparts (R3000: 2.67% versus MSCI ACWI Ex-US: 2.13%). This brought the fiscal year return for global equity markets to 9.75% (KPPA global equity portfolio: 11.53%).



US equity markets gained 2.67% during the month (Russell 3000), while the KPPA portfolio underperformed, returning 2.31%. The market was driven by strength in the large cap segment (3.67%), while midcaps and small caps were significantly weaker (-3.21% and -4.78%, respectively). Growth significantly outperformed value during the month, returning 6.25% versus -0.86%, as evidenced by the Russell 3000 style indices. For the fiscal year, the KPPA US Equity portfolio has gained 9.98% compared with its benchmark return of 9.75%. Relative outperformance has been driven by the portfolio's slight overweight down market cap to midcaps which have returned 12.17% for the fiscal year.

NonUS equity markets returned 2.13% (MSCI ACWI Ex-US) during the month. Developed markets returned 2.34% (MSCI World Ex-US) and emerging markets gained 3.03\$ (MSCI EM) during the period while period. The KPPA portfolio returned 2.56% during the month, outperforming its benchmark by 43bps. Relative outperformance was driven by stock selection, as the majority of individual active mandates bested their respective benchmarks. The fiscal year return now stands at 13.63% versus 9.85%.

The specialty credit portfolio outperformed its benchmark during the month, returning 1.61% versus 0.52%. The high yield market returned 1.07% during the period, as the leverage loan market remained relatively flat (-0.03%). For the fiscal year to date, the portfolio has underperformed its benchmark, gaining 5.16% versus 7.31%. The reported relative underperformance is largely driven by the issues associated with timing differences between the private market mandates and the public market benchmarks which tend to be exacerbated during periods of larger moves in the public markets. Individual strategy relative performance has been mixed fiscal year to date.

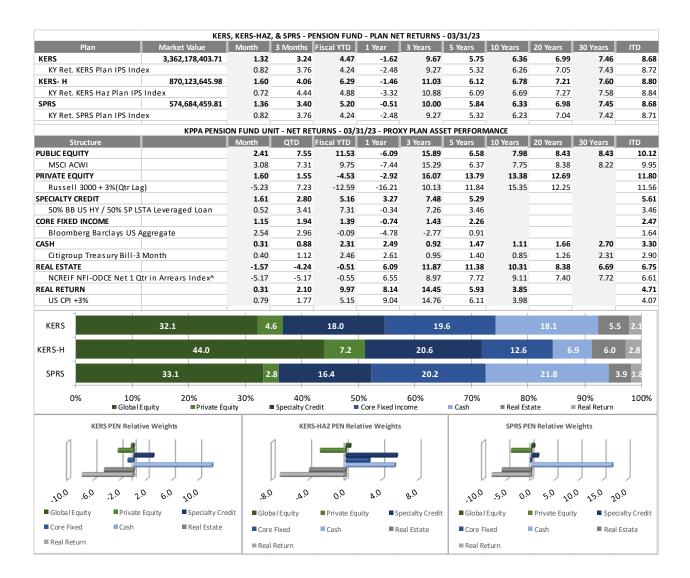
The core fixed income portfolio gained 1.15% compared to the Bloomberg Aggregate Index gaining 2.54% as Government bond yields overall decreased significantly in March as investors sought refuge of safer assets and forward rate hike expectations decreased in light of the banking sector turmoil. Relative underperformance was attributable to positioning within the allocation; the portfolios continue to remain underweight overall duration given the potential for higher rates and continued volatility. The fiscal year-to-date return now stands at 1.39% compared to the benchmark return of -0.09%.

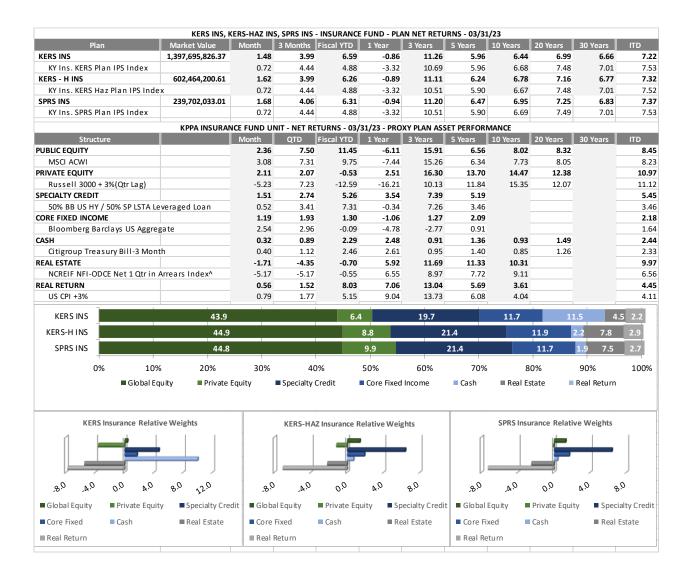
The private equity allocation gained 160bps during the month, bringing the fiscal year to date return to -4.53%. Trailing public marks have significantly affected the overall performance of the portfolio, and the portfolio's 1-year return crossed into negative territory recently coming in at -2.92% at the end of March.

The real return portfolio gained 31bps during the month, compared to its benchmark return of 0.79%. As with several of the previous months, performance, both absolute and relative, was heavily influenced by the MLP portion of the portfolio (approximately 40% of the allocation); which lost -0.98%. For the fiscal year, the portfolio has returned 9.97% versus the benchmark return of 5.15%.

The real estate portfolio fell -1.57% during the month. The 1-year return now stands at 6.09% versus the 6.55% return of its benchmark, closing the relative gap that existed due to the benchmark finally adjusting to the impact of higher interest rates. The three open-end real estate funds in the portfolio (approximately 75% of the allocation) continue to outperform the benchmark.

The cash portfolio returned 0.31% during the month compared with the 3-month T-bill's 0.40%. This brought the fiscal year return to 2.31%, trailing the benchmark return of 2.46%. The relative underperformance of the cash portfolio is most attributable to lower rates offered by overnight repurchase agreements relative to the yields of the 3-month T-bill.

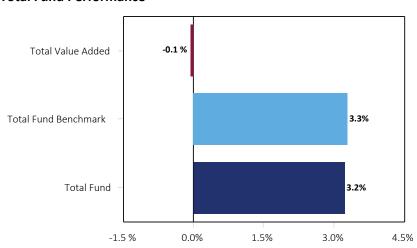




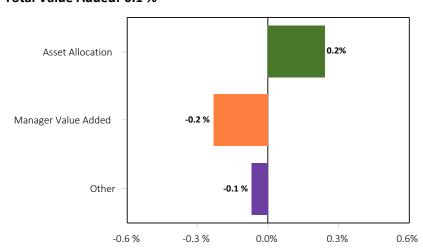
Total Fund Attribution

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

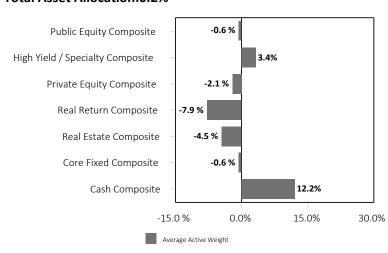
Total Fund Performance



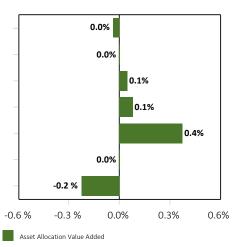
Total Value Added:-0.1 %



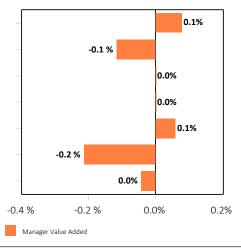
Total Asset Allocation:0.2%



Asset Allocation Value Added:0.2%



Total Manager Value Added:-0.2 %



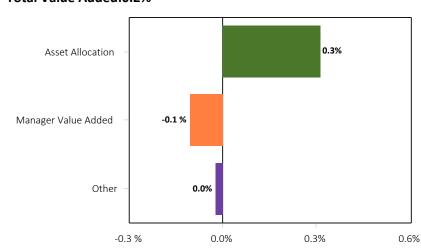
Total Fund Attribution

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

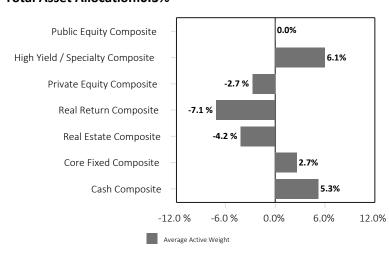
Total Fund Performance

Total Value Added — 0.2% Total Fund Benchmark — 3.9% Total Fund — 4.1% 0.0% 2.0% 4.0% 6.0%

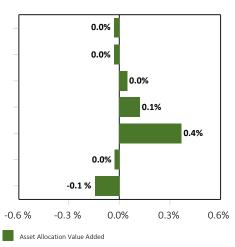
Total Value Added:0.2%



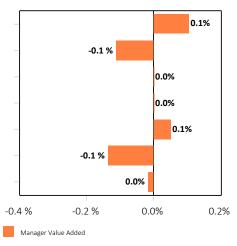
Total Asset Allocation:0.3%



Asset Allocation Value Added:0.3%



Total Manager Value Added:-0.1%



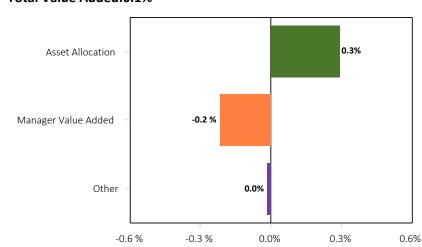
Total Fund Attribution

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

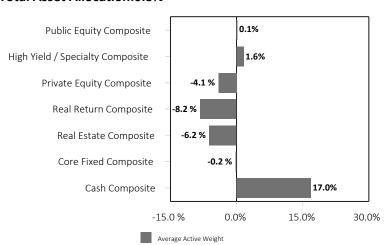
Total Fund Performance

Total Value Added - 0.1% Total Fund Benchmark - 3.3% Total Fund - 3.4% 0.0% 2.0% 4.0% 6.0%

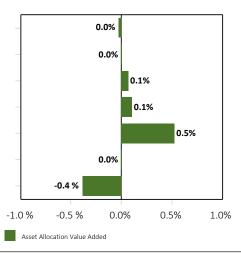
Total Value Added:0.1%



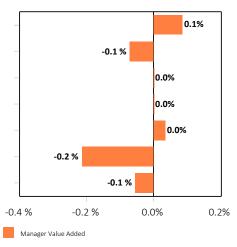
Total Asset Allocation:0.3%



Asset Allocation Value Added:0.3%



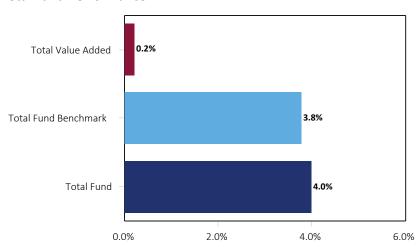
Total Manager Value Added:-0.2 %



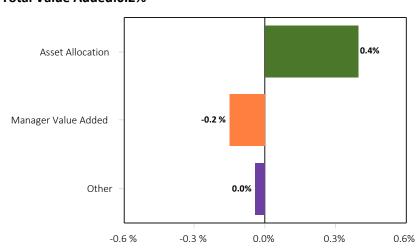
Total Fund Attribution

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

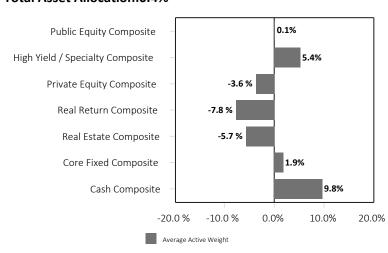
Total Fund Performance



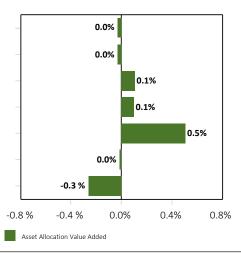
Total Value Added:0.2%



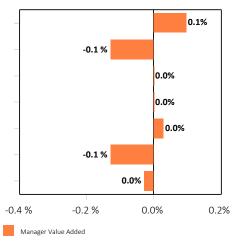
Total Asset Allocation:0.4%



Asset Allocation Value Added:0.4%



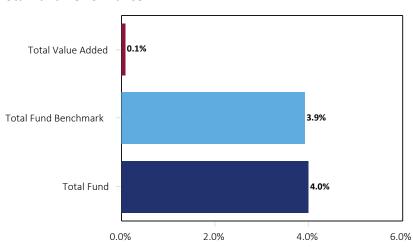
Total Manager Value Added:-0.2 %



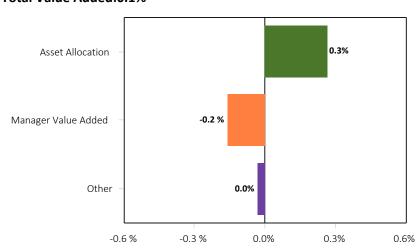
Total Fund Attribution

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

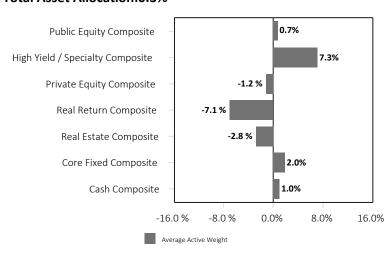
Total Fund Performance



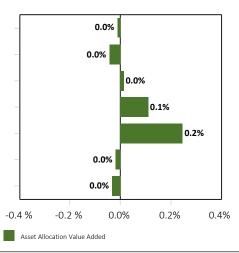
Total Value Added:0.1%



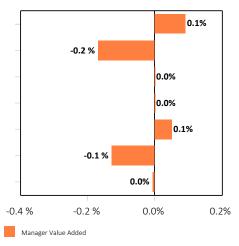
Total Asset Allocation:0.3%



Asset Allocation Value Added:0.3%



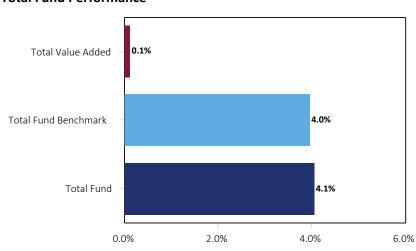
Total Manager Value Added:-0.2 %



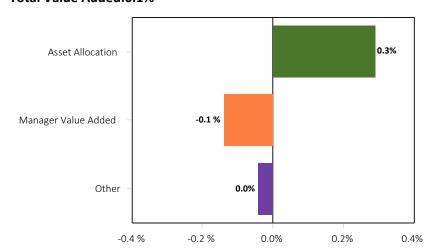
Total Fund Attribution

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

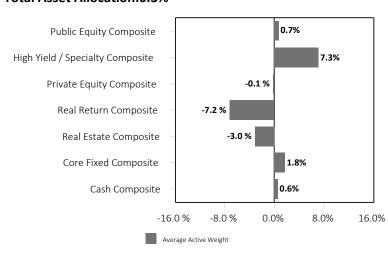
Total Fund Performance



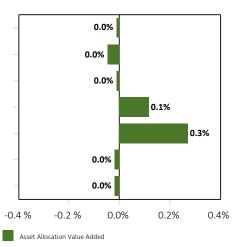
Total Value Added:0.1%



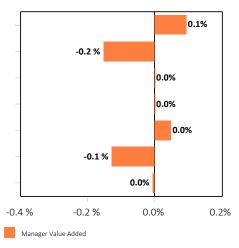
Total Asset Allocation:0.3%



Asset Allocation Value Added:0.3%



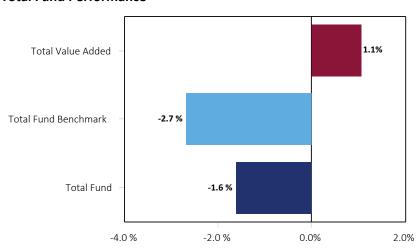
Total Manager Value Added:-0.1%



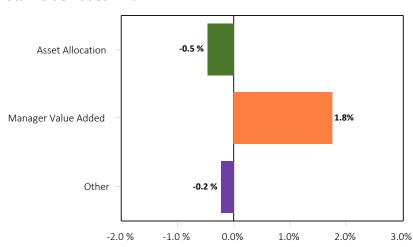
Total Fund Attribution

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

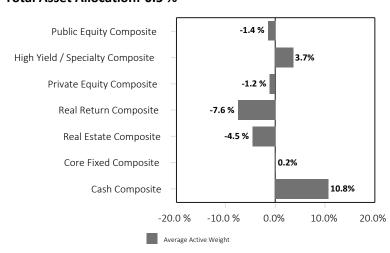
Total Fund Performance



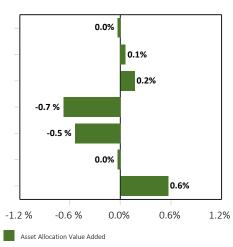
Total Value Added:1.1%



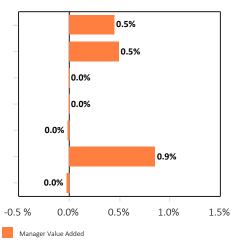
Total Asset Allocation:-0.5 %



Asset Allocation Value Added:-0.5 %



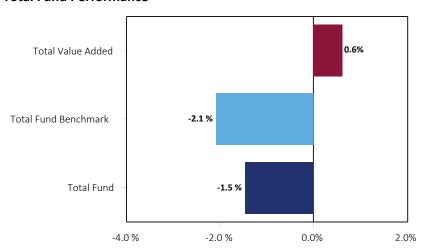
Total Manager Value Added:1.8%



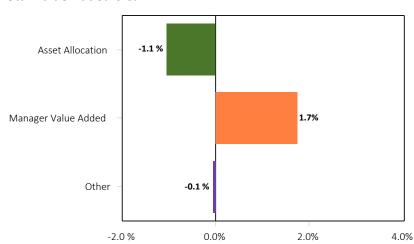
Total Fund Attribution

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

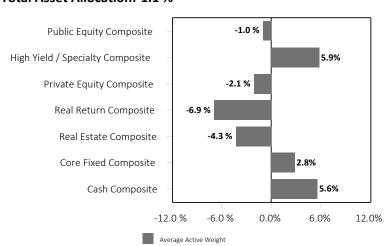
Total Fund Performance



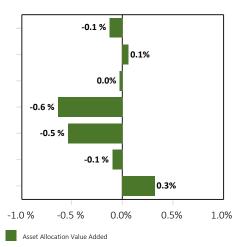
Total Value Added: 0.6%



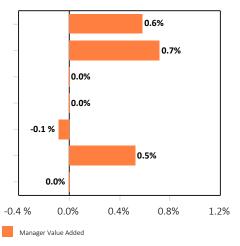
Total Asset Allocation:-1.1 %



Asset Allocation Value Added:-1.1 %



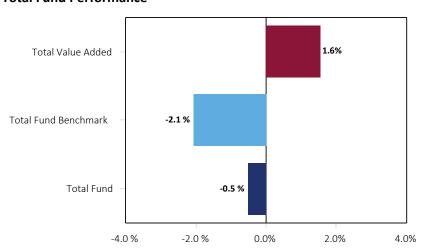
Total Manager Value Added:1.7%



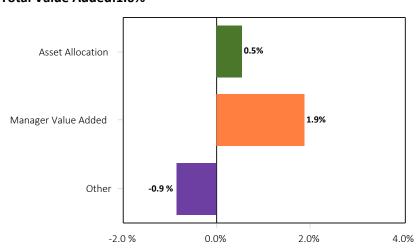
Total Fund Attribution

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

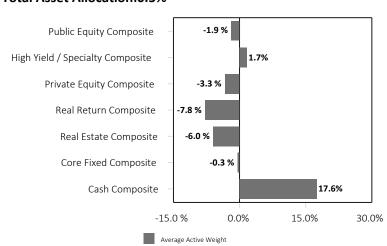
Total Fund Performance



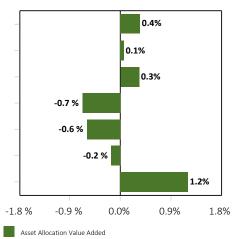
Total Value Added:1.6%



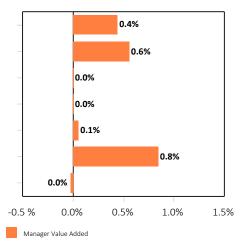
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Asset Allocation Value Added:0.5%



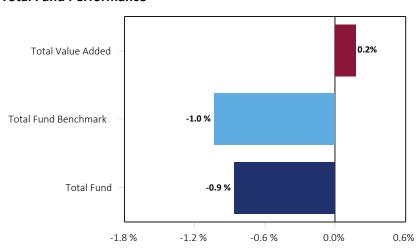
Total Manager Value Added:1.9%



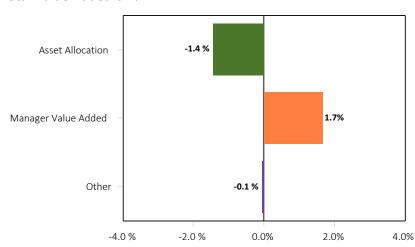
Total Fund Attribution

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

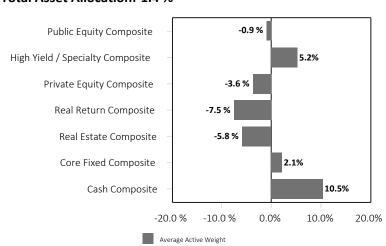
Total Fund Performance



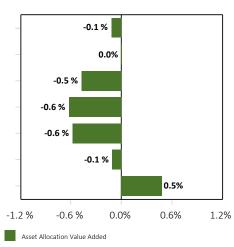
Total Value Added:0.2%



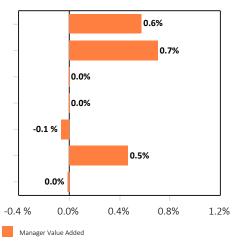
Total Asset Allocation:-1.4%



Asset Allocation Value Added:-1.4 %



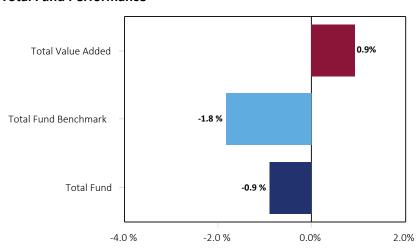
Total Manager Value Added:1.7%



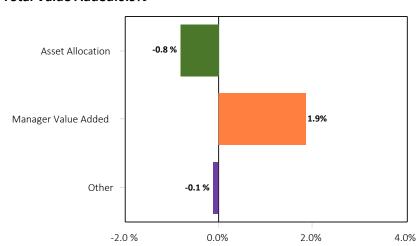
Total Fund Attribution

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

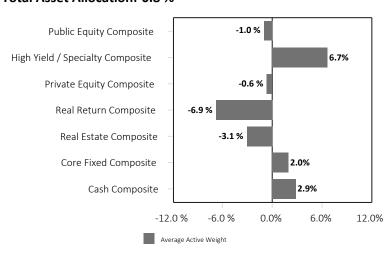
Total Fund Performance



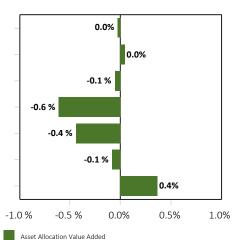
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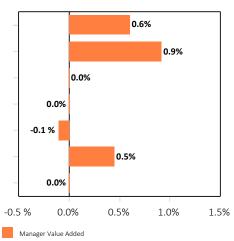
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Asset Allocation Value Added:-0.8 %



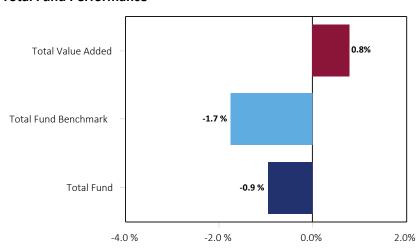
Total Manager Value Added:1.9%



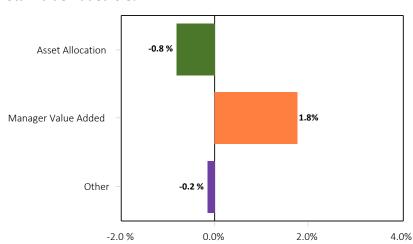
Total Fund Attribution

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

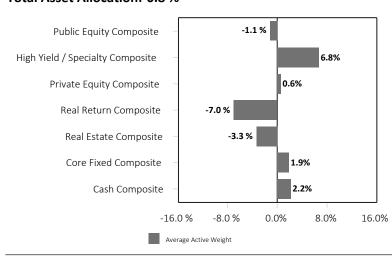
Total Fund Performance



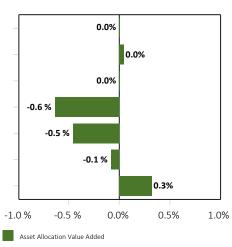
Total Value Added:0.8%



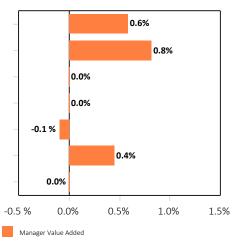
Total Asset Allocation:-0.8 %



Asset Allocation Value Added:-0.8 %

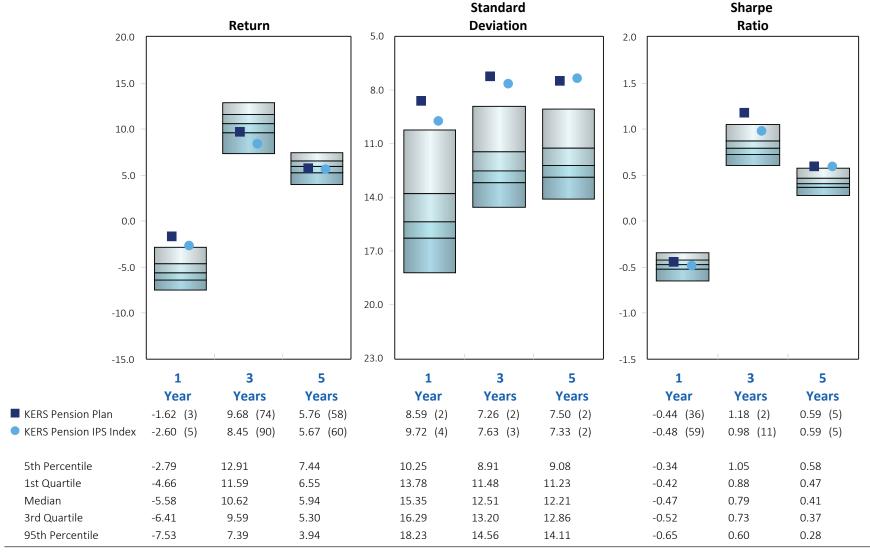


Total Manager Value Added:1.8%



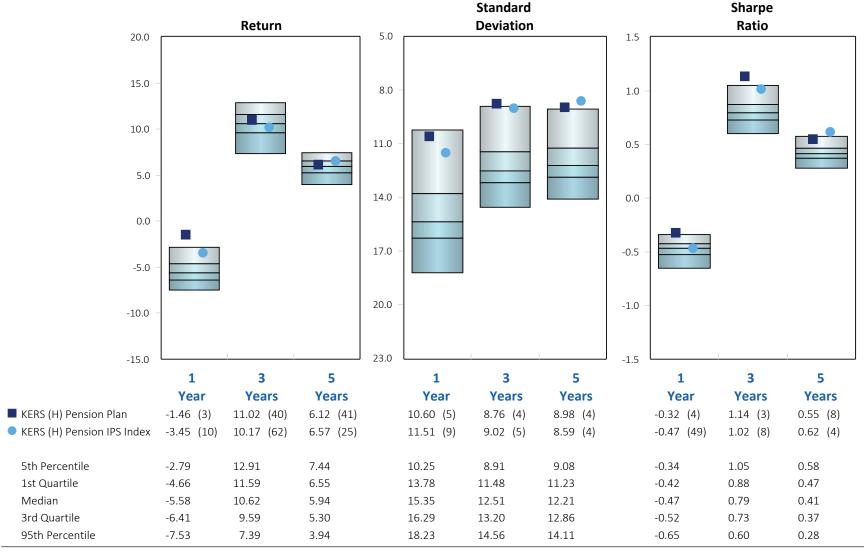
Plan Sponsor Peer Group Analysis - Multi Statistics

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



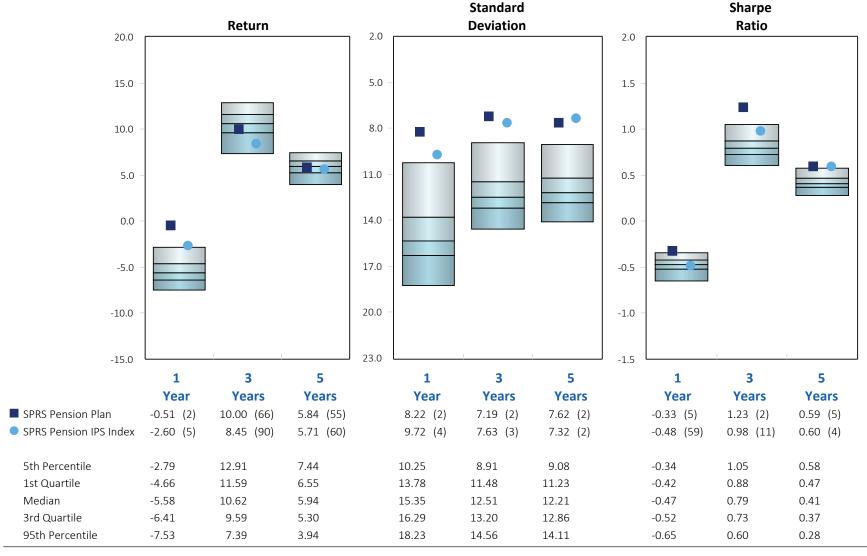
Plan Sponsor Peer Group Analysis - Multi Statistics

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



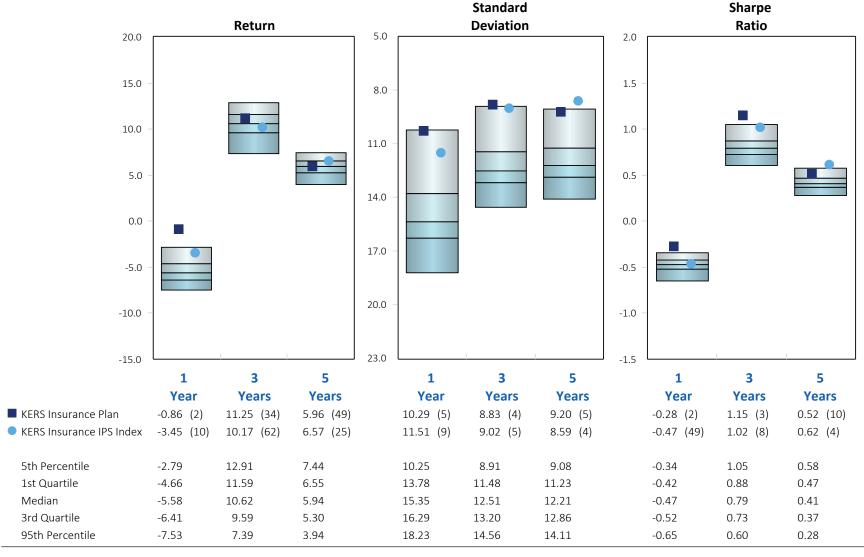
Plan Sponsor Peer Group Analysis - Multi Statistics

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



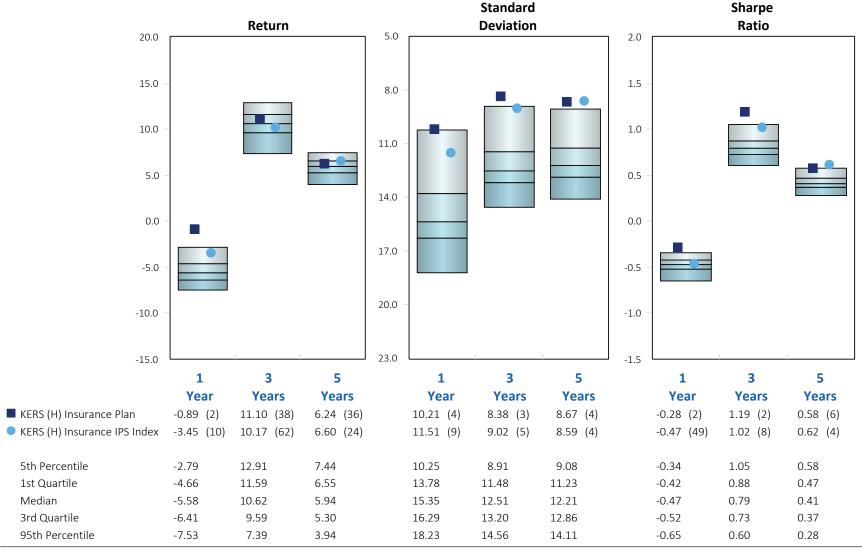
Plan Sponsor Peer Group Analysis - Multi Statistics

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



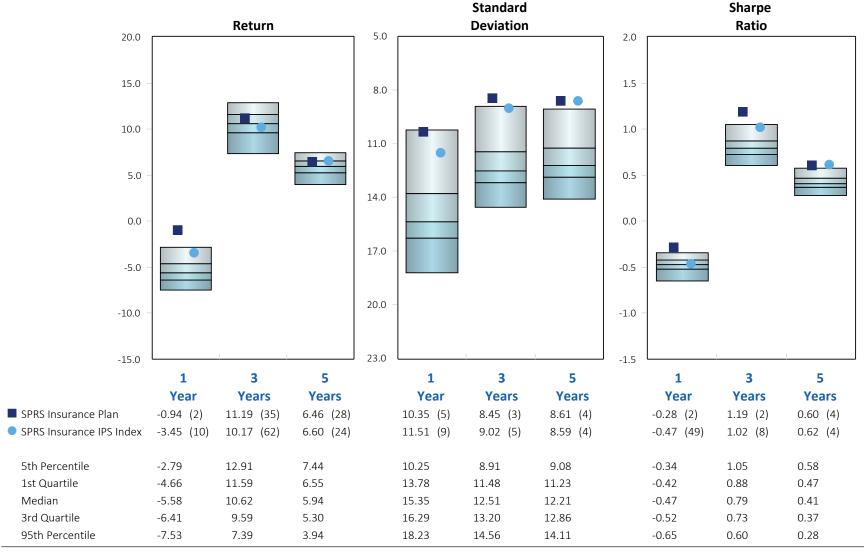
Plan Sponsor Peer Group Analysis - Multi Statistics

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



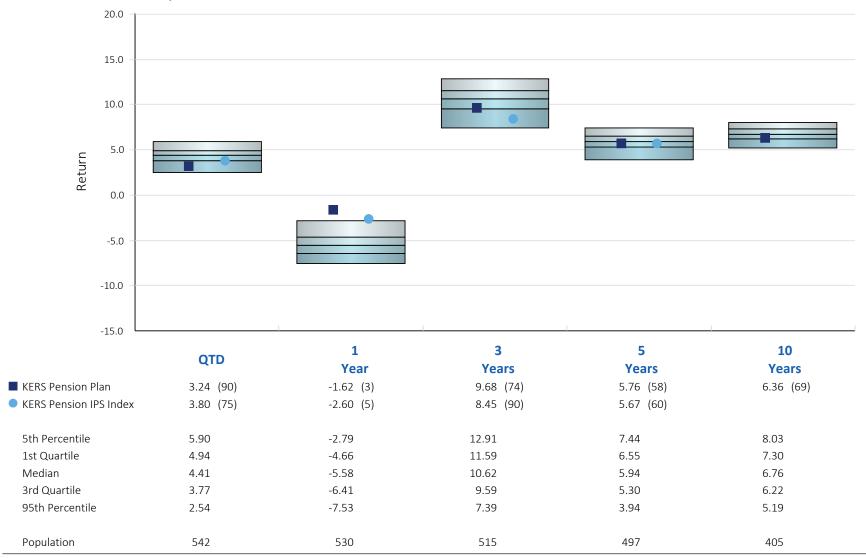
Plan Sponsor Peer Group Analysis - Multi Statistics

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



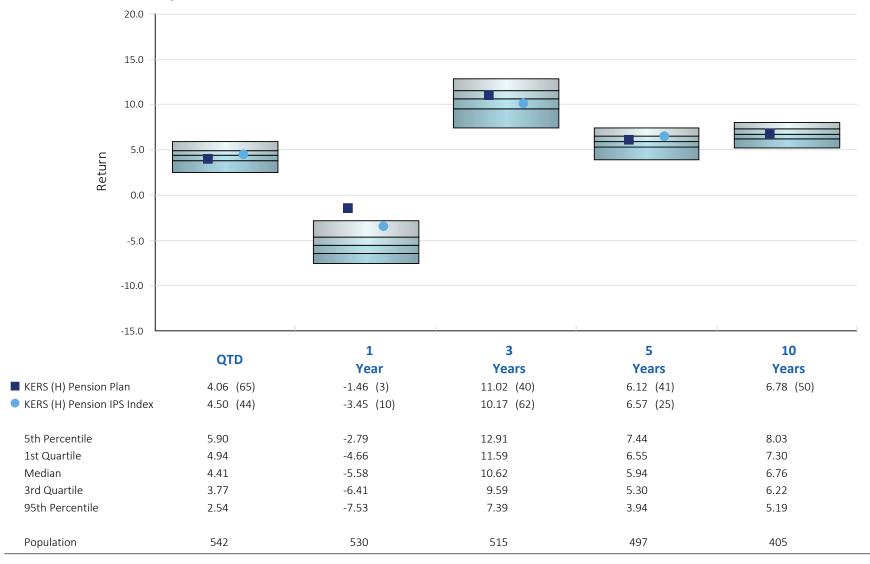
Plan Sponsor Peer Group Analysis

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



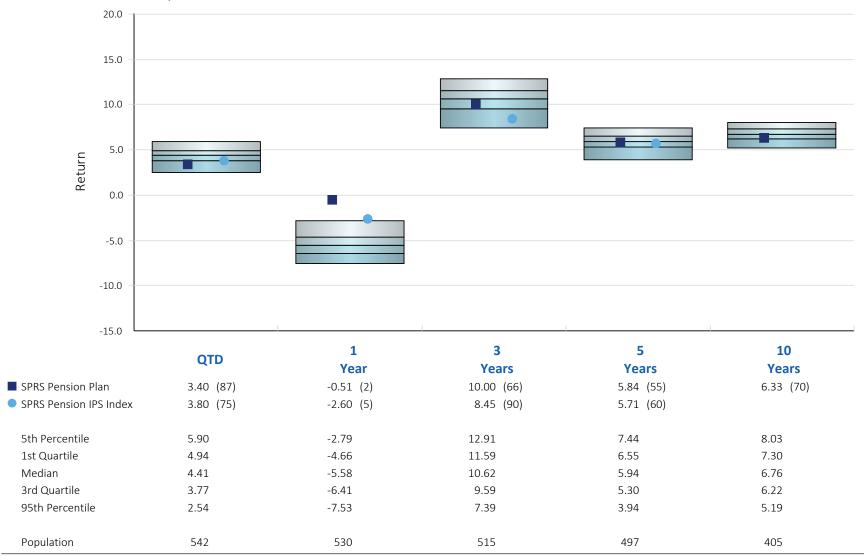
Plan Sponsor Peer Group Analysis

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



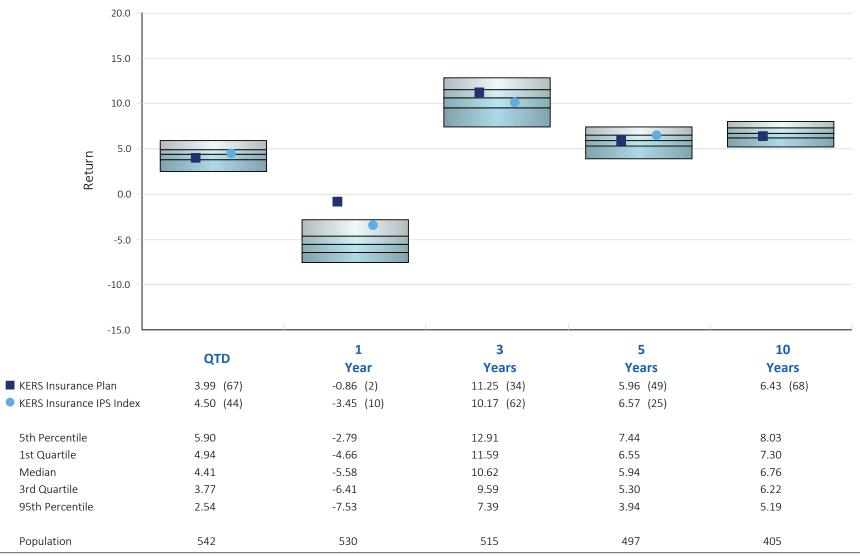
Plan Sponsor Peer Group Analysis

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



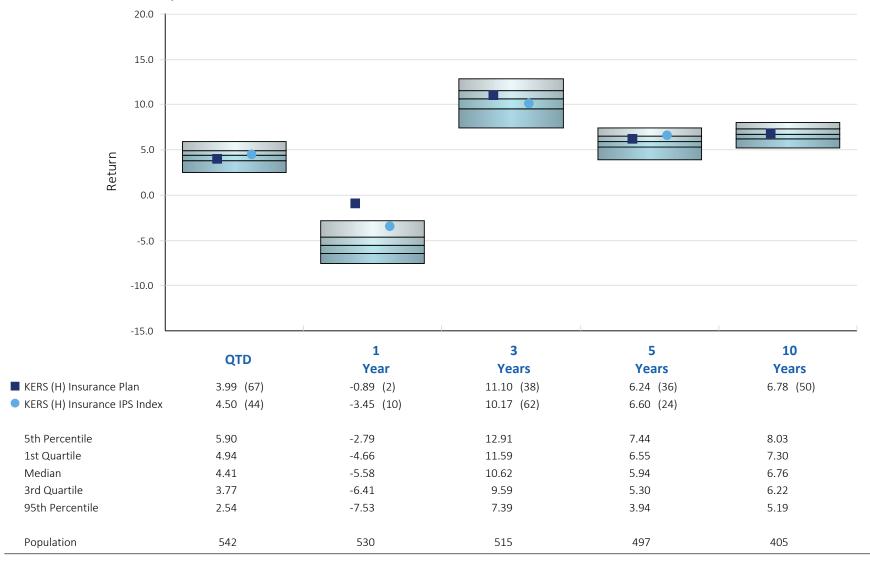
Plan Sponsor Peer Group Analysis

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



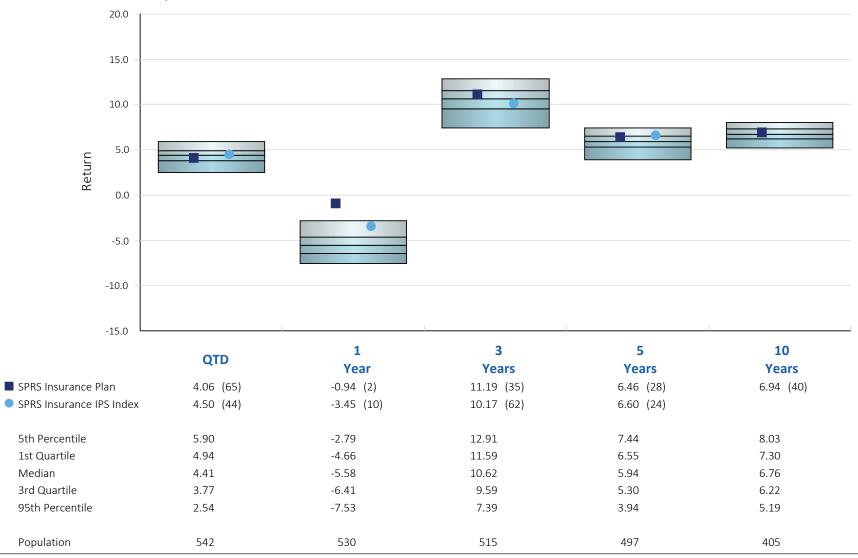
Plan Sponsor Peer Group Analysis

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



Plan Sponsor Peer Group Analysis

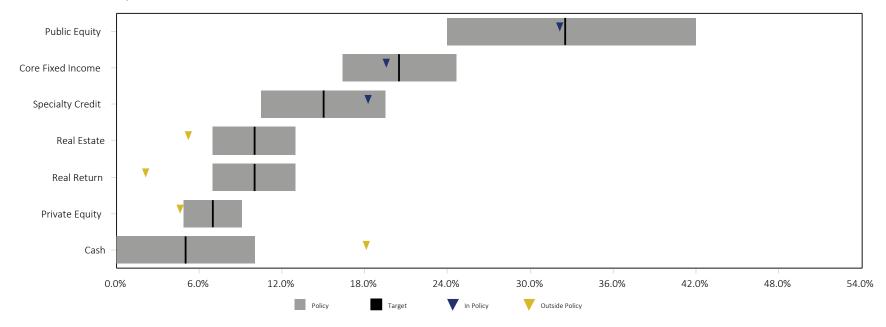
SPRS Insurance Plan vs All Public Plans-Total Fund Periods Ended March 31, 2023



Asset Allocation Compliance

KERS Pension Plan Periods Ended As of March 31, 2023

Executive Summary

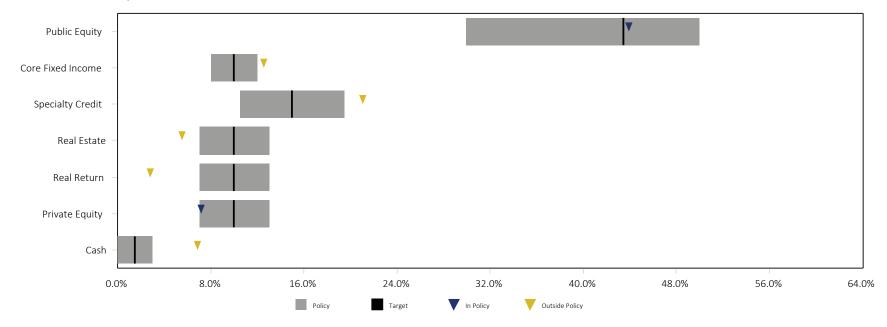


	Asset Allocation	Asset Allocation	Minimum Allocation	Maximum Allocation	Target Allocation	Target Rebalance
	Ş	(%)	(%)	(%)	(%)	Ş
Public Equity	1,079,572,828	32.11	24.00	42.00	32.50	13,135,153
Core Fixed Income	657,617,254	19.56	16.40	24.60	20.50	31,629,318
Specialty Credit	614,065,920	18.26	10.50	19.50	15.00	-109,739,159
Real Estate	175,894,392	5.23	7.00	13.00	10.00	160,323,449
Real Return	70,565,346	2.10	7.00	13.00	10.00	265,652,494
Private Equity	155,150,167	4.61	4.90	9.10	7.00	80,202,321
Cash	609,312,497	18.12	0.00	10.00	5.00	-441,203,576
Total Fund	3,362,178,403	100.00			100.00	

Asset Allocation Compliance

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

Executive Summary

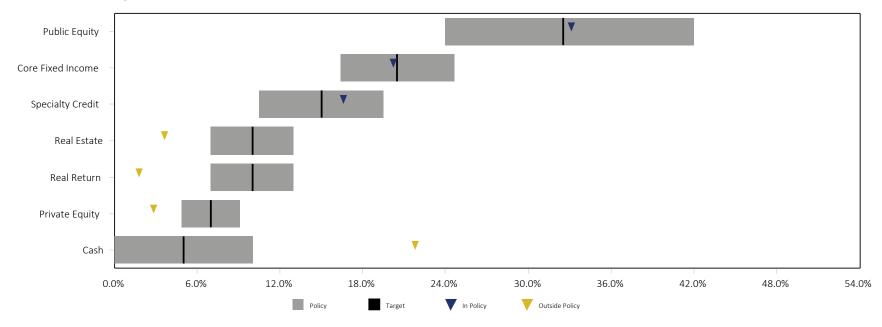


	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	382,597,394	43.97	30.00	50.00	43.50	-4,093,608
Core Fixed Income	109,329,544	12.56	8.00	12.00	10.00	-22,317,179
Specialty Credit	183,154,528	21.05	10.50	19.50	15.00	-52,635,981
Real Estate	48,158,594	5.53	7.00	13.00	10.00	38,853,770
Real Return	24,545,243	2.82	7.00	13.00	10.00	62,467,122
Private Equity	62,368,687	7.17	7.00	13.00	10.00	24,643,678
Cash	59,969,656	6.89	0.00	3.00	1.50	-46,917,801
Total Fund	870,123,646	100.00			100.00	

Asset Allocation Compliance

SPRS Pension Plan
Periods Ended As of March 31, 2023

Executive Summary

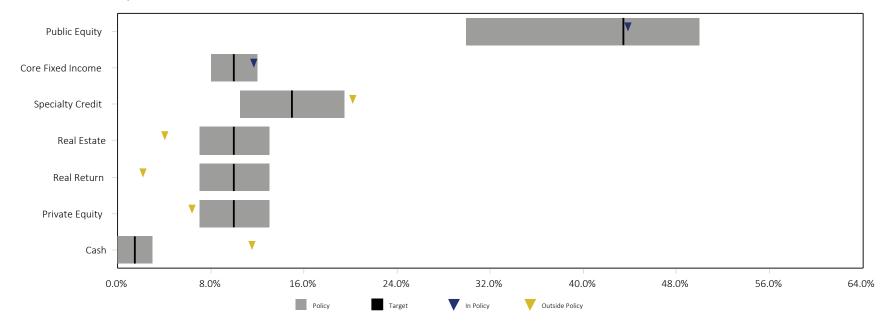


	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	190,498,648	33.15	24.00	42.00	32.50	-3,726,199
Core Fixed Income	116,128,283	20.21	16.40	24.60	20.50	1,682,031
Specialty Credit	95,543,279	16.63	10.50	19.50	15.00	-9,340,610
Real Estate	20,856,691	3.63	7.00	13.00	10.00	36,611,755
Real Return	10,202,350	1.78	7.00	13.00	10.00	47,266,096
Private Equity	16,367,925	2.85	4.90	9.10	7.00	23,859,987
Cash	125,087,282	21.77	0.00	10.00	5.00	-96,353,059
Total Fund	574,684,460	100.00			100.00	

Asset Allocation Compliance

KERS Insurance Plan
Periods Ended As of March 31, 2023

Executive Summary

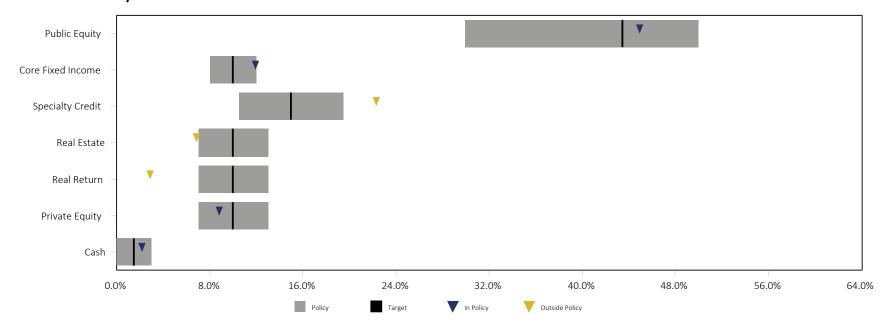


	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
Public Equity	613,591,556	43.90	30.00	50.00	43.50	-5,593,872
Core Fixed Income	163,700,876	11.71	8.00	12.00	10.00	-23,931,293
Specialty Credit	282,512,967	20.21	10.50	19.50	15.00	-72,858,593
Real Estate	56,515,447	4.04	7.00	13.00	10.00	83,254,135
Real Return	30,337,567	2.17	7.00	13.00	10.00	109,432,015
Private Equity	89,906,552	6.43	7.00	13.00	10.00	49,863,031
Cash	161,130,860	11.53	0.00	3.00	1.50	-140,165,423
Total Fund	1,397,695,825	100.00			100.00	

Asset Allocation Compliance

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

Executive Summary

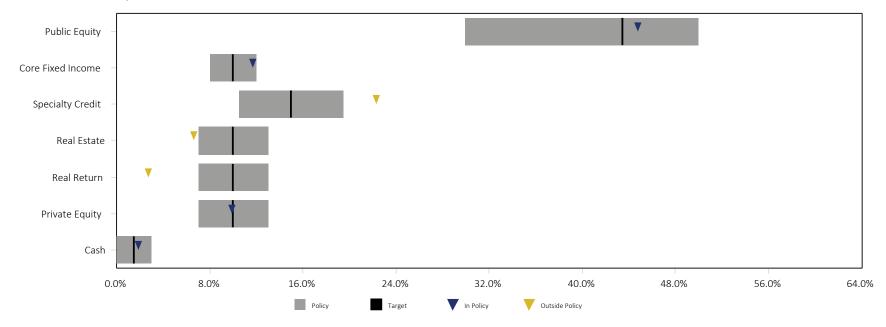


	Asset Allocation	Asset Allocation	Minimum Allocation	Maximum Allocation	Target Allocation	Target Rebalance
	\$	(%)	(%)	(%)	(%)	\$
Public Equity	270,733,346	44.94	30.00	50.00	43.50	-8,661,419
Core Fixed Income	71,713,645	11.90	8.00	12.00	10.00	-11,467,225
Specialty Credit	134,442,706	22.32	10.50	19.50	15.00	-44,073,076
Real Estate	41,452,341	6.88	7.00	13.00	10.00	18,794,079
Real Return	17,571,568	2.92	7.00	13.00	10.00	42,674,852
Private Equity	53,312,512	8.85	7.00	13.00	10.00	6,933,907
Cash	13,238,081	2.20	0.00	3.00	1.50	-4,201,118
Total Fund	602,464,199	100.00			100.00	

Asset Allocation Compliance

SPRS Insurance Plan
Periods Ended As of March 31, 2023

Executive Summary



	Asset Allocation	Asset Allocation	Minimum Allocation	Maximum Allocation	Target Allocation	Target Rebalance
	Ş	(%)	(%)	(%)	(%)	Ş
Public Equity	107,419,059	44.81	30.00	50.00	43.50	-3,148,674
Core Fixed Income	28,141,812	11.74	8.00	12.00	10.00	-4,171,608
Specialty Credit	53,442,621	22.30	10.50	19.50	15.00	-17,487,317
Real Estate	15,857,396	6.62	7.00	13.00	10.00	8,112,808
Real Return	6,561,195	2.74	7.00	13.00	10.00	17,409,008
Private Equity	23,790,252	9.92	7.00	13.00	10.00	179,951
Cash	4,489,698	1.87	0.00	3.00	1.50	-894,168
Total Fund	239,702,033	100.00			100.00	

Asset Allocation & Performance

Total Fund Periods Ended March 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
KERS Pension Plan	3,362,178,403	3.24	4.47	-1.62	9.68	5.76	6.36	7.00	7.46	8.69	4/1/1984
KERS Pension IPS Index		3.80	4.19	-2.60	8.45	5.67					
Value Added		-0.56	0.28	0.98	1.23	0.09					
KERS Pension Attribution Index		3.30	4.61	-2.69	9.58						
Value Added		-0.06	-0.14	1.07	0.10						
Assumed Rate 5.25%		1.29	3.91	5.25	5.25	5.25					
Value Added		1.95	0.56	-6.87	4.43	0.51					
KERS Insurance Plan	1,397,695,825	3.99	6.59	-0.86	11.25	5.96	6.43	6.99	6.66	7.22	4/1/1987
KERS Insurance IPS Index		4.50	4.83	-3.45	10.17	6.57					
Value Added		-0.51	1.76	2.59	1.08	-0.61					
KERS Insurance Attribution Index		3.79	6.65	-1.03	11.67						
Value Added		0.20	-0.06	0.17	-0.42						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.46	1.94	-7.11	5.00	-0.29					
KERS (H) Pension Plan	870,123,646	4.06	6.29	-1.46	11.02	6.12	6.78	7.21	7.60	8.79	4/1/1984
KERS (H) Pension IPS Index		4.50	4.83	-3.45	10.17	6.57					
Value Added		-0.44	1.46	1.99	0.85	-0.45					
KERS (H) Pension Attribution Index		3.87	6.13	-2.08	11.41						
Value Added		0.19	0.16	0.62	-0.39						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.53	1.64	-7.71	4.77	-0.13					

Asset Allocation & Performance

Total Fund Periods Ended March 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
KERS (H) Insurance Plan	602,464,199	3.99	6.26	-0.89	11.10	6.24	6.78	7.16	6.77	7.32	4/1/1987
KERS (H) Insurance IPS Index		4.50	4.83	-3.45	10.17	6.60					
Value Added		-0.51	1.43	2.56	0.93	-0.36					
KERS (H) Insurance Attribution Index		3.92	6.25	-1.82	11.25						
Value Added		0.07	0.01	0.93	-0.15						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.46	1.61	-7.14	4.85	-0.01					
SPRS Pension Plan	574,684,460	3.40	5.20	-0.51	10.00	5.84	6.33	6.98	7.45	8.68	4/1/1984
SPRS Pension IPS Index		3.80	4.19	-2.60	8.45	5.71					
Value Added		-0.40	1.01	2.09	1.55	0.13					
SPRS Pension Attribution Index		3.35	4.90	-2.08	9.44						
Value Added		0.05	0.30	1.57	0.56						
Assumed Rate 5.25%		1.29	3.91	5.25	5.25	5.25					
Value Added		2.11	1.29	-5.76	4.75	0.59					
SPRS Insurance Plan	239,702,033	4.06	6.31	-0.94	11.19	6.46	6.94	7.25	6.83	7.37	4/1/1987
SPRS Insurance IPS Index		4.50	4.83	-3.45	10.17	6.60					
Value Added		-0.44	1.48	2.51	1.02	-0.14					
SPRS Insurance Attribution Index		3.96	6.34	-1.74	11.28						
Value Added		0.10	-0.03	0.80	-0.09						
Assumed Rate 6.25%		1.53	4.65	6.25	6.25	6.25					
Value Added		2.53	1.66	-7.19	4.94	0.21					

Asset Allocation & Performance

			ı	Performance	(%) net of fe	es		
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Public Equity	2.41	7.55	11.49	-6.10			-6.61	12/1/2021
Public Equity Policy Index	3.08	7.31	9.75	-7.44			-6.75	
Value Added	-0.67	0.24	1.74	1.34			0.14	
US Equity Composite	2.31	6.82	9.99	-7.88	18.83	10.14	11.17	4/1/1984
Russell 3000 Index	2.67	7.18	9.75	-8.58	18.48	10.45	11.06	
Value Added	-0.36	-0.36	0.24	0.70	0.35	-0.31	0.11	
S&P 500 Index	3.69	7.51	9.96	-7.57	18.66	11.46	8.19	7/1/2001
S&P 500 Index	3.67	7.50	9.98	-7.73	18.60	11.19	7.81	
Value Added	0.02	0.01	-0.02	0.16	0.06	0.27	0.38	
Scientific Beta	1.05	2.97	8.10	-6.09	17.42	8.30	9.77	7/1/2016
S&P 500 Index	3.67	7.50	9.98	-7.73	18.60	11.19	12.51	
Value Added	-2.62	-4.53	-1.88	1.64	-1.18	-2.89	-2.74	
River Road FAV	-0.17	0.70	5.44	-10.45	11.37	5.21	8.22	7/1/2016
Russell 3000 Value Index	-0.86	0.91	6.92	-6.35	18.12	7.30	8.58	
Value Added	0.69	-0.21	-1.48	-4.10	-6.75	-2.09	-0.36	
Westfield Capital	5.60	15.03	12.90	-10.53	17.74	13.23	12.98	7/1/2011
Russell 3000 Growth Index	6.25	13.85	12.56	-10.88	18.23	13.02	13.75	
Value Added	-0.65	1.18	0.34	0.35	-0.49	0.21	-0.77	
Internal US Mid Cap	-3.06	4.15	12.96	-4.47	22.50	8.35	9.34	8/1/2014
S&P MidCap 400 Index	-3.21	3.81	12.17	-5.12	22.10	7.67	8.96	
Value Added	0.15	0.34	0.79	0.65	0.40	0.68	0.38	
NTGI Structured	-4.52	2.90	8.81	-7.43	20.33	7.10	9.58	10/1/1999
Russell 2000 Index	-4.78	2.74	6.75	-11.61	17.51	4.71	7.74	
Value Added	0.26	0.16	2.06	4.18	2.82	2.39	1.84	

				Performance	(%) net of fe	ees		
	1	QTD	FYTD	1	3	5	Since	Inception
	Month	QID	FIID	Year	Years	Years	Inception	Date
Next Century Growth	0.69	11.82	16.88	-11.15	37.80		26.50	11/1/2019
Russell Microcap Growth Index	-5.85	0.76	5.70	-17.98	10.87		4.16	
Value Added	6.54	11.06	11.18	6.83	26.93		22.34	
Non-US Equity Composite	2.56	8.57	13.59	-3.67	12.87	3.28	3.51	7/1/2000
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	3.44	
Value Added	0.43	2.01	3.74	2.17	0.67	0.93	0.07	
BlackRock World Ex US	2.31	8.14	14.36	-2.19	14.01	3.68	6.34	7/1/2009
MSCI World ex US (11/19)	2.22	8.02	13.96	-2.74	13.49	3.28	6.06	
Value Added	0.09	0.12	0.40	0.55	0.52	0.40	0.28	
American Century	3.10	9.55	15.05	-6.50	12.57	5.89	5.88	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	0.97	2.99	5.20	-0.66	0.37	3.54	2.92	
Franklin Templeton	3.46	12.17	16.43	-8.85	7.87	1.81	4.48	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	1.33	5.61	6.58	-3.01	-4.33	-0.54	1.52	
Lazard Asset Mgmt	3.07	8.94	12.06	-2.06	12.44	2.70	3.82	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	0.94	2.38	2.21	3.78	0.24	0.35	0.86	
LSV Asset Mgmt	1.61	7.19	14.24	-0.54	14.00	2.64	3.15	7/1/2014
MSCI ACWI ex US IMI (10/17)	2.13	6.56	9.85	-5.84	12.20	2.35	2.96	
Value Added	-0.52	0.63	4.39	5.30	1.80	0.29	0.19	
Axiom	1.39	7.62	8.57	-13.22			-19.16	12/1/2021
MSCI AC World ex USA Small Cap (Net)	0.23	4.70	8.70	-10.37			-9.66	
Value Added	1.16	2.92	-0.13	-2.85			-9.50	

			F	Performance	(%) net of fe	es		
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
JP Morgan Emerging Markets	1.61	5.50	5.77	-7.39	9.75		1.45	11/1/2019
MSCI Emerging Markets IMI Index	2.79	4.01	1.88	-10.32	9.60		1.92	
Value Added	-1.18	1.49	3.89	2.93	0.15		-0.47	
Pzena Emerging Markets	3.31	7.17	11.91	0.09	18.83		6.13	11/1/2019
MSCI Emerging Markets (Net)	3.03	3.96	0.84	-10.70	7.83		0.81	
Value Added	0.28	3.21	11.07	10.79	11.00		5.32	
Private Equity Composite	1.60	1.54	-4.54	-2.91	16.11	13.81	11.81	7/1/2002
Russell 3000 +3% 1 Quarter Lag	-5.62	7.98	-12.79	-16.78	10.28	12.05	11.43	
Value Added	7.22	-6.44	8.25	13.87	5.83	1.76	0.38	
Core Fixed Composite	1.15	1.94	1.37	-0.77	1.43		2.36	10/1/2018
 Blmbg. U.S. Aggregate Index	2.54	2.96	-0.09	-4.78	-2.77		1.04	
Value Added	-1.39	-1.02	1.46	4.01	4.20		1.32	
Loomis Sayles Intmd	2.04	2.46	0.28	-2.60	-1.21		0.98	2/1/2019
Blmbg. U.S. Intermediate Aggregate Index	2.15	2.39	0.15	-2.79	-1.96		0.51	
Value Added	-0.11	0.07	0.13	0.19	0.75		0.47	
Lord Abbett	0.76	1.67	1.75	0.06	2.57		1.72	10/1/2018
ICE BofA 1-3 Year U.S. Corporate Index	0.88	1.29	1.36	0.33	0.96		1.63	
Value Added	-0.12	0.38	0.39	-0.27	1.61		0.09	
NISA	2.43	3.00	0.10	-4.37	-2.18	1.24	2.99	2/1/2009
Blmbg. U.S. Aggregate Index	2.54	2.96	-0.09	-4.78	-2.77	0.90	2.72	
Value Added	-0.11	0.04	0.19	0.41	0.59	0.34	0.27	

				Performance	(%) net of fe	ees		
	1	QTD	FYTD	1	3	5	Since	Inception
	Month	QID	FIID	Year	Years	Years	Inception	Date
High Yield / Specialty Credit Composite	1.61	2.80	5.18	3.29	7.49		5.52	10/1/2018
Policy Index	0.52	3.41	7.31	-0.34	7.26		3.17	
Value Added	1.09	-0.61	-2.13	3.63	0.23		2.35	
Adams St SPC II A	2.97	2.97	6.31	21.37			14.88	6/1/2020
Adams St SPC II B	2.04	2.04	6.26	3.09			9.55	6/1/2020
Arrowmark	1.22	3.76	9.41	10.90	15.44		9.54	6/1/2018
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52		3.64	
Value Added	1.25	0.53	2.08	8.36	6.92		5.90	
Blue Torch	3.92	3.92	10.52	13.78			10.15	8/1/2020
BSP Coinvestment	2.31	2.31	4.62	6.30	6.83		6.37	10/1/2019
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52		3.57	
Value Added	2.34	-0.92	-2.71	3.76	-1.69		2.80	
BSP Private Credit	1.22	1.22	2.00	3.49	6.76	5.81	5.61	2/1/2018
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	3.61	
Value Added	1.25	-2.01	-5.33	0.95	-1.76	2.18	2.00	
Capital Springs	8.17	8.17	9.10	11.40	10.88		10.28	2/1/2020
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52		3.21	
Value Added	8.20	4.94	1.77	8.86	2.36		7.07	
Cerberus Capital Mgmt	0.88	2.09	6.52	9.52	11.97	10.82	9.67	9/1/2014
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	3.70	
Value Added	0.91	-1.14	-0.81	6.98	3.45	7.19	5.97	
Columbia	1.58	3.99	8.27	-2.12	5.77	3.82	5.49	11/1/2011
Blmbg. U.S. Corp: High Yield Index	1.07	3.57	7.19	-3.34	5.91	3.21	5.22	
Value Added	0.51	0.42	1.08	1.22	-0.14	0.61	0.27	

	Performance (%) net of fees							
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Manulife Asset Mgmt	2.11	3.48	5.96	-1.51	4.31	3.15	3.70	12/1/2011
Policy Index	2.35	2.93	0.55	-4.61	-2.02	1.05	1.06	
Value Added	-0.24	0.55	5.41	3.10	6.33	2.10	2.64	
Marathon Bluegrass	1.48	1.17	-3.87	-3.60	4.16	4.52	5.62	1/1/2016
Blmbg. U.S. Corp: High Yield Index	1.07	3.57	7.19	-3.34	5.91	3.21	5.38	
Value Added	0.41	-2.40	-11.06	-0.26	-1.75	1.31	0.24	
Shenkman Capital	-0.01	2.80	6.91	2.27	8.06	3.51	4.26	10/1/2010
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	4.32	
Value Added	0.02	-0.43	-0.42	-0.27	-0.46	-0.12	-0.06	
Waterfall	1.45	2.90	5.96	3.92	9.64	4.81	9.34	2/1/2010
Policy Index	0.61	3.11	6.06	-0.67	4.94	2.79	4.31	
Value Added	0.84	-0.21	-0.10	4.59	4.70	2.02	5.03	
White Oak Yield Spectrum	0.96	0.96	3.45	5.08	5.37	5.35	5.26	3/1/2018
Morningstar LSTA US Leveraged Loan	-0.03	3.23	7.33	2.54	8.52	3.63	3.63	
Value Added	0.99	-2.27	-3.88	2.54	-3.15	1.72	1.63	
H/2 Credit Partner	0.00	0.00	0.00	0.00	3.17	1.35	4.13	7/1/2011
Mesa West Core Lend	-1.04	-1.04	1.89	3.12	4.70	5.96	6.27	5/1/2013
Mesa West IV	-1.02	-1.02	-2.66	-1.82	5.23	6.05	5.41	3/1/2017
Cash Composite	0.31	0.88	2.31	2.49	0.92	1.48	3.30	1/1/1988
FTSE 3 Month T-Bill	0.40	1.12	2.46	2.61	0.95	1.40	2.90	
Value Added	-0.09	-0.24	-0.15	-0.12	-0.03	0.08	0.40	

Asset Allocation & Performance

	Performance (%) net of fees								
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	
Real Estate Composite	-1.58	-4.24	-0.46	6.16	11.91	11.03	6.67	7/1/1984	
NCREIF ODCE NOF 1 Quarter Lag	-5.17	-5.17	-0.55	6.55	8.97	7.72			
Value Added	3.59	0.93	0.09	-0.39	2.94	3.31			
Baring	-9.15	-9.71	-11.09	-1.42	8.74		14.87	1/1/2019	
Barings Euro RE II	-16.44	-16.97	-17.91	-23.65			-20.25	12/1/2020	
Divcowest IV	-4.29	-4.29	-4.48	-3.43	10.86	12.62	17.46	3/1/2014	
Fundamental Partners III	3.79	3.79	3.60	7.95	18.62	15.91	14.24	5/1/2017	
Greenfield Acq VI	-20.30	-20.30	-32.21	-33.18	-38.60	-39.62	-18.48	12/1/2012	
Greenfield Acq VII	-13.99	-13.99	-2.67	-1.12	14.17	14.69	13.71	7/1/2014	
Harrison Street	-0.44	-1.03	7.34	10.10	7.40	7.33	8.17	5/1/2012	
Lubert Adler VII	-8.73	-8.73	-8.56	-4.07	-5.77	-0.23	-1.56	7/1/2014	
Lubert Adler VII B	7.57	7.57	13.15	19.79	26.24	19.99	16.21	7/1/2017	
Patron Capital	-0.79	-1.45	-5.79	-8.51	4.17	5.76	3.84	8/1/2016	
Prologis Targeted US	0.00	-5.57	-0.04	11.89	22.27	20.04	17.92	10/1/2014	
Rubenstein PF II	-17.50	-17.50	-26.59	-26.43	-10.91	-3.87	4.32	7/1/2013	
Stockbridge Sm/Mkts	-2.05	-6.24	-5.64	6.95	10.58	9.38	9.39	5/1/2014	
Walton St RE VI	5.25	5.25	11.62	14.32	6.65	4.80	-11.06	5/1/2009	
Walton St RE VII	-0.40	-0.40	3.53	1.96	-1.40	-1.23	5.69	7/1/2013	

VIUTUT 31, 2023		Performance (%) net of fees								
	1 Month	QTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date		
Real Return Composite	0.31	2.10	9.99	8.16	14.44	5.94	4.71	7/1/2011		
US CPI + 3%	0.30	1.69	4.70	8.14	8.51	6.99	5.61			
Value Added	0.01	0.41	5.29	0.02	5.93	-1.05	-0.90			
Tortoise Capital	-0.98	3.24	23.39	11.26	39.29	7.48	9.35	8/1/2009		
Alerian MLP Index	-1.18	4.09	23.84	14.70	47.08	7.42	6.71			
Value Added	0.20	-0.85	-0.45	-3.44	-7.79	0.06	2.64			
Amerra AGRI Fund II	-1.45	-1.45	7.36	12.08	8.52	7.92	6.32	12/1/2012		
Amerra AGRI Holdings	3.55	3.55	-0.26	2.59	-1.33	-1.22	-1.17	8/1/2015		
BTG Pactual	0.85	0.85	7.56	23.30	6.22	4.12	-1.84	12/1/2014		
IFM Infrastructure	2.02	3.82	6.20	7.21	5.48		5.14	7/1/2019		
Magnetar MTP EOF II	-2.12	-2.12	5.68	135.62	68.73	40.48	25.61	8/1/2015		
Oberland Capital	3.34	3.34	7.79	9.92	15.32		13.41	8/1/2018		
Taurus Mine Finance	3.21	3.21	31.17	70.20	19.39	16.32	15.55	4/1/2015		
TPF II	-4.23	-4.23	-6.85	-6.92	3.89	4.87	-0.81	10/1/2008		
Blackstone Strat Opp	0.35	0.11	-2.50	-0.25	-4.25	-3.24	-2.34	8/1/2017		
Luxor Capital	-0.04	-0.08	3.25	3.99	1.64	-1.20	-0.03	4/1/2014		
Myriad Opportunities	0.00	-0.28	-7.31	-7.65	-23.79	-16.58	-9.69	5/1/2016		
Pine River	1.31	-7.43	-3.84	-16.63	-4.81	2.76	1.65	5/1/2014		
PRISMA Capital	0.34	0.98	0.39	0.45	0.01	0.42	2.39	9/1/2011		
SRS Partners US	0.00	0.00	0.00	0.00	4.37	6.19	7.94	8/1/2017		
Tricadia Select	0.00	0.00	0.00	0.00	0.00	-4.33	-4.48	9/1/2017		

Kentucky Public Pensions Authority

KERS, KERS-Hazardous, & SPRS Unit Holdings

Quarter Ending: March 31, 2023

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

	KERS		KER	RS-H	SPRS		
UNIT OF PARTICIPATION	Shares/Par	Base Market Value		Base Market Value	Shares/Par	Base Market Value	
Grand Total	21,844,917.916	3,357,135,905.51	4,987,709.447	868,027,996.95	3,867,762.682	573,781,273.92	
KRS ABSOLUTE RETURN UNIT	149,632.690	18,280,959.87	39,040.046	4,769,609.60	16,198.153	1,978,964.52	
KRS ADAMS STREET A1 UNIT	172,280.136	25,411,257.18	51,232.258	7,556,739.36	21,363.620	3,151,126.15	
KRS ADAMS STREET B1 UNIT	195,409.496	25,135,616.88	58,110.419	7,474,770.97	24,231.779	3,116,945.32	
KRS AMERRA AGRI UNIT	-	-	27,682.558	2,531,241.23	14,005.924	1,280,675.44	
KRS AMERRA UNIT	-	-	7,456.869	1,430,386.23	3,772.782	723,699.91	
KRS ARROWMARK UNIT	405,599.625	83,242,636.32	125,747.662	25,807,634.55	50,099.456	10,282,087.40	
KRS BLACKROCK UNIT	688,147.351	112,374,029.57	243,181.056	39,711,313.48	98,831.528	16,139,126.36	
KRS BLUE TORCH UNIT	157,476.048	23,979,398.76	47,314.490	7,204,733.91	19,521.195	2,972,556.94	
KRS BNYM CUSTODY FEE UNIT	-119,857.671	-119,857.67	-31,077.208	-31,077.21	-20,558.520	-20,558.52	
KRS BTG UNIT	-	-	17,210.185	1,508,611.33	7,965.109	698,205.95	
KRS CASH UNIT	6,179,469.228	609,473,387.42	608,429.314	60,008,628.79	1,268,549.028	125,115,417.63	
KRS DIVCOWEST IV UNIT	-	· · ·	133.876	70,123.40	48.148	25,219.62	
KRS DOMESTIC EQUITY UNIT	662,339.247	166,633,982.95	232,995.484	58,617,944.93	110,172.803	27,717,718.77	
KRS GLOBAL FIXED UNIT	272,075.105	36,242,343.34	133,290.615	17,755,260.01	55,817.030	7,435,226.26	
KRS GREENFIELD UNIT	-	-	265.191	3,376.51	95.376	1,214.36	
KRS GREENFIELD VII UNIT	-	-	514.746	171,208.28	185.129	61,575.26	
KRS HARRISON UNIT	229,149.436	52,223,784.79	56,783.798	12,941,183.27	27,092.529	6,174,461.65	
KRS IFM INFRAST DEBT UNIT	78,848.461	11,579,278.44	24,284.713	3,566,327.74	9,413.397	1,382,402.95	
KRS INTERNAL EQUITY UNIT	1,539,608.276	460,774,346.66	547,505.330	163,857,530.94	275,851.123	82,556,792.50	
KRS INTERNATIONAL EQUITY UNIT	1,992,437.750	337,910,042.49	706,064.960	119,745,994.89	376,297.085	63,818,588.05	
KRS L-A VII UNIT	, , , -	· · ·	13,032.050	1,138,210.74	4,685.431	409,222.48	
KRS LIQUID CORE FIXED UNIT	5,249,563.491	658,046,259.23	872,745.322	109,400,866.45	927,017.642	116,204,041.08	
KRS LIQUID CREDIT FIXED UNIT	10,020.517	0.76	3,470.982	0.26	1,638.453	0.12	
KRS LIQUID HY FI UNIT	873,301.403	136,120,562.24	191,170.265	29,797,506.18	141,713.019	22,088,657.77	
KRS MAGNETAR MTP UNIT	159.328	82,702.73	28.401	14,742.17	14.098	7,317.88	
KRS MESA WEST CORE UNIT	30,939.768	5,650,981.27	18,362.356	3,353,785.00	5,427.457	991,295.66	
KRS MESA WEST IV UNIT	34,892.283	3,382,450.59	9,544.948	925,285.25	4,034.654	391,118.51	
KRS MULTI SECTOR CREDIT FI	787,166.869	126,833,059.95	132,990.502	21,428,229.49	71,068.687	11,451,014.26	
KRS OBERLAND UNIT	, -	· · ·	4,426.833	321,759.06	, <u>-</u>	, , <u>-</u>	
KRS PE 2010 UNIT	458,894.366	137,464,588.69	58,033.513	17,384,290.56	30,205.308	9,048,183.09	
KRS PE 2011 UNIT	-	-	15,176.919	4,654,499.95	· -	· · ·	
KRS PE 2012 A UNIT	-	-	540.071	329,959.43	81.106	49,552.17	
KRS PE 2012 B UNIT	-	-	5,071.521	818,249.40	761.621	122,881.46	
KRS PE 2013 UNIT	0.009	3.20	23,613.596	8,395,898.10	7,444.115	2,646,781.58	
KRS PE 2014 UNIT	-	-	19,618.015	3,209,216.42	6,184.520	1,011,695.79	
KRS PE 2015 UNIT	-	-	15,156.362	3,953,445.63	4,778.011	1,246,315.36	
KRS PE 2016 UNIT	-	-	29,825.756	7,512,786.89	, <u>-</u>	, , <u>-</u>	
KRS PE 2017 UNIT	-	-	15,602.932	2,447,646.48	-	-	
KRS PE 2018 UNIT	-	-	18,101.357	3,080,530.80	-	-	
KRS PE 2019 UNIT	-	-	20,993.440	4,730,082.88	-	-	
KRS PE 2021 UNIT	153,210.133	17,874,396.98	44,048.835	5,138,996.67	17,626.624	2,056,425.83	
KRS PERIMETER PARK UNIT	19,205.499	1,879,916.69	15,740.350	1,540,733.03	3,731.088	365,214.91	
KRS POST-2015 REAL ESTATE UNIT	210,286.501	30,244,655.78	57,524.852	8,273,566.49	24,315.783	3,497,240.59	
KRS PRIVATE CREDIT FI UNIT	387,608.086	75,400,767.62	139,221.121	27,082,457.18	35,982.489	6,999,614.79	
KRS PROLOGIS UNIT	246,066.872	60,265,088.03	67,312.722	16,485,791.38	28,453.125	6,968,553.18	
KRS REAL RETURN UNIT	231,618.532	40,542,467.08	58,014.768	10,154,894.78	23,166.179	4,055,003.89	
KRS RUBENSTEIN PF II UNIT	-		4,735.076	865,418.87	1,702.973	311,248.43	
KRS SHENKMAN UNIT	152,600.408	24,200,516.90	126,249.506	20,021,593.28	58,713.808	9,311,275.91	
KRS STOCKBRIDGE UNIT	123,246.396	27,814,940.28	24,535.920	5,537,404.51	11,887.258	2,682,783.29	
KRS TAURUS UNIT	-	,- ,	685.318	216,812.95	216.045	68,349.81	
KRS TPF II UNIT	255.889	27,151.80	39.538	4,195.29	18.128	1,923.52	
KRS WALTON VI UNIT	22,864.485	4,266,701.33	4,997.614	932,595.96	1,657.353	309,275.73	
KRS WALTON VII UNIT	-	-	3,196.765	547,328.35	1,149.716	196,846.55	
KRS WATERFALL UNIT	250,401.903	43,897,487.36	77,735.559	13,627,674.86	95,135.317	16,677,993.76	

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

	KERS	INS	KERS	S-H INS	SPRS INS			
UNIT OF PARTICIPATION	Shares/Par	Base Market Value	Shares/Par	Base Market Value	Shares/Par	Base Market Value		
Grand Total	10,411,206.978	1,395,354,854.16	4,835,707.671	600,584,560.64	1,786,771.423	238,907,431.93		
KR3 ARROWMARK UNIT	198,111.345	41,096,008.20	123,155.934	25,547,336.90	45,477.526	9,433,809.97		
KRS INS PE 2014 UNIT	-	-	12,709.808	2,081,456.57	7,909.809	1,295,371.57		
KRS INS ABSOLUTE RETURN UNIT	53,386.200	6,525,699.37	35,449.546	4,333,199.96	13,293.771	1,624,973.36		
KRS INS ADAMS STREET A1 UNIT	71,577.090	10,557,594.79	38,505.911	5,679,607.89	14,874.106	2,193,925.24		
KRS INS ADAMS STREET B1 UNIT	81,175.384	10,443,073.61	43,669.450	5,617,999.67	16,868.687	2,170,127.59		
KRS INS AMERRA AGRI UNIT	32,066.434	2,932,365.75	26,002.812	2,377,868.25	9,773.392	893,743.28		
KRS INS AMERRA UNIT	6,443.202	1,241,117.75	5,224.818	1,006,427.29	1,963.795	378,274.78		
KRS INS BLACKROCK UNIT	735,968.976	47,953,638.02	408,777.073	26,634,747.43	154,203.321	10,047,448.30		
KRS INS BLUE TORCH UNIT	66,616.664	10,143,939.80	35,017.303	5,332,200.57	13,564.966	2,065,582.25		
KRS INS BNYM CUSTODY FEE UNIT	-71,242.846	-71,242.85	-30,980.696	-30,980.70	-12,325.179	-12,325.18		
KRS INS BTG UNIT	20,001.053	1,753,253.38	13,560.021	1,188,645.05	5,144.451	450,952.56		
KRS INS CASH UNIT	1,544,158.241	161,214,604.60	127,139.051	13,273,686.14	43,328.215	4,523,591.47		
KRS INS DB PRIVATE EQ UNIT	8,272.330	2,684,585.11	6,867.415	2,228,653.84	1,537.665	499,012.07		
KRS INS DIVCOWEST IV UNIT	139.491	73,481.38	104.545	55,072.45	39.377	20,743.10		
KRS INS DOMESTIC EQUITY UNIT	393,640.000	99,005,567.09	170,278.113	42,827,154.61	68,927.738	17,336,220.38		
KRS INS GLOBAL FIXED UNIT	171,877.939	22,467,290.86	7,404.155	967,845.58	38,959.849	5,092,696.97		
KRS INS GREENFIELD UNIT	277.542	3,517.08	208.010	2,635.95	78.297	992.20		
KRS INS GREENFIELD VII UNIT	535.338	178,065.59	401.220	133,454.90	151.021	50,233.02		
KRS INS HARRISON UNIT	77,338.977	17,237,063.24	56,020.957	12,485,771.29	21,455.354	4,781,900.51		
KRS INS IFM INFRAST DEBT UNIT	34,930.160	5,065,755.22	19,654.433	2,850,389.08	6,621.606	960,300.07		
KRS INS INTERNAL EQUITY UNIT	846,772.363	254,008,266.01	376,370.643	112,900,773.08	147,907.274	44,368,087.39		
KRS INS INTL EQ UNIT	1,263,802.341	211,890,600.63	524,570.646	87,950,137.17	211,794.741	35,509,757.68		
KRS INS L-A-VII UNIT	13,548.550	1,183,603.35	10,154.240	887,075.92	3,824.578	334,115.70		
KRS INS LIQUID CORE FIXED UNIT	1,319,569.046	163,792,117.48	578,073.306	71,753,616.18	226,847.066	28,157,496.87		
KRS INS LIQUID CREDIT FIXED UN	1,738,367.727	1.74	1,337,212.672	1.34	401,179.551	0.40		
KRS INS LIQUID HY FI UNIT	240,001.875	36,409,207.48	105,997.810	16,080,275.44	41,242.730	6,256,680.76		
KRS INS MAGNETAR MTP	28.007	14,645.12	22.063	11,536.95	8.389	4,386.69		
KRS INS MESA WEST CORE UNIT	32,110.702	5,741,490.04	27,534.291	4,923,214.00	10,315.876	1,844,509.64		
KRS INS MESA WEST IV UNIT	10,669.816	999,519.78	7,979.816	747,527.78	3,050.668	285,778.41		
KRS INS MULTI SECTOR CREDIT FI	212,837.305	33,709,637.20	127,352.658	20,170,392.11	43,970.794	6,964,190.39		
KRS INS OBERLAND UNIT	12,641.059	948,895.85	3,571.765	268,113.06	836.161	62,766.08		
KRS INS PE 2010 UNIT	35,221.201	10,386,307.41	16,776.255	4,947,115.28	7,460.501	2,200,011.77		
KRS INS PE 2011 UNIT	-	-	18,357.916	5,745,875.01	8,741.854	2,736,127.59		
KRS INS PE 2012 A UNIT	-	-	292.129	179,061.34	181.803	111,436.69		
KRS INS PE 2012 B UNIT	-	-	3,507.405	568,539.68	2,165.695	351,052.57		
KRS INS PE 2013 UNIT	-	-	18,685.220	6,564,656.57	11,628.529	4,085,437.55		
KRS INS PE 2015 UNIT	-	-	12,706.847	3,293,368.53	7,907.963	2,049,590.78		
KRS INS PE 2016 UNIT	88,850.729	22,379,687.50	54,189.185	13,649,151.11	20,992.220	5,287,512.31		
KRS INS PE 2017 UNIT	46,807.096	7,302,799.40	28,547.314	4,453,925.27	11,058.781	1,725,380.68		
KRS INS PE 2018 UNIT	57,875.158	10,133,803.23	16,352.743	2,863,326.61	3,828.198	670,308.41		
KRS INS PE 2019 UNIT	125,601.844	28,299,647.26	8,971.563	2,021,403.99	3,588.626	808,561.78		
KRS INS PE 2021 UNIT	71,679.459	8,400,932.01	33,784.927	3,959,640.30	13,235.978	1,551,274.98		
KRS INS POST-2015 REAL ESTATE	67,983.454	9,747,110.79	50,843.940	7,289,737.24	19,437.537	2,786,852.03		
KRS INS PRIVATE CREDIT FI UNIT	204,971.257	39,213,470.34	123,770.482	23,678,784.02	44,560.326	8,524,927.09		
KRS INS PROLOGIS UNIT	46,483.481	18,119,820.00	34,764.411	13,551,585.55	13,290.350	5,180,738.29		
KRS INS REAL RETURN UNIT	68,564.884	11,797,011.54	31,352.250	5,394,348.15	12,238.077	2,105,636.69		
KRS INS RUBENSTEIN PF II UNIT	4,991.951	906,859.22	3,741.344	679,668.59	1,409.174	255,996.59		
KRS INS SHENKMAN UNIT	287,660.031	45,189,448.30	69,062.617	10,849,270.75	24,044.300	3,777,197.16		
KRS INS STOCKBRIDGE UNIT	38,327.097	8,612,540.38	27,034.753	6,075,020.55	10,358.286	2,327,626.23		
KRS INS TAURUS UNIT	-	-	366.303	116,114.17	227.965	72,262.49		
KRS INS TPF II UNIT	17.081	1,812.30	9.178	973.79	3.998	424.19		
KRS INS WALTON VI UNIT	1,735.306	321,890.28	992.318	184,069.85	424.189	78,684.86		
KRS INS WALTON VII UNIT	3,329.973	570,135.21	2,495.727	427,301.32	939.400	160,837.65		
KRS INS WATERFALL UNIT	145,484.665	24,768,216.32	81,093.055	13,805,787.22	26,222.078	4,464,210.03		

Kentucky Public Pensions Authority

Security Litigation Report

Quarter Ending: March 31, 2023

Claims Filed during the Quarter (pg 3):

10

Proceeds Received during the Quarter (pg 4):

\$45,908.81

Kentucky Retirement Systems Quarterly Securities Litigation Report

Quarter Ended 03/31/23

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		42
	Total Filed	1,667

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		\$232,095
	Total Proceeds	\$60,445,781

Class Action Name	TNT Status Code	Status as of Date	Class Period Start Date	Class Period End Date	Class Account Id	Claimed Account Name
TEXTRON INC., Securities Litigation	FILED	1/18/2023	1/31/2018	12/6/2018	956596	KRS KRS INTERNAL EQUITY
TEXTRON INC., Securities Litigation	FILED	1/18/2023	1/31/2018	12/6/2018	956599	KRS S P 500 INDEX
TEXTRON INC., Securities Litigation	FILED	1/18/2023	1/31/2018	12/6/2018	956772	KRS INS KRS INTERNAL EQUITY
TEXTRON INC., Securities Litigation	FILED	1/18/2023	1/31/2018	12/6/2018	956774	KRS INS S P 500 INDEX
ORACLE CORPORATION, Securities Litigation (18CV04844BLF)	FILED	1/31/2023	5/10/2017	6/20/2018	956774	KRS INS S P 500 INDEX
ORACLE CORPORATION, Securities Litigation (18CV04844BLF)	FILED	1/31/2023	5/10/2017	6/20/2018	956772	KRS INS KRS INTERNAL EQUITY
ORACLE CORPORATION, Securities Litigation (18CV04844BLF)	FILED	1/31/2023	5/10/2017	6/20/2018	956596	KRS KRS INTERNAL EQUITY
ORACLE CORPORATION, Securities Litigation (18CV04844BLF)	FILED	1/31/2023	5/10/2017	6/20/2018	956599	KRS S P 500 INDEX
PEABODY ENERGY CORP. SECURITIES LITIGATION	FILED	1/31/2023	4/3/2017	10/28/2019	956588	KRS NTGI STRUCTURED
PEABODY ENERGY CORP. SECURITIES LITIGATION	FILED	1/31/2023	4/3/2017	10/28/2019	956765	KRS INS NTGI STRUCTURED
PORTOLA PHARMACEUTICALS INC. Securities Litigation	FILED	2/9/2023	1/8/2019	2/28/2020	956588	KRS NTGI STRUCTURED
PORTOLA PHARMACEUTICALS INC. Securities Litigation	FILED	2/9/2023	1/8/2019	2/28/2020	956765	KRS INS NTGI STRUCTURED
SUPER MICRO COMPUTER, INC., Securities Litigation (18CV00838)	FILED	2/23/2023	8/5/2016	1/30/2018	956765	KRS INS NTGI STRUCTURED
SUPER MICRO COMPUTER, INC., Securities Litigation (18CV00838)	FILED	2/23/2023	8/5/2016	1/30/2018	956588	KRS NTGI STRUCTURED
U.S STEEL, Securities Litigation	FILED	2/25/2023	1/27/2016	4/25/2017	956766	KRS INS SYSTEMATIC
U.S STEEL, Securities Litigation	FILED	2/25/2023	1/27/2016	4/25/2017	956589	KRS SYSTEMATIC
U.S STEEL, Securities Litigation	FILED	2/25/2023	1/27/2016	4/25/2017	956765	KRS INS NTGI STRUCTURED
U.S STEEL, Securities Litigation	FILED	2/25/2023	1/27/2016	4/25/2017	956588	KRS NTGI STRUCTURED
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956768	KRS INS WESTFIELD CAPITAL
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	KR2F1901002	STATE STREET TRANSITION
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956766	KRS INS SYSTEMATIC
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956774	KRS INS S P 500 INDEX
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956589	KRS SYSTEMATIC
NEWELL BRANDS INC. Securities Litigation	FILED	3/2/2023	12/14/2015	4/18/2016	956591	KRS WESTFIELD CAPITAL
PROPETRO HOLDING CORP., Securities Litigation	FILED	3/15/2023	2/8/2017	3/13/2020	956765	KRS INS NTGI STRUCTURED
OMEGA HEALTHCARE INVESTORS, INC., Securities Litigation (17CV08983NRB)	FILED	3/22/2023	2/8/2017	10/31/2017	956816	KRS INS NUVEEN REAL ASSET
OMEGA HEALTHCARE INVESTORS, INC., Securities Litigation (17CV08983NRB)	FILED	3/22/2023	2/8/2017	10/31/2017	956642	KRS NUVEEN REAL ASSET
DEUTSCHE BANK AKTIENGESELLSCHAFT, Securities Litigation	FILED	3/28/2023	3/14/2017	9/18/2020	956801	KRS INS LSV ASSET MGMT



Report ID: IACS0008 Base Currency: USD

KR2G00000000 - TOT	TAL FUND	12/31/2022 - 3/31/2023									
Trans Code	Shares/Par Description	Trade Date	Price	Cost	Amount	Net Gain/Loss					
Link Ref	Security Id Broker Transaction No./Client Ref No.	C. Settle Date Reported Date	Local/Base	Local/Base	Local/Base	Local/Base					
CLASS ACTIONS	Transaction No./Client Ref No.	Reported Date									
CASH & CASH	FOLIIVAL ENTS										
U.S. DOLLAR	EQUIVALENTO										
CD CD	0.000 16-1224 (KM)(MAH)PTC THERAPEU NA9123459 ICS, INC. Distribution 2ND DIS	T 1/19/2023	0.000000 0.000000	329.21 329.21	329.21 329.21	329.21 329.21					
	20230119S000020 / 000000000000 KR2F10060002 : WESTFIELD CAPIT				Gain/Loss Local Ame Gain/Loss Base Ame						
CD	0.000 24358LADENBURG THALMANN FIN NA9123459 IAL SERVICES INC. (2020) Distr	ANC 1/19/2023	0.000000 0.000000	33.95 33.95	33.95 33.95	33.95 33.95					
	20230119S000190 / 000000001530 KR2F10020002 : NTGI STRUCTURE		0.000000	33.33	Gain/Loss Local Ar Gain/Loss Base Ar	nounts: 33.95 Long					
CD	0.000 23548Wells Fargo & Company (SE	2/2/2023	0.000000	22,884.64	22,884.64	22,884.64					
	NA9123459 C) Distribution 1ST DISTRIBUTI 20230203S000050 / 000000000000 KR2F10120002 : RIVER ROAD FAV	3 2/2/2023	0.000000		22,884.64 ain/Loss Local Amour ain/Loss Base Amour						
CD	0.000 APPLIED MICRO CIRCUITS CORPS NA9123459 EC LIT PROCEEDS	S 2/8/2023	0.000000 0.000000	223.90 223.90	223.90 223.90	223.90 223.90					
	20230210S000010 / DFEACAFDBE KR2F90010002 : CASH ACCOUNT K		0.00000	223.90	Gain/Loss Local Ame Gain/Loss Base Ame	ounts: 223.90 Long					
CD	0.000 24000GTT Communications, Inc.	3/10/2023	0.000000	880.47	880.47	880.47					
	NA9123459 (2021) Distribution 1ST DISTRI 20230310S000260 / 000000000000 KR2F10020002 : NTGI STRUCTURE		0.000000	880.47	880.47 Gain/Loss Local Am Gain/Loss Base Am	0					
CD	0.000 3-17-CV-2616-MBSSCANA Corporat NA9123459 ion (2017)(D.S.C) Distribution	3/14/2023	0.000000 0.00000	8,020.25 8,020.25	8,020.25 8.020.25	8,020.25 8.020.25					
	20230314S000320 / 000000000000 KR2F10110002 : KRS INTERNAL EG		0.00000	Ć	Gain/Loss Local Amou Gain/Loss Base Amou	nts: 8,020.25 Long					



Report ID: IACS0008
Base Currency: USD

KR2G00000000 - TO	OTAL FUND	12/31/2022 - 3/31/2023	•		Sta	tus: PRELIMINARY
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 COMPUTER SCIENCES CORP (SEC	3/10/2023	0.000000	127.56	127.56	127.56
	NA9123459 FAIR FUND)		0.000000	127.56	127.56	127.56
	20230317A000150	3/10/2023			Gain/Loss Local Amo	ounts: 127.56 Long
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base Amo	ounts: 127.56 Long
CD	0.000 COMPUTER SCIENCES CORP (SEC	3/10/2023	0.000000	41.97	41.97	41.97
	NA9123459 FAIR FUND		0.000000	41.97	41.97	41.97
	20230317A000160	3/10/2023			Gain/Loss Local An	nounts: 41.97 Long
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base An	nounts: 41.97 Long
CD	0.000 20721HONEYWELL INTERNATIONAL,	3/31/2023	0.000000	141.80	141.80	141.80
	NA9123459 INC. (2018) Distribution 1ST D		0.000000	141.80	141.80	141.80
	20230331S000270 / 000000000087	3/31/2023			Gain/Loss Local Amo	ounts: 141.80 Long
	KR2F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Amo	ounts: 141.80 Long
CD	0.000 22119NETAPP, INC., Securities	3/31/2023	0.000000	67.44	67.44	67.44
	NA9123459 Litigation Distribution 1ST DI		0.000000	67.44	67.44	67.44
	20230331\$000420 / 00000000000	3/31/2023			Gain/Loss Local An	· ·
	KR2F19020002 : S&P 500 INDEX				Gain/Loss Base An	nounts: 67.44 Long
	TOTAL U.S	S. DOLLAR CASH & CASH EQU	IVALENTS:	32,751.19	32,751.19	32,751.19
				32,751.19	32,751.19	32,751.19
	TOTAL CASH	& CASH EQUIVALENTS CLASS		32,751.19	32,751.19	32,751.19
		TOTAL CLASS	ACTIONS:	32,751.19	32,751.19	32,751.19
		TOTAL TRANSACTION	ONS BASE:	32,751.19	32,751.19	32,751.19



Report ID: IACS0008

Base Currency: USD
Status: PRELIMINARY

KR3G00000000 - TOTA	AL FUND 1	2/31/2022 - 3/31/2023			Status: PRELIMIN		
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	
CLASS ACTIONS	Transaction No./Client Ref No.	Reported Date					
CLASS ACTIONS	-0.110/41 ENEO						
CASH & CASH E	EQUIVALENTS						
U.S. DOLLAR							
CD	0.000 16-1224 (KM)(MAH)PTC THERAPEUT NA9123459 ICS, INC. Distribution 2ND DIS	1/19/2023	0.000000 0.000000	132.32 132.32	132.32 132.32	132.32 132.32	
	20230119S000020 / 00000000008	1/19/2023	0.000000	132.32	Gain/Loss Local Amo		
	KR3F10060002: WESTFIELD CAPITAL	1/19/2023			Gain/Loss Base Amo		
						J	
CD	0.000 24358LADENBURG THALMANN FINANC	1/19/2023	0.000000	11.32	11.32	11.32	
	NA9123459 IAL SERVICES INC. (2020) Distr		0.000000	11.32	11.32	11.32	
	20230119S000190 / 000000001530	1/19/2023			Gain/Loss Local An		
	KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base An	nounts: 11.32 Long	
CD	0.000 8-14-cv-02004-DOC-KESxALLERGAN	1/31/2023	0.000000	172.94	172.94	172.94	
	NA9123459 , INC. (2014) (C.D. CAL.) (SEC		0.000000	172.94	172.94	172.94	
	20230131S000150 / 000000000985	1/31/2023			Gain/Loss Local Amo	•	
	KR3F19020002 : S&P 500 INDEX				Gain/Loss Base Amo	ounts: 172.94 Long	
CD	0.000 23548Wells Fargo & Company (SE	2/2/2023	0.000000	8,125.24	8,125.24	8,125.24	
	NA9123459 C) Distribution 1ST DISTRIBUTI		0.000000	8,125.24	8,125.24	8,125.24	
	20230203S000040 / 000000000008	2/2/2023			Gain/Loss Local Amou		
	KR3F10120002 : RIVER ROAD FAV				Gain/Loss Base Amou	nts: 8,125.24 Long	
CD	0.000 412-CV-01332 (HARMON, J.)HOUST	2/7/2023	0.00000	18.62	18.62	18.62	
	NA9123459 ON AMERICAN ENERGY CORP Distri		0.000000	18.62	18.62	18.62	
	20230207S000250 / 000000000010	2/7/2023			Gain/Loss Local An	U	
	KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base An	nounts: 18.62 Long	
CD	0.000 24000GTT Communications, Inc.	3/10/2023	0.000000	388.34	388.34	388.34	
	NA9123459 (2021) Distribution 1ST DISTRI		0.000000	388.34	388.34	388.34	
	20230310S000250 / 000000000000	3/10/2023			Gain/Loss Local Amo	U	
	KR3F10020002 : NTGI STRUCTURED				Gain/Loss Base Amo	ounts: 388.34 Long	



Report ID: IACS0008 Base Currency: USD

KR3G00000000 - TC	OTAL FUND 12	2/31/2022 - 3/31/2023			Sta	tus: PRELIMINARY
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 3-17-CV-2616-MBSSCANA Corporat	3/14/2023	0.000000	4,220.86	4,220.86	4,220.86
	NA9123459 ion (2017)(D.S.C) Distribution		0.000000	4,220.86	4,220.86	4,220.86
	20230314S000320 / 000000000002	3/14/2023			Gain/Loss Local Amou	ints: 4,220.86 Long
	KR3F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base Amou	ints: 4,220.86 Long
CD	0.000 20721HONEYWELL INTERNATIONAL,	3/31/2023	0.000000	58.93	58.93	58.93
	NA9123459 INC. (2018) Distribution 1ST D		0.000000	58.93	58.93	58.93
	20230331S000260 / 00000000087	3/31/2023			Gain/Loss Local An	nounts: 58.93 Long
	KR3F10110002 : KRS INTERNAL EQUITY				Gain/Loss Base An	nounts: 58.93 Long
CD	0.000 22119NETAPP, INC., Securities	3/31/2023	0.000000	29.05	29.05	29.05
	NA9123459 Litigation Distribution 1ST DI		0.000000	29.05	29.05	29.05
	20230331S000400 / 000000000000	3/31/2023			Gain/Loss Local An	nounts: 29.05 Long
	KR3F19020002 : S&P 500 INDEX				Gain/Loss Base An	nounts: 29.05 Long
	TOTAL U.S.	DOLLAR CASH & CASH EQUI	VALENTS:	13,157.62	13,157.62	13,157.62
				13,157.62	13,157.62	13,157.62
	TOTAL CASH &	CASH EQUIVALENTS CLASS		13,157.62	13,157.62	13,157.62
		TOTAL CLASS	ACTIONS:	13,157.62	13,157.62	13,157.62
		TOTAL TRANSACTIO	NS BASE:	13,157.62	13,157.62	13,157.62

Kentucky Retirement Systems

Capital Calls and Distributions

Quarter Ending: March 31, 2023

		Ker	ntucky Fmnl	oyees Retirei	nent Systen		Kentucky Employees Hazardous Retirement System						State Police Employees Retirement System					
		Kel	7	- Accounted			Remucky	pioyee				Jta	. Once L	, , , , , , , , , , , , , , , , , , ,				
	Total Pension																	
	Funds		Beginning	Period	Period	Ending		Beginning	Period	Period	Ending	Commitm	Beginning	Period	Period	Ending		
Pension Funds Managers	Commitments		Valuation	Contributions	Distributions	Valuation	Commitment	Valuation	Contributions	Distributions	Valuation	ent	Valuation	Contributions	Distributions	Valuation		
Adams Street SPC II A1	175,000,000	31,747,734	25,701,026	0	289,768	25,411,257	9,441,066	7,642,910	0	86,171	7,556,739	3,936,882	3,187,059	0	35,933	3,151,126		
Adams Street SPC II B1	175,000,000	31,747,734	22,959,941	2,465,445	289,768	25,135,617	9,441,067	6,827,773	733,168	86,171		3,936,882	2,847,150		35,933			
AMERRA Agri Fund II, LP	40,100,000	0	0	0	0		2,477,739	1,430,386	0	0		1,253,605	723,700					
AMERRA-KRS Agri Holding Company, LP	65,000,000 36,000,000	13,050,524	0	0			4,016,284 1,650,419	2,561,337	0	30,096		2,032,029	1,295,902 373,445		,	1,280,675 373,445		
Arcano KRS Fund I, L.P. Arctos Sports Partners Fund II	85,000,000	13,050,524	5,673,570	0		5,673,570	1,650,419	717,501	0	0		859,011	3/3,445	0		3/3,445		
Ares Special Situations Fund IV, L.P.	26,192,000	0	0	0			1,622,790	1,228,037	0			511,579	387,135	0		366,891		
Barings Euro Real Estate II	161,609,438	30,188,645	5,748,774			5,852,196	8,258,244	1,572,604	0	0.,0	, , .	3,490,764	664,741					
Barings Real Estate European Value Add I SCSp	114,077,250	21,309,632	8,059,752	0			5,829,349	2,204,783	0	257,985	1,985,664	2,464,069	931,963	0	109,050	839,341		
Bay Hills Capital I, L.P.	67,500,000	24,469,733	1,828,544	0	42,414	1,786,130	3,094,535	231,245	0	5,364	225,881	1,610,645	120,358	0	2,792	117,567		
Bay Hills Capital III, L.P.	51,250,000	1	1	0			3,175,320		0	0		1,001,010	950,179	0				
Bay Hills Emerging Partners II LP	45,000,000	16,313,156	32,694,681	0		32,479,347	2,063,023	4,134,693	0	,		1,073,764	2,152,027	0	,			
Bay Hills Emerging Partners II-B LP	45,000,000	16,313,156	22,367,693	0		21,666,227	2,063,023	2,828,703	0	88,710		1,073,764	1,472,285	0				
BDCM Opportunity Fund IV, L.P. Blackstone Capital Partners V. L.P.	35,580,000 47.174.735	47.404.530	56.835	0		56.835	2,204,447 2.162.724	3,528,034 7.188	0	20,948		694,947	1,112,205 3.741	0				
Blackstone Capital Partners V, L.P. Blackstone Capital Partners VI, L.P.	60,000,000	17,101,529	56,835	0		,	3,299,994	.,	6,590	12,991	.,===	1,125,656	3,741			-,		
Blue Torch Credit Opportunities Fund II LP	140,000,000	25,356,966	24,918,986	0		24,918,986	7,618,631		0,390	12,551		3.143.324	3.089.031	0				
BSP Co-Invest Vehicle K LP	140,000,000	25,550,500	5,677,608	0			7,010,031	2,039,284	0	36,879	, . ,	0,143,324	527,065	0				
BSP Private Credit Fund	100,000,000	14,833,350	13,709,573	0		13,354,185	5,327,845	4,924,206	0	127,648		1,377,012	1,272,689	0				
BTG Pactual Brazil Timberland Fund I	34,500,000	0	0	0	0	0	2,058,030	1,508,611	0	0		952,485	698,206	0	0	698,206		
Camelot Opportunities Fund, L.P.	23,400,000	8,482,841	2,347,503	0	0	2,347,503	1,072,772	296,874	0	0	296,874	558,357	154,517	0	0	154,517		
Cerberus KRS Levered Loan Opportunities Fund, L.P.	140,000,000	20,766,690	26,507,983	0		26,970,059	7,458,982	9,521,141	0	0	-,,	1,927,816	2,460,793					
Ceres Farms	100,000,000	0	0	0			0	0	0			0	0	·				
Columbia Captal Equity Partners IV, L.P.	27,000,000	9,787,893	1,154,612			1,154,612	1,237,814	146,017	0	0	110,017	644,258	75,999					
Crestview Partners II, L.P. Crestview Partners III, L.P.	67,500,000 39.000.000	24,469,733	11,702,016	0		10,625,597	3,094,535 2,416,341	1,479,881 2.160,291	75.557	136,128 190,453		1,610,645 761,744	770,249 681.025	23.819				
CS Adjacent Investment Partners Parallel LP	140,000,000	20,766,690	10,757,117	0		10,365,240	7,458,982	3,863,743	75,557	140,754	,,	1,927,816	998,606	23,819		. ,		
CVC European Equity Partners VI, L.P.	23,815,820	20,700,030	10,737,117	0			1.475.568	1,679,810	4.390	81.074		465.168	529.555	1.384				
DAG Ventures II, L.P.	27,000,000	9,787,893	698,137	0			1,237,814	88,289	4,550	01,074	,,	644,258	45,953	1,304	-,	45,953		
DAG Ventures III, L.P.	27,000,000	9,787,893	132,557	0			1,237,814	16,764	0	0		644,258	8,725	0	0	8,725		
DAG Ventures IV, L.P.	90,000,000	32,626,311	14,110,101	0	6,454,020	7,656,080	4,126,046	1,784,417	0	816,200	968,217	2,147,527	928,754	0	424,816	503,938		
DAG Ventures V, L.P.	8,000,000	0	0	0	0	0	439,999	2,485	0	0	2,485	0	0	0	0	0		
DCM VI, L.P.	13,500,000	4,893,947	1,727,266			1,473,219	618,907	218,437	0	32,128		322,129	113,692					
DivcoWest Fund IV	20,800,000	0	0	0			1,244,069	79,810	0	-,		447,430	28,704					
Essex Woodlands Fund VIII, L.P.	22,500,000	8,156,578	-626,596	0		020,550	1,031,512	-79,242	0	0	73,242	536,882	-41,244	0		-41,244		
Fundamental Partners III LP	70,000,000	13,076,001 32,626,311	12,128,655 564.983	0		11,733,609 564,983	3,577,001 4.126.046	3,317,850 71.450	0	108,066		1,512,000 2.147.527	1,402,457 37.188	0	-,	1,356,777 37.188		
Green Equity Investors V, L.P. Green Equity Investors VI, L.P.	32,000,000	32,626,311	564,983	0			1,759,997	1,853,801	2,671	0		2,147,527	37,188					
Green Equity Investors VII LP	25,000,000	0	0	0			1,525,000	1,907,983	2,6/1	48,766		0	0					
Greenfield Acquisition Partners VI, L.P.	38.100.000		0	0				2,691	0	40,700	,,	819.568	968					
Greenfield Acquisition Partners VII, L.P.	27,800,000	0	0	0			1,662,744	201,256	0	55,650	, , , , ,	598,005	72,382					
H.I.G. BioVentures II, L.P.	13,500,000	0	0	0	0		742,499	521,825	0	88,042		0	0			0		
H.I.G. Capital Partner V, L.P.	13,100,000	0	0	0	0	0	811,643	735,729	0	135,336	600,393	255,868	231,936	0	42,664	189,272		
H.I.G. Ventures II, L.P.	18,000,000	6,525,262	1,193,289	0		, ,	825,209	150,908	0	0	,	429,505	78,545	0		78,545		
H&F Spock I LP	3,250,153	1,178,228	3,759,722	0		3,759,722	149,003	475,469	0			77,553	247,472					
Harvest Partners V, L.P.	36,000,000	13,050,524	-63,477	0			1,650,419	-8,028	0	0		859,011	-4,178					
Harvest Partners VI, L.P.	28,400,000	0	0	0	0		1,607,440	491,032	423			241,400	73,742					
Harvest Partners VII LP Hellman and Friedman Capital Partners VI, L.P.	20,000,000	7,250,291	0 110	0			1,220,000 916,899	1,843,615 14	0	0	-,0.0,0-0	477,228	7			7		
Horsley Bridge International Fund V, L.P.	45.000.000	16.313.156	36.701.196	0		36.072.948	2.063.023	4.641.372	0	79,451		1.073.764	2.415.744					
IFM US Infrastructure Debt Fund	70.000,000	11,678,693	11.008.864	570.414	,	11.579.278	3,596,947	3,390,645	175.683	60,804	, , .	1,073,764	1.314.304	68.099	, , , ,			
Institutional Venture Partners XII, L.P.	27,000,000	9,787,893	125,475	370,414	- , ,	,, -	1,237,814	15,868	173,083	00,804	-,,-	644,258	8,259			8,259		
Kayne Anderson Energy Fund VII LP	50,000,000	0	0	0			3,050,000	1,742,992	0	0		0	0		0			
KCP IV Co-Invest	12,885,297	0	0	0	0	0	798,341	205,050	27,425	3,703	232,908	251,675	64,641	8,646	1,167	73,424		
Keyhaven Capital Partners Fund III, L.P.	27,413,514	9,937,798	3,851,419	0	89,701	3,830,151	1,256,771	487,065	0	11,344	484,375	654,125	253,508	0	5,904	252,108		
Keyhaven Capital Partners IV LP	12,885,297	0	0				798,341	660,274	45,371	0	,	251,675	208,150					
Levine Leichtman Capital Partners V, L.P.	46,000,000	1	1	0	0	1	2,850,043	1,360,935	7,906	11,575	1,357,266	898,468	429,031	2,492	3,649	427,874		

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		Kei	ntucky Empl	oyees Retirer	ment System		Kentucky	Employee	s Hazardous I	Retirement :	System	Sta	State Police Employees Retirement System					
	Total Pension Funds		Beginning	Period	Period	Ending		Beginning	Period	Period	Ending	Commitm	Beginning	Period	Period	Ending		
Pension Funds Managers	Commitments	Commitment	Valuation	Contributions	Distributions	Valuation	Commitment	Valuation	Contributions	Distributions	Valuation	ent	Valuation	Contributions	Distributions	Valuation		
Levine Leichtman Capital Partners VI LP	37,500,000	0		0			2,287,504		19,468	5,028		0						
Lubert Adler VII	34,750,000	0	0	0			2,078,050	, ,		0	, ,	747,124	409,222		0			
Lubert-Adler Real Estate Fund VII-B LP	36,750,000	6,864,900	1,878,045			1,878,045	1,877,925					793,800						
Magentar MTP Energy Opportunities Fund II LLC	37,500,000	0					2,242,500	-,			-,	806,249	-,					
Maritime Partners LP	175,000,000	0	0	0			0			0		0	0		0			
MatlinPatterson Global Opportunities Partners II	45,000,000	16,313,156	314,561	0	0		2,063,023			0	,	1,073,764	20,705		0	-,		
MatlinPatterson Global Opportunities Partners III	45,000,000	16,313,156	38,048	0		38,048	2,063,023					1,073,764	2,504	. (
Merit Mezzanine Fund IV, L.P.	27,000,000	9,787,893	145,153	0		145,153	1,237,814		0		,	644,258	9,554	. (-,		
Mesa West Core Lending Fund, LP	57,500,000	5,474,001	5,650,981	121,127	121,127		3,248,749		71,887	71,887		960,250	991,296	21,248				
Mesa West Real Estate Income Fund IV LP	36,000,000	13,050,524	6,564,173	0		6,564,173	1,650,419	830,130		0	050,150	859,011	432,067			,		
MiddleGround Partners I LP	50,000,000	0	0	0			2,925,000			1,273		0	0	•				
MiddleGround Partners II LP	50,000,000	9,584,069	6,980,545	0		6,980,545	2,755,477				, ,	1,102,634	803,102					
MiddleGround Partners II-X LP	25,000,000	4,792,034	3,276,216			3,276,216	1,377,739				- ,	551,317	376,924	. (
Mill Road Capital I, L.P.	27,000,000	9,787,893	1,033,416			1,033,416	1,237,814				,	644,258	68,021					
New Mountain Partners II, L.P.	25,000,000	9,062,864	-148				1,146,124					596,535	-10					
New Mountain Partners III, L.P.	32,337,197	11,722,705	516,722	0			1,482,498					771,611	34,012			0.,0==		
New Mountain Partners IV, L.P.	32,800,000	1	0	0			2,032,204					640,647	217,247	8,227				
New State Capital Partners Fund III LP	17,500,000	3,354,424	708,784		0	-,-	964,417	203,780				385,922	81,545					
Oak Hill Capital Partners II, L.P.	67,500,000	24,469,733	61,952			,	3,094,535	,			.,	1,610,645	4,078			.,		
Oak Hill Capital Partners III, L.P.	33,750,000	12,234,867	5,658			-,	1,547,267					805,323	372					
Oberland Capital Healthcare LP	3,450,000	0	0	0			201,825	,		,===	,	0						
Patron Capital V LP	39,112,200	7,306,159	3,668,889	. ,	, , , , ,	-,- ,	1,998,634					844,824			,,,,			
Riverside Capital Appreciation Fund VI, L.P.	35,500,000	0	0	0			2,009,300	- ,			0,	301,749	85,967					
Rubenstein Properties Fund II	20,800,000	0					1,244,066	714,012				447,429	256,795					
Secondary Opportunities Fund III, L.P.	25,000,000	0	0						- 0			0	0					
Strategic Value Special Situations Fund IV LP	43,300,000	0	0	0	0	0	2,533,050		0	2,171		0	0					
Strategic Value Special Situations Fund V LP	70,000,000	13,417,696	5,773,574	1,336,738	1,727	7,110,312	3,857,668	1,659,937	384,320	497		1,543,688	664,242	153,790		,		
Taurus Mining Finance Fund LLC	45,100,000	0	0	0		0	2,794,280	-,	0	,		880,891	75,961	. (7,011			
Tenaska Power Fund II, L.P.	27,000,000	8,824,749	26,003	0		26,003	1,363,534	4,018			.,	625,175	1,842	. (-,		
Triton Fund IV, L.P.	27,333,911	1	0	0			1,693,540					533,883	365,332					
VantagePoint Venture Partners 2006, L.P.	27,000,000	9,787,893	2,108,016			2,108,016	1,237,814				,	644,258	138,754	. (,		
VantagePoint Venture Partners IV, L.P.	36,000,000	13,050,524	21,249	0		,	1,650,419		0		=,==:	859,011	1,399			-,		
Vista Equity Partners III, L.P.	45,000,000	16,313,156	1,237,032	1,867		1,238,899	2,063,023					1,073,764	81,424					
Vista Equity Partners IV, L.P.	27,000,000	0	0	0			1,484,997		4,791		, ,	0	0					
Vista Equity Partners VI LP	25,000,000	0	0	0			1,525,000		6,358		, ,	0	0					
Walton Street Real Estate Fund VI, LP	36,000,000	10,001,992	4,266,701	0		4,266,701	2,186,190				00-,000	725,004						
Walton Street Real Estate Fund VII, LP	38,120,000	0	0	0			2,279,995				0,0=0	820,000	196,847					
Warburg, Pincus Private Equity IX, L.P.	50,000,000	18,125,728	7,174			.,=	2,292,248					1,193,071	472					
Warburg, Pincus Private Equity X, L.P.	38,750,000	14,047,440	313,153		,	256,683	1,776,492			- ,		924,630	-,-		-,	.,		
Wayzata Opportunities Fund II, L.P.	67,500,000	24,469,733	529				3,094,535											
Wayzata Opportunities Fund III, L.P.	35,500,000	0		0			2,009,300				,	301,749						
White Oak Yield Spectrum Parallel Fund LP	100,000,000	14,833,350	20,503,042	0	1,366,690	19,136,351	5,327,845	7,364,285	0	490,888	6,873,397	1,377,012	1,903,341	. (126,873	1,776,468		

		V.o.	ntucky Empl	oyees Retire			Vontucky		s Hazardous	Potiromont	Syctom	Sta	to Bolico F	mployees Re	tiromont Sv	ctom
		Ke	ntucky Empi	oyees ketire	ment system		Kentucky	Employee	S nazaruous	ketirement.	system	Sla	te Police E	inployees ke	tirement sy:	tem
	Total Insurance															
	Funds		Beginning	Period	Period	Ending		Beginning	Period	Period	Ending			Period	Period	Ending
Insurance Funds Managers	Commitments	Commitment	Valuation	Contributions	Distributions	Valuation	Commitment	Valuation	Contributions	Distributions	Valuation	ent	Valuation	Contributions	Distributions	Valuation
Adams Street SPC II A1	75,000,000	13,190,205	10,677,984	C	120,390	10,557,595	7,095,858	5,744,373		64,765	5,679,608	2,740,996	2,218,943	. (25,018	2,193,925
Adams Street SPC II B1	75,000,000	13,190,205	9,539,147	1,024,316		10,443,074	7,095,858	-, -, -				2,740,996	,,-	212,858		
AMERRA Agri Fund II, LP	16,200,000	2,153,555		C		1,241,117	1,746,327			, ,	-,,	656,373				0.0,2.0
AMERRA-KRS Agri Holding Company, LP	35,000,000	4,652,745		<u>C</u>	. ,		3,772,929			,		1,418,089	904,369		-,	
Arcano KRS Fund I, L.P.	4,000,000	903,884		0		,	430,530				- ,	191,459	83,235			83,235
Arctos Sports Partners Fund II Ares Special Situations Fund IV, L.P.	40,000,000 13.808.000	0					1.038.363					646,214	489.019			463,447
Barings Euro Real Estate II	69,261,188	9.835.090					7,355,536					2,812,007	535,486			545,119
Barings Real Estate European Value Add I SCSp	48,890,250	6,942,417	2,625,768			,,-	5,192,143			-	, ,,,,	1,984,946	750,748			
Bay Hills Capital I, L.P.	7,500,000	1,694,783					807.244					358,986	26.826			
Bay Hills Capital III, L.P.	48,750,000	0			,		3,666,009					2,281,498	-,			
Bay Hills Emerging Partners II LP	5,000,000	1,129,855	2,264,446			2,249,532	538,163			7,104		239,324	479,652	. (
Bay Hills Emerging Partners II-B LP	5,000,000	910,000	1,247,741	C	39,130	1,208,611	555,000	760,985		23,865	737,120	215,000	294,796		9,245	285,551
BDCM Opportunity Fund IV, L.P.	24,420,000	0	0	C	0	0	1,836,387	2,938,984	. (17,451	2,921,533	1,142,854	1,829,043		10,860	1,818,183
Blackstone Capital Partners V, L.P.	12,414,403	2,805,296	9,261	C) 0	9,261	1,336,194	4,411) 0	4,411	594,214	1,962		0	1,962
Blackstone Capital Partners VI, L.P.	40,000,000	0		C			3,360,001	, ,	6,710			1,599,998	646,657	3,195	6,299	
Blue Torch Credit Opportunities Fund II LP	60,000,000	10,726,688		C		10,541,411	5,638,524					2,184,246				_,,
BSP Co-Invest Vehicle K LP	0	0	=,0.0,000	C	- , -		0	-,: 00,-00		0-,0-0		0	647,778		,	
BSP Private Credit Fund	50,000,000	8,493,880		C			5,128,971					1,846,552	, ,			
BTG Pactual Brazil Timberland Fund I	15,500,000	2,391,768		<u>C</u>		-,,	1,621,536	, ,		-	-,,	615,184	450,953			450,953
Camelot Opportunities Fund, L.P.	2,600,000 60,000,000	587,525 10,192,656	162,588 13,010,583	<u>C</u>		162,588 13,237,378	279,845 6,154,765	77,443 7,856,351	(,	124,449 2,215,862	34,439 2,828,474			34,439 2,877,779
Cerberus KRS Levered Loan Opportunities Fund, L.P. Ceres Farms	50,000,000	10,192,656					6,154,765			-		2,215,862	2,828,474			
Columbia Captal Equity Partners IV, L.P.	3,000,000	677,913					322,898					143,595	16,939			
Crestview Partners II, L.P.	7,500,000	1,694,783					807,244					358,986	171,675			
Crestview Partners III, L.P.	21,000,000	2,031,703					1,579,203					982,799				
CS Adjacent Investment Partners Parallel LP	60,000,000	10,192,656	5,279,782	C	192,340	5,087,442	6,154,765					2,215,862		. (
CVC European Equity Partners VI, L.P.	13,146,262	0	0	C) 0	0	988,601	1,077,324	2,816	51,996	1,047,777	615,245	670,460	1,752	32,359	652,072
DAG Ventures II, L.P.	3,000,000	677,913	48,351	C	0	48,351	322,898	23,030	C) 0	23,030	143,595	10,242		0	10,242
DAG Ventures III, L.P.	3,000,000	677,913					322,898					143,595	1,944			
DAG Ventures IV, L.P.	10,000,000	2,259,711	977,271	C		530,263	1,076,326					478,649				
DAG Ventures V, L.P.	7,000,000	0		C			588,000				-,	280,000	1,581			1,581
DCM VI, L.P.	1,500,000	338,957		C			161,449					71,797	25,340			
DivcoWest Fund IV	9,200,000	1,303,635		C			977,043			.,		368,004	23,608			
Essex Woodlands Fund VIII, L.P.	5,000,000	1,129,855	-86,797	<u>C</u>		-86,797	538,163	-41,342 2,955,177			-41,342	239,324	-18,385			-18,385
Fundamental Partners III LP Green Equity Investors V, L.P.	10.000,000	4,260,001 2,259,711	3,951,368 39.131		-, -	3,822,667 39.131	3,185,999 1.076,326					1,218,001 478,649	1,129,758 8,289			1,092,961 8,289
Green Equity Investors VI, L.P.	28,000,000	2,259,711					2,352,000	-,		, ,	-,	1,119,999				
Green Equity Investors VII LP	25,000,000	4,550,000					2,775,000					1,075,001				
Greenfield Acquisition Partners VI, L.P.	16,700,000	2,367,209					1,774,156					667,811	791	. (
Greenfield Acquisition Partners VII, L.P.	12,200,000	1,729,339					1,296,093			-		487,855	59.049			
H.I.G. BioVentures II, L.P.	11,500,000	0		C			966,000					459,999	323,286		-,	
H.I.G. Capital Partner V, L.P.	6,900,000	0	0	C) 0	0	518,881	470,350	C	86,520	383,830	322,920	292,717		53,845	238,872
H.I.G. Ventures II, L.P.	2,000,000	451,942	82,647	C	0	82,647	215,265	39,366	C) 0	39,366	95,730	17,506		0	17,506
H&F Spock I LP	1,794,672	405,544	878,849	C	0	878,849	193,165	418,606) 0	418,606	85,902	186,156		0	186,156
Harvest Partners V, L.P.	4,000,000	903,884	-4,397	C			430,530					191,459	-931	. (
Harvest Partners VI, L.P.	11,600,000	0	v	C			872,320			- ,	-,	542,879	165,836		- ,-	
Harvest Partners VII LP	20,000,000	3,640,000		C		5,500,622	2,220,000					860,001	1,299,598			, ,
Hellman and Friedman Capital Partners VI, L.P.	7,500,000	1,694,783	26	C			807,244			-		358,986	5			5
Horsley Bridge International Fund V, L.P.	5,000,000	1,129,855	2,541,939				538,163					239,324				
IFM US Infrastructure Debt Fund	30,000,000	5,109,247	4,816,208	249,547			2,874,861					968,545	912,994		-,	
Institutional Venture Partners XII, L.P.	3,000,000 50,000,000	677,913 9.100.000	8,660	0		-,	322,898	4,125				143,595	1,834			1,834
Kayne Anderson Energy Fund VII LP KCP IV Co-Invest	8,843,703	9,100,000				-, -,	5,550,000 665,047	3,171,675 170,814			-, ,	2,150,001 413.885	1,228,668	14,218		, ,,,,,,,
Keyhaven Capital Partners Fund III, L.P.	8,843,703 3,042,060	687,418					327,425		22,846			413,885 145,608	106,304 56,503	14,218		
Keyhaven Capital Partners IV LP	8,843,703	007,410					665,047	550,033	37,796			413.885	342,307	23,522		
Levine Leichtman Capital Partners V, L.P.	24,000,000	0					1,804,804					1,123,199	536,343	3,116		
Levine Leichtman Capital Partners VI LP	37.500.000	6.824.999					4,162,518					1,612,494				
Lubert Adler VII	15,250,000	2,160,925	1,183,603	30,00	-,	, ,	1,619,550				, ,	610,001	334,116		-,-	334,116
	.,,	, ,	,			,	,,	. ,				-,-,-	. ,			

For the period January 1,																	
		Ke	ntucky Empl	oyees Retire	ment System		Kentucky	Employee	es Hazardous	Retirement :	System	Sta	te Police E	mployees Re	tirement Sy	stem	
Insurance Funds Managers	Total Insurance Funds Commitments	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitment	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	Commitm ent	Beginning Valuation	Period Contributions	Period Distributions	Ending Valuation	
Lubert-Adler Real Estate Fund VII-B LP	15,750,000	2,236,500		0		,	1,672,649				- ,	639,451	174,936		, ,	, , , , , ,	
Magentar MTP Energy Opportunities Fund II LLC	12,500,000	1,699,157	14,645	0		11,015	1,338,541	11,537	' 0	0	11,537	508,953	4,387	(, , , , ,	
Maritime Partners LP	75,000,000	0	•				0					0					
MatlinPatterson Global Opportunities Partners II	5,000,000	1,129,855					538,163				-,-	239,324	4,615				
MatlinPatterson Global Opportunities Partners III	5,000,000	1,129,855				,	538,163			0		239,324	559				
Merit Mezzanine Fund IV, L.P.	3,000,000	677,913	10,053	0	0	10,053	322,898	4,789		. 0	4,789	143,595	2,130	() (2,130	
Mesa West Core Lending Fund, LP	29,600,000	3,759,201		123,072	123,072		3,223,440			105,532		1,207,680			39,538		
Mesa West Real Estate Income Fund IV LP	14,000,000	1,988,001	999,520	0	0	999,520	1,486,800	747,528		0	747,528	568,400	285,778	() (285,778	
MiddleGround Partners I LP	25,000,000	17,500,000	24,217,065	4,090,196	7,613	28,299,647	1,250,000		292,157	544		500,000			218		
MiddleGround Partners II LP	25,000,000	4,796,517	3,493,537	0	0	3,493,537	2,260,759	1,646,621	. 0	0	1,646,621	885,701	645,100	() (645,100	
MiddleGround Partners II-X LP	12,500,000	2,398,258	1,639,640	0	0	1,639,640	1,130,379	772,817		0	772,817	442,851	302,768	() (302,768	
Mill Road Capital I, L.P.	3,000,000	677,913	71,575	0	0	71,575	322,898	34,092		0	34,092	143,595	15,161	() (15,161	
New Mountain Partners II, L.P.	5,000,000	1,129,855	9	0	0	9	538,163	. 4		0	4	239,324	2	() () 2	
New Mountain Partners III, L.P.	7,186,045	1,623,838	71,576	0) 0	71,576	773,453	34,093		0	34,093	343,959	15,161	() (15,161	
New Mountain Partners IV, L.P.	17,200,000	0	0	0	0	0	1,293,443	438,613	16,610	20,948	434,819	804,959	272,966	10,337	13,037	7 270,605	
New State Capital Partners Fund III LP	7,500,000	1,438,955	304,049	8,533	0	312,582	678,228	143,308	4,022	. 0	147,330	265,710	56,144	1,576	5 (57,720	
Oak Hill Capital Partners II, L.P.	7,500,000	1,694,783	4,291	0	0	4,291	807,244	2,044		0	2,044	358,986	909	() (909	
Oak Hill Capital Partners III, L.P.	12,500,000	2,824,638	1,306	0	0	1,306	1,345,407	622	. 0	0	622	598,311	277	() (277	
Oberland Capital Healthcare LP	15,500,000	5,951,995	1,204,947	0	218,581	986,366	1,681,752	340,461	. 0	61,761	278,700	393,703	79,703	(14,458	8 65,245	
Patron Capital V LP	15,210,300	2,159,863	1,084,621	9,403	71,535	1,041,215	1,615,333	811,174	7,033	53,500	778,711	617,539	310,110	2,689	20,453	3 297,700	
Riverside Capital Appreciation Fund VI, L.P.	18,712,500	0	0	0	0	0	1,396,123	397,744		0	397,744	862,056	245,592	() (245,592	
Rubenstein Properties Fund II	9,200,000	1,303,637	748,202	0	0	748,202	977,044	560,759		0	560,759	368,003	211,209	() (211,209	
Secondary Opportunities Fund III, L.P.	75,000,000	10,548,299	2,684,585	0	0	2,684,585	8,756,849	2,228,654		0	2,228,654	1,960,724	499,012	() (99,012	
Strategic Value Special Situations Fund IV LP	21,700,000	8,332,800	9,885,059	0	7,142	9,877,917	2,354,450	2,793,043		2,018	2,791,025	551,180	653,855	(472	2 653,383	
Strategic Value Special Situations Fund V LP	30,000,000	5,755,820	2,476,703	573,424	741	3,050,127	2,712,910	1,167,353	270,274	349	1,437,627	1,062,842	457,336	105,886	137	7 563,222	
Taurus Mining Finance Fund LLC	19,900,000	0	0	0	0	0	1,496,479	129,045		12,930	116,114	931,319	80,310	(8,047	7 72,263	
Tenaska Power Fund II, L.P.	3,000,000	588,919	1,736	0	0	1,736	316,438	933		0	933	137,845	406	() (0 406	
Triton Fund IV, L.P.	14,063,009	0	0	0) 0	0	1,057,541	741,434		0	754,773	658,148	461,423	() (469,724	
VantagePoint Venture Partners 2006, L.P.	3,000,000	677,913	146,002	0	0	146,002	322,898	69,542	. 0	0	69,542	143,595	30,926	() (30,926	
VantagePoint Venture Partners IV, L.P.	4,000,000	903,884	1,472	0	0	1,472	430,530	701	. 0	0	701	191,459	312	() (312	
Vista Equity Partners III, L.P.	5,000,000	1,129,855	85,679	129	0	85,808	538,163	40,810	62	. 0	40,871	239,324	18,148	27	' (18,176	
Vista Equity Partners IV, L.P.	23,000,000	0	0	0) 0	0	1,932,000	1,335,148	6,233	. 0	1,341,380	919,999	635,784	2,968	3 (638,752	
Vista Equity Partners VI LP	25,000,000	4,550,000	6,077,561	18,969	35,512	6,061,019	2,775,000	3,706,645	11,569	21,658	3,696,556	1,075,001	1,435,908	4,482	8,390	1,432,000	
Walton Street Real Estate Fund VI, LP	4,000,000	754,575	321,890	0) 0	321,890	431,496	184,070) (. 0	184,070	184,453	78,685	. () (78,685	
Walton Street Real Estate Fund VII, LP	16,755,000	2,375,001	570,135	0) 0	570,135	1,780,001	427,301	. 0	0	427,301	669,998	160,838	() (160,838	
Warburg, Pincus Private Equity IX, L.P.	10,000,000	2,259,711) 0	894	1,076,326			0		478,649	189	() (
Warburg, Pincus Private Equity X, L.P.	7,500,000	1,694,783	37,768	0	6,813	30,955	807,244	17,989		3,245	14,744	358,986	8,000	(1,443	3 6,557	
Wayzata Opportunities Fund II, L.P.	7,500,000	1,694,783	37	0) 0	37	807,244	17		. 0	17	358,986	8	() (8 (
Wayzata Opportunities Fund III, L.P.	18,712,500	C) 0		1,396,123			0	198,105	862,056	122,323	() (122,323	
White Oak Yield Spectrum Parallel Fund LP	50.000.000	8,493,880	11,050,839	0		10,314,279	5,128,971	6,672,973		444,767	6,228,206	1,846,552	2,402,429	(160,127	7 2,242,303	

Kentucky Public Pensions Authority

Commissions Report

Quarter Ending: March 31, 2023

Reports can be found:

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

Kentucky Public Pensions Authority

Internal Asset Holdings Report & Internal Asset Transaction Report

Quarter Ending: March 31, 2023

Reports can be found:

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

Kentucky Retirement Systems

Compliance Report

Quarter Ending: March 31, 2023



Compliance Guideline Review for the Period Ended March 31, 2023	Compliance Status
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.	•
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.	•
No more than 20% of the total net assets of the Real Return portfolio may be invested in any single closed-end or open-end limited partnership or other unregistered investment vehicle.	•
Securities issued by the state of Kentucky, its subsidiaries, or affiliates are prohibited.	•
An investment in any single domestic or international equity allocation in any single corporation cannot exceed 5% of the market value of total assets.	
The systems in aggregate shall not hold in excess of 3% of the outstanding shares of any single corporation.	



The amount of stock in any one industry in the domestic equity allocation shall not exceed 10% of the aggregate market value of the System's assets.	•
Investment in "frontier" markets shall not exceed 5% of the System's international equity assets.	•
The duration of the total fixed income portfolio shall not deviate from the Barclays Aggregate Index by more than 25%.	•
The duration of the TIPS portfolio shall not deviate from the Barclay's TIPS Index by more than 10%.	•
The amount invested in the debt of a single corporation shall not exceed 5% of the total market value of the System's Assets.	•
50% of the fixed income assets must have liquidity that is T+3 (trade date plus three days) or better.	•
No public fixed income manager shall invest more than 5% of the total market value of assets held in any single issue, short-term instruments, with the exception of U.S. Government issued, guaranteed, or agency obligations.	•
No more than 50% of the total net assets of the Real Return portfolio may be invested in any one registered investment vehicle, mutual fund, or separately managed account.	•
No more than 20% of the total net assets of the Real Return portfolio may be invested in any single closed-end or open-end limited partnership or other unregistered investment vehicle.	•

Kentucky Retirement Systems

Investment Budget Update

Quarter Ending: March 31, 2023

Investment Budget

For the nine month period ending March 31, 202

For the nine month period ending March 31, 2023									
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	Trust Budget FY 2023	Q3 2023	FYTD 2023	Remaining	Percentage Spent
CONSULTING SERVICES									
Wilshire Associates	\$ 1,021,799	\$ 1,238,170	\$ 1,225,671	\$ 1,021,175	\$ 1,190,000	\$ 274,600	\$ 563,572	\$ 626,428	47%
Albourne	ı	ı	ı	-	270,000	67,500	239,250	30,750	89%
MercerInsight	ı	ı	ı	-	160,000			160,000	0%
SUBTOTAL	1,021,799	1,238,170	1,225,671	1,021,175	1,620,000	342,100	802,822	817,178	50%
LEGAL & AUDITING SERVICES									
Faegre Drinker			96,039	202,502	375,000	6,897	15,618	359,382	4%
Intelligent Management Solutions (IMS)	620,001	202,140	155,700	69,884	75,000	8,022	81,880	(6,880)	109%
McClain/Goldberg			891	-	25,000			25,000	0%
Reinhart	317,909	671,269	663,689	619,509	437,500	8,614	65,682	371,818	15%
Stoll-Keenon-Ogden	10,314	135,353	254,211	463,560	250,000	6,045	356,453	(106,453)	143%
Haystack			-	-	140,000	55,892	55,892	84,108	40%
Umberg Zipser			289,100	498,058	360,000	94,880	242,564	117,436	67%
Frost Brown Todd			-	-	50,000			50,000	0%
Swansburg & Smith	-	-	-	-		1,013	5,288	(5,288)	
Eddins Domine	-	-	-	-	-	26,482	40,305	(40,305)	
Taft	-	-	-	-		-	66,916	(66,916)	
Miscellaneous				-	200,000			200,000	0%
SUBTOTAL	948,225	1,008,762	1,459,630	1,853,513	1,912,500	207,843	930,597	981,903	49%
CONTRACTURAL SERVICES									
Bloomberg	68,722	71,810	98,163	102,243	150,000	26,105	77,530	72,470	52%
BNYM Custodial Fees	2,056,390	2,088,475	2,379,838	2,565,169	4,000,000	554,497	1,684,683	2,315,317	42%
eVestment (Solovis RMS)			-	30,000	35,000		33,800	1,200	97%
Solovis (Reporting & Analytics)			-	245,000	265,000		257,250	7,750	97%
FactSet	222,476	162,295	109,662	140,098	150,000	31,657	93,754	56,246	63%
Russell Index Subscription	1,075	1,250	1,000	1,000	1,500	250	500	1,000	33%
S&P Global		94,500	26,250	68,250	75,000			75,000	0%
TradeWeb			-	6,000	7,500	2,000	5,600	1,900	75%
State Street/Elkins McSherry	10,000	5,000	15,000	10,000	10,000	5,000	10,000	-	100%
ISS	32,050	32,050	28,288	35,813	37,000	15,838	31,863	5,138	86%
MSCI	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			7,500	0%
Jayant Ghevaria and CO		10,050	-	52,085	55,000			55,000	0%
India Renewal Fee (SEBI)			-	3,000	3,000			3,000	0%
With Intelligence	-	-	-	-			9,520	(9,520)	0%
Miscellaneous & New Services	-	-	-	-	250,000			250,000	0%
SUBTOTAL	2,391,713	2,474,036	2,681,251	3,267,008	5,047,500	635,346	2,205,499	2,842,001	44%

KENTUCKY PUBLIC PENSIONS AUTHORITY Investment Budget For the nine month period ending March 31, 2023

	Tot the fille filling march 31, 2023								
Account Name	FY 2019	FY 2020	FY 2021	FY 2022	Trust Budget FY 2023	Q3 2023	FYTD 2023	Remaining	Percentage Spent
INACTIVE CONTRACTURAL SERVICES									
Dean Dorton	9,719		-	-	-		250	(250)	
Hirschler		4,794	-	-					
INFORMA	12,904		-	-	-				
Lighthouse Solutions	3,093		-	-					
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		-	-	-				
SUBTOTAL	291,718	119,290	1,233,757	-	-	-	250	(250)	
TOTAL	\$ 4,653,455	\$ 4,840,258	\$ 6,600,309	\$ 6,141,696	\$ 8,580,000	\$ 1,185,289	\$ 3,939,169	\$ 4,640,831	46%

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

Investment Fees and Expenses

For the nine month period ending March 31, 2023

Pension

Felision								
	_	023		022	2021			
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value		
Core Fixed Income	1,961,961	2,021,010,684	2,153,340	2,131,886,569	2,031,618	2,263,311,450		
Investment Advisory Fees	1,081,599		1,773,298		1,902,240			
Carried Interest	313,985		327,140		81,121			
Miscellaneous Fees and Expenses	566,378		52,902		48,257			
Opportunistic					2,727,633	375,449,617		
Investment Advisory Fees	Onnortun	istic was absorbed by S	`nocialty Crodit in Doc	combox 2021	=			
Carried Interest	Оррогия	istic was absorbed by s	pecially Credit in Dec	ember 2021	2,727,633			
Miscellaneous Fees and Expenses					=			
Public Equity	9,871,250	7,364,652,759	10,884,478	6,939,548,432	9,171,752	6,619,150,686		
Investment Advisory Fees	9,712,159		10,658,036		8,995,110			
Miscellaneous Fees and Expenses	159,091		226,442		176,642			
Specialty Credit Fixed Income	41,248,671	3,253,455,667	37,495,009	3,117,337,032	26,547,242	2,546,489,496		
Investment Advisory Fees	18,151,509		12,988,501		11,228,203			
Carried Interest	5,190,755		18,829,074		12,519,342			
Miscellaneous Fees and Expenses	17,906,407		5,677,434		2,799,697			
Real Estate	4,469,109	929,393,252	25,637,587	844,241,655	5,303,814	589,400,002		
Investment Advisory Fees	3,627,098		3,454,869		3,254,551			
Carried Interest	42,187		20,336,478		(907,044)			
Miscellaneous Fees and Expenses	799,825		1,846,240		2,956,307			
Real Return	3,159,066	460,465,548	3,848,329	568,603,601	6,282,116	1,011,388,853		
Investment Advisory Fees	1,799,568		2,738,748		3,527,345			
Carried Interest	473,651		1,049,935		2,329,614			
Miscellaneous Fees and Expenses	885,848		59,646		425,157			
Private Equity	1,735,503	1,143,005,497	52,650,593	1,303,761,398	34,414,531	1,155,001,941		
Investment Advisory Fees	5,111,920		5,375,037		6,202,846			
Carried Interest	(5,910,958)		44,069,198		26,932,151			
Miscellaneous Fees and Expenses	2,534,541		3,206,358		1,279,534			
Administrative Expense/Cash	2,349,103	980,437,717	3,087,180	1,088,261,843	1,932,601	285,262,649		
Total Investment Mgmt Fees	64,794,664	16,152,421,124	135,756,516	15,993,640,530	88,411,307	14,845,454,694		

Investment Fees and Expenses

For the nine month period ending March 31, 2023

Insurance

	2	023	022	2	021	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	737,251	738,513,799	810,054	802,476,521	813,678	864,872,800
Investment Advisory Fees	612,135		673,659		766,735	
Performance	112,040		117,337		28,448	
Miscellaneous Fees and Expenses	13,075		19,058		18,495	
Opportunistic					1,388,928	191,181,257
Investment Advisory Fees	Onnortur	vistic was absorbed by	Spacialty Cradit in Day	combox 2021		
Carried Interest	Opportun	istic was absorbed by S	specialty Creatt in Dec	ember 2021	1,388,928	
Miscellaneous Fees and Expenses						
Public Equity	4,563,134	3,377,277,074	4,821,293	3,215,837,276	4,102,906	2,988,294,144
Investment Advisory Fees	4,490,997		4,743,902		4,026,883	
Miscellaneous Fees and Expenses	72,137		77,391		76,023	
Specialty Credit Fixed Income	18,849,336	1,464,234,371	16,639,635	1,409,325,113	11,135,696	1,134,227,766
Investment Advisory Fees	8,360,965		5,791,524		5,087,579	
Carried Interest	2,645,586		8,397,118		4,960,086	
Miscellaneous Fees and Expenses	7,842,785		2,450,993		1,088,031	
Real Estate	2,029,870	392,477,821	10,607,357	356,747,650	2,331,407	249,384,483
Investment Advisory Fees	1,515,332		1,501,018		1,408,641	
Carried Interest	171,381		8,302,981		(290,973)	
Miscellaneous Fees and Expenses	343,157		803,358		1,213,739	
Real Return	1,402,993	177,947,842	1,672,090	219,995,987	2,465,100	427,472,422
Investment Advisory Fees	801,226		1,221,294		1,508,890	
Carried Interest	196,724		415,727		(139,583)	
Miscellaneous Fees and Expenses	405,042		35,069		1,095,793	
Private Equity	2,034,850	584,914,353	32,266,953	621,666,942	22,861,402	561,073,081
Investment Advisory Fees	3,350,796		3,739,853		4,149,597	
Carried Interest	(2,539,096)		27,332,502		18,202,847	
Miscellaneous Fees and Expenses	1,223,150		1,194,598		508,958	
Administrative Expense/Cash	1,225,286	236,662,657	1,564,044	505,485,795	1,219,907	140,405,157
Total Investment Mgmt Fees	\$ 30,842,720	\$ 6,972,027,917	\$ 68,381,426	\$ 7,131,535,284	\$ 46,319,024	\$ 6,556,911,110

Investment Fees and Expenses

For the nine month period ending March 31, 2023

Pension

	K	ERS	KERS H	lazardous	SPRS	
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value
Core Fixed Income	616,232	657,617,254	102,449	109,329,544	108,820	116,128,283
Investment Advisory Fees	409,204		68,030		72,261	
Performance	99,147		16,483		17,508	
Miscellaneous Fees and Expenses	107,881		17,935		19,051	
Public Equity	1,457,968	1,079,572,828	521,906	382,597,394	264,712	190,498,648
Investment Advisory Fees	1,434,144		513,238		260,438	
Miscellaneous Fees and Expenses	23,825		8,669		4,274	
Specialty Credit Fixed Income	7,204,950	614,065,920	2,223,968	183,154,528	901,623	95,543,279
Investment Advisory Fees	3,212,882		979,038		433,687	
Carried Interest	834,861		279,024		89,027	
Miscellaneous Fees and Expenses	3,157,206		965,905		378,908	
Real Estate	760,088	175,894,392	227,885	48,158,594	100,796	20,856,691
Investment Advisory Fees	613,748		184,348		82,615	
Carried Interest	7,770		2,161		911	
Miscellaneous Fees and Expenses	138,570		41,376		17,270	
Real Return	147,713	70,565,346	186,312	24,545,243	81,325	10,202,350
Investment Advisory Fees	118,574		104,765		46,406	
Carried Interest	1,114		28,767		10,687	
Miscellaneous Fees and Expenses	28,026		52,781		24,233	
Private Equity	(725,780)	155,150,167	150,886	62,368,687	15,941	16,367,925
Investment Advisory Fees	303,596		294,253		67,735	
Carried Interest	(1,279,061)		(286,418)		(86,678)	
Miscellaneous Fees and Expenses	249,686		143,051		34,884	
Administrative Expenses/Cash	485,735	609,312,497	127,089	59,969,656	84,481	125,087,282
Total Investment Mgmt Fees	9,946,906	3,362,178,404	3,540,495	870,123,646	1,557,699	574,684,458

Investment Fees and Expenses

For the nine month period ending March 31, 2023

Insurance									
	k	(ERS	KERS I	Hazardous	SPRS				
	FYTD Fees	Market Value	FYTD Fees	Market Value	FYTD Fees	Market Value			
Core Fixed Income	154,704	163,700,876	67,772	71,713,645	26,595	28,141,812			
Investment Advisory Fees	128,832		56,438		22,147				
Performance	23,169		10,150		3,983				
Miscellaneous Fees and Expenses	2,704		1,185		465				
Public Equity	891,536	613,591,556	376,535	270,733,346	152,632	107,419,059			
Investment Advisory Fees	878,067		370,550		150,274				
Miscellaneous Fees and Expenses	13,468		5,985		2,359				
Specialty Credit Fixed Income	3,334,022	282,512,968	1,826,007	134,442,708	688,063	53,442,622			
Investment Advisory Fees	1,496,202		814,402		304,318				
Carried Interest	462,019		259,994		96,819				
Miscellaneous Fees and Expenses	1,375,801		751,611		286,926				
Real Estate	293,241	56,515,447	213,945	41,452,341	81,708	15,857,396			
Investment Advisory Fees	217,731		159,866		61,079				
Carried Interest	26,789		17,636		6,712				
Miscellaneous Fees and Expenses	48,720		36,443		13,917				
Real Return	231,275	30,337,567	146,652	17,571,568	53,190	6,561,195			
Investment Advisory Fees	129,668		82,827		30,543				
Carried Interest	40,888		21,246		7,084				
Miscellaneous Fees and Expenses	60,720		42,578		15,564				
Private Equity	1,274,588	89,906,552	124,019	53,312,512	57,703	23,790,252			
Investment Advisory Fees	367,756		314,147		138,545				
Carried Interest	614,815		(283,715)		(126,529)				
Miscellaneous Fees and Expenses	292,018		93,587		45,687				
Administrative Expenses/Cash	238,079	161,130,860	104,103	13,238,081	61,081	4,489,698			
Total Investment Mgmt Fees	\$ 6,417,445	\$ 1,397,695,826	\$ 2,859,033	\$ 602,464,201	\$ 1,120,972	\$ 239,702,034			