



# WILSHIRE ASSOCIATES

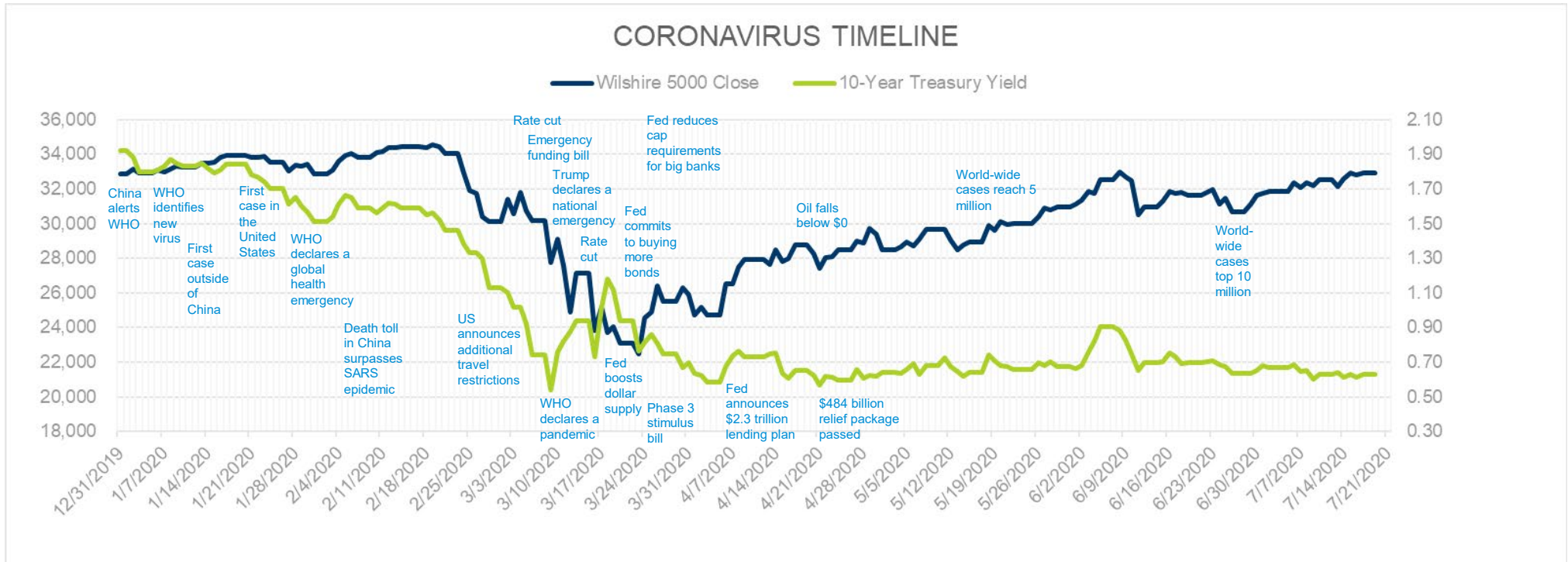
Wilshire Consulting

## Kentucky Retirement Systems Pension

Quarterly Board Summary

*June 30, 2020*

# CORONAVIRUS TIMELINE



# Wilshire Consulting

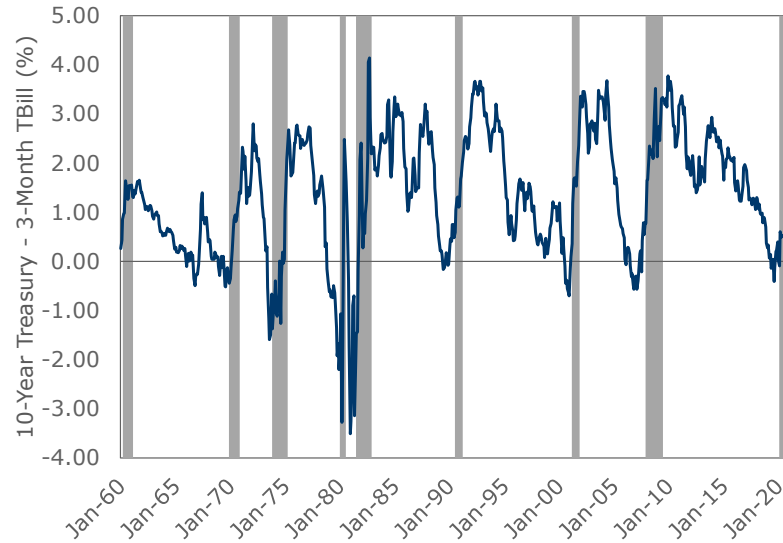
# JUNE 2020 ASSET CLASS ASSUMPTIONS

	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 (%)	6.00	6.50	6.50	6.75	6.45	8.15	0.75	1.25	2.10	0.30	4.00	0.40	5.10	5.30	6.80	2.25	5.45	1.50
ARITHMETIC RETURN (%)	7.30	7.95	9.45	8.35	7.80	11.50	0.75	1.40	2.55	0.50	4.50	0.45	6.45	6.45	7.70	3.30	5.80	1.50
EXPECTED RISK (%)	17.00	18.00	26.00	18.95	17.10	28.00	1.25	5.15	9.85	6.00	10.00	3.50	17.00	15.80	14.00	15.00	8.75	1.75
CASH YIELD (%)	2.00	3.00	2.50	2.85	2.40	0.00	0.75	1.85	2.65	1.15	7.00	1.10	4.00	4.00	2.60	0.75	2.25	0.00
GROWTH EXPOSURE	8.00	9.00	7.50	8.60	8.25	14.00	0.00	-0.90	-2.30	-3.00	4.00	-1.00	8.00	8.00	5.50	0.00	1.90	0.00
INFLATION EXPOSURE	0.00	3.00	12.00	5.45	2.40	1.00	0.00	-2.50	-6.70	2.50	1.00	-3.00	0.00	1.35	0.00	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

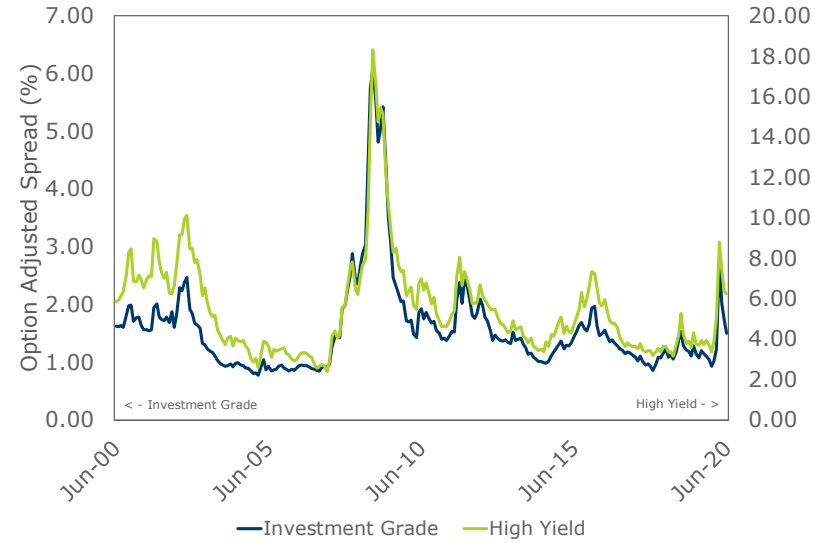
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## RISK MONITOR

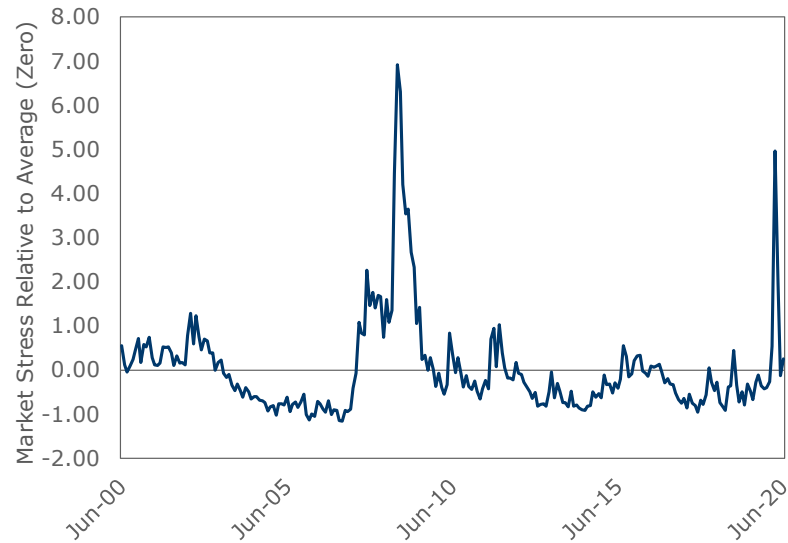
YIELD CURVE SLOPE VS RECESSIONS (IN GRAY)



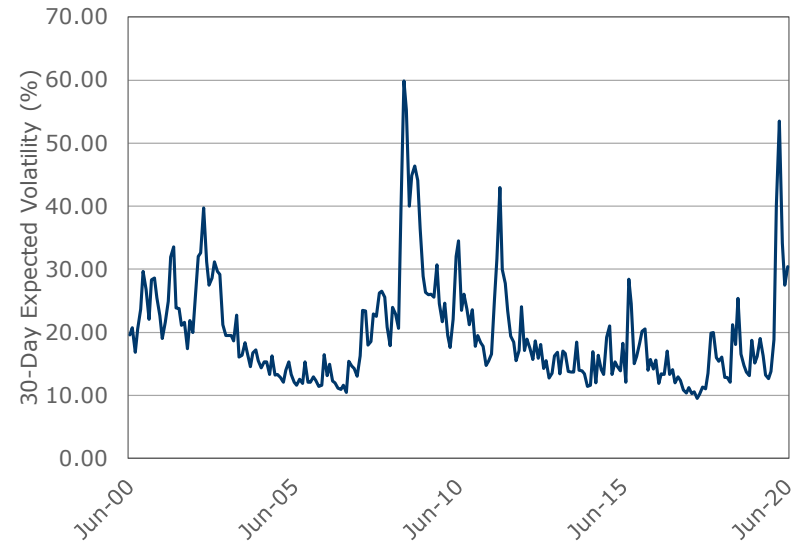
BLOOMBERG BARCLAYS CREDIT INDEXES



ST. LOUIS FED FINANCIAL STRESS INDEX



CBOE VOLATILITY INDEX



Data sources: Bloomberg

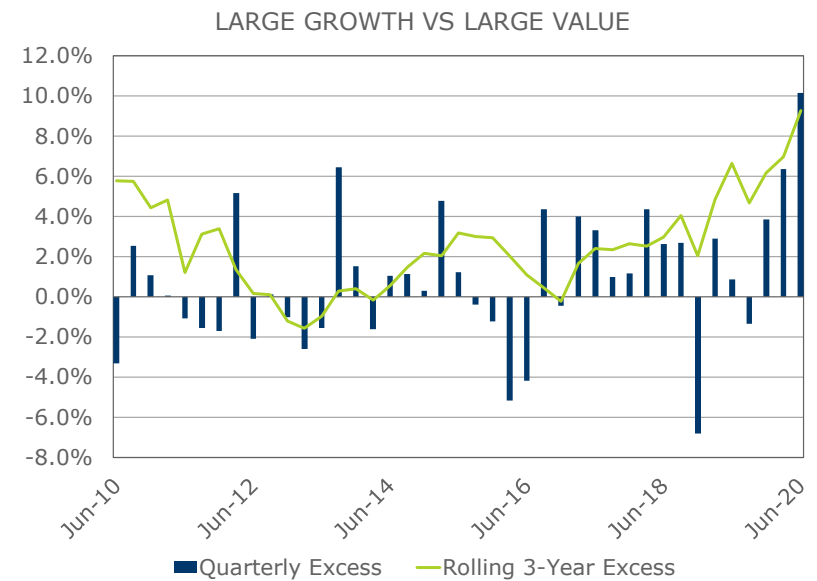
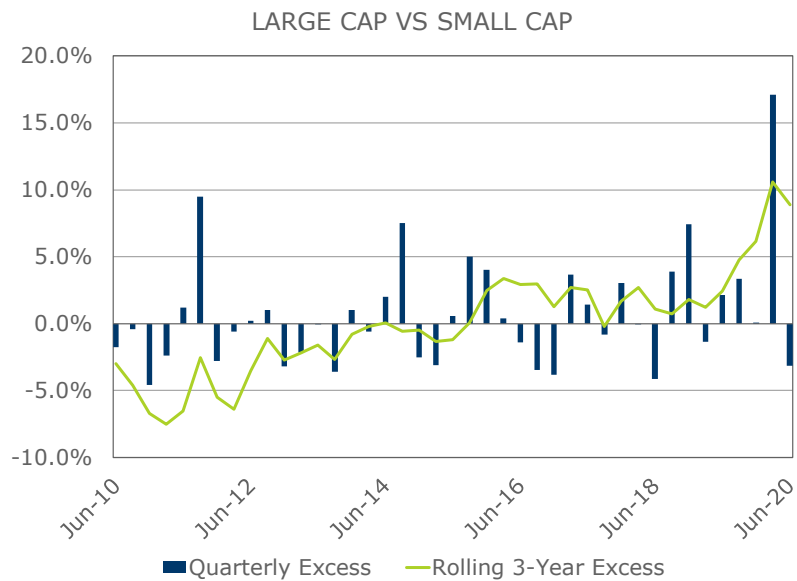
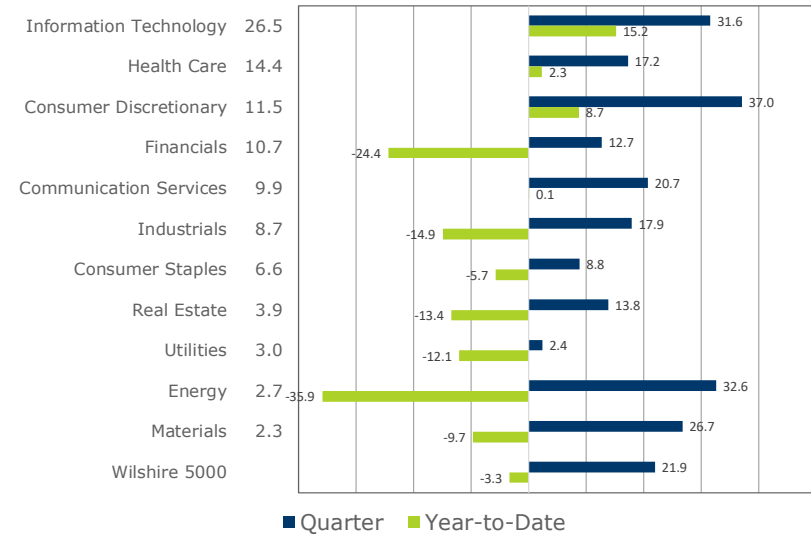
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## U.S. EQUITY MARKET

AS OF 6/30/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
WILSHIRE 5000 INDEX	21.9	-3.3	6.8	10.1	10.3	13.7
WILSHIRE U.S. LARGE CAP	21.6	-2.3	8.2	11.0	10.9	14.0
WILSHIRE U.S. SMALL CAP	25.6	-13.8	-7.7	1.9	4.3	11.0
WILSHIRE U.S. LARGE GROWTH	27.3	5.5	18.3	15.9	13.7	16.2
WILSHIRE U.S. LARGE VALUE	15.6	-10.0	-1.5	6.1	7.9	11.8
WILSHIRE U.S. SMALL GROWTH	29.9	-6.7	0.0	6.6	6.2	12.6
WILSHIRE U.S. SMALL VALUE	21.3	-20.5	-14.9	-2.7	2.1	9.3
WILSHIRE REIT INDEX	10.6	-17.8	-12.3	0.2	4.0	9.2
MSCI USA MIN. VOL. INDEX	12.9	-6.5	0.5	9.8	11.0	14.0
FTSE RAFI U.S. 1000 INDEX	18.1	-13.1	-4.3	4.3	6.3	11.7

U.S. SECTOR WEIGHT AND RETURN (%)

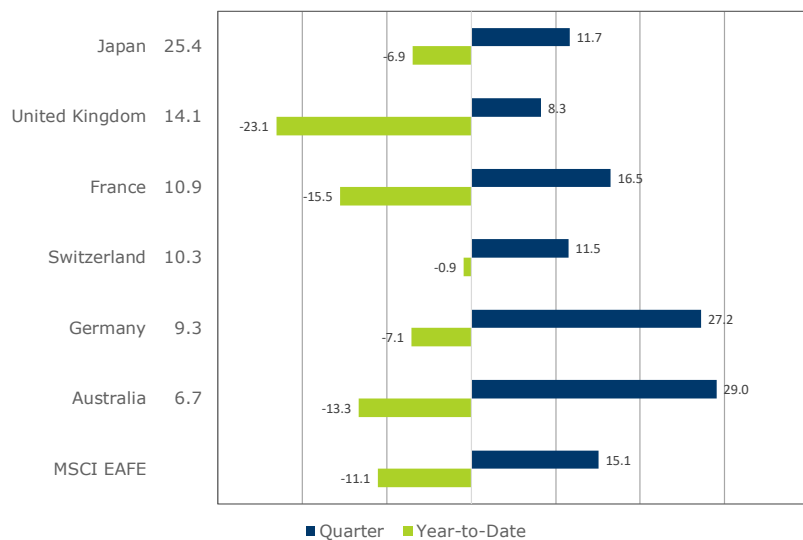


Data sources: Bloomberg, Wilshire Atlas

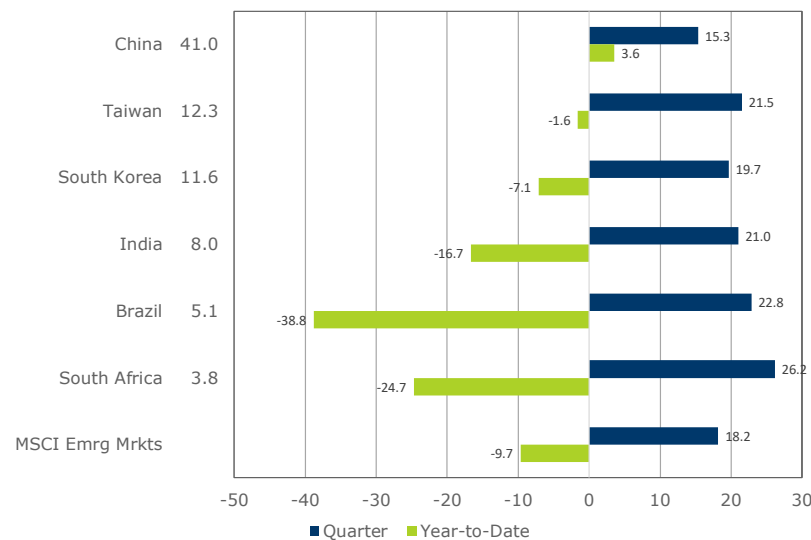
# NON-U.S. EQUITY MARKET

AS OF 6/30/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI EX-US (\$G)	16.3	-10.8	-4.4	1.6	2.7	5.5
MSCI EAFE (\$G)	15.1	-11.1	-4.7	1.3	2.5	6.2
MSCI EMERGING MARKETS (\$G)	18.2	-9.7	-3.0	2.3	3.2	3.6
MSCI FRONTIER MARKETS (\$G)	16.2	-20.4	-20.7	-4.5	-2.4	1.9
MSCI ACWI EX-US GROWTH (\$G)	19.2	-2.4	6.1	6.4	6.0	7.4
MSCI ACWI EX-US VALUE (\$G)	13.7	-19.2	-14.4	-3.4	-0.4	3.6
MSCI ACWI EX-US SMALL (\$G)	23.0	-12.6	-4.0	0.2	2.9	6.4
MSCI ACWI MINIMUM VOLATILITY	9.9	-7.5	-1.9	6.4	7.6	10.4
MSCI EAFE MINIMUM VOLATILITY	7.5	-10.0	-5.1	2.2	4.0	7.6
FTSE RAFI DEVELOPED EX-US	13.8	-17.6	-12.1	-2.7	0.1	4.2
MSCI EAFE LC (G)	12.8	-10.3	-3.8	1.7	3.1	7.4
MSCI EMERGING MARKETS LC (G)	16.8	-5.4	1.7	4.9	5.5	6.4

DEVELOPED MARKETS WEIGHT AND RETURN (%)



EMERGING MARKETS WEIGHT AND RETURN (%)



Data sources: Bloomberg

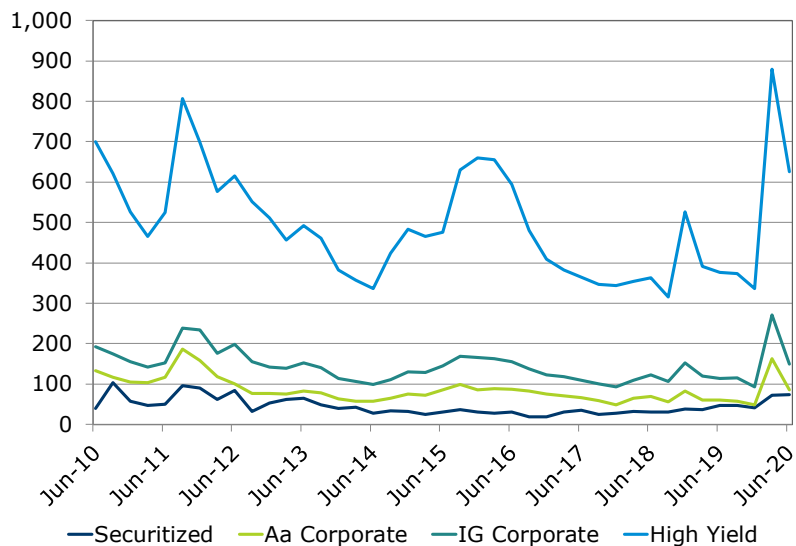
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# U.S. FIXED INCOME

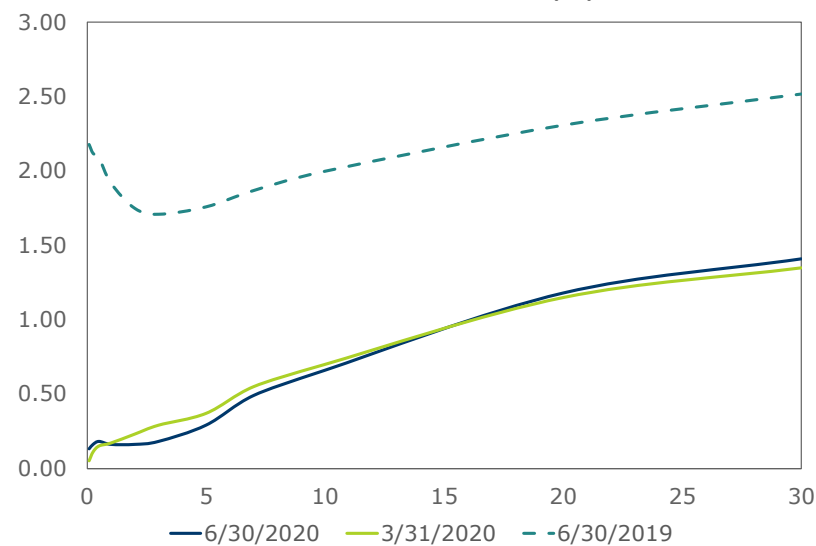
AS OF 6/30/2020	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS AGGREGATE	1.3	6.0	2.9	6.1	8.7	5.3	4.3	3.8
BLOOMBERG BARCLAYS TREASURY	0.5	7.2	0.5	8.7	10.4	5.6	4.1	3.4
BLOOMBERG BARCLAYS GOV'T-REL.	1.3	6.0	3.4	3.9	6.6	4.8	3.9	3.5
BLOOMBERG BARCLAYS SECURITIZED	1.4	2.3	0.9	3.6	5.7	4.0	3.3	3.2
BLOOMBERG BARCLAYS CORPORATE	2.1	8.5	9.0	5.0	9.5	6.3	5.8	5.5
BLOOMBERG BARCLAYS LT G/C	2.4	16.8	6.2	12.8	18.9	10.3	9.0	7.8
BLOOMBERG BARCLAYS LT TREASURY	1.3	19.4	0.2	21.2	25.4	12.0	9.3	7.7
BLOOMBERG BARCLAYS LT GOV't-REL.	2.9	13.5	8.2	4.3	10.0	8.0	7.1	7.2
BLOOMBERG BARCLAYS LT CORP.	3.2	15.2	11.4	6.3	13.8	8.8	8.8	7.8
BLOOMBERG BARCLAYS U.S. TIPS *	0.6	7.8	4.2	6.0	8.3	5.0	3.7	3.5
BLOOMBERG BARCLAYS HIGH YIELD	6.9	3.9	10.2	-3.8	0.0	3.3	4.8	6.7
TREASURY BILLS	0.1	0.3	0.0	0.7	1.7	1.8	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 (%)



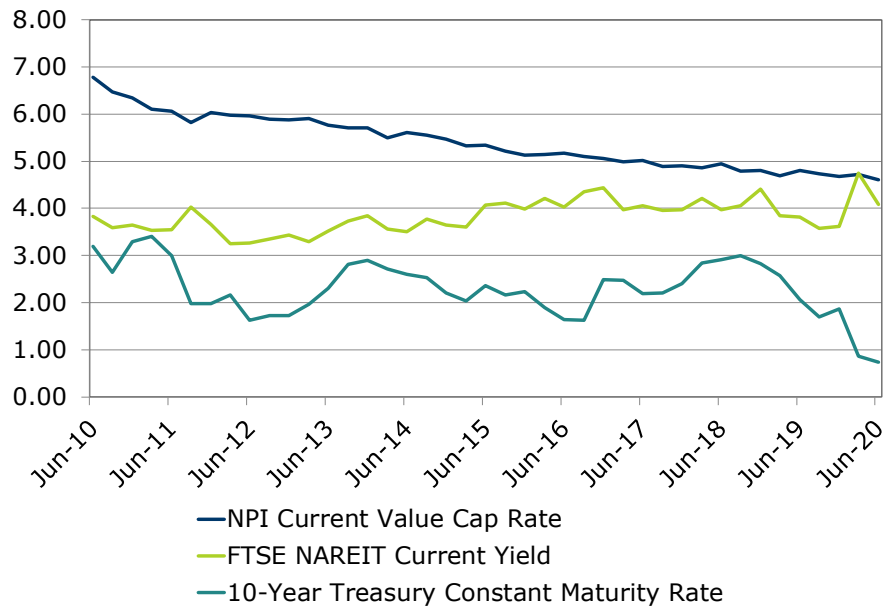
Data sources: Bloomberg

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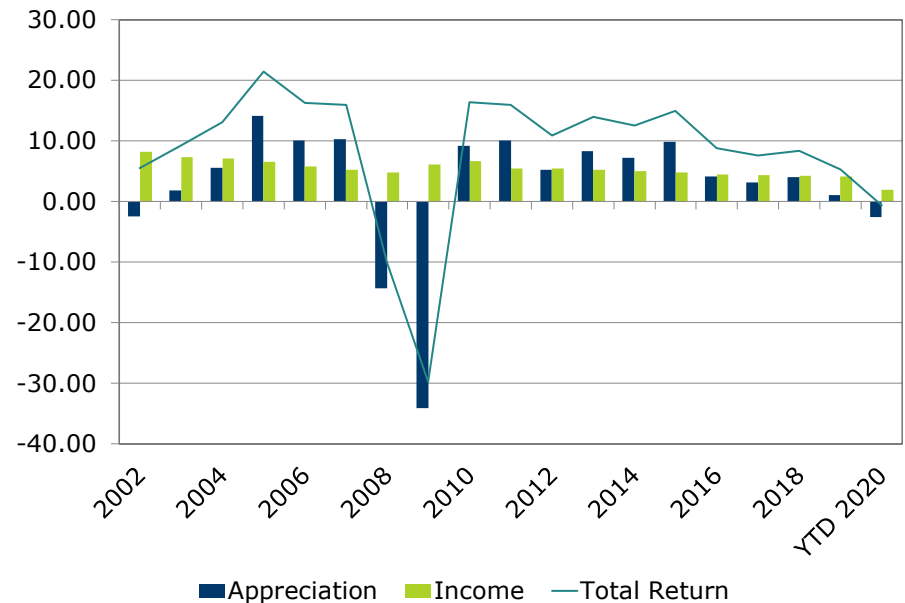
## REAL ASSETS

AS OF 6/30/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS U.S. TIPS	4.2	6.0	8.3	5.0	3.7	3.5
BLOOMBERG COMMODITY INDEX	5.1	-19.4	-17.4	-6.1	-7.7	-5.8
WILSHIRE GLOBAL RESI INDEX	9.5	-20.3	-15.2	-0.7	2.6	8.3
NCREIF ODCE FUND INDEX	-1.6	-0.6	2.2	5.7	7.3	10.8
NCREIF TIMBERLAND INDEX	0.1	0.2	0.3	2.3	2.8	4.4
ALERIAN MIDSTREAM ENERGY	32.6	-29.6	-29.4	-8.9	-8.0	n.a.

REAL ESTATE VALUATION (%)



NCREIF ODCE FUND INDEX RETURN (%)



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



# ASSET CLASS PERFORMANCE

ASSET CLASS RETURNS - BEST TO WORST						ANNUALIZED 5-YEAR AS OF 6/20
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%	Core Bond 6.1%	U.S. Equity 10.3%
U.S. Equity 0.7%	High Yield 17.1%	Developed 25.6%	Core Bond 0.0%	REITs 25.8%	U.S. TIPS 6.0%	High Yield 4.8%
Core Bond 0.6%	U.S. Equity 13.4%	U.S. Equity 21.0%	U.S. TIPS -1.3%	Developed 22.7%	T-Bills 0.7%	Core Bond 4.3%
T-Bills 0.1%	Commodities 11.8%	High Yield 7.5%	High Yield -2.1%	Emrg Mrkts 18.9%	U.S. Equity -3.3%	REITs 4.0%
Developed -0.4%	Emrg Mrkts 11.6%	REITs 4.2%	REITs -4.8%	High Yield 14.3%	High Yield -3.8%	U.S. TIPS 3.7%
U.S. TIPS -1.4%	REITs 7.2%	Core Bond 3.6%	U.S. Equity -5.3%	Core Bond 8.7%	Emrg Mrkts -9.7%	Emrg Mrkts 3.2%
High Yield -4.5%	U.S. TIPS 4.7%	U.S. TIPS 3.0%	Commodities -11.2%	U.S. TIPS 8.4%	Developed -11.1%	Developed 2.5%
Emrg Mrkts -14.6%	Core Bond 2.6%	Commodities 1.7%	MLPs -12.4%	Commodities 7.7%	REITs -17.8%	T-Bills 1.2%
Commodities -24.7%	Developed 1.5%	T-Bills 0.8%	Developed -13.4%	MLPs 6.6%	Commodities -19.4%	Commodities -7.7%
MLPs -32.6%	T-Bills 0.3%	MLPs -6.5%	Emrg Mrkts -14.2%	T-Bills 2.3%	Midstream -29.6%	MLPs -12.9%

Data sources: Bloomberg

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



# KRS Insurance Plan

# Asset Allocation Bucketing

KRS Insurance Plan

Periods Ended As of June 30, 2020

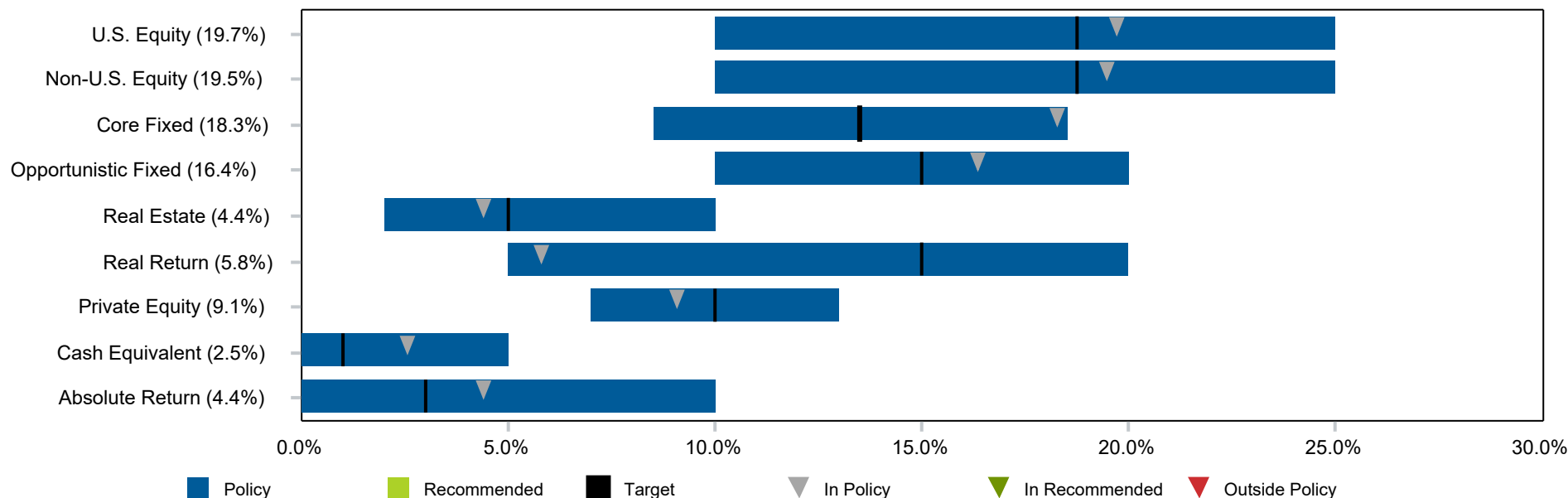
	Actual		Target	Difference	
	\$	%		\$	%
<b>Growth</b>	<b>\$3,543,876,337</b>	<b>64.6%</b>	<b>60.7%</b>	<b>\$214,451,514</b>	<b>3.9%</b>
U.S. Equity	\$1,081,016,410	19.7%	18.8%	\$52,569,698	1.0%
Non-U.S. Equity	\$1,068,579,380	19.5%	18.8%	\$40,132,668	0.7%
Private Equity	\$497,235,387	9.1%	10.0%	-\$51,269,526	-0.9%
High Yield/Specialty Credit	\$897,045,160	16.4%	15.0%	\$74,287,790	1.4%
<b>Liquidity</b>	<b>\$1,142,043,651</b>	<b>20.8%</b>	<b>16.3%</b>	<b>\$247,980,643</b>	<b>4.5%</b>
Core Fixed Income	\$1,002,450,369	18.3%	13.5%	\$261,968,736	4.8%
Cash	\$139,593,282	2.5%	1.0%	\$84,742,791	1.5%
<b>Diversifying</b>	<b>\$799,129,143</b>	<b>14.6%</b>	<b>23.0%</b>	<b>-\$462,432,157</b>	<b>-8.4%</b>
Real Estate	\$240,535,890	4.4%	5.0%	-\$33,716,567	-0.6%
Real Return	\$318,295,794	5.8%	15.0%	-\$504,461,576	-9.2%
Absolute Return	\$240,297,459	4.4%	3.0%	\$75,745,985	1.4%

# Asset Allocation Compliance

KRS Insurance Plan

Periods Ended As of June 30, 2020

## Executive Summary



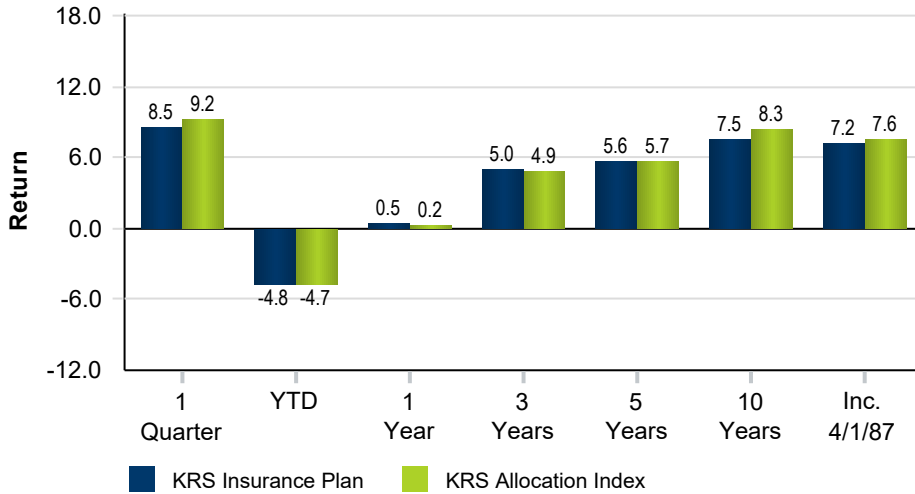
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
U.S. Equity	1,081,016,410	19.7	10.0	25.0	18.8	-52,569,698
Non-U.S. Equity	1,068,579,380	19.5	10.0	25.0	18.8	-40,132,668
Core Fixed	1,002,450,369	18.3	8.5	18.5	13.5	-261,968,736
Opportunistic Fixed	897,045,160	16.4	10.0	20.0	15.0	-74,287,790
Real Estate	240,535,890	4.4	2.0	10.0	5.0	33,716,567
Real Return	318,295,794	5.8	5.0	20.0	15.0	504,461,576
Private Equity	497,235,387	9.1	7.0	13.0	10.0	51,269,526
Cash Equivalent	139,593,282	2.5	0.0	5.0	1.0	-84,742,790
Absolute Return	240,297,459	4.4	0.0	10.0	3.0	-75,745,985
<b>Total Fund</b>	<b>5,485,049,132</b>	<b>100.0</b>			<b>100.0</b>	

# Total Fund Summary

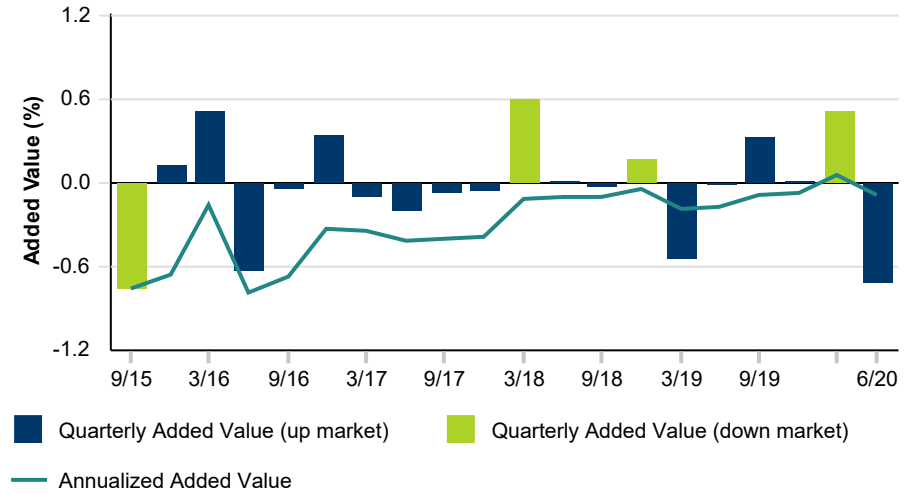
KRS Insurance Plan

Periods Ended June 30, 2020

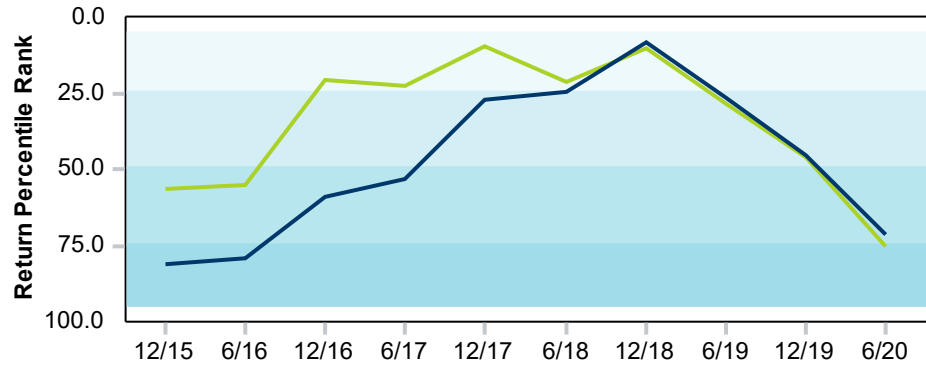
## Comparative Performance



## Added Value History

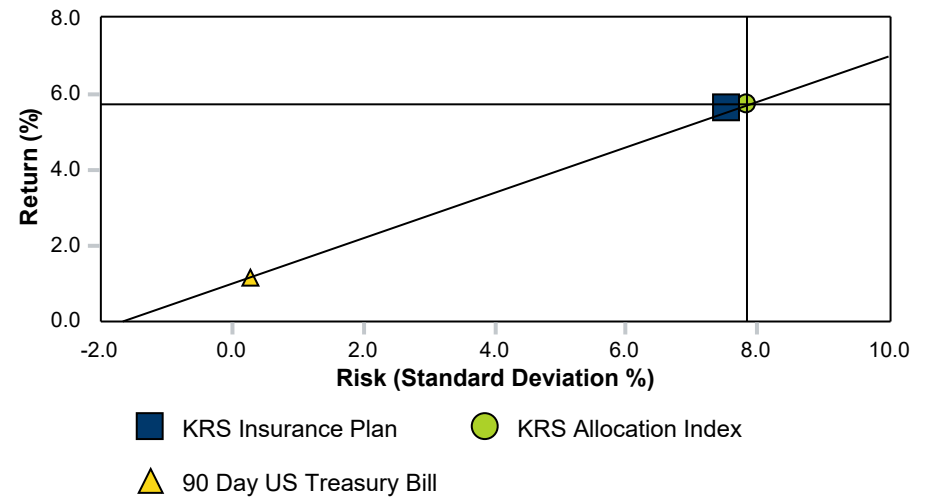


## Rolling Percentile Rank: All Public Plans-Total Fund



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
— KRS Insurance Plan	10	2 (20%)	3 (30%)	3 (30%)	2 (20%)
— Benchmark	10	5 (50%)	2 (20%)	3 (30%)	0 (0%)

## Risk and Return 07/1/15 - 06/30/20



# Asset Allocation & Performance

KRS Insurance Plan  
 Periods Ended June 30, 2020

	Allocation		Performance (%) net of fees									
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>KRS Insurance Plan</b>	<b>5,485,049,132</b>	<b>100.00</b>	<b>0.64</b>	<b>8.52</b>	<b>-4.77</b>	<b>0.50</b>	<b>0.50</b>	<b>5.01</b>	<b>5.64</b>	<b>7.47</b>	<b>7.20</b>	<b>4/1/1987</b>
KRS Allocation Index			0.49	9.24	-4.71	0.24	0.24	4.87	5.72	8.34	7.58	
Value Added			0.15	-0.72	-0.06	0.26	0.26	0.14	-0.08	-0.87	-0.38	
KRS IPS Index			0.47	9.29	-4.62	0.35	0.35	4.61				
Value Added			0.17	-0.77	-0.15	0.15	0.15	0.40				
<b>KERS Insurance Plan</b>	<b>990,148,416</b>	<b>18.05</b>	<b>1.21</b>	<b>9.97</b>	<b>-4.14</b>	<b>0.98</b>	<b>0.98</b>	<b>4.59</b>	<b>5.31</b>	<b>7.20</b>	<b>7.12</b>	<b>4/1/1987</b>
KERS Allocation Index			0.54	9.33	-4.45	0.25	0.25	4.62	5.50	8.21	7.54	
Value Added			0.67	0.64	0.31	0.73	0.73	-0.03	-0.19	-1.01	-0.42	
KERS IPS Index			0.52	9.38	-4.37	0.36	0.36	4.38				
Value Added			0.69	0.59	0.23	0.62	0.62	0.21				
Assumed Rate 6.25%			0.51	1.53	3.08	6.25	6.25	6.25				
Value Added			0.70	8.44	-7.22	-5.27	-5.27	-1.66				
<b>KERS (H) Insurance Plan</b>	<b>513,884,382</b>	<b>9.37</b>	<b>0.58</b>	<b>8.19</b>	<b>-4.99</b>	<b>0.19</b>	<b>0.19</b>	<b>4.83</b>	<b>5.51</b>	<b>7.42</b>	<b>7.18</b>	<b>4/1/1987</b>
KERS (H) Allocation Index			0.44	9.15	-4.74	0.15	0.15	4.82	5.62	8.27	7.56	
Value Added			0.14	-0.96	-0.25	0.04	0.04	0.01	-0.11	-0.85	-0.38	
KERS (H) IPS Index			0.42	9.20	-4.66	0.26	0.26	4.55				
Value Added			0.16	-1.01	-0.33	-0.07	-0.07	0.28				
Assumed Rate 6.25%			0.51	1.53	3.08	6.25	6.25	6.25				
Value Added			0.07	6.66	-8.07	-6.06	-6.06	-1.42				

# Asset Allocation & Performance

KRS Insurance Plan  
 Periods Ended June 30, 2020

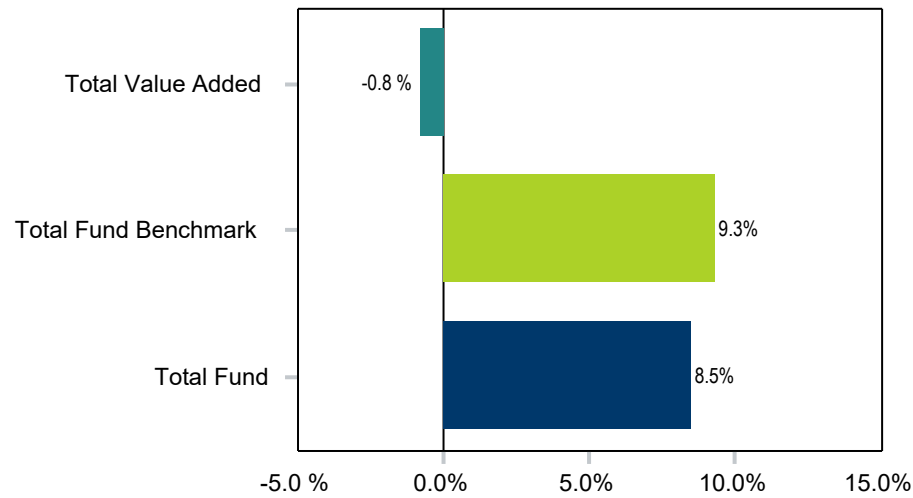
	Allocation		Performance (%) net of fees									
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>CERS Insurance Plan</b>	<b>2,481,793,862</b>	<b>45.25</b>	<b>0.57</b>	<b>8.34</b>	<b>-4.89</b>	<b>0.33</b>	<b>0.33</b>	<b>5.03</b>	<b>5.65</b>	<b>7.50</b>	<b>7.20</b>	<b>4/1/1987</b>
CERS Allocation Index			1.28	10.94	-4.82	-0.08	-0.08	4.76	5.58	8.25	7.55	
Value Added			-0.71	-2.60	-0.07	0.41	0.41	0.27	0.07	-0.75	-0.35	
CERS IPS Index			0.49	9.30	-4.63	0.40	0.40	4.66				
Value Added			0.08	-0.96	-0.26	-0.07	-0.07	0.37				
Assumed Rate 6.25%			0.51	1.53	3.08	6.25	6.25	6.25				
Value Added			0.06	6.81	-7.97	-5.92	-5.92	-1.22				
<b>CERS (H) Insurance Plan</b>	<b>1,300,187,820</b>	<b>23.70</b>	<b>0.40</b>	<b>7.95</b>	<b>-5.00</b>	<b>0.23</b>	<b>0.23</b>	<b>5.05</b>	<b>5.70</b>	<b>7.52</b>	<b>7.21</b>	<b>4/1/1987</b>
CERS (H) Allocation Index			0.45	9.17	-4.78	0.19	0.19	4.90	5.67	8.30	7.56	
Value Added			-0.05	-1.22	-0.22	0.04	0.04	0.15	0.03	-0.78	-0.35	
CERS (H) IPS Index			0.43	9.22	-4.70	0.30	0.30	4.63				
Value Added			-0.03	-1.27	-0.30	-0.07	-0.07	0.42				
Assumed Rate 6.25%			0.51	1.53	3.08	6.25	6.25	6.25				
Value Added			-0.11	6.42	-8.08	-6.02	-6.02	-1.20				
<b>SPRS Insurance Plan</b>	<b>199,037,839</b>	<b>3.63</b>	<b>0.41</b>	<b>8.05</b>	<b>-4.60</b>	<b>0.63</b>	<b>0.63</b>	<b>5.17</b>	<b>5.76</b>	<b>7.55</b>	<b>7.22</b>	<b>4/1/1987</b>
SPRS Allocation Index			0.39	9.07	-4.73	0.24	0.24	4.89	5.66	8.29	7.56	
Value Added			0.02	-1.02	0.13	0.39	0.39	0.28	0.10	-0.74	-0.34	
SPRS IPS Index			0.37	9.12	-4.65	0.35	0.35	4.61				
Value Added			0.04	-1.07	0.05	0.28	0.28	0.56				
Assumed Rate 6.25%			0.51	1.53	3.08	6.25	6.25	6.25				
Value Added			-0.10	6.52	-7.68	-5.62	-5.62	-1.08				

# Total Fund Attribution

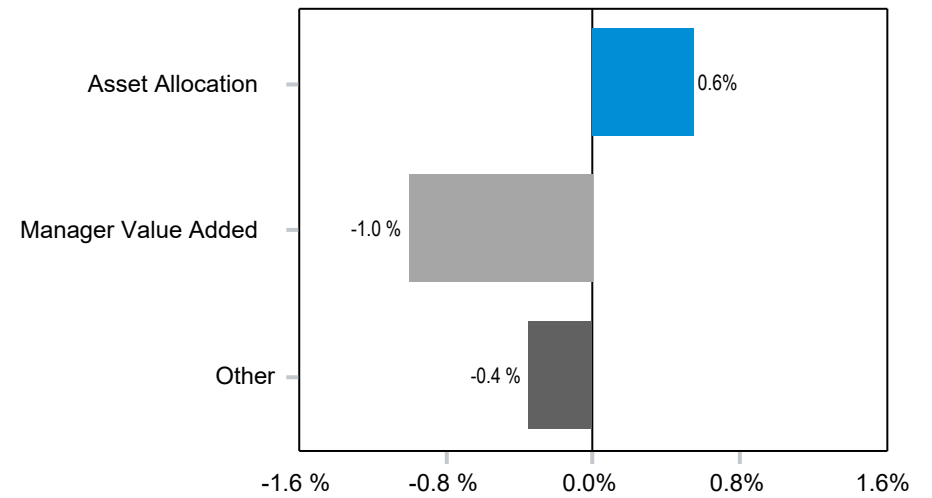
KRS Insurance Plan

Periods Ended 1 Quarter Ending June 30, 2020

**Total Fund Performance**



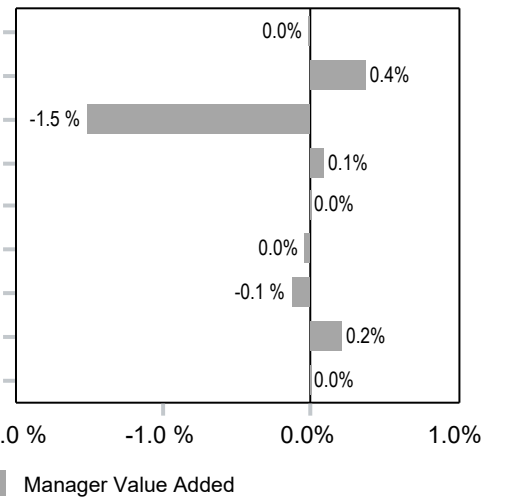
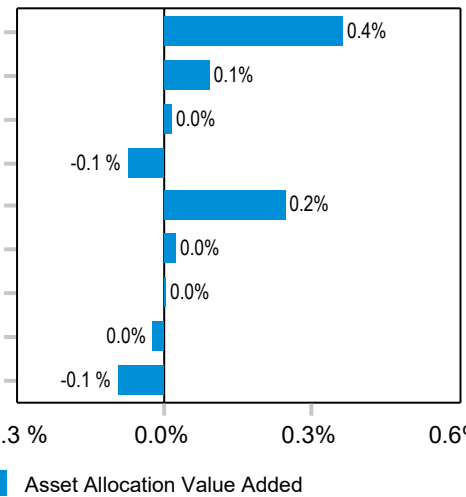
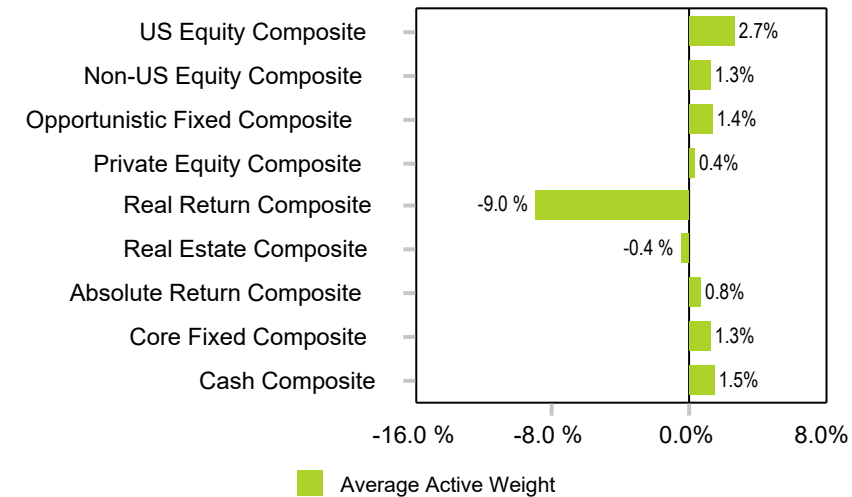
**Total Value Added:-0.8 %**



**Total Asset Allocation:0.6%**

**Asset Allocation Value Added:0.6%**

**Total Manager Value Added:-1.0 %**

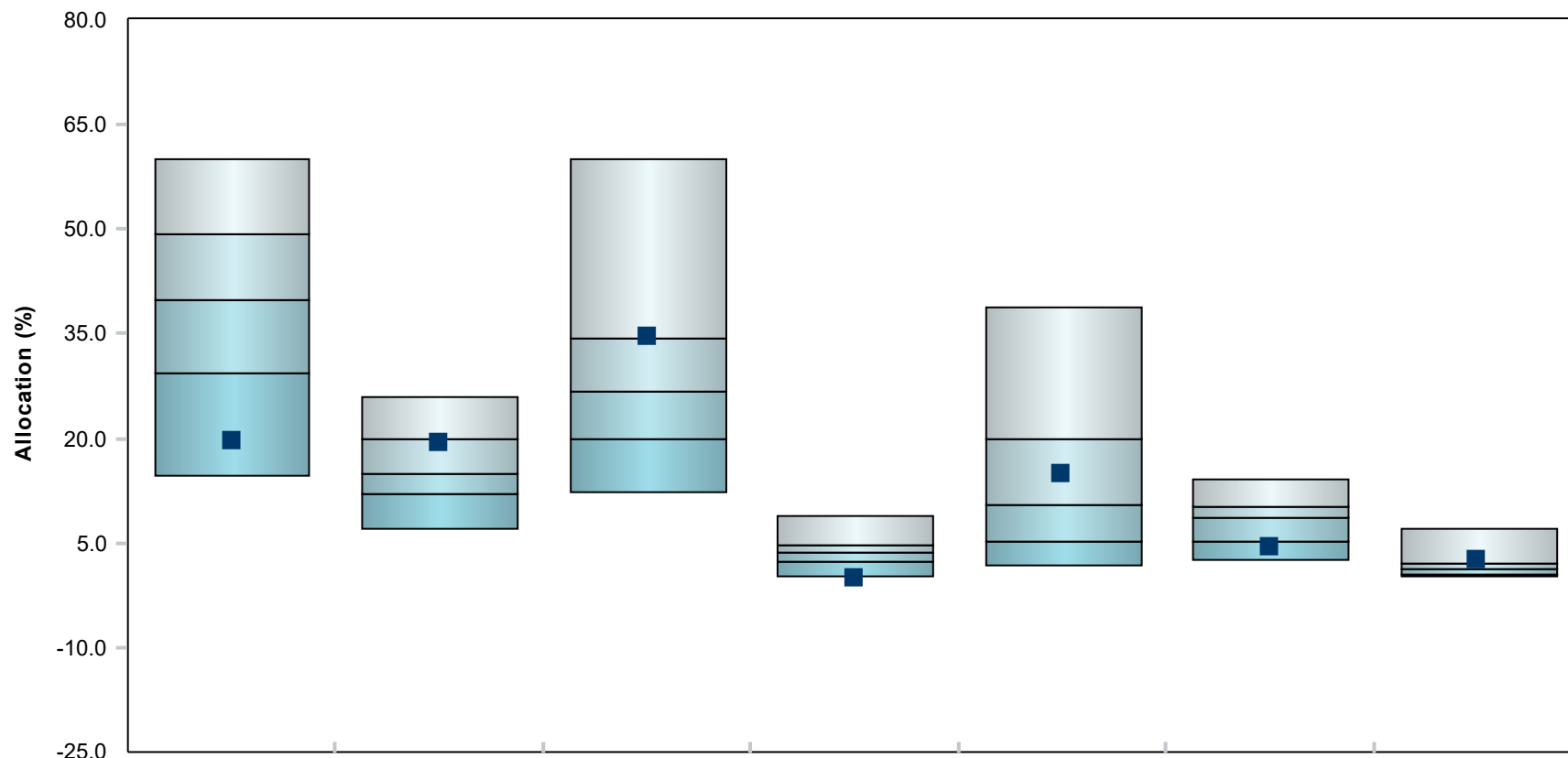




# Plan Sponsor TF Asset Allocation

KRS Insurance Plan vs All Public Plans-Total Fund

Periods Ended June 30, 2020

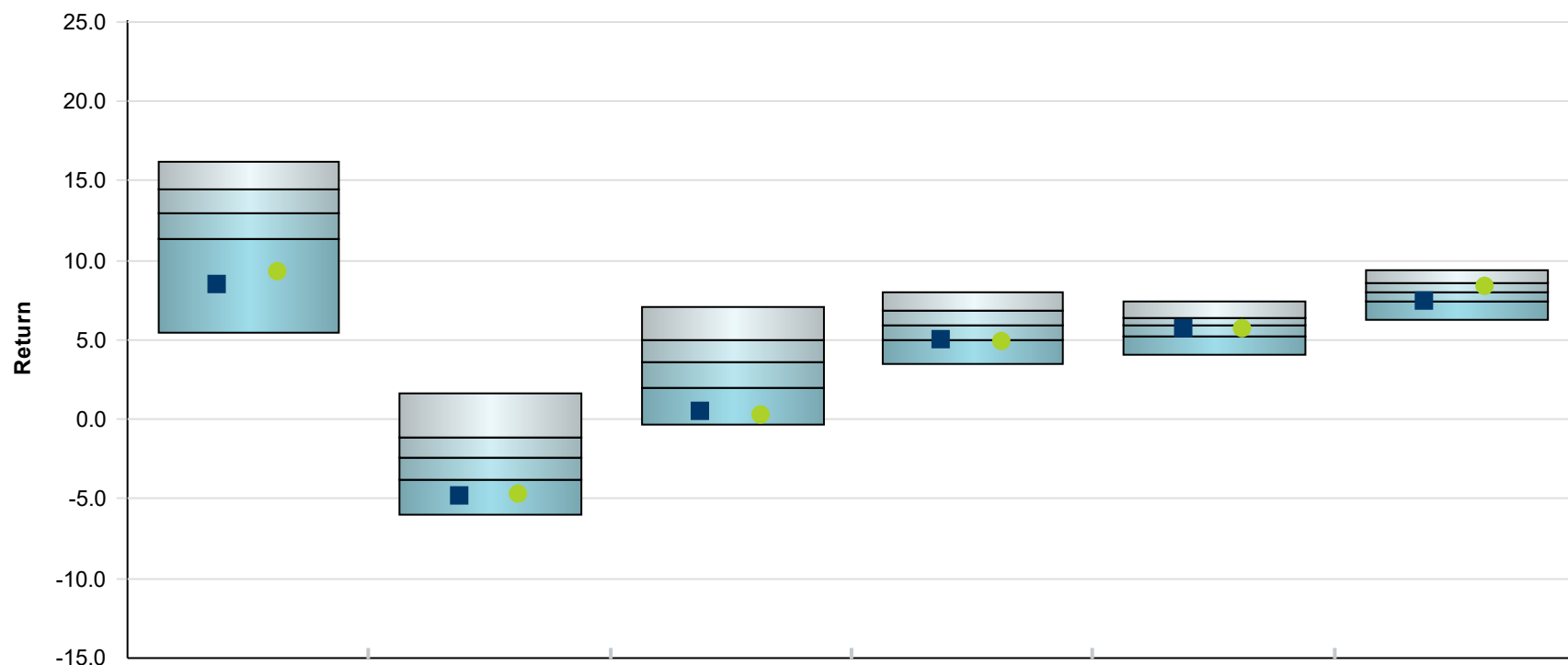


	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ KRS Insurance Plan	19.71	19.48	34.63	0.00	14.87	4.39	2.54
5th Percentile	60.14	25.97	60.05	8.96	38.71	14.02	6.99
1st Quartile	49.18	19.86	34.41	4.64	19.86	10.21	2.06
Median	39.73	14.98	26.68	3.74	10.46	8.57	1.13
3rd Quartile	29.44	11.95	20.01	2.23	5.15	5.22	0.56
95th Percentile	14.56	7.05	12.37	0.17	1.65	2.46	0.07

# Plan Sponsor Peer Group Analysis

KRS Insurance Plan vs All Public Plans-Total Fund

Periods Ended June 30, 2020



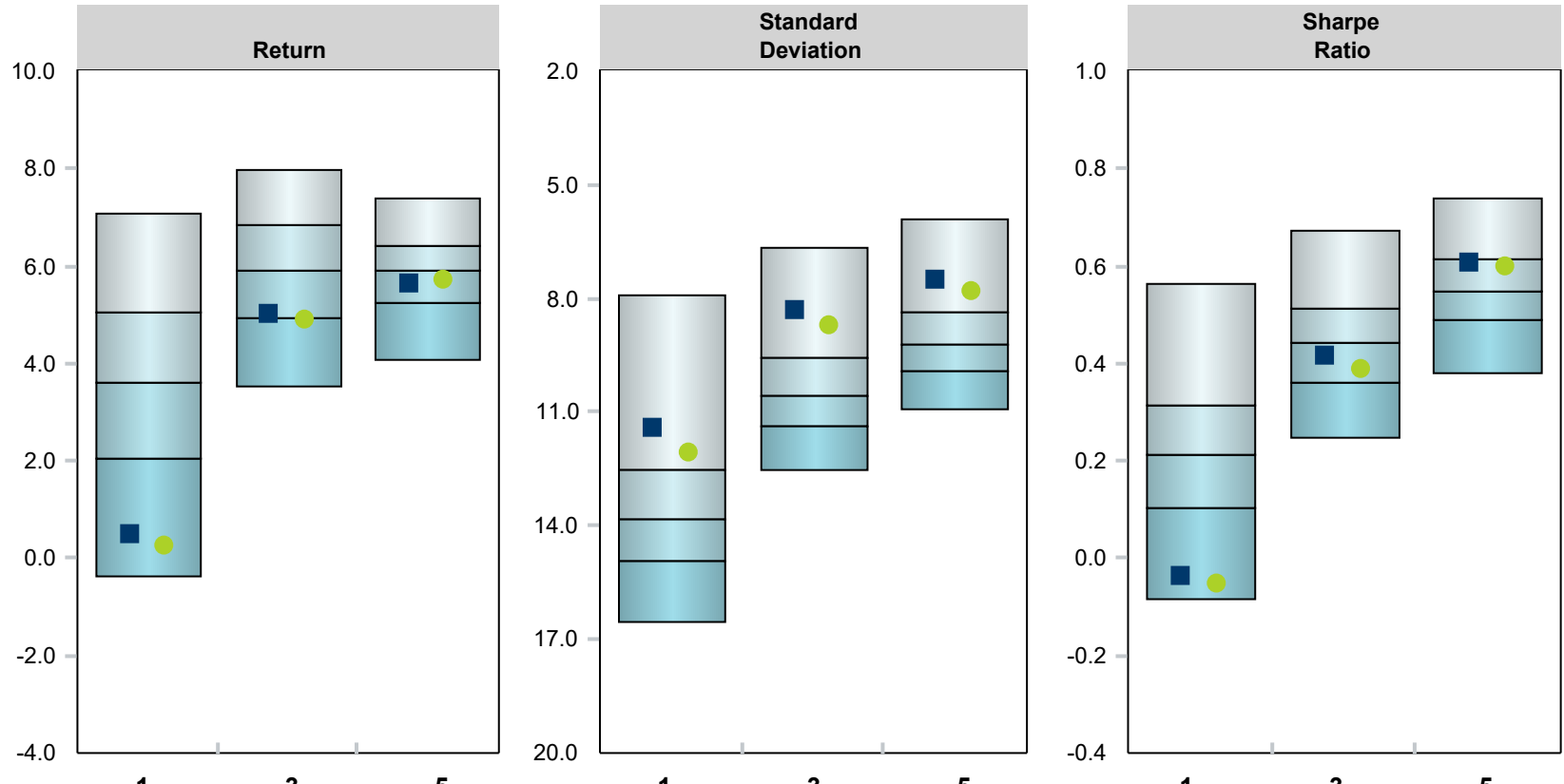
	<b>QTD</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>
■ KRS Insurance Plan	8.52 (91)	-4.77 (89)	0.50 (90)	5.01 (74)	5.64 (62)	7.47 (74)
● KRS Allocation Index	9.24 (90)	-4.71 (88)	0.24 (92)	4.87 (78)	5.72 (59)	8.34 (39)
5th Percentile	16.24	1.63	7.07	7.96	7.38	9.41
1st Quartile	14.51	-1.18	5.04	6.85	6.42	8.63
Median	12.93	-2.40	3.59	5.92	5.90	8.05
3rd Quartile	11.34	-3.78	2.05	4.94	5.22	7.41
95th Percentile	5.49	-6.01	-0.36	3.51	4.08	6.25
Population	674	673	665	632	582	478

Parenteses contain percentile rankings.  
Calculation based on monthly periodicity.

# Plan Sponsor Peer Group Analysis - Multi Statistics

KRS Insurance Plan vs All Public Plans-Total Fund

Periods Ended June 30, 2020



	1 Year	3 Years	5 Years
■ KRS Insurance Plan	0.50 (90)	5.01 (74)	5.64 (62)
● KRS Allocation Index	0.24 (92)	4.87 (78)	5.72 (59)

	1 Year	3 Years	5 Years
■ KRS Insurance Plan	11.41 (14)	8.31 (9)	7.53 (10)
● KRS Allocation Index	12.07 (18)	8.72 (12)	7.84 (15)

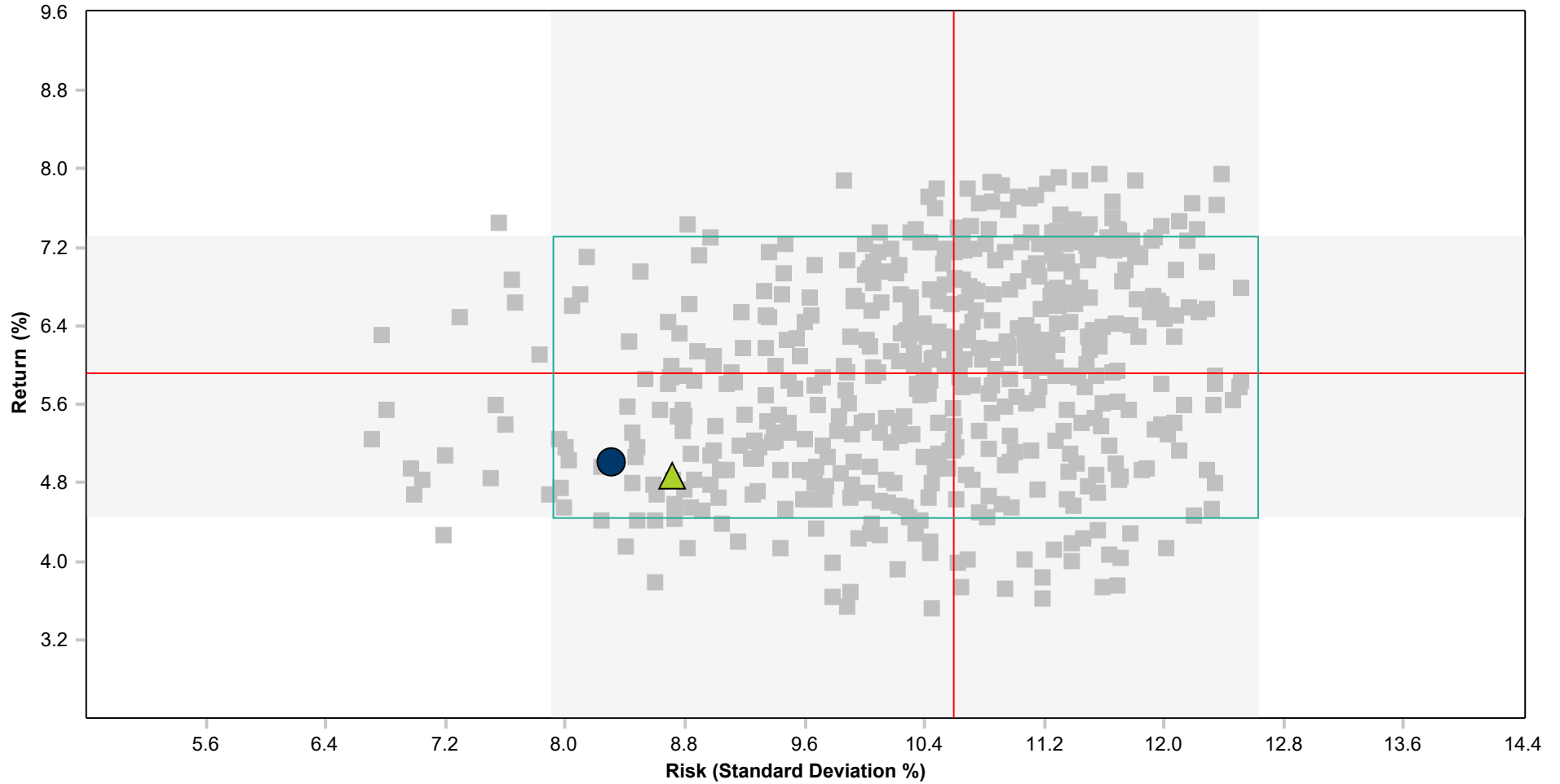
	1 Year	3 Years	5 Years
■ KRS Insurance Plan	-0.04 (93)	0.42 (60)	0.61 (27)
● KRS Allocation Index	-0.05 (94)	0.39 (69)	0.60 (31)

	1 Year	3 Years	5 Years
5th Percentile	7.07	7.96	7.38
1st Quartile	5.04	6.85	6.42
Median	3.59	5.92	5.90
3rd Quartile	2.05	4.94	5.22
95th Percentile	-0.36	3.51	4.08

Parenteses contain percentile rankings.  
Calculation based on monthly periodicity.

# Plan Sponsor Scattergram

KRS Insurance Plan vs All Public Plans-Total Fund  
 Periods Ended July 1, 2017 To June 30, 2020



	Return	Standard Deviation
● KRS Insurance Plan	5.01	8.31
▲ KRS Allocation Index	4.87	8.72
— Median	5.92	10.59

Calculation based on monthly periodicity.