

Richmond Retirement System 3Q 2016

Richmond Retirement System

Total Fund Net Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Brandywine Global Opportunistic Fixed Income	43,296,678	8.0	1.7	63	1.7	63	12.1	17	11.4	16	2.9	55	3.9	53	--	--
<i>Barclays Global Aggregate</i>			<u>0.8</u>	88	<u>0.8</u>	88	<u>9.9</u>	40	<u>8.8</u>	42	<u>2.1</u>	68	<u>1.7</u>	80	<u>4.3</u>	78
Over/Under			0.9		0.9		2.2		2.6		0.8		2.2			
<i>eA All Global Fixed Inc Net Median</i>			2.3		2.3		9.0		8.1		3.0		4.2		5.0	
Opportunistic Fixed Income	28,180,649	5.2	1.7	--	1.7	--	2.0	--	0.3	--	2.6	--	--	--	--	--
<i>Barclays Aggregate</i>			<u>0.5</u>	--	<u>0.5</u>	--	<u>5.8</u>	--	<u>5.2</u>	--	<u>4.0</u>	--	<u>3.1</u>	--	<u>4.8</u>	--
Over/Under			1.2		1.2		-3.8		-4.9		-1.4					
GCA Credit Opportunities Fund, LLC	11,841,216	2.2	1.3	--	1.3	--	5.0	--	5.0	--	--	--	--	--	--	--
<i>Barclays Aggregate</i>			<u>0.5</u>	--	<u>0.5</u>	--	<u>5.8</u>	--	<u>5.2</u>	--	<u>4.0</u>	--	<u>3.1</u>	--	<u>4.8</u>	--
Over/Under			0.8		0.8		-0.8		-0.2							
Rimrock High Income Plus (QP) Fund	10,853,957	2.0	2.4	--	2.4	--	1.4	--	-1.9	--	--	--	--	--	--	--
<i>Barclays Aggregate</i>			<u>0.5</u>	--	<u>0.5</u>	--	<u>5.8</u>	--	<u>5.2</u>	--	<u>4.0</u>	--	<u>3.1</u>	--	<u>4.8</u>	--
Over/Under			1.9		1.9		-4.4		-7.1							
Mariner Tricadia Credit Strategies	5,485,477	1.0	1.2	--	1.2	--	-2.7	--	-4.8	--	0.6	--	--	--	--	--
<i>Barclays Capital Aggregate + 5%</i>			<u>1.7</u>	--	<u>1.7</u>	--	<u>9.7</u>	--	<u>10.4</u>	--	<u>9.2</u>	--	<u>8.2</u>	--	--	--
Over/Under			-0.5		-0.5		-12.4		-15.2		-8.6					
Hedge Funds Composite	66,731,353	12.4	2.6	--	2.6	--	-1.5	--	-1.0	--	2.9	--	3.4	--	--	--
<i>HFRI Fund of Funds Composite Index</i>			<u>2.5</u>	--	<u>2.5</u>	--	<u>-0.2</u>	--	<u>0.5</u>	--	<u>2.2</u>	--	<u>3.2</u>	--	<u>1.8</u>	--
Over/Under			0.1		0.1		-1.3		-1.5		0.7		0.2			
ABS Alpha Long/Short Equity	22,855,554	4.2	4.3	60	4.3	60	-3.5	98	-1.1	99	3.8	77	6.1	95	--	--
<i>MSCI ACWI</i>			<u>5.3</u>	46	<u>5.3</u>	46	<u>6.6</u>	47	<u>12.0</u>	45	<u>5.2</u>	62	<u>10.6</u>	69	<u>4.3</u>	65
Over/Under			-1.0		-1.0		-10.1		-13.1		-1.4		-4.5			
<i>eA All Global Equity Net Median</i>			5.0		5.0		6.3		11.2		6.0		11.7		4.8	
Pine Grove Institutional	20,380,590	3.8	3.0	43	3.0	43	2.0	24	0.4	43	1.1	80	3.1	76	--	--
<i>HFRI Fund of Funds Composite Index</i>			<u>2.5</u>	59	<u>2.5</u>	59	<u>-0.2</u>	51	<u>0.5</u>	40	<u>2.2</u>	53	<u>3.2</u>	76	<u>1.8</u>	92
Over/Under			0.5		0.5		2.2		-0.1		-1.1		-0.1			
<i>91 Day T-Bill + 3.5%</i>			0.9	86	0.9	86	2.8	18	3.7	13	3.6	28	3.6	69	--	--
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			2.8		2.8		0.0		0.0		2.3		4.9		3.6	
Protege Partners	18,030,246	3.3	2.8	49	2.8	49	-2.5	77	-2.1	79	2.3	51	--	--	--	--
<i>HFRI Fund of Funds Composite Index</i>			<u>2.5</u>	59	<u>2.5</u>	59	<u>-0.2</u>	51	<u>0.5</u>	40	<u>2.2</u>	53	<u>3.2</u>	76	<u>1.8</u>	92
Over/Under			0.3		0.3		-2.3		-2.6		0.1					
<i>91 Day T-Bill + 3.5%</i>			0.9	86	0.9	86	2.8	18	3.7	13	3.6	28	3.6	69	--	--
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			2.8		2.8		0.0		0.0		2.3		4.9		3.6	



Richmond Retirement System

Total Fund Net Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Abbey Capital	5,464,963	1.0	-6.0	99	-6.0	99	-2.7	79	-2.4	83	8.9	5	--	--	--	--
HFRI Fund of Funds Composite Index			2.5	59	2.5	59	-0.2	51	0.5	40	2.2	53	3.2	76	1.8	92
Over/Under			-8.5		-8.5		-2.5		-2.9		6.7					
91 Day T-Bill + 3.5%			0.9	86	0.9	86	2.8	18	3.7	13	3.6	28	3.6	69	--	--
eV Alt Fund of Funds - Multi-Strategy Median			2.8		2.8		0.0		0.0		2.3		4.9		3.6	
Real Estate Composite	34,892,666	6.5	2.6	--	2.6	--	8.0	--	11.9	--	11.7	--	13.0	--	--	--
CenterSquare	5,168,387	1.0	-1.4	65	-1.4	65	12.1	15	20.5	11	15.1	24	16.5	35	8.6	20
FTSE NAREIT Equity REIT			-1.4	67	-1.4	67	11.8	17	19.9	13	14.2	45	15.9	41	6.3	61
Over/Under			0.0		0.0		0.3		0.6		0.9		0.6		2.3	
eA US REIT Net Median			-1.3		-1.3		9.9		18.1		14.2		15.7		6.6	
Private Equity Composite	16,119,532	3.0	4.3	--	4.3	--	7.4	--	9.2	--	10.9	--	11.1	--	--	--
Private Debt Composite	34,254,297	6.3	2.6	--	2.6	--	7.2	--	8.4	--	8.2	--	--	--	--	--
Cash	2,638,884	0.5	0.0	--	0.0	--	0.1	--	0.1	--	0.1	--	-2.0	--	--	--
91 Day T-Bills			0.1	--	0.1	--	0.2	--	0.2	--	0.1	--	0.1	--	0.8	--
Over/Under			-0.1		-0.1		-0.1		-0.1		0.0		-2.1			
Wachovia	1,964,174	0.4	0.0	--	0.0	--	0.0	--	0.1	--	0.1	--	0.1	--	1.1	--
91 Day T-Bills			0.1	--	0.1	--	0.2	--	0.2	--	0.1	--	0.1	--	0.8	--
Over/Under			-0.1		-0.1		-0.2		-0.1		0.0		0.0		0.3	
RRS Cash	674,710	0.1														

US Equity Composite: Market value and performance includes K2 Advisors as of June 2011. K2 was included in the Hedge Fund Composite prior to 2011.

Chartwell: Composite representing small and Mid-Cap Growth Funds.

Returns are net of manager fees.

Private Equity: Market values are quarter-lagged and adjusted based upon cash flows. Performance data has been reconciled with managers, not State Street, since inception. Performance as of June 30, 2016.

Thomson One All Private Equity Lag has changed to Private Equity Benchmark: Private Equity Benchmark consists of Thomson One US ALL PE benchmark returns through 3/31/2015 and Cambridge Associates US All PE benchmark returns thereafter. Benchmark is lagged by one quarter and not available for September 30, 2016. Trailing periods shown as of June 30, 2016.

Real Estate managers, JPMorgan and CenterSquare are not quarter lagged and reported gross of manager fees. Orion and Oaktree are quarter lagged and reported net of manager fees.

Terminated managers included in the composite market value.

Fiscal year ends 6/30.



NEPC, LLC

YOU DEMAND MORE. So do we.SM

Richmond Retirement System

RRS

Building your financial future

Richmond Retirement System

Second Quarter 2016 Private Equity Review

255 State Street, Boston, MA 02109
TEL: 617.374.1300 | FAX: 617.374.1313 | www.nepc.com

BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

Richmond Retirement System

Performance Analysis

6/30/2016

Investment Name	Commitment Amount	Paid in Capital	Valuation	IRR
1 Collier International Partners VII	7,500,000	263,991	289,126	9.49%
2 EIG Energy Fund XVI, L.P.	5,000,000	2,422,014	1,828,159	-12.55%
3 Lexington Capital Partners VII	7,500,000	5,876,163	3,725,018	15.24%
4 Private Advisors Small Company Buyout Fund IV	3,000,000	2,620,338	2,225,224	6.81%
5 Private Advisors Small Company Buyout Fund V	5,000,000	3,216,253	3,338,533	7.84%
6 StepStone Pioneer Capital Europe II, L.P.	2,694,244	2,330,227	1,629,570	5.00%
7 TPG Opportunities Partners II, L.P.	3,500,000	2,481,469	1,579,820	18.11%
8 TPG Opportunities Partners III, L.P.	3,500,000	1,511,634	1,470,040	6.71%
Total: Richmond Retirement System	37,694,244	20,722,088	16,085,489	10.78%



NEPC, LLC

YOU DEMAND MORE. So do we.SM

Richmond Retirement System

RRS

Building your financial future

Richmond Retirement System

Second Quarter 2016 Private Debt Review

255 State Street, Boston, MA 02109
TEL: 617.374.1300 | FAX: 617.374.1313 | www.nepc.com

BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

Richmond Retirement System

Performance Analysis

6/30/2016

Investment Name	Commitment Amount	Paid in Capital	Valuation	IRR
1 Alcentra Clareant European Direct Lending Fund II	7,500,000	0		N/A
2 Audax Mezzanine Fund III	3,500,000	3,047,246	1,963,572	9.18%
3 CarVal Investors Credit Value Fund III	8,000,000	2,800,000	3,051,448	12.37%
4 GOLUB Capital Investment Corporation	10,000,000	3,910,000	4,003,383	4.83%
5 GOLUB Capital Partners VIII, L.P.	15,000,000	13,125,000	13,451,788	9.63%
6 Park Square Credit Opportunities Fund II	8,000,000	5,896,714	6,144,589	4.79%
Total: Richmond Retirement System	52,000,000	28,778,960	28,614,780	9.05%



NEPC, LLC

YOU DEMAND MORE. So do we.SM

Richmond Retirement System

RRS

Building your financial future

Richmond Retirement System

Second Quarter 2016 Real Estate Review

255 State Street, Boston, MA 02109
TEL: 617.374.1300 | FAX: 617.374.1313 | www.nepc.com

BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

Richmond Retirement System

Performance Analysis

6/30/2016

Investment Name	Commitment Amount	Paid in Capital	Valuation	IRR
1 JP Morgan Strategic Property Fund	15,000,000	15,000,000	26,786,108	12.66%
2 Oaktree Real Estate Debt Fund	5,000,000	783,067	699,513	15.53%
3 Orion European Real Estate Fund IV	3,710,400	1,430,884	1,321,130	1.89%
Total: Richmond Retirement System	23,710,400	17,213,951	28,806,751	12.46%