



# WILSHIRE ASSOCIATES

Wilshire Consulting

## Kentucky Retirement Systems Pension

Quarterly Board Summary

*September 30, 2020*

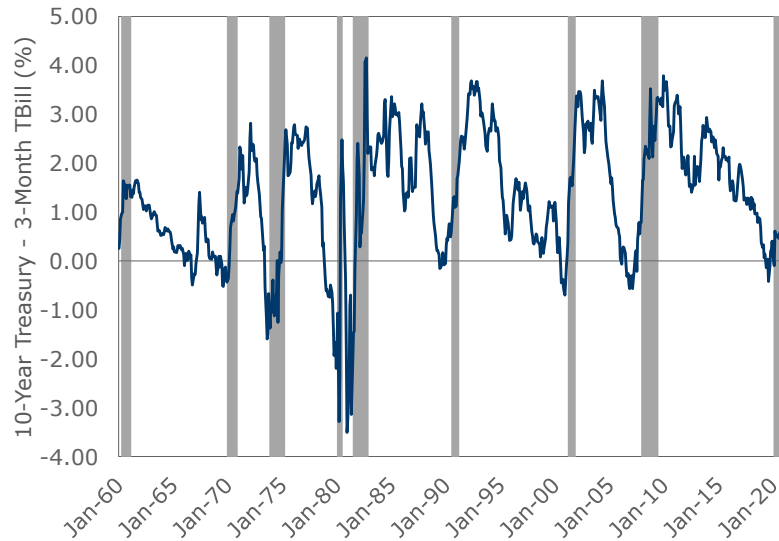
# Wilshire Consulting

# SEPTEMBER 2020 ASSET CLASS ASSUMPTIONS

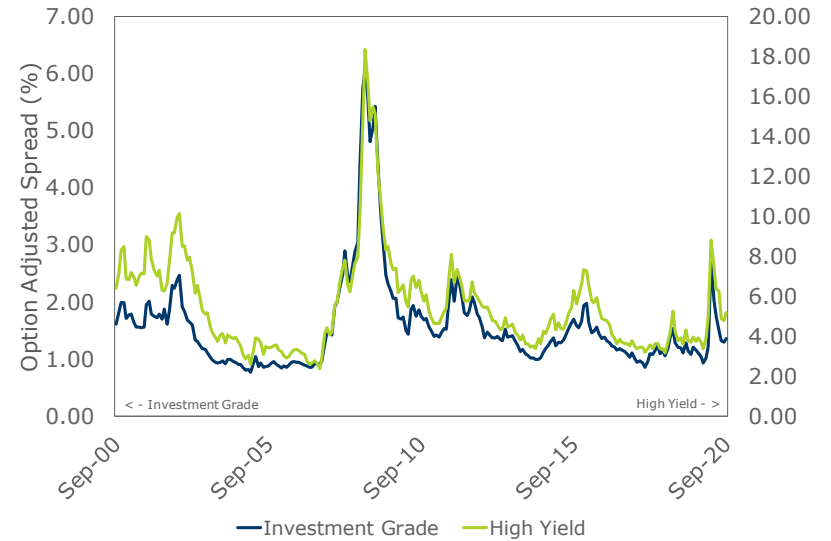
	EQUITY						FIXED INCOME						REAL ASSETS					
	US Stock	Dev ex-US Stock	Emg Stock	Global ex-US Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Dev ex-US Bond (Hdg)	Real Estate			Cmnty	Real Assets	US CPI
		US RES	Global RES	Private RE	US RES	Global RES			Private RE									
COMPOUND RETURN (%)	5.50	6.00	6.00	6.25	5.95	7.45	0.55	1.05	1.75	0.40	3.45	0.25	5.20	5.40	6.65	2.35	5.35	1.80
ARITHMETIC RETURN (%)	6.85	7.50	9.00	7.90	7.30	10.85	0.55	1.15	2.15	0.60	3.95	0.35	6.55	6.55	7.55	3.40	5.70	1.80
EXPECTED RISK (%)	17.00	18.00	26.00	18.95	17.10	28.00	0.75	4.25	8.90	6.00	10.00	4.25	17.00	15.80	14.00	15.00	8.75	1.75
CASH YIELD (%)	1.75	2.50	2.25	2.45	2.05	0.00	0.55	1.85	2.70	1.15	6.80	1.10	3.85	3.85	2.50	0.55	2.05	0.00
GROWTH EXPOSURE	8.00	8.00	8.00	8.00	8.00	13.50	0.00	-0.90	-2.30	-3.00	4.00	-1.00	6.00	6.00	3.50	0.00	1.60	0.00
INFLATION EXPOSURE	-3.00	0.00	5.00	1.35	-1.10	-3.80	0.00	-2.50	-6.70	2.50	-1.00	-3.00	1.00	2.00	1.00	12.00	4.40	1.00
<b>CORRELATIONS</b>																		
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	0.83	0.96	0.87	1.00														
Global Stock	0.95	0.92	0.83	0.94	1.00													
Private Equity	0.74	0.64	0.62	0.67	0.74	1.00												
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.07	0.00	1.00											
Core Bond	0.28	0.13	0.00	0.09	0.20	0.31	0.19	1.00										
LT Core Bond	0.31	0.16	0.01	0.12	0.23	0.32	0.11	0.93	1.00									
TIPS	-0.05	0.00	0.15	0.05	0.00	-0.03	0.20	0.60	0.47	1.00								
High Yield Bond	0.54	0.39	0.49	0.45	0.51	0.34	-0.10	0.25	0.32	0.05	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.18	0.18	0.26	0.10	0.67	0.66	0.39	0.26	1.00						
US RE Securities	0.59	0.47	0.44	0.49	0.56	0.50	-0.05	0.17	0.23	0.10	0.56	0.05	1.00					
Global RE Securities	0.65	0.59	0.56	0.62	0.66	0.58	-0.05	0.17	0.22	0.11	0.62	0.03	0.94	1.00				
Private Real Estate	0.54	0.44	0.44	0.47	0.52	0.51	-0.05	0.19	0.25	0.09	0.57	0.05	0.78	0.76	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.27	0.00	-0.02	-0.02	0.25	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.42	0.43	0.50	0.48	0.47	0.43	0.01	0.24	0.25	0.41	0.53	0.06	0.65	0.69	0.69	0.59	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	-0.08	0.05	0.03	0.05	0.44	0.26	1.00

# RISK MONITOR

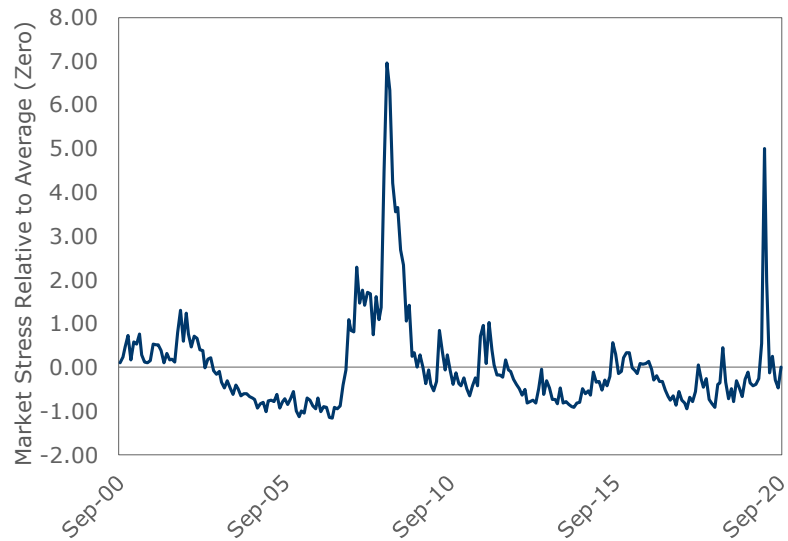
YIELD CURVE SLOPE VS RECESSIONS (IN GRAY)



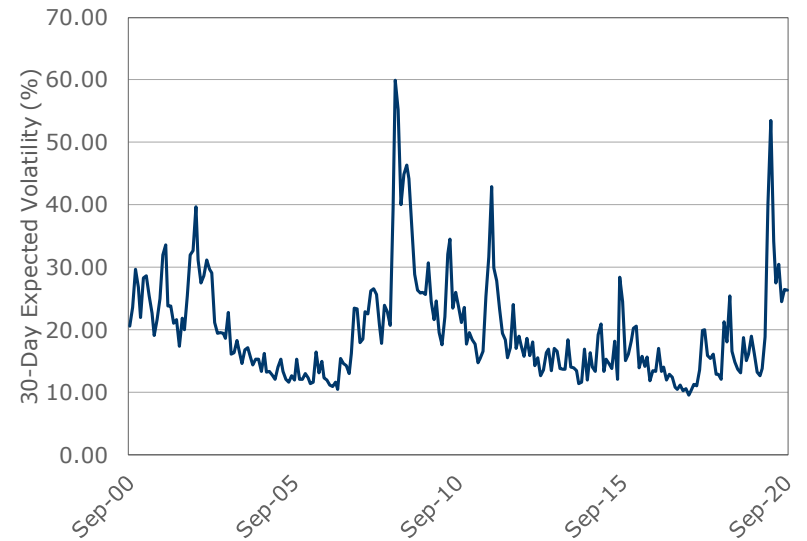
BLOOMBERG BARCLAYS CREDIT INDEXES



ST. LOUIS FED FINANCIAL STRESS INDEX



CBOE VOLATILITY INDEX



Data sources: Bloomberg

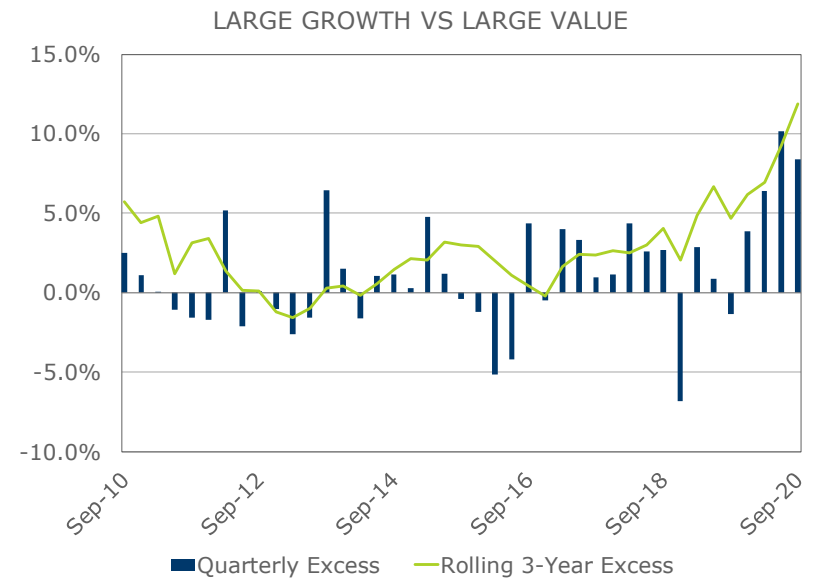
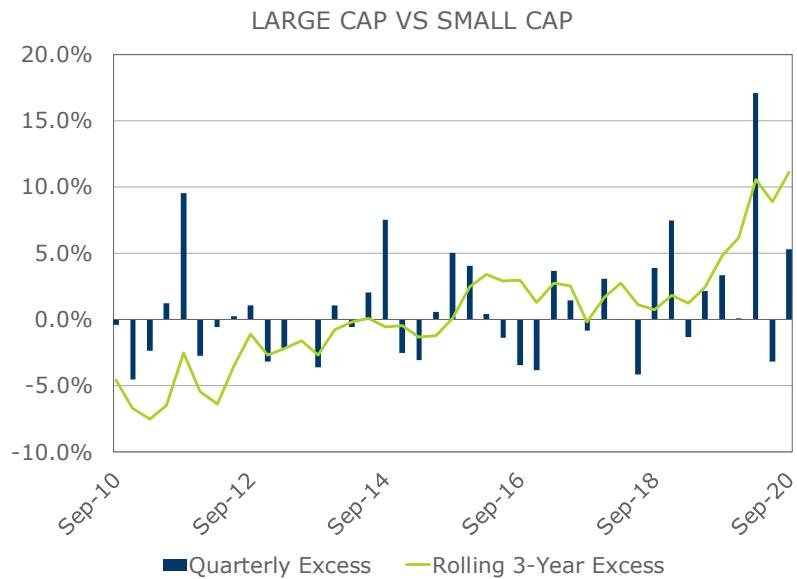
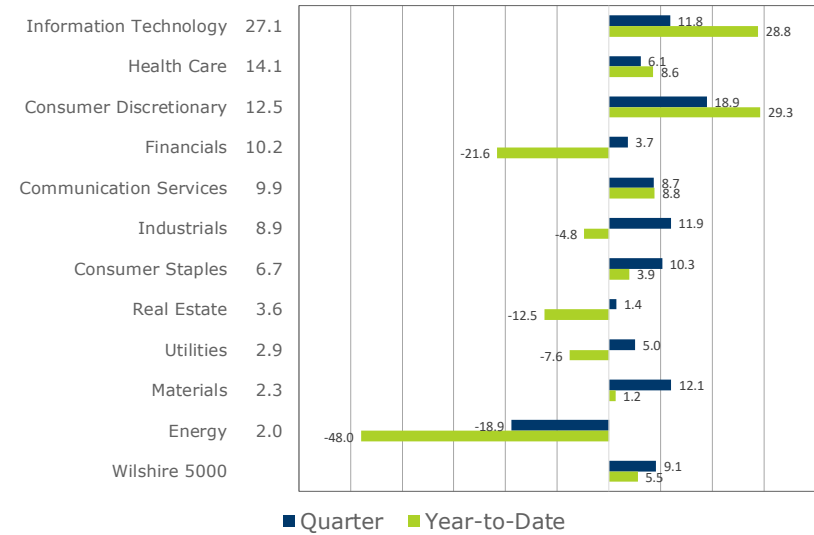
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# Wilshire Consulting

## U.S. EQUITY MARKET

AS OF 9/30/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
WILSHIRE 5000 INDEX	9.1	5.5	15.1	11.7	13.8	13.5
WILSHIRE U.S. LARGE CAP	9.6	7.0	16.8	12.7	14.5	13.8
WILSHIRE U.S. SMALL CAP	4.0	-10.3	-2.3	1.5	7.5	10.2
WILSHIRE U.S. LARGE GROWTH	13.8	20.0	33.5	19.0	18.3	16.3
WILSHIRE U.S. LARGE VALUE	5.0	-5.5	1.2	6.4	10.4	11.3
WILSHIRE U.S. SMALL GROWTH	7.1	-0.1	10.0	6.8	10.7	12.0
WILSHIRE U.S. SMALL VALUE	1.0	-19.7	-13.2	-3.6	4.3	8.3
WILSHIRE REIT INDEX	1.3	-16.7	-17.7	0.4	3.7	8.0
MSCI USA MIN. VOL. INDEX	5.8	-1.1	1.9	10.6	12.5	13.4
FTSE RAFI U.S. 1000 INDEX	5.8	-8.1	-0.4	4.8	9.3	11.2

U.S. SECTOR WEIGHT AND RETURN (%)

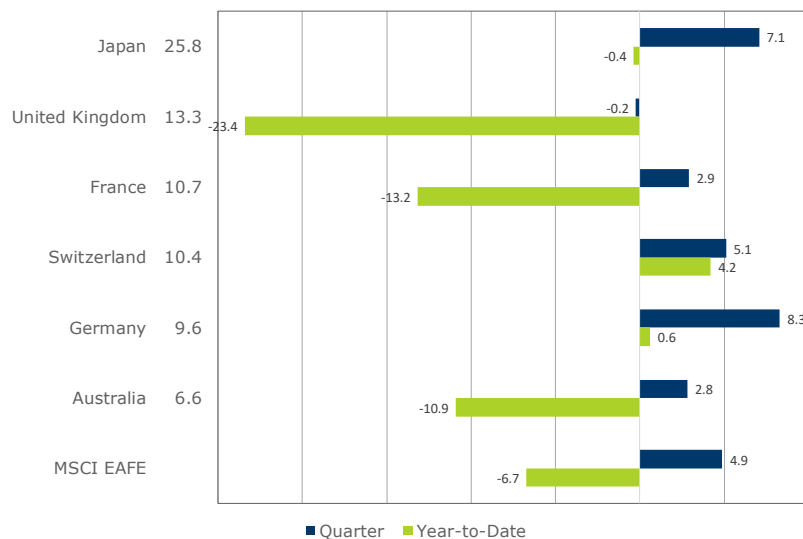


Data sources: Bloomberg, Wilshire Atlas

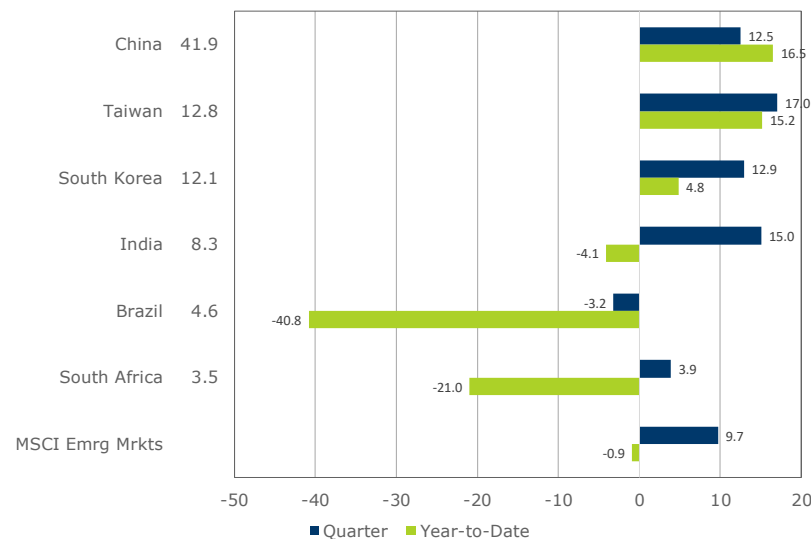
# NON-U.S. EQUITY MARKET

AS OF 9/30/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI EX-US (\$G)	6.4	-5.1	3.4	1.6	6.7	4.5
MSCI EAFE (\$G)	4.9	-6.7	0.9	1.1	5.8	5.1
MSCI EMERGING MARKETS (\$G)	9.7	-0.9	10.9	2.8	9.4	2.9
MSCI FRONTIER MARKETS (\$G)	4.4	-16.9	-11.2	-5.1	1.2	0.7
MSCI ACWI EX-US GROWTH (\$G)	10.2	7.5	17.9	7.7	10.6	6.8
MSCI ACWI EX-US VALUE (\$G)	3.1	-16.7	-9.5	-4.3	3.0	2.4
MSCI ACWI EX-US SMALL (\$G)	10.6	-3.3	7.4	1.3	7.2	5.7
MSCI ACWI MINIMUM VOLATILITY	4.9	-3.0	0.0	7.1	9.6	9.7
MSCI EAFE MINIMUM VOLATILITY	3.5	-6.9	-2.7	2.4	5.8	6.7
FTSE RAFI DEVELOPED EX-US	3.1	-15.0	-8.1	-3.7	3.3	2.9
MSCI EAFE LC (G)	1.3	-9.1	-4.3	1.0	5.3	6.8
MSCI EMERGING MARKETS LC (G)	8.8	2.9	12.8	5.2	10.0	6.0

DEVELOPED MARKETS WEIGHT AND RETURN (%)



EMERGING MARKETS WEIGHT AND RETURN (%)



Data sources: Bloomberg

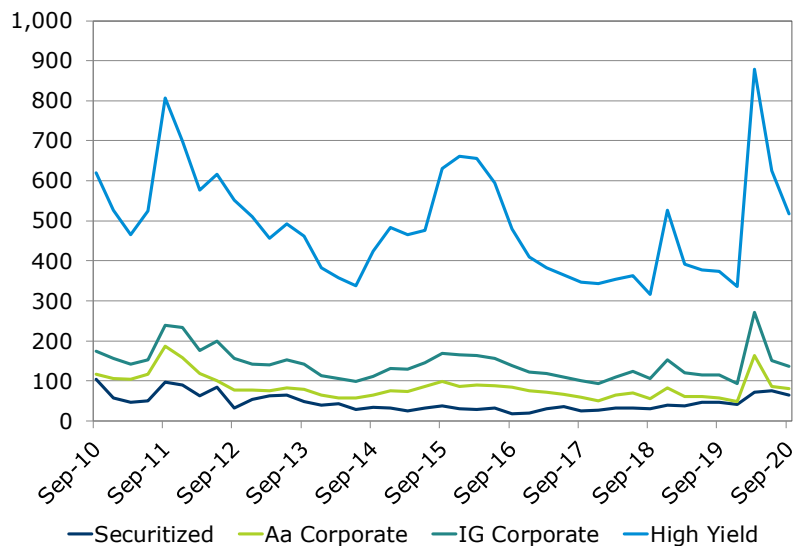
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# U.S. FIXED INCOME

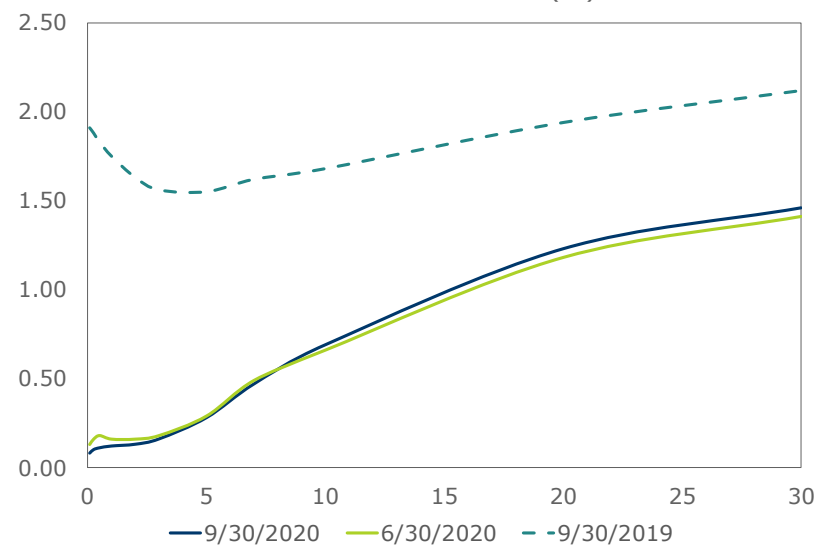
AS OF 9/30/2020	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS AGGREGATE	1.2	6.1	0.6	6.8	7.0	5.2	4.2	3.6
BLOOMBERG BARCLAYS TREASURY	0.5	7.2	0.2	8.9	8.0	5.5	3.7	3.1
BLOOMBERG BARCLAYS GOV'T-REL.	1.1	6.0	1.1	5.0	5.2	4.8	4.1	3.3
BLOOMBERG BARCLAYS SECURITIZED	1.3	2.4	0.2	3.9	4.5	3.8	3.1	3.1
BLOOMBERG BARCLAYS CORPORATE	2.0	8.7	1.5	6.6	7.9	6.4	6.0	5.1
BLOOMBERG BARCLAYS LT G/C	2.3	16.8	1.2	14.2	12.9	10.2	8.8	7.4
BLOOMBERG BARCLAYS LT TREASURY	1.3	19.4	0.1	21.3	16.3	11.9	8.2	7.2
BLOOMBERG BARCLAYS LT GOV't-REL.	2.8	13.6	2.3	6.7	6.6	7.8	7.8	6.7
BLOOMBERG BARCLAYS LT CORP.	3.1	15.3	1.9	8.4	9.8	8.8	8.9	7.4
BLOOMBERG BARCLAYS U.S. TIPS *	0.6	7.9	3.0	9.2	10.1	5.8	4.6	3.6
BLOOMBERG BARCLAYS HIGH YIELD	5.8	3.7	4.6	0.6	3.3	4.2	6.8	6.5
TREASURY BILLS	0.1	0.3	0.0	0.7	1.2	1.7	1.2	0.7

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

FIXED INCOME OPTION ADJUSTED SPREAD (BPS)



TREASURY YIELD CURVE (%)

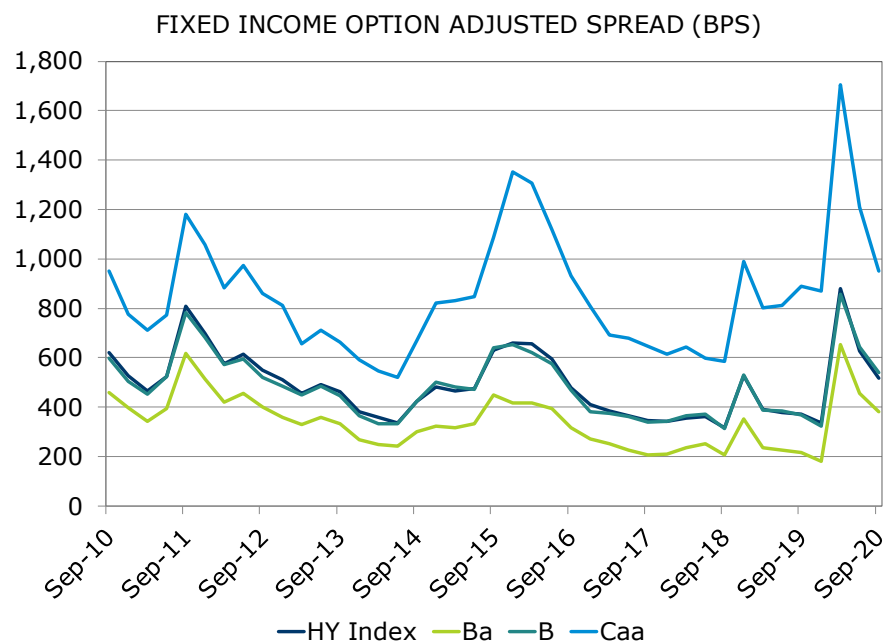


Data sources: Bloomberg

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# HIGH YIELD BOND MARKET

AS OF 9/30/2020		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS HIGH YIELD		5.8	4.6	0.6	3.3	4.2	6.8	6.5
S&P LSTA LEVERAGE LOAN INDEX		4.9	3.5	-0.5	1.7	3.4	4.1	4.1
<b>HIGH YIELD QUALITY DISTRIBUTION</b>	<b>WEIGHT</b>							
Ba U.S. HIGH YIELD	54.6%	4.4	4.0	4.2	6.8	5.7	7.3	6.9
B U.S. HIGH YIELD	32.7%	6.0	4.5	-1.2	1.4	4.0	6.2	6.1
Caa U.S. HIGH YIELD	11.9%	10.1	7.3	-7.0	-3.5	-0.3	5.6	6.0
Ca to D U.S. HIGH YIELD	0.8%	23.9	6.7	-23.5	-29.1	-8.8	4.1	-5.8
Non-Rated U.S. HIGH YIELD	0.0%	0.0	0.0	-6.5	-4.7	-0.5	0.6	3.7



Data sources: Bloomberg

# ASSET CLASS PERFORMANCE

ASSET CLASS RETURNS - BEST TO WORST						ANNUALIZED 5-YEAR AS OF 9/20
2015	2016	2017	2018	2019	2020 YTD	
REITs 4.2%	MLPs 18.3%	Emrg Mrkts 37.7%	T-Bills 1.9%	U.S. Equity 31.0%	U.S. TIPS 9.2%	U.S. Equity 13.8%
U.S. Equity 0.7%	High Yield 17.1%	Developed 25.6%	Core Bond 0.0%	REITs 25.8%	Core Bond 6.8%	Emrg Mrkts 9.4%
Core Bond 0.6%	U.S. Equity 13.4%	U.S. Equity 21.0%	U.S. TIPS -1.3%	Developed 22.7%	U.S. Equity 5.5%	High Yield 6.8%
T-Bills 0.1%	Commodities 11.8%	High Yield 7.5%	High Yield -2.1%	Emrg Mrkts 18.9%	T-Bills 0.7%	Developed 5.8%
Developed -0.4%	Emrg Mrkts 11.6%	REITs 4.2%	REITs -4.8%	High Yield 14.3%	High Yield 0.6%	U.S. TIPS 4.6%
U.S. TIPS -1.4%	REITs 7.2%	Core Bond 3.6%	U.S. Equity -5.3%	Core Bond 8.7%	Emrg Mrkts -0.9%	Core Bond 4.2%
High Yield -4.5%	U.S. TIPS 4.7%	U.S. TIPS 3.0%	Commodities -11.2%	U.S. TIPS 8.4%	Developed -6.7%	REITs 3.7%
Emrg Mrkts -14.6%	Core Bond 2.6%	Commodities 1.7%	MLPs -12.4%	Commodities 7.7%	Commodities -12.1%	T-Bills 1.2%
Commodities -24.7%	Developed 1.5%	T-Bills 0.8%	Developed -13.4%	MLPs 6.6%	REITs -16.7%	Commodities -3.1%
MLPs -32.6%	T-Bills 0.3%	MLPs -6.5%	Emrg Mrkts -14.2%	T-Bills 2.3%	Midstream -36.2%	Midstream -4.5%

Data sources: Bloomberg

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





# KRS Pension Plan

# Asset Allocation Bucketing

KRS Pension Plan

Periods Ended As of September 30, 2020

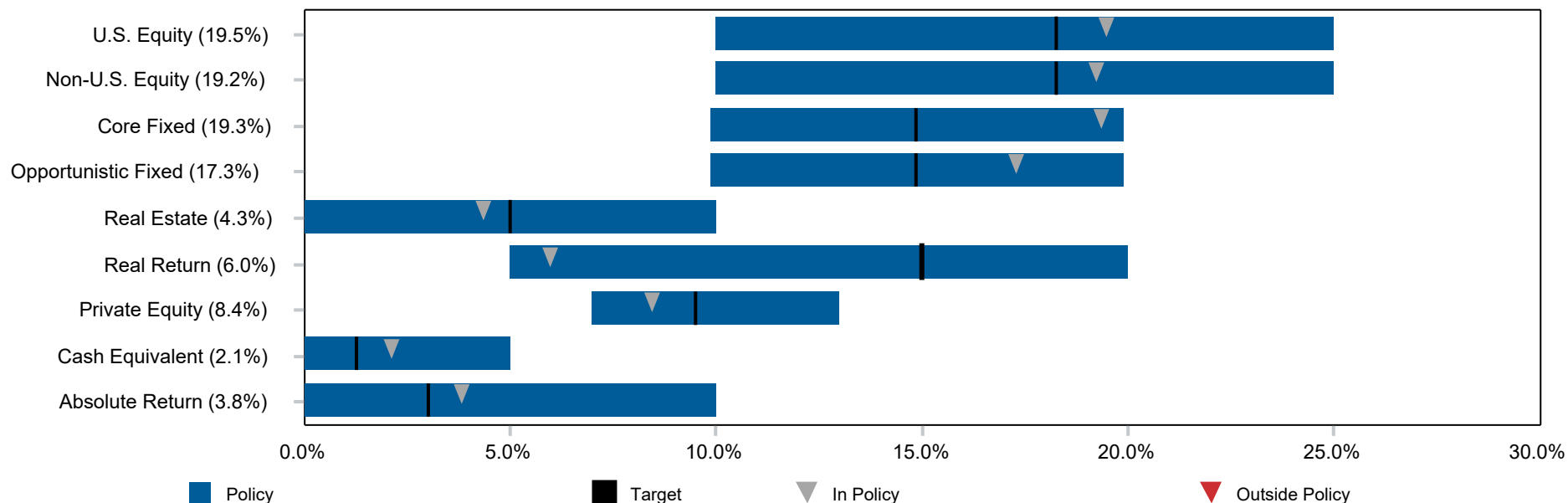
	Actual		Target	Difference	
	\$	%		\$	%
<b>Growth</b>	<b>\$8,553,546,706</b>	<b>64.4%</b>	<b>60.9%</b>	<b>\$473,647,832</b>	<b>3.6%</b>
U.S. Equity	\$2,583,680,170	19.5%	18.3%	\$161,568,566	1.2%
Non-U.S. Equity	\$2,552,666,894	19.2%	18.3%	\$130,555,290	1.0%
Private Equity	\$1,120,309,401	8.4%	9.5%	-\$140,515,818	-1.1%
High Yield/Specialty Credit	\$2,296,890,241	17.3%	14.9%	\$322,039,793	2.4%
<b>Liquidity</b>	<b>\$2,847,955,018</b>	<b>21.5%</b>	<b>16.1%</b>	<b>\$707,206,515</b>	<b>5.3%</b>
Core Fixed Income	\$2,567,773,362	19.3%	14.9%	\$592,922,914	4.5%
Cash	\$280,181,656	2.1%	1.3%	\$114,283,601	0.9%
<b>Diversifying</b>	<b>\$1,870,342,682</b>	<b>14.1%</b>	<b>23.0%</b>	<b>-\$1,182,181,531</b>	<b>-8.9%</b>
Real Estate	\$575,319,463	4.3%	5.0%	-\$88,272,757	-0.7%
Real Return	\$789,797,111	6.0%	15.0%	-\$1,200,979,550	-9.0%
Absolute Return	\$505,226,108	3.8%	3.0%	\$107,070,776	0.8%

# Asset Allocation Compliance

KRS Pension Plan

Periods Ended As of September 30, 2020

## Executive Summary



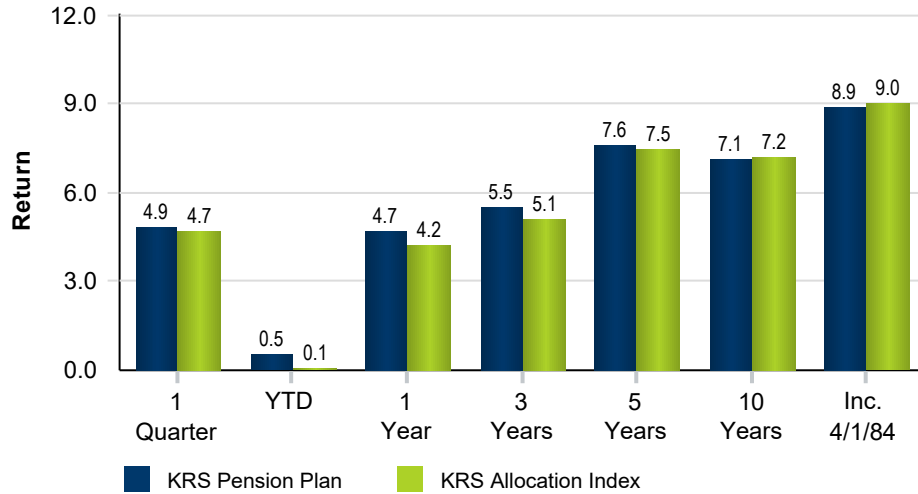
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
U.S. Equity	2,583,680,170	19.5	10.0	25.0	18.3	-161,568,566
Non-U.S. Equity	2,552,666,894	19.2	10.0	25.0	18.3	-130,555,290
Core Fixed	2,567,773,362	19.3	9.9	19.9	14.9	-593,586,506
Opportunistic Fixed	2,296,890,241	17.3	9.9	19.9	14.9	-322,703,385
Real Estate	575,319,463	4.3	0.0	10.0	5.0	88,272,757
Real Return	789,797,111	6.0	5.0	20.0	15.0	1,200,979,550
Private Equity	1,120,309,401	8.4	7.0	13.0	9.5	140,515,817
Cash Equivalent	280,181,656	2.1	0.0	5.0	1.3	-114,283,601
Absolute Return	505,226,108	3.8	0.0	10.0	3.0	-107,070,775
<b>Total Fund</b>	<b>13,271,844,406</b>	<b>100.0</b>			<b>100.0</b>	

# Total Fund Summary

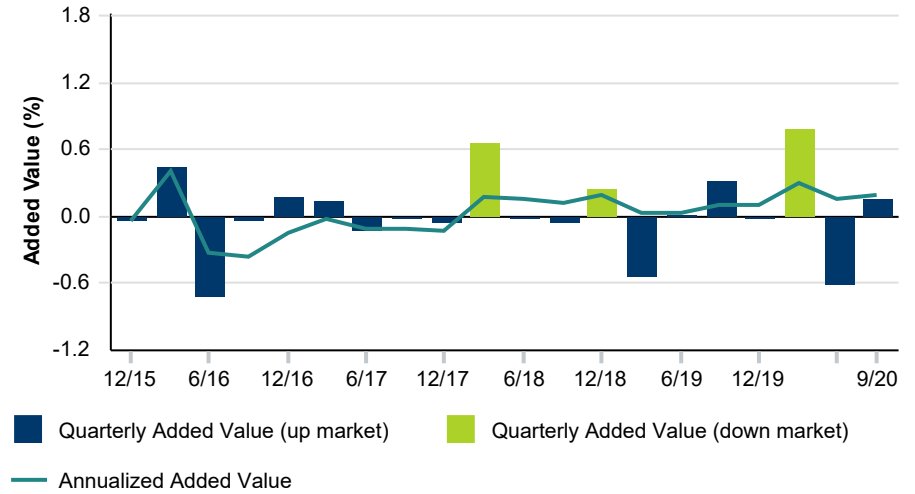
KRS Pension Plan

Periods Ended September 30, 2020

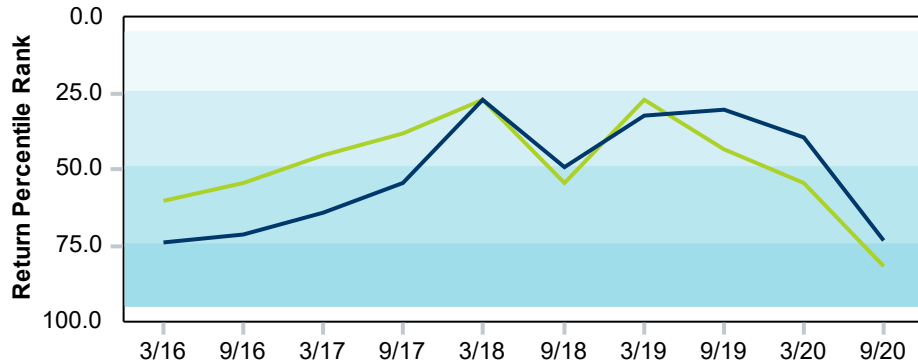
## Comparative Performance



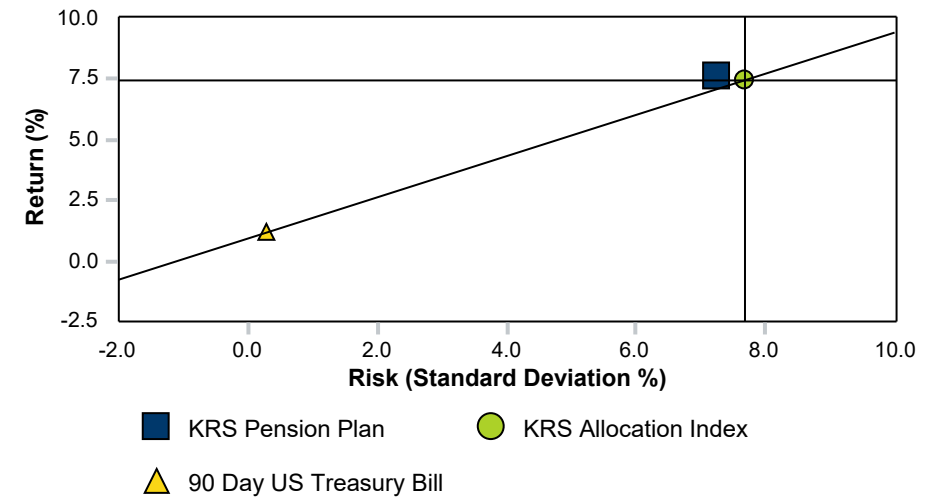
## Added Value History



## Rolling Percentile Rank: All Public Plans-Total Fund



## Risk and Return 10/1/15 - 09/30/20



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
— KRS Pension Plan	10	0 (0%)	5 (50%)	5 (50%)	0 (0%)
— Benchmark	10	0 (0%)	5 (50%)	4 (40%)	1 (10%)

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>KRS Pension Plan</b>	<b>13,271,844,406</b>	<b>100.00</b>	<b>-0.35</b>	<b>4.87</b>	<b>0.53</b>	<b>4.87</b>	<b>4.74</b>	<b>5.51</b>	<b>7.64</b>	<b>8.90</b>	<b>4/1/1984</b>
KRS Allocation Index			-0.65	4.72	0.05	4.72	4.24	5.13	7.45	9.01	
Value Added			0.31	0.15	0.48	0.15	0.50	0.38	0.19	-0.11	
KRS IPS Index			-0.67	4.78	0.28	4.78	4.48	5.19			
Value Added			0.33	0.09	0.25	0.09	0.26	0.32			
<b>KERS Pension Plan</b>	<b>2,428,621,575</b>	<b>18.30</b>	<b>0.12</b>	<b>4.74</b>	<b>2.13</b>	<b>4.74</b>	<b>5.74</b>	<b>5.61</b>	<b>7.17</b>	<b>8.87</b>	<b>4/1/1984</b>
KERS Allocation Index			-0.44	4.56	1.13	4.56	4.91	5.16	7.05	8.94	
Value Added			0.56	0.18	1.00	0.18	0.83	0.45	0.12	-0.07	
KERS IPS Index			-0.46	4.69	1.04	4.69	4.87	5.10			
Value Added			0.58	0.05	1.09	0.05	0.87	0.51			
Assumed Rate 5.25%			0.43	1.29	3.91	1.29	5.25	5.25			
Value Added			-0.31	3.45	-1.78	3.45	0.49	0.36			
<b>KERS (H) Pension Plan</b>	<b>728,646,123</b>	<b>5.49</b>	<b>-0.47</b>	<b>4.90</b>	<b>0.33</b>	<b>4.90</b>	<b>4.59</b>	<b>5.40</b>	<b>7.64</b>	<b>8.90</b>	<b>4/1/1984</b>
KERS (H) Allocation Index			-0.70	4.80	-0.01	4.80	4.28	5.21	7.61	9.01	
Value Added			0.23	0.10	0.34	0.10	0.31	0.19	0.03	-0.11	
KERS (H) IPS Index			-0.71	4.80	0.16	4.80	4.44	5.22			
Value Added			0.24	0.10	0.17	0.10	0.15	0.18			
Assumed Rate 6.25%			0.51	1.53	4.65	1.53	6.25	6.25			
Value Added			-0.98	3.37	-4.32	3.37	-1.66	-0.85			
<b>CERS Pension Plan</b>	<b>7,336,507,830</b>	<b>55.28</b>	<b>-0.45</b>	<b>4.89</b>	<b>0.11</b>	<b>4.89</b>	<b>4.47</b>	<b>5.41</b>	<b>7.71</b>	<b>8.90</b>	<b>4/1/1984</b>
CERS Allocation Index			-0.72	4.77	-0.09	4.77	4.20	5.19	7.60	9.01	
Value Added			0.27	0.12	0.20	0.12	0.27	0.22	0.11	-0.11	
CERS IPS Index			-0.74	4.77	0.07	4.77	4.35	5.19			
Value Added			0.29	0.12	0.04	0.12	0.12	0.22			
Assumed Rate 6.25%			0.51	1.53	4.65	1.53	6.25	6.25			
Value Added			-0.96	3.36	-4.54	3.36	-1.78	-0.84			

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

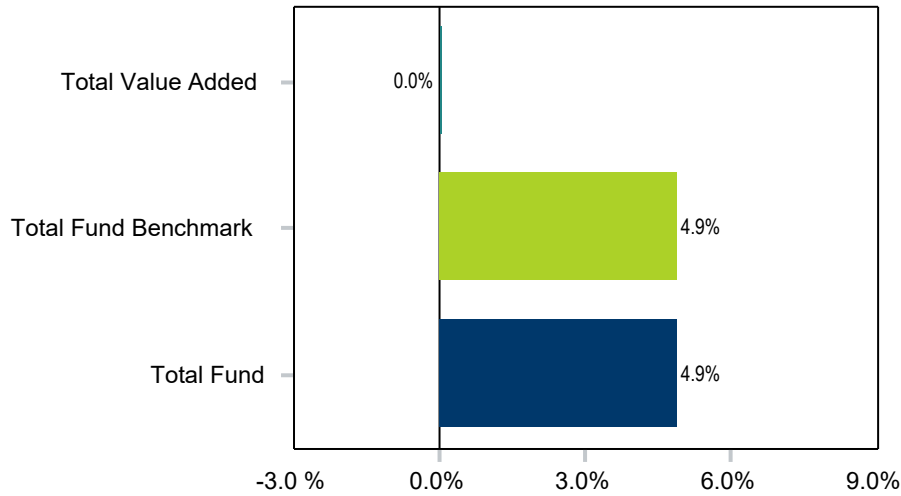
	Allocation		Performance (%) net of fees									
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	
<b>CERS (H) Pension Plan</b>	<b>2,478,858,923</b>	<b>18.68</b>	<b>-0.47</b>	<b>4.88</b>	<b>0.06</b>	<b>4.88</b>	<b>4.37</b>	<b>5.39</b>	<b>7.69</b>	<b>8.90</b>	<b>4/1/1984</b>	
CERS (H) Allocation Index			-0.74	4.76	-0.21	4.76	4.07	5.17	7.59	9.01		
Value Added			0.27	0.12	0.27	0.12	0.30	0.22	0.10	-0.11		
CERS (H) IPS Index			-0.75	4.76	-0.04	4.76	4.23	5.17				
Value Added			0.28	0.12	0.10	0.12	0.14	0.22				
Assumed Rate 6.25%			0.51	1.53	4.65	1.53	6.25	6.25				
Value Added			-0.98	3.35	-4.59	3.35	-1.88	-0.86				
<b>SPRS Pension Plan</b>	<b>299,209,957</b>	<b>2.25</b>	<b>-0.35</b>	<b>4.47</b>	<b>1.63</b>	<b>4.47</b>	<b>5.37</b>	<b>5.49</b>	<b>7.27</b>	<b>8.83</b>	<b>4/1/1984</b>	
SPRS Allocation Index			-0.62	4.25	0.94	4.25	4.75	5.40	7.55	9.00		
Value Added			0.27	0.22	0.69	0.22	0.62	0.09	-0.28	-0.17		
SPRS IPS Index			-0.63	4.38	0.86	4.38	4.71	5.14				
Value Added			0.28	0.09	0.77	0.09	0.66	0.35				
Assumed Rate 5.25%			0.43	1.29	3.91	1.29	5.25	5.25				
Value Added			-0.78	3.18	-2.28	3.18	0.12	0.24				

# Total Fund Attribution

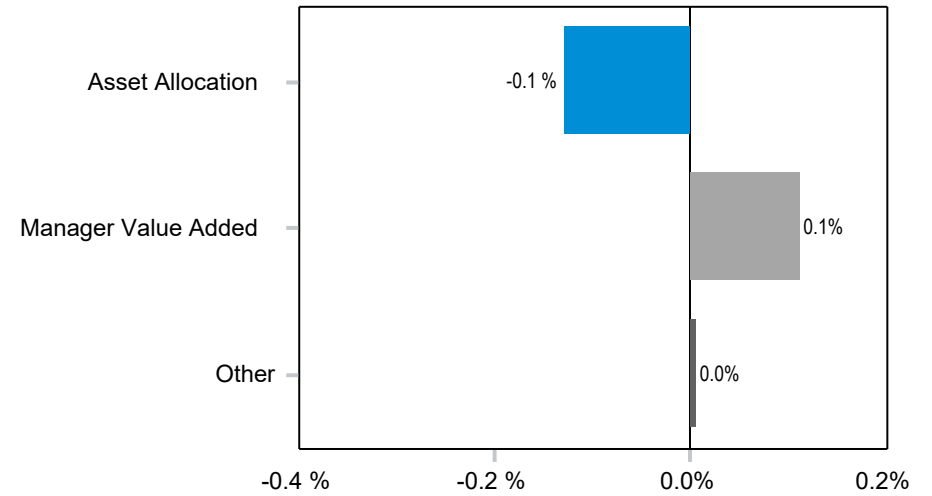
KRS Pension Plan

Periods Ended 1 Quarter Ending September 30, 2020

**Total Fund Performance**



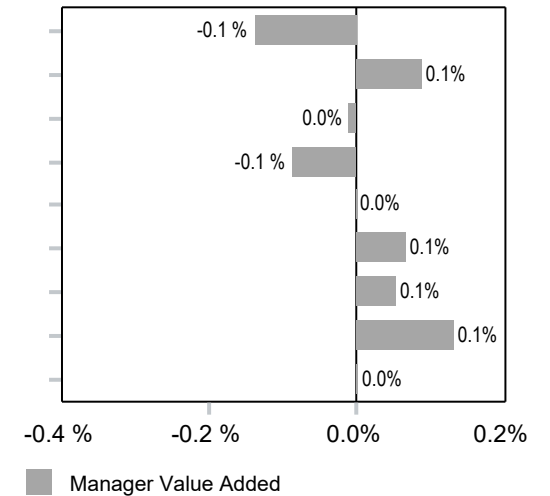
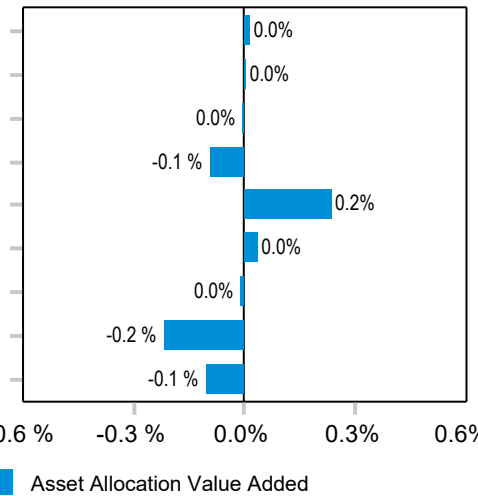
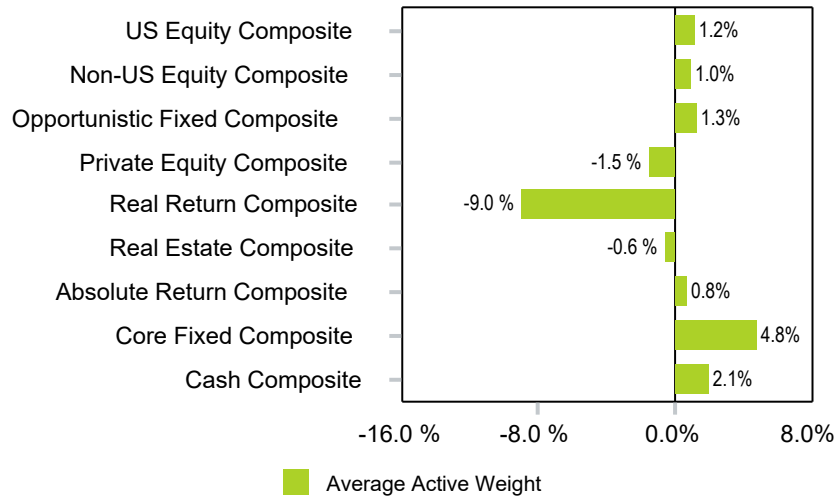
**Total Value Added:0.0%**



**Total Asset Allocation:-0.1 %**

**Asset Allocation Value Added:-0.1 %**

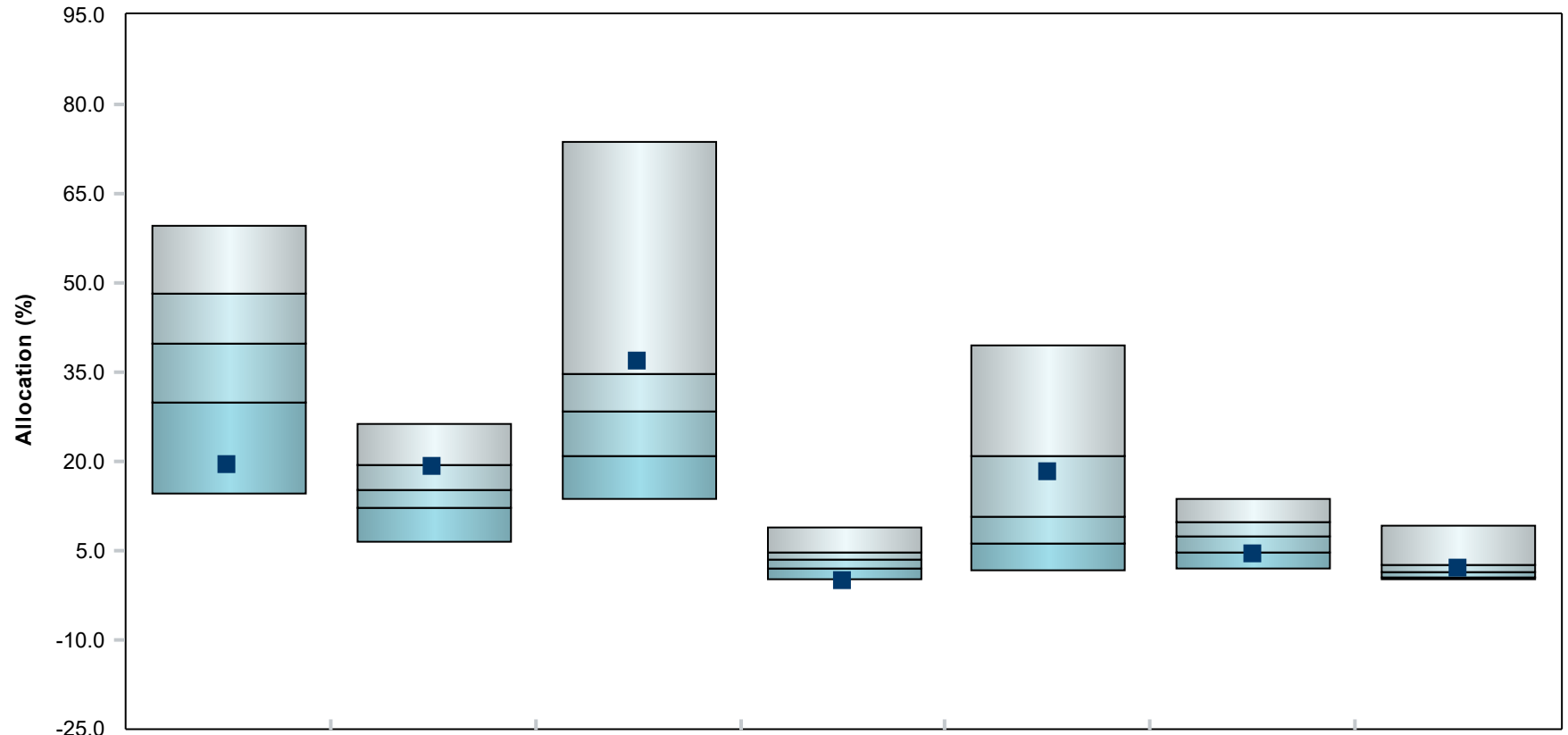
**Total Manager Value Added:0.1%**



# Plan Sponsor TF Asset Allocation

KRS Pension Plan vs All Public Plans-Total Fund

Periods Ended September 30, 2020



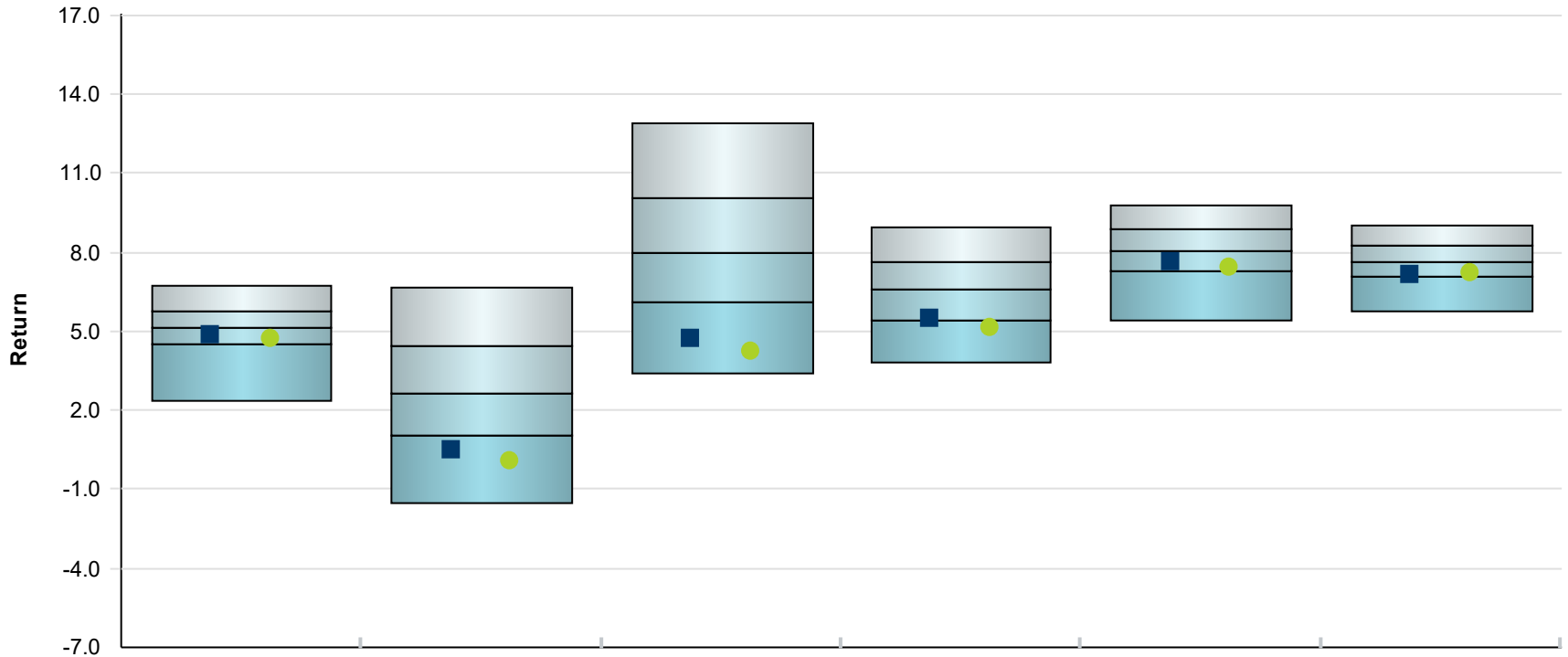
	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ KRS Pension Plan	19.47	19.23	36.65	0.00	18.20	4.33	2.11
5th Percentile	59.72	26.29	73.78	9.01	39.52	13.66	9.18
1st Quartile	48.30	19.53	34.60	4.61	20.92	9.65	2.62
Median	39.65	15.25	28.50	3.50	10.63	7.34	1.25
3rd Quartile	30.04	12.27	20.99	2.01	6.05	4.75	0.58
95th Percentile	14.70	6.45	13.76	0.07	1.74	1.98	0.08



# Plan Sponsor Peer Group Analysis

KRS Pension Plan vs All Public Plans-Total Fund

Periods Ended September 30, 2020



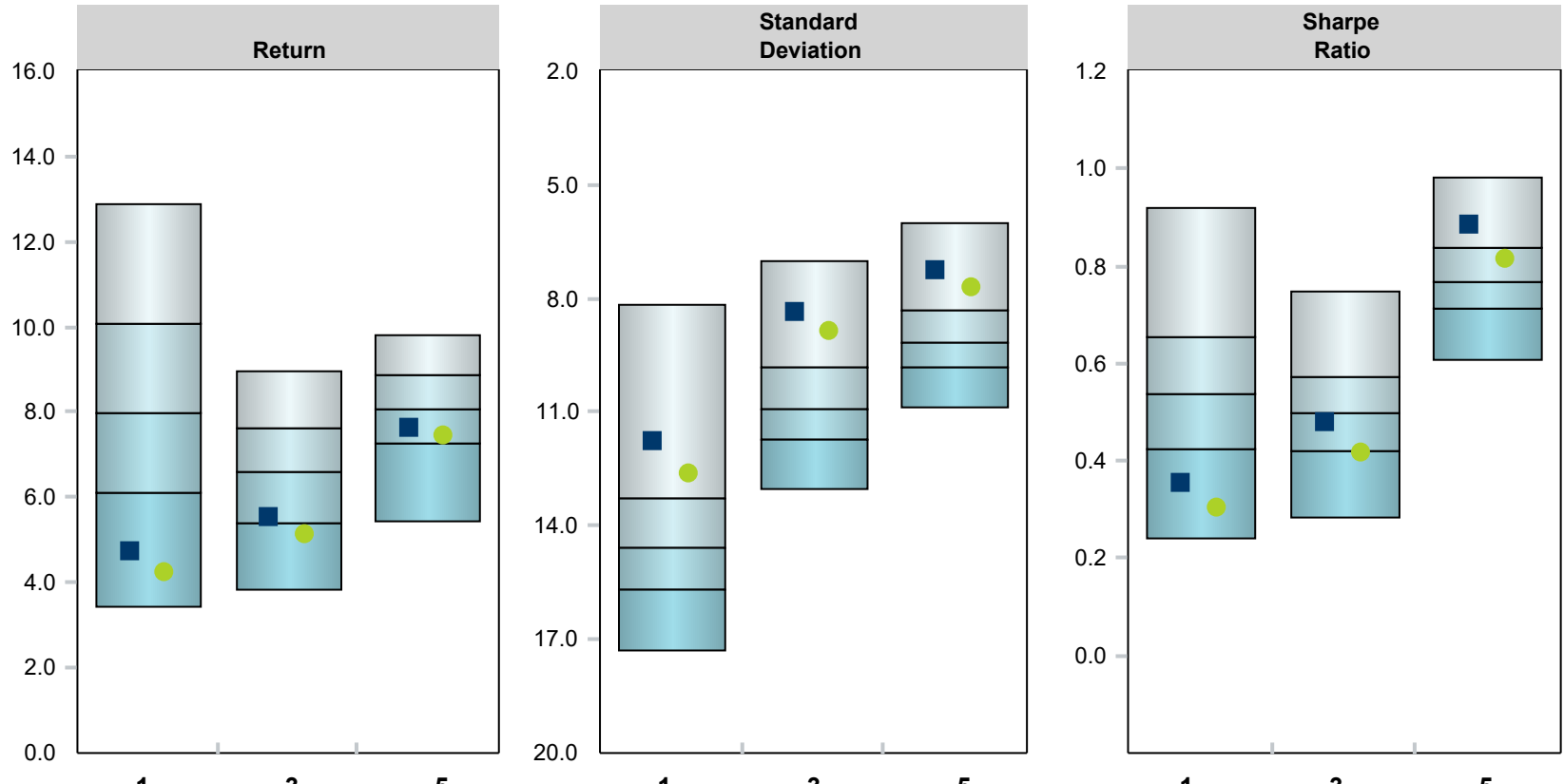
	<b>QTD</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>
■ KRS Pension Plan	4.87 (61)	0.53 (81)	4.74 (88)	5.51 (73)	7.64 (64)	7.13 (72)
● KRS Allocation Index	4.72 (67)	0.05 (86)	4.24 (91)	5.13 (82)	7.45 (70)	7.24 (66)
5th Percentile	6.72	6.67	12.88	8.98	9.80	9.01
1st Quartile	5.75	4.43	10.07	7.61	8.87	8.28
Median	5.15	2.63	7.96	6.60	8.06	7.61
3rd Quartile	4.51	1.05	6.12	5.40	7.28	7.05
95th Percentile	2.33	-1.53	3.41	3.84	5.44	5.79
Population	397	396	394	377	352	284

Parenteses contain percentile rankings.  
Calculation based on monthly periodicity.

# Plan Sponsor Peer Group Analysis - Multi Statistics

KRS Pension Plan vs All Public Plans-Total Fund

Periods Ended September 30, 2020



	1 Year	3 Years	5 Years
■ KRS Pension Plan	4.74 (88)	5.51 (73)	7.64 (64)
● KRS Allocation Index	4.24 (91)	5.13 (82)	7.45 (70)

	1 Year	3 Years	5 Years
■ KRS Pension Plan	11.78 (12)	8.35 (7)	7.24 (7)
● KRS Allocation Index	12.65 (16)	8.88 (10)	7.69 (11)

	1 Year	3 Years	5 Years
■ KRS Pension Plan	0.35 (86)	0.48 (58)	0.88 (14)
● KRS Allocation Index	0.30 (92)	0.42 (77)	0.81 (32)

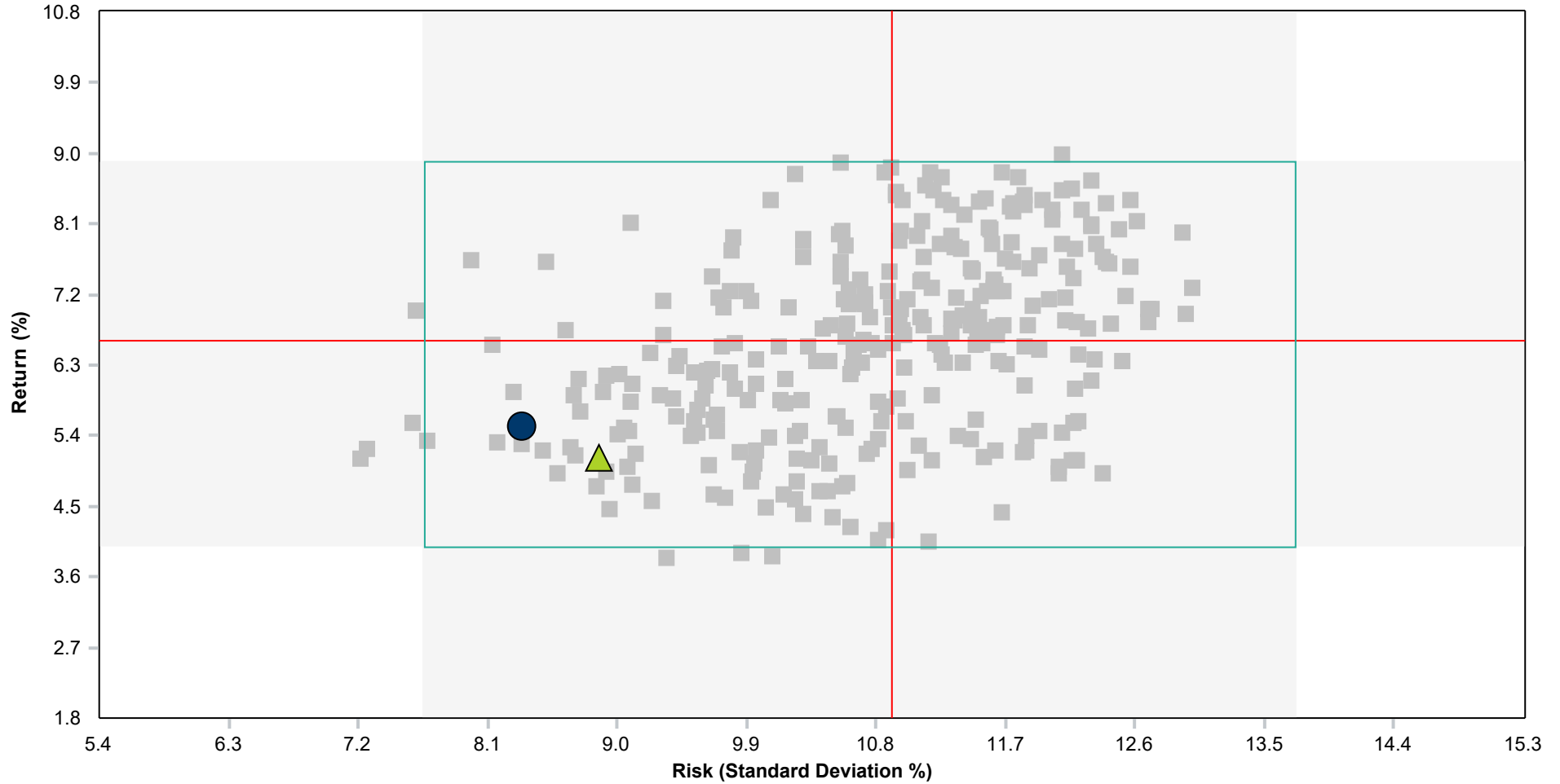
	1 Year	3 Years	5 Years
5th Percentile	12.88	8.98	9.80
1st Quartile	10.07	7.61	8.87
Median	7.96	6.60	8.06
3rd Quartile	6.12	5.40	7.28
95th Percentile	3.41	3.84	5.44

Parenteses contain percentile rankings.  
Calculation based on monthly periodicity.

# Plan Sponsor Scattergram

KRS Pension Plan vs All Public Plans-Total Fund

Periods Ended October 1, 2017 To September 30, 2020



	Return	Standard Deviation
● KRS Pension Plan	5.51	8.35
▲ KRS Allocation Index	5.13	8.88
— Median	6.60	10.91

Calculation based on monthly periodicity.

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>KRS Pension Plan</b>	<b>13,271,844,406</b>	<b>100.00</b>	<b>-0.35</b>	<b>4.87</b>	<b>0.53</b>	<b>4.87</b>	<b>4.74</b>	<b>5.51</b>	<b>7.64</b>	<b>8.90</b>	<b>4/1/1984</b>
KRS Allocation Index			-0.65	4.72	0.05	4.72	4.24	5.13	7.45	9.01	
Value Added			0.31	0.15	0.48	0.15	0.50	0.38	0.19	-0.11	
KRS IPS Index			-0.67	4.78	0.28	4.78	4.48	5.19			
Value Added			0.33	0.09	0.25	0.09	0.26	0.32			
<b>GROWTH</b>											
<b>US Equity Composite</b>	<b>2,583,680,170</b>	<b>19.47</b>	<b>-3.22</b>	<b>8.51</b>	<b>3.34</b>	<b>8.51</b>	<b>12.42</b>	<b>10.39</b>	<b>12.79</b>	<b>11.25</b>	<b>4/1/1984</b>
Russell 3000 Index			-3.64	9.21	5.41	9.21	15.00	11.65	13.69	11.19	
Value Added			0.42	-0.70	-2.07	-0.70	-2.58	-1.26	-0.90	0.06	
<b>S&amp;P 500 Index</b>	<b>1,623,987,923</b>	<b>12.24</b>	<b>-3.77</b>	<b>8.96</b>	<b>6.69</b>	<b>8.96</b>	<b>16.36</b>	<b>12.80</b>	<b>14.41</b>	<b>7.95</b>	<b>7/1/2001</b>
S&P 500 Index			-3.80	8.93	5.57	8.93	15.15	12.28	14.15	7.52	
Value Added			0.03	0.03	1.12	0.03	1.21	0.52	0.26	0.43	
<b>Scientific Beta</b>	<b>184,393,694</b>	<b>1.39</b>	<b>-1.86</b>	<b>6.70</b>	<b>-2.58</b>	<b>6.70</b>	<b>2.90</b>	<b>7.78</b>		<b>9.69</b>	<b>7/1/2016</b>
S&P 500 Index			-3.80	8.93	5.57	8.93	15.15	12.28		13.97	
Value Added			1.94	-2.23	-8.15	-2.23	-12.25	-4.50		-4.28	
<b>River Road FAV</b>	<b>182,855,307</b>	<b>1.38</b>	<b>-2.41</b>	<b>6.16</b>	<b>-14.42</b>	<b>6.16</b>	<b>-4.91</b>	<b>4.74</b>		<b>10.02</b>	<b>7/1/2016</b>
Russell 3000 Value Index			-2.58	5.42	-12.23	5.42	-5.67	2.11		5.93	
Value Added			0.17	0.74	-2.19	0.74	0.76	2.63		4.09	
<b>Westfield Capital</b>	<b>193,213,950</b>	<b>1.46</b>	<b>-3.29</b>	<b>11.78</b>	<b>20.46</b>	<b>11.78</b>	<b>36.55</b>	<b>20.58</b>	<b>18.23</b>	<b>15.05</b>	<b>7/1/2011</b>
Russell 3000 Growth Index			-4.57	12.86	23.00	12.86	36.12	20.73	19.51	16.08	
Value Added			1.28	-1.08	-2.54	-1.08	0.43	-0.15	-1.28	-1.03	

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Internal US Mid Cap</b>	<b>129,252,157</b>	<b>0.97</b>	<b>-3.33</b>	<b>4.68</b>	<b>-7.52</b>	<b>4.68</b>	<b>-0.98</b>	<b>3.88</b>	<b>8.68</b>	<b>7.25</b>	<b>8/1/2014</b>
S&P MidCap 400 Index			-3.25	4.77	-8.62	4.77	-2.16	2.90	8.11	6.82	
Value Added			-0.08	-0.09	1.10	-0.09	1.18	0.98	0.57	0.43	
<b>NTGI Structured</b>	<b>183,118,987</b>	<b>1.38</b>	<b>-3.62</b>	<b>3.62</b>	<b>-11.08</b>	<b>3.62</b>	<b>-2.86</b>	<b>1.99</b>	<b>8.20</b>	<b>9.13</b>	<b>10/1/1999</b>
Russell 2000 Index			-3.34	4.93	-8.69	4.93	0.39	1.77	8.00	7.62	
Value Added			-0.28	-1.31	-2.39	-1.31	-3.25	0.22	0.20	1.51	
<b>Next Century Growth</b>	<b>86,743,955</b>	<b>0.65</b>	<b>3.36</b>	<b>25.13</b>	<b>46.90</b>	<b>25.13</b>				<b>58.61</b>	<b>11/1/2019</b>
Russell Microcap Growth Index			-2.47	6.05	8.09	6.05				24.19	
Value Added			5.82	19.08	38.81	19.08				34.42	
<b>Abel Noser Transition</b>	<b>28,424</b>	<b>0.00</b>									
<b>Invesco</b>	<b>47,251</b>	<b>0.00</b>									
<b>Transition Account</b>	<b>38,523</b>	<b>0.00</b>									
<b>Non-US Equity Composite</b>	<b>2,552,666,894</b>	<b>19.23</b>	<b>-2.40</b>	<b>7.26</b>	<b>-2.74</b>	<b>7.26</b>	<b>6.29</b>	<b>3.33</b>	<b>7.88</b>	<b>3.34</b>	<b>7/1/2000</b>
Policy Index			-2.30	6.80	-5.21	6.80	3.51	1.13	6.45	3.24	
Value Added			-0.10	0.46	2.47	0.46	2.78	2.20	1.43	0.10	
<b>BlackRock World Ex US</b>	<b>747,510,221</b>	<b>5.63</b>	<b>-2.81</b>	<b>4.95</b>	<b>-6.95</b>	<b>4.95</b>	<b>0.58</b>	<b>0.53</b>	<b>5.96</b>	<b>5.89</b>	<b>7/1/2009</b>
Policy Index			-2.82	4.92	-7.13	4.92	0.41	0.31	5.69	5.66	
Value Added			0.01	0.03	0.18	0.03	0.17	0.22	0.27	0.23	
<b>American Century</b>	<b>399,194,139</b>	<b>3.01</b>	<b>0.07</b>	<b>15.17</b>	<b>16.57</b>	<b>15.17</b>	<b>28.93</b>	<b>12.85</b>	<b>13.39</b>	<b>8.22</b>	<b>7/1/2014</b>
Policy Index			-2.30	6.80	-5.21	6.80	3.51	1.13	6.41	2.14	
Value Added			2.37	8.37	21.78	8.37	25.42	11.72	6.98	6.08	

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Franklin Templeton</b>	<b>297,962,065</b>	<b>2.25</b>	<b>-2.31</b>	<b>8.56</b>	<b>7.76</b>	<b>8.56</b>	<b>19.54</b>	<b>9.59</b>	<b>13.08</b>	<b>8.14</b>	<b>7/1/2014</b>
Policy Index			-2.30	6.80	-5.21	6.80	3.51	1.13	6.41	2.14	
Value Added			-0.01	1.76	12.97	1.76	16.03	8.46	6.67	6.00	
<b>Lazard Asset Mgmt</b>	<b>416,949,355</b>	<b>3.14</b>	<b>-2.43</b>	<b>6.16</b>	<b>-6.36</b>	<b>6.16</b>	<b>1.60</b>	<b>2.43</b>	<b>6.22</b>	<b>3.03</b>	<b>7/1/2014</b>
Policy Index			-2.30	6.80	-5.21	6.80	3.51	1.13	6.41	2.14	
Value Added			-0.13	-0.64	-1.15	-0.64	-1.91	1.30	-0.19	0.89	
<b>LSV Asset Mgmt</b>	<b>320,863,951</b>	<b>2.42</b>	<b>-4.55</b>	<b>2.47</b>	<b>-15.80</b>	<b>2.47</b>	<b>-6.84</b>	<b>-2.50</b>	<b>3.53</b>	<b>0.38</b>	<b>7/1/2014</b>
Policy Index			-2.30	6.80	-5.21	6.80	3.51	1.13	6.41	2.14	
Value Added			-2.25	-4.33	-10.59	-4.33	-10.35	-3.63	-2.88	-1.76	
<b>NTGI Int'l Small Cap</b>	<b>82,607,316</b>	<b>0.62</b>	<b>-1.01</b>	<b>10.39</b>	<b>-3.30</b>	<b>10.39</b>	<b>7.33</b>	<b>1.36</b>	<b>7.10</b>	<b>10.47</b>	<b>12/1/2008</b>
MSCI AC World ex USA Small Cap (Net)			-1.26	10.50	-3.64	10.50	6.97	0.93	6.80	10.63	
Value Added			0.25	-0.11	0.34	-0.11	0.36	0.43	0.30	-0.16	
<b>JP Morgan Emerging Markets</b>	<b>155,953,676</b>	<b>1.18</b>	<b>-2.27</b>	<b>12.89</b>	<b>9.26</b>	<b>12.89</b>				<b>15.56</b>	<b>11/1/2019</b>
MSCI Emerging Markets IMI			-1.58	9.93	-1.04	9.93				6.08	
Value Added			-0.69	2.96	10.30	2.96				9.48	
<b>Pzena Emerging Markets</b>	<b>130,139,932</b>	<b>0.98</b>	<b>-3.23</b>	<b>3.47</b>	<b>-16.78</b>	<b>3.47</b>				<b>-11.34</b>	<b>11/1/2019</b>
MSCI Emerging Markets (Net)			-1.60	9.56	-1.16	9.56				6.07	
Value Added			-1.63	-6.09	-15.62	-6.09				-17.41	
<b>Pyramis Intl</b>	<b>3,486</b>	<b>0.00</b>									
<b>Non-US Equity Transition</b>	<b>1,482,752</b>	<b>0.01</b>									

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Opportunistic Fixed Composite</b>	<b>2,296,890,241</b>	<b>17.31</b>	<b>0.93</b>	<b>4.29</b>	<b>-0.20</b>	<b>4.29</b>	<b>0.83</b>			<b>4.04</b>	<b>10/1/2018</b>
Policy Index			-0.20	4.38	-0.01	4.38	2.17			3.44	
Value Added			1.13	-0.09	-0.19	-0.09	-1.34			0.60	
<b>Adams St SPC II A</b>	<b>12,173,804</b>	<b>0.09</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>				<b>0.00</b>	<b>6/1/2020</b>
<b>Adams St SPC II B</b>	<b>12,173,805</b>	<b>0.09</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>				<b>0.00</b>	<b>6/1/2020</b>
<b>Blue Torch</b>	<b>20,547,265</b>	<b>0.15</b>	<b>0.00</b>							<b>0.00</b>	<b>8/1/2020</b>
<b>BSP Coinvestment</b>	<b>25,872,229</b>	<b>0.19</b>	<b>1.22</b>	<b>1.22</b>	<b>5.91</b>	<b>1.22</b>	<b>5.91</b>			<b>5.91</b>	<b>10/1/2019</b>
S&P/LSTA Leverage Loan Index			0.63	4.14	-0.66	4.14	1.06			1.06	
Value Added			0.59	-2.92	6.57	-2.92	4.85			4.85	
<b>BSP Private Credit</b>	<b>79,723,214</b>	<b>0.60</b>	<b>3.72</b>	<b>3.72</b>	<b>-2.75</b>	<b>3.72</b>	<b>-2.33</b>			<b>1.26</b>	<b>2/1/2018</b>
S&P/LSTA Leverage Loan Index			0.63	4.14	-0.66	4.14	1.06			2.70	
Value Added			3.09	-0.42	-2.09	-0.42	-3.39			-1.44	
<b>Capital Springs</b>	<b>41,915,070</b>	<b>0.32</b>	<b>8.52</b>	<b>8.52</b>		<b>8.52</b>				<b>3.52</b>	<b>2/1/2020</b>
S&P/LSTA Leverage Loan Index			0.63	4.14		4.14				-1.21	
Value Added			7.89	4.38		4.38				4.73	
<b>Cerberus Capital Mgmt</b>	<b>125,171,337</b>	<b>0.94</b>	<b>0.78</b>	<b>2.51</b>	<b>4.63</b>	<b>2.51</b>	<b>6.39</b>	<b>8.17</b>	<b>8.25</b>	<b>8.21</b>	<b>9/1/2014</b>
S&P/LSTA Leverage Loan Index			0.63	4.14	-0.66	4.14	1.06	3.10	4.01	3.34	
Value Added			0.15	-1.63	5.29	-1.63	5.33	5.07	4.24	4.87	
<b>Columbia</b>	<b>487,798,202</b>	<b>3.68</b>	<b>-1.13</b>	<b>4.60</b>	<b>0.19</b>	<b>4.60</b>	<b>3.20</b>	<b>4.63</b>	<b>6.45</b>	<b>6.64</b>	<b>11/1/2011</b>
Blmbg. Barc. U.S. Corp: High Yield			-1.03	4.60	0.62	4.60	3.25	4.21	6.79	6.37	
Value Added			-0.10	0.00	-0.43	0.00	-0.05	0.42	-0.34	0.27	

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Manulife Asset Mgmt</b>	<b>343,734,956</b>	<b>2.59</b>	<b>-0.77</b>	<b>4.12</b>	<b>5.64</b>	<b>4.12</b>	<b>6.99</b>	<b>4.63</b>	<b>4.54</b>	<b>4.57</b>	<b>12/1/2011</b>
Policy Index			-0.18	0.99	6.20	0.99	6.68	5.15	4.42	2.62	
Value Added			-0.59	3.13	-0.56	3.13	0.31	-0.52	0.12	1.95	
<b>Marathon Bluegrass</b>	<b>417,859,000</b>	<b>3.15</b>	<b>2.17</b>	<b>4.72</b>	<b>-0.22</b>	<b>4.72</b>	<b>-2.66</b>	<b>3.07</b>		<b>5.29</b>	<b>1/1/2016</b>
Blmbg. Barc. U.S. Corp: High Yield			-1.03	4.60	0.62	4.60	3.25	4.21		7.63	
Value Added			3.20	0.12	-0.84	0.12	-5.91	-1.14		-2.34	
<b>Shenkman Capital</b>	<b>195,757,764</b>	<b>1.47</b>	<b>0.44</b>	<b>4.11</b>	<b>-0.58</b>	<b>4.11</b>	<b>1.43</b>	<b>3.31</b>	<b>3.68</b>	<b>4.35</b>	<b>10/1/2010</b>
S&P/LSTA Leverage Loan Index			0.63	4.14	-0.66	4.14	1.06	3.10	4.01	4.26	
Value Added			-0.19	-0.03	0.08	-0.03	0.37	0.21	-0.33	0.09	
<b>Waterfall</b>	<b>223,686,427</b>	<b>1.69</b>	<b>1.43</b>	<b>5.43</b>	<b>-10.55</b>	<b>5.43</b>	<b>-9.28</b>	<b>2.12</b>	<b>5.56</b>	<b>9.41</b>	<b>2/1/2010</b>
Policy Index			-0.52	3.33	1.00	3.33	2.69	3.52	5.11	4.97	
Value Added			1.95	2.10	-11.55	2.10	-11.97	-1.40	0.45	4.44	
<b>White Oak Yield Spectrum</b>	<b>155,809,492</b>	<b>1.17</b>	<b>3.63</b>	<b>3.63</b>	<b>3.63</b>	<b>3.63</b>	<b>5.06</b>			<b>4.65</b>	<b>3/1/2018</b>
S&P/LSTA Leverage Loan Index			0.63	4.14	-0.66	4.14	1.06			2.71	
Value Added			3.00	-0.51	4.29	-0.51	4.00			1.94	
<b>H/2 Credit Partner</b>	<b>73,055,691</b>	<b>0.55</b>	<b>1.96</b>	<b>6.21</b>	<b>-14.16</b>	<b>6.21</b>	<b>-12.75</b>	<b>-4.69</b>	<b>-0.29</b>	<b>2.88</b>	<b>7/1/2011</b>
<b>Mesa West Core Lend</b>	<b>59,719,900</b>	<b>0.45</b>	<b>1.34</b>	<b>1.34</b>	<b>3.41</b>	<b>1.34</b>	<b>5.15</b>	<b>7.06</b>	<b>7.39</b>	<b>6.76</b>	<b>5/1/2013</b>
<b>Mesa West IV</b>	<b>21,854,687</b>	<b>0.16</b>	<b>1.59</b>	<b>1.59</b>	<b>5.72</b>	<b>1.59</b>	<b>7.80</b>	<b>7.43</b>		<b>5.95</b>	<b>3/1/2017</b>
<b>Loomis</b>	<b>37,398</b>	<b>0.00</b>									



# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Private Equity Composite</b>	<b>1,120,309,401</b>	<b>8.44</b>	<b>7.90</b>	<b>7.35</b>	<b>1.11</b>	<b>7.35</b>	<b>2.45</b>	<b>9.52</b>	<b>9.61</b>	<b>10.84</b>	<b>7/1/2002</b>
KRS Short-Term PE Index			7.90	7.35	1.11	7.35	2.45	9.52	9.61	10.84	
Value Added			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Russell 3000 +3% 1 Quarter Lag			2.54	22.93	7.67	22.93	9.73	13.34	13.33	11.17	
Value Added			5.36	-15.58	-6.56	-15.58	-7.28	-3.82	-3.72	-0.33	
<b>DIVERSIFYING STRATEGIES</b>											
<b>Real Return Composite</b>	<b>789,797,111</b>	<b>5.95</b>	<b>-1.36</b>	<b>2.24</b>	<b>-9.43</b>	<b>2.24</b>	<b>-7.77</b>	<b>-0.68</b>	<b>2.85</b>	<b>2.52</b>	<b>7/1/2011</b>
Real Return (P)			-1.36	2.24	-9.43	2.24	-7.77	-0.74	1.37	1.62	
Value Added			0.00	0.00	0.00	0.00	0.00	0.06	1.48	0.90	
<b>Putnam</b>	<b>509,400,988</b>	<b>3.84</b>	<b>-2.47</b>	<b>4.51</b>		<b>4.51</b>				<b>4.51</b>	<b>7/1/2020</b>
Policy Index			-2.14	5.59		5.59				5.59	
Value Added			-0.33	-1.08		-1.08				-1.08	
<b>Tortoise Capital</b>	<b>78,105,058</b>	<b>0.59</b>	<b>-11.60</b>	<b>-15.54</b>	<b>-44.05</b>	<b>-15.54</b>	<b>-44.82</b>	<b>-19.45</b>	<b>-9.60</b>	<b>2.93</b>	<b>8/1/2009</b>
Alerian MLP Index			-13.62	-16.26	-46.16	-16.26	-48.35	-20.75	-11.58	-0.36	
Value Added			2.02	0.72	2.11	0.72	3.53	1.30	1.98	3.29	
<b>Amerra AGRI Fund II</b>	<b>24,654,441</b>	<b>0.19</b>	<b>0.29</b>	<b>0.29</b>	<b>4.64</b>	<b>0.29</b>	<b>15.29</b>	<b>3.93</b>	<b>3.85</b>	<b>5.18</b>	<b>12/1/2012</b>
<b>Amerra AGRI Holdings</b>	<b>47,760,902</b>	<b>0.36</b>	<b>2.39</b>	<b>2.39</b>	<b>1.01</b>	<b>2.39</b>	<b>0.24</b>	<b>-1.08</b>	<b>-0.74</b>	<b>-0.72</b>	<b>8/1/2015</b>
<b>BTG Pactual</b>	<b>22,535,220</b>	<b>0.17</b>	<b>-1.86</b>	<b>-1.86</b>	<b>-13.86</b>	<b>-1.86</b>	<b>-15.37</b>	<b>-5.42</b>	<b>-6.16</b>	<b>-8.36</b>	<b>12/1/2014</b>
<b>IFM Infrastructure</b>	<b>44,756,011</b>	<b>0.34</b>	<b>4.34</b>	<b>0.04</b>	<b>-1.48</b>	<b>0.04</b>	<b>0.27</b>			<b>1.07</b>	<b>7/1/2019</b>
<b>Magnetar MTP EOF II</b>	<b>31,241,962</b>	<b>0.24</b>	<b>42.66</b>	<b>42.66</b>	<b>5.11</b>	<b>42.66</b>	<b>5.89</b>	<b>8.33</b>	<b>4.20</b>	<b>4.06</b>	<b>8/1/2015</b>
<b>Oberland Capital</b>	<b>7,615,342</b>	<b>0.06</b>	<b>-0.09</b>	<b>-0.09</b>	<b>15.76</b>	<b>-0.09</b>	<b>15.96</b>			<b>15.16</b>	<b>8/1/2018</b>

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Taurus Mine Finance</b>	<b>22,611,621</b>	<b>0.17</b>	<b>1.78</b>	<b>1.78</b>	<b>-9.90</b>	<b>1.78</b>	<b>-15.13</b>	<b>4.90</b>	<b>11.39</b>	<b>9.92</b>	<b>4/1/2015</b>
<b>TPF II</b>	<b>773,812</b>	<b>0.01</b>	<b>-0.09</b>	<b>-0.09</b>	<b>-0.26</b>	<b>-0.09</b>	<b>-0.35</b>	<b>3.93</b>	<b>-1.52</b>	<b>-1.94</b>	<b>10/1/2008</b>
<b>Internal TIPS</b>	<b>127,938</b>	<b>0.00</b>									
<b>Nuveen Real Asset</b>	<b>213,815</b>	<b>0.00</b>									
<b>Real Estate Composite</b>	<b>575,319,463</b>	<b>4.33</b>	<b>-0.06</b>	<b>-0.27</b>	<b>2.44</b>	<b>-0.27</b>	<b>5.20</b>	<b>7.84</b>	<b>8.44</b>	<b>6.14</b>	<b>7/1/1984</b>
NCREIF ODCE NOF 1 Quarter Lag			-1.75	-1.75	0.25	-1.75	1.33	4.72	6.35		
Value Added			1.69	1.48	2.19	1.48	3.87	3.12	2.09		
<b>Baring</b>	<b>64,523,201</b>	<b>0.49</b>	<b>-3.43</b>	<b>2.91</b>	<b>16.60</b>	<b>2.91</b>	<b>24.12</b>			<b>27.63</b>	<b>1/1/2019</b>
<b>Divcowest IV</b>	<b>2,724,492</b>	<b>0.02</b>	<b>-3.02</b>	<b>-3.02</b>	<b>-9.64</b>	<b>-3.02</b>	<b>-15.18</b>	<b>9.66</b>	<b>18.22</b>	<b>17.01</b>	<b>3/1/2014</b>
<b>Fundamental Partners III</b>	<b>56,905,137</b>	<b>0.43</b>	<b>5.09</b>	<b>5.09</b>	<b>8.64</b>	<b>5.09</b>	<b>14.28</b>	<b>11.04</b>		<b>10.13</b>	<b>5/1/2017</b>
<b>Greenfield Acq VI</b>	<b>448,166</b>	<b>0.00</b>	<b>-10.78</b>	<b>-10.78</b>	<b>-52.15</b>	<b>-10.78</b>	<b>-53.61</b>	<b>-38.48</b>	<b>-23.44</b>	<b>-11.15</b>	<b>12/1/2012</b>
<b>Greenfield Acq VII</b>	<b>19,123,160</b>	<b>0.14</b>	<b>1.10</b>	<b>1.10</b>	<b>3.31</b>	<b>1.10</b>	<b>4.34</b>	<b>11.22</b>	<b>12.33</b>	<b>11.68</b>	<b>7/1/2014</b>
<b>Harrison Street</b>	<b>83,434,487</b>	<b>0.63</b>	<b>0.30</b>	<b>0.29</b>	<b>4.32</b>	<b>0.29</b>	<b>6.36</b>	<b>7.25</b>	<b>8.29</b>	<b>8.18</b>	<b>5/1/2012</b>
<b>Lubert Adler VII</b>	<b>24,968,141</b>	<b>0.19</b>	<b>-7.34</b>	<b>-7.34</b>	<b>-12.88</b>	<b>-7.34</b>	<b>-13.07</b>	<b>2.59</b>	<b>3.31</b>	<b>-1.69</b>	<b>7/1/2014</b>
<b>Lubert Adler VII B</b>	<b>30,612,205</b>	<b>0.23</b>	<b>-0.34</b>	<b>-0.34</b>	<b>6.06</b>	<b>-0.34</b>	<b>7.28</b>	<b>6.04</b>		<b>5.56</b>	<b>7/1/2017</b>
<b>Patron Capital</b>	<b>19,985,445</b>	<b>0.15</b>	<b>-0.21</b>	<b>6.27</b>	<b>-4.67</b>	<b>6.27</b>	<b>-2.36</b>	<b>9.51</b>		<b>1.61</b>	<b>8/1/2016</b>
<b>Prologis Targeted US</b>	<b>140,409,011</b>	<b>1.06</b>	<b>0.00</b>	<b>-3.72</b>	<b>2.70</b>	<b>-3.72</b>	<b>7.48</b>	<b>13.99</b>	<b>14.27</b>	<b>13.94</b>	<b>10/1/2014</b>
<b>Rubenstein PF II</b>	<b>17,125,854</b>	<b>0.13</b>	<b>0.67</b>	<b>0.67</b>	<b>-2.37</b>	<b>0.67</b>	<b>-7.19</b>	<b>7.22</b>	<b>6.62</b>	<b>10.68</b>	<b>7/1/2013</b>

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Stockbridge Sm/Mkts</b>	87,881,442	0.66	1.11	1.11	0.83	1.11	2.51	6.20	7.53	8.05	5/1/2014
<b>Walton St RE VI</b>	11,328,276	0.09	0.41	0.41	-10.34	0.41	-10.46	-0.71	0.13	-15.59	5/1/2009
<b>Walton St RE VII</b>	8,550,446	0.06	-4.18	-4.18	-15.83	-4.18	-17.27	-4.86	1.61	5.77	7/1/2013
<b>Perimeter Park</b>	7,300,002	0.06									
<b>Absolute Return Composite</b>	505,226,108	3.81	2.06	5.19	-0.85	5.19	0.48	0.98	1.25	3.20	4/1/2010
HFRI FOF Div 1 Month Lag			1.94	5.72	4.36	5.72	4.96	3.32	2.63	3.00	
Value Added			0.12	-0.53	-5.21	-0.53	-4.48	-2.34	-1.38	0.20	
<b>Arrowmark</b>	348,630,970	2.63	2.45	6.83	-1.12	6.83	1.33			6.14	6/1/2018
S&P/LSTA Leverage Loan Index			0.63	4.14	-0.66	4.14	1.06			2.62	
Value Added			1.82	2.69	-0.46	2.69	0.27			3.52	
<b>Blackstone Strat Opp</b>	1,839,278	0.01	0.36	-2.99	-13.14	-2.99	-12.62	-4.68		-4.30	8/1/2017
<b>Governors Lane Onshore</b>	253,314	0.00	0.00	0.00	-12.34	0.00	-10.73	-4.71		-2.91	4/1/2017
<b>Luxor Capital</b>	1,055,408	0.01	-0.03	5.00	-23.76	5.00	-34.16	-4.79	-1.07	-3.14	4/1/2014
<b>Myriad Opportunities</b>	42,700,443	0.32	2.88	7.69	-3.36	7.69	-1.63	-3.07		1.37	5/1/2016
<b>Pine River</b>	105,602	0.00	2.04	4.98	4.24	4.98	15.17	9.72	5.07	4.66	5/1/2014
<b>PRISMA Capital</b>	98,127,055	0.74	0.00	0.00	1.82	0.00	1.82	2.27	1.68	3.18	9/1/2011
<b>SRS Partners US</b>	8,942,151	0.07	12.05	0.40	0.22	0.40	7.09	5.58		8.63	8/1/2017
<b>Tricadia Select</b>	3,564,792	0.03	0.00	0.00	0.00	0.00	0.00	-8.09		-7.96	9/1/2017
<b>PAAMCO</b>	7,095	0.00									

# Asset Allocation & Performance

KRS Pension Plan

Periods Ended September 30, 2020

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>LIQUIDITY</b>											
<b>Core Fixed Composite</b>	<b>2,567,773,362</b>	<b>19.35</b>	<b>0.03</b>	<b>1.30</b>	<b>4.58</b>	<b>1.30</b>	<b>5.20</b>			<b>6.58</b>	<b>10/1/2018</b>
Blmbg. Barc. U.S. Aggregate			-0.05	0.62	6.79	0.62	6.98			8.63	
Value Added			0.08	0.68	-2.21	0.68	-1.78			-2.05	
<b>Loomis Sayles Intmd</b>	<b>535,111,445</b>	<b>4.03</b>	<b>-0.04</b>	<b>0.73</b>	<b>6.51</b>	<b>0.73</b>	<b>7.04</b>			<b>7.54</b>	<b>2/1/2019</b>
Blmbg. Barc. U.S. Intermediate Aggregate			-0.03	0.48	5.16	0.48	5.66			6.60	
Value Added			-0.01	0.25	1.35	0.25	1.38			0.94	
<b>Lord Abbett</b>	<b>1,840,445,075</b>	<b>13.87</b>	<b>0.07</b>	<b>1.53</b>	<b>1.13</b>	<b>1.53</b>	<b>2.06</b>			<b>3.79</b>	<b>10/1/2018</b>
ICE BofAML 1-3 Year U.S. Corporate			-0.01	0.74	3.40	0.74	4.31			4.83	
Value Added			0.08	0.79	-2.27	0.79	-2.25			-1.04	
<b>NISA</b>	<b>192,216,842</b>	<b>1.45</b>	<b>-0.18</b>	<b>0.76</b>	<b>7.68</b>	<b>0.76</b>	<b>7.92</b>	<b>5.59</b>	<b>4.55</b>	<b>4.63</b>	<b>2/1/2009</b>
Blmbg. Barc. U.S. Aggregate			-0.05	0.62	6.79	0.62	6.98	5.24	4.18	4.38	
Value Added			-0.13	0.14	0.89	0.14	0.94	0.35	0.37	0.25	
<b>Cash Composite</b>	<b>280,181,656</b>	<b>2.11</b>	<b>0.01</b>	<b>0.08</b>	<b>0.66</b>	<b>0.08</b>	<b>1.45</b>	<b>2.10</b>	<b>1.59</b>	<b>3.49</b>	<b>1/1/1988</b>
90 Day US Treasury Bill			0.01	0.04	0.64	0.04	1.10	1.69	1.18	3.11	
Value Added			0.00	0.04	0.02	0.04	0.35	0.41	0.41	0.38	