

*Teachers' Retirement System of the State of Kentucky*  
*Retirement Annuity Trust*  
*Quarterly Investment Performance*  
*Net of Management Fee Returns*  
*For the Period Ended September 30, 2018*

FINAL

	<u>Market Value</u>	<u>Last Qtr</u>	<u>FYTD</u>	<u>1-Year</u>	<u>3-Year*</u>	<u>5-Year*</u>	<u>10-Year*</u>	<u>20-Year*</u>
<b>TOTAL PLAN</b>	\$ 20,220,950,549.72	3.00	3.00	8.89	11.08	8.75	8.79	6.48
<i>Policy Benchmark</i>		3.75	3.75	9.09	11.53	8.77	8.65	-
<b><u>Total Equity</u></b>	\$ 12,567,293,340.26	3.86	3.86	11.75	14.88	10.97	-	-
<b><u>Domestic Equity</u></b>	\$ 8,070,384,758.49	6.03	6.03	16.34	16.18	13.26	-	-
<i>S&amp;P 1500 Index</i>		7.35	7.35	17.69	17.26	13.77	-	-
<b><u>All-Cap Equities</u></b>	\$ 276,757,011.94	6.27	6.27	14.60	-	-	-	-
<i>Russell 3000</i>		7.12	7.12	17.58	-	-	-	-
Fort Washington Focused Equity	\$ 276,757,011.94	6.27	6.27	14.60	-	-	-	-
<b><u>Large-Cap Equities</u></b>	\$ 6,638,589,028.16	6.34	6.34	16.32	16.13	13.35	-	-
<i>S&amp;P 500 Index</i>		7.71	7.71	17.91	17.31	13.95	-	-
Todd Asset Large Cap Intrinsic Value (Stocks)	\$ 1,158,054,542.76	4.47	4.47	12.29	15.17	12.51	-	-
S&P 500 Stock Index Fund	\$ 2,431,246,062.16	7.79	7.79	18.31	17.61	14.20	-	-
UBS Value Oriented (Global)	\$ 914,125,762.67	3.41	3.41	11.44	14.36	12.37	-	-
State Street US Premier Growth Equity	\$ 688,999,381.23	8.21	8.21	19.87	18.67	14.77	-	-
Todd Asset Intrinsic Value Opportunity (Alpha)	\$ 488,442,373.97	6.11	6.11	14.26	8.63	8.01	-	-
UBS Alpha Equity	\$ 275,042,828.96	3.99	3.99	9.07	14.44	12.92	-	-
Wellington Large Cap Equity	\$ 682,678,076.41	7.74	7.74	23.47	17.40	15.08	-	-
<b><u>Mid-Cap Equities</u></b>	\$ 694,589,632.80	4.35	4.35	17.55	16.53	13.10	-	-
<i>S&amp;P 400 Index</i>		3.86	3.86	14.21	15.68	11.91	-	-
S&P 400 Stock Index Fund	\$ 339,225,684.43	3.84	3.84	14.32	15.69	12.02	-	-
Wellington Mid Cap Equity	\$ 355,363,948.37	4.89	4.89	21.20	17.37	14.31	-	-
<b><u>Small-Cap Equities</u></b>	\$ 460,449,085.59	4.00	4.00	15.80	17.97	12.84	-	-
<i>S&amp;P 600 Index</i>		4.71	4.71	19.08	19.41	13.32	-	-
Wellington Small Cap Equity	\$ 201,101,382.58	3.34	3.34	13.05	16.72	12.54	-	-
S&P 600 Stock Index Fund	\$ 259,347,703.01	4.50	4.50	18.03	18.93	13.10	-	-

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<b><u>International Equity</u></b>	\$ 4,496,908,581.77	0.04	0.04	3.96	12.40	5.99	-	-
<i>MSCI AC World Ex US</i>		<i>0.80</i>	<i>0.80</i>	<i>2.25</i>	<i>10.49</i>	<i>4.60</i>	-	-
Todd Asset International Intrinsic Value	\$ 821,200,800.80	0.16	0.16	1.06	8.03	4.16	-	-
Baillie Gifford EAFE Fund	\$ 1,167,122,933.63	-3.09	-3.09	5.16	17.21	8.03	-	-
UBS All Country World Ex US Equity	\$ 917,764,217.12	2.11	2.11	6.03	12.67	5.97	-	-
Barings All Country World Ex US	\$ 701,972,193.00	2.37	2.37	6.38	13.03	6.94	-	-
Black Rock MSCI ACWI Ex US IMI Index	\$ 797,917,470.48	0.44	0.44	2.09	10.75	4.80	-	-
Todd Asset International Intrinsic Value Opportunity	\$ 90,930,966.74	-1.32	-1.32	-4.94	6.63	-	-	-
<b><u>Fixed Income</u></b>	\$ 3,519,641,876.15	0.06	0.06	-0.73	1.93	2.67	-	-
<i>Barclay's Govt./Credit Index</i>		<i>0.06</i>	<i>0.06</i>	<i>-1.37</i>	<i>1.45</i>	<i>2.23</i>	-	-
<b><u>Intermediate</u></b>								
<i>Barclay's Intermediate Govt/Credit Index</i>		<i>0.21</i>	<i>0.21</i>	<i>-0.96</i>	<i>0.91</i>	<i>1.52</i>	-	-
Intermediate Bond Fund	\$ 767,428,801.81	0.23	0.23	-0.33	0.98	1.52	-	-
<b><u>Broad</u></b>								
<i>Barclay's Govt./Credit Index</i>		<i>0.06</i>	<i>0.06</i>	<i>-1.37</i>	<i>1.45</i>	<i>2.23</i>	-	-
Fort Washington Core Fixed Income	\$ 614,910,461.84	0.25	0.25	-1.18	2.58	2.71	-	-
Broad Market Bond Fund	\$ 681,466,192.42	0.18	0.18	-0.54	1.92	2.81	-	-
Galliard Capital Management Core Fixed Income	\$ 618,445,897.55	0.10	0.10	-0.92	2.10	3.11	-	-
Internal Bond Fund	\$ 166,877,561.16	-0.05	-0.05	0.25	2.31	3.36	-	-
Tax Shelter Fund	\$ 323,713.53	0.46	0.46	1.45	0.79	0.50	-	-
<b><u>Long</u></b>								
<i>Hybrid Index</i>		<i>-0.12</i>	<i>-0.12</i>	<i>-1.83</i>	<i>2.16</i>	<i>3.28</i>	-	-
Long Term Bond Fund	\$ 670,189,247.84	-0.41	-0.41	-1.04	2.44	3.67	-	-



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<b><u>Alternative Investments</u></b>								
<b><u>Private Equity</u></b>	\$ 1,142,940,291.03	4.24	4.24	15.92	10.64	12.29	-	-
<b><u>Mature Private Equity</u></b>	\$ 416,959,634.35	5.15	5.15	14.94	8.08	11.10	-	-
<i>S&amp;P 500 plus 3%</i>		8.51	8.51	21.45	20.83	17.37	-	-
KKR & Co Fund 2006	\$ 7,058,287.00	18.91	18.91	18.10	13.79	15.17	-	-
Chrysalis Ventures Fund III	\$ 13,155,774.00	-5.33	-5.33	-9.34	-9.52	-3.04	-	-
Fort Washington Fund V	\$ 6,705,305.00	3.65	3.65	11.48	6.16	11.16	-	-
KKR European III	\$ 20,263,977.00	7.79	7.79	25.90	17.92	20.15	-	-
Fort Washington Fund VI	\$ 21,246,898.00	4.51	4.51	20.07	11.93	16.25	-	-
Riverstone/Carlyle E&P Fund IV	\$ 22,231,956.00	4.17	4.17	4.35	-1.62	-4.44	-	-
Alinda Infrastructure Fund II	\$ 25,822,393.00	1.03	1.03	-10.85	-3.49	4.24	-	-
Capital South Partners III	\$ 861,349.00	-4.50	-4.50	9.59	2.20	13.08	-	-
Landmark Equity Partners XIV	\$ 7,101,231.00	1.01	1.01	-1.26	-2.13	4.54	-	-
Lexington Capital Partners VII	\$ 9,155,098.00	-0.56	-0.56	10.05	8.13	11.66	-	-
Stepstone Pioneer Capital III	\$ 15,101,172.00	6.86	6.86	21.94	10.96	14.17	-	-
Oaktree Mezzanine Fund III	\$ 1,195,961.00	4.76	4.76	52.71	22.89	20.14	-	-
JP Morgan Maritime Fund	\$ 33,647,808.41	3.25	3.25	10.91	-10.81	-0.61	-	-
Audax Mezzanine Fund III	\$ 5,490,911.80	0.62	0.62	1.80	9.24	10.01	-	-
Hellman & Friedman VII	\$ 67,923,941.00	4.96	4.96	35.17	36.70	30.97	-	-
Oaktree European Principal Fund III	\$ 17,745,643.00	-4.12	-4.12	12.47	12.48	12.90	-	-
NGP Natural Resources X	\$ 26,203,950.00	7.56	7.56	18.74	10.21	7.28	-	-
Riverstone E&P Fund V	\$ 20,345,932.00	9.26	9.26	17.76	0.16	6.50	-	-
APAX VIII	\$ 38,663,612.60	6.03	6.03	18.67	14.66	16.43	-	-
Actis Global Fund IV	\$ 42,036,146.00	15.92	15.92	15.49	4.03	11.75	-	-
Audax Private Equity Fund IV	\$ 15,002,288.54	0.00	0.00	6.80	13.65	15.76	-	-

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<b>Private Equity &lt; 5 Years</b>	\$ 725,980,656.68	3.92	3.92	17.66	12.74	12.99	-	-
Landmark Equity Partners XV	\$ 12,926,792.00	4.94	4.94	21.94	12.06	-	-	-
Fort Washington Fund VIII	\$ 26,206,840.00	2.70	2.70	13.44	13.66	-	-	-
Carlyle Global Financial Service Partners II	\$ 26,483,935.00	1.38	1.38	20.66	12.58	-	-	-
Public Pension Capital LLC	\$ 67,989,199.39	3.07	3.07	23.97	9.36	-	-	-
NGP Natural Resources XI	\$ 51,905,814.00	6.83	6.83	18.07	14.62	-	-	-
Gavea Investments Fund V	\$ 7,332,742.07	-11.99	-11.99	8.49	7.50	-	-	-
Oaktree Mezzanine Fund IV	\$ 17,850,503.00	2.71	2.71	8.28	8.02	-	-	-
Lexington Capital Partners VIII	\$ 21,894,733.00	2.49	2.49	25.47	17.48	-	-	-
KKR European Fund IV	\$ 39,475,828.00	2.42	2.42	26.73	2.72	-	-	-
IFM Global Infrastructure	\$ 137,212,198.35	7.82	7.82	19.74	12.55	-	-	-
Carlyle Europe Partners IV	\$ 45,696,128.00	-0.98	-0.98	25.82	14.40	-	-	-
Audax Private Equity Fund V	\$ 17,859,855.00	0.73	0.73	1.25	-	-	-	-
Fort Washington Fund IX	\$ 9,102,135.00	4.62	4.62	4.16	-	-	-	-
Fort Washington Fund IX-K	\$ 11,195,749.00	6.56	6.56	4.51	-	-	-	-
Hellman & Friedman Fund VIII	\$ 36,166,386.00	1.70	1.70	18.76	-	-	-	-
Riverstone E&P Fund VI	\$ 38,337,508.00	1.64	1.64	10.78	-	-	-	-
Audax Mezzanine Fund IV	\$ 7,088,804.31	3.54	3.54	10.45	-	-	-	-
JP Morgan Maritime Fund II	\$ 20,377,597.55	1.66	1.66	14.70	-	-	-	-
APAX IX	\$ 23,936,541.00	4.43	4.43	14.64	-	-	-	-
Oaktree European Principal Fund IV	\$ 32,258,235.00	6.79	6.79	6.53	-	-	-	-
KKR Americas Fund XII	\$ 7,089,662.00	5.49	5.49	-46.05	-	-	-	-
NGP Natural Resources XII	\$ 10,303,943.00	10.17	10.17	-	-	-	-	-
Carlyle Global Financial Service Partners III	\$ 7,286,864.00	2.00	-	-	-	-	-	-
JP Morgan Global Transport Income Fund	\$ 50,002,663.01	0.01	-	-	-	-	-	-
APAX Digital Fund	\$ 1.00	-	-	-	-	-	-	-

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<b><u>Timberland:</u></b>	\$ 187,022,035.96	1.22	1.22	-6.56	0.17	2.91	-	-
<i>NCREIF Timberland Index</i>		<i>1.02</i>	<i>1.02</i>	<i>4.00</i>	<i>3.52</i>	<i>6.00</i>	-	-
Hancock Bluegrass LLC - Oregon	\$ 34,292,484.00	1.26	1.26	8.36	8.66	9.79	-	-
Molpus Lake Superior Timberlands (Michigan)	\$ 92,234,607.84	1.07	1.07	-9.03	-5.80	0.92	-	-
Molpus Lake Superior Timberlands (Hiwassee)	\$ 7,813,976.60	0.78	0.78	-9.64	-0.44	-0.78	-	-
Molpus Seven States	\$ 52,680,967.52	1.51	1.51	-9.83	7.22	4.12	-	-
<b><u>Additional Categories:</u></b>	\$ 1,408,380,234.21	2.55	2.55	4.60	5.24	4.51	-	-
<i>B of A Merrill Lynch High Yield Master II</i>		<i>2.44</i>	<i>2.44</i>	<i>2.94</i>	<i>8.19</i>	<i>5.54</i>	-	-
<b><u>Evergreen Funds:</u></b>								
Fort Washington High Yield Bond Fund	\$ 320,049,185.84	2.20	2.20	2.13	6.85	4.71	-	-
Marathon/TRS Credit Fund	\$ 343,953,946.88	2.27	2.27	1.67	3.98	3.59	-	-
Shenkman Capital Management	\$ 259,516,158.43	2.20	2.20	5.01	4.68	3.68	-	-
Golub Capital Pearls 11 LLC	\$ 1.00	2.15	2.15	7.78	6.01	-	-	-
Barings Capital European Loan Fund	\$ 102,300,000.00	2.57	2.57	5.47	6.22	-	-	-
Columbia High Yield Bond Fund	\$ 172,320,823.09	2.89	2.89	1.34	-	-	-	-
<b><u>Non-Evergreen Funds:</u></b>								
Avenue Special Situations Fund VI	\$ 8,141,870.00	3.43	3.43	15.58	-7.61	-2.02	-	-
Oaktree Opportunities Fund IX	\$ 40,061,899.00	3.94	3.94	8.41	5.23	4.89	-	-
Highbridge Principal Strategies III	\$ 20,849,575.45	2.20	2.20	5.50	5.02	6.70	-	-
Angelo Gordon Select Partners Advantage Fund	\$ 68,534.00	7.39	7.39	3.71	-0.05	-	-	-
Oaktree European Dislocation Fund	\$ 2,370,736.00	-2.86	-2.86	15.54	12.98	-	-	-
Marathon European Credit Opportunities Fund II	\$ 44,280,443.63	4.33	4.33	20.67	11.57	-	-	-
Oaktree Opportunities Fund X	\$ 22,368,028.00	7.07	7.07	15.77	20.60	-	-	-
Oaktree European Capital Solutions Fund	\$ 17,744,992.00	-1.15	-1.15	9.06	-	-	-	-
Marathon European Credit Opportunities Fund III	\$ 51,859,969.89	4.19	4.19	11.98	-	-	-	-
Oaktree Opportunities Fund X(b)	\$ 2,494,071.00	-0.47	-	-	-	-	-	-
<b><u>Short Term:</u></b>								
<b>Cash (Unallocated)</b>	\$ 231,567,214.56	0.54	0.54	1.71	0.92	0.58	-	-
<i>90 Day T-Bill</i>		<i>0.49</i>	<i>0.49</i>	<i>1.59</i>	<i>0.80</i>	<i>0.50</i>	-	-

\*Returns are annualized for periods longer than one year

\*\* Prior to July 1, 2008, TRS did not benchmark overall fund performance. Effective July 1, 2008, the Board of Trustees approved a Policy Index that represents the returns of appropriate benchmarks for the various asset classes weighted by the mid-point of the strategic range for the current fiscal year.