

Firemen's Retirement System of St. Louis

Composite Asset Allocation & Gross of Fees Performance

September 30, 2018

	Asset \$	Asset %	Performance (%)									
			1 Month	QTD	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Fund Composite	478,258,274	100.00	-0.33	2.30	2.63	5.83	5.83	10.04	7.63	7.97	8.03	Jan-1990
<i>Policy Index</i>			-0.08	2.38	2.56	5.98	5.98	8.61	6.43	6.69	7.41	
Excess Return			-0.25	-0.08	0.07	-0.15	-0.15	1.43	1.20	1.28	0.62	
US Equity Composite	129,560,455	27.09	-0.86	5.73	9.32	14.47	14.47	16.36	12.81	11.84	8.07	Apr-2002
<i>Russell 3000 Index</i>			0.17	7.12	10.57	17.58	17.58	17.07	13.46	12.01	8.28	
Excess Return			-1.03	-1.39	-1.25	-3.11	-3.11	-0.71	-0.65	-0.17	-0.21	
Large Cap Composite	87,100,866	18.21	-0.85	6.12	10.25	16.06	16.06	16.35	13.46	11.62	10.23	Jan-1990
<i>S&P 500</i>			0.57	7.71	10.56	17.91	17.91	17.31	13.95	11.97	9.93	
Excess Return			-1.42	-1.59	-0.31	-1.85	-1.85	-0.96	-0.49	-0.35	0.30	
Non Large Cap Composite	42,459,589	8.88	-0.88	4.89	7.26	10.93	10.93	16.17	11.32	12.20	10.01	Oct-1999
<i>Russell 2000 Index</i>			-2.41	3.58	11.51	15.24	15.24	17.12	11.07	11.11	8.96	
Excess Return			1.53	1.31	-4.25	-4.31	-4.31	-0.95	0.25	1.09	1.05	
International Equity Composite	116,134,757	24.28	0.41	0.75	-3.06	1.71	1.71	13.07	6.18	7.47	5.81	Jan-1990
<i>International Equity Policy Index</i>			0.46	0.71	-3.09	1.76	1.76	9.97	4.12	4.55	4.21	
Excess Return			-0.05	0.04	0.03	-0.05	-0.05	3.10	2.06	2.92	1.60	
Fixed Income Composite	107,225,020	22.42	-0.52	0.36	-1.37	-0.59	-0.59	3.26	3.19	4.77	5.85	Jan-1990
<i>Blmbg. Barc. U.S. Aggregate</i>			-0.64	0.02	-1.60	-1.22	-1.22	1.31	2.16	3.77	5.81	
Excess Return			0.12	0.34	0.23	0.63	0.63	1.95	1.03	1.00	0.04	
Real Estate Composite	46,454,642	9.71	0.66	2.74	7.53	9.75	9.75	9.99	11.75	6.29	6.56	Dec-2006
<i>NCREIF Fund Index-ODCE</i>			0.00	0.00	4.30	6.45	6.45	8.06	10.26	5.36	6.28	
Excess Return			0.66	2.74	3.23	3.30	3.30	1.93	1.49	0.93	0.28	
Energy MLP	23,328,667	4.88	-2.46	3.05	4.16	3.77	3.77	6.53	1.88	-	8.04	Nov-2010
<i>S&P MLP Index</i>			-1.31	6.39	7.46	7.15	7.15	4.90	-1.73	-	4.28	
Excess Return			-1.15	-3.34	-3.30	-3.38	-3.38	1.63	3.61	-	3.76	
Hedge Fund Composite	50,875,823	10.64	-0.36	0.44	2.19	3.47	3.47	1.66	2.37	2.82	1.46	Aug-2007
<i>HFRI Fund of Funds Composite Index</i>			-0.02	0.44	1.16	3.25	3.25	3.35	3.21	2.57	1.24	
Excess Return			-0.34	0.00	1.03	0.22	0.22	-1.69	-0.84	0.25	0.22	
<i>90 Day Libor + 400 Bp</i>			0.52	1.57	4.69	6.11	6.11	5.31	4.89	4.72	9.82	Jan-1977
Cash Account	4,678,909	0.98										

Returns for periods greater than one year are annualized.

Firemen's Retirement System of St. Louis

Manager Asset Allocation & Gross of Fees Performance

September 30, 2018

	Asset \$	Asset %	Performance (%)									
			1 Month	QTD	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
US Equity												
Intech U.S. Enhanced Plus	27,972,223	5.85	0.08	6.67	9.36	15.12	15.12	15.64	14.12	-	14.50	May-2012
<i>S&P 500</i>			0.57	7.71	10.56	17.91	17.91	17.31	13.95	-	14.51	
Excess Return			-0.49	-1.04	-1.20	-2.79	-2.79	-1.67	0.17	-	-0.01	
Eagle Capital	27,349,586	5.72	0.01	6.70	11.09	19.21	19.21	17.94	14.54	-	16.44	May-2012
<i>Russell 1000 Value Index</i>			0.20	5.70	3.92	9.45	9.45	13.55	10.72	-	12.60	
Excess Return			-0.19	1.00	7.17	9.76	9.76	4.39	3.82	-	3.84	
Argent Capital Management	31,779,056	6.64	-2.37	5.21	10.27	14.32	14.32	-	-	-	18.45	Feb-2016
<i>Russell 1000 Growth Index</i>			0.56	9.17	17.09	26.30	26.30	-	-	-	22.79	
Excess Return			-2.93	-3.96	-6.82	-11.98	-11.98	-	-	-	-4.34	
Integrity Asset Management	19,456,223	4.07	-1.86	1.94	3.93	9.95	9.95	14.68	10.70	-	13.26	Apr-2010
<i>Integrity Benchmark</i>			-1.57	2.67	8.26	10.48	10.48	16.53	10.15	-	11.48	
Excess Return			-0.30	-0.73	-4.33	-0.53	-0.53	-1.85	0.55	-	1.78	
Pinnacle Associates	23,003,366	4.81	-0.03	7.53	9.77	11.30	11.30	17.16	11.63	14.29	10.49	Mar-2007
<i>Russell 2500 Growth Index</i>			-1.46	7.17	15.78	23.13	23.13	17.96	12.88	13.61	10.21	
Excess Return			1.43	0.36	-6.01	-11.83	-11.83	-0.80	-1.25	0.68	0.28	
International Equity												
Fisher Investments	57,632,018	12.05	0.57	1.71	-1.71	0.70	0.70	10.61	5.37	7.16	7.55	Jul-2002
<i>MSCI EAFE Index (Net)</i>			0.87	1.35	-1.43	2.74	2.74	9.23	4.42	5.38	6.33	
Excess Return			-0.30	0.36	-0.28	-2.04	-2.04	1.38	0.95	1.78	1.22	
Acadian International Small Cap Fund	25,810,916	5.40	-0.58	0.16	-1.56	4.62	4.62	15.23	11.00	-	12.82	May-2012
<i>MSCI EAFE Small Cap (Net)</i>			-0.72	-0.88	-2.19	3.73	3.73	12.39	7.96	-	10.34	
Excess Return			0.14	1.04	0.63	0.89	0.89	2.84	3.04	-	2.48	
AJO Emerging Markets	32,691,823	6.84	0.91	-0.44	-6.45	1.43	1.43	-	-	-	13.09	Dec-2015
<i>MSCI Emerging Markets (Net)</i>			-0.53	-1.09	-7.68	-0.81	-0.81	-	-	-	11.98	
Excess Return			1.44	0.65	1.23	2.24	2.24	-	-	-	1.11	
Fixed Income												
Commerce Trust Company	19,861,066	4.15	-0.58	0.27	-1.36	-0.97	-0.97	-	-	-	-0.51	Jul-2017
<i>Blmbg. Barc. U.S. Aggregate</i>			-0.64	0.02	-1.60	-1.22	-1.22	-	-	-	-0.30	
Excess Return			0.06	0.25	0.24	0.25	0.25	-	-	-	-0.21	

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Northern Trust Aggregate Bond	2,475,409	0.52	-0.64	0.03	-1.58	-1.21	-1.21	1.25	2.14	-	2.39	Sep-2010
<i>Blmbg. Barc. U.S. Aggregate</i>			-0.64	0.02	-1.60	-1.22	-1.22	1.31	2.16	-	2.41	
Excess Return			0.00	0.01	0.02	0.01	0.01	-0.06	-0.02	-	-0.02	
MacKay Shields	42,462,857	8.88	-0.37	0.57	-1.48	-0.93	-0.93	-	-	-	0.12	Jul-2017
<i>Blmbg. Barc. U.S. Aggregate</i>			-0.64	0.02	-1.60	-1.22	-1.22	-	-	-	-0.30	
Excess Return			0.27	0.55	0.12	0.29	0.29	-	-	-	0.42	
Prudential	39,624,835	8.29	-0.60	0.30	-1.28	-0.06	-0.06	-	-	-	0.63	Aug-2017
<i>Blmbg. Barc. U.S. Aggregate</i>			-0.64	0.02	-1.60	-1.22	-1.22	-	-	-	-0.69	
Excess Return			0.04	0.28	0.32	1.16	1.16	-	-	-	1.32	
Northern Trust TIPS - Non Lending	2,800,853	0.59	-1.09	-0.85	-0.85	0.39	0.39	2.06	1.38	-	2.42	Sep-2010
<i>Blmbg. Barc. U.S. TIPS</i>			-1.05	-0.82	-0.84	0.41	0.41	2.04	1.37	-	2.41	
Excess Return			-0.04	-0.03	-0.01	-0.02	-0.02	0.02	0.01	-	0.01	
Real Estate												
Principal Global Investors	46,454,642	9.71	0.66	2.74	7.53	9.75	9.75	9.99	11.75	6.29	6.56	Dec-2006
<i>NCREIF Fund Index - Open End Diversified Core</i>			0.00	0.00	4.30	6.45	6.45	8.06	10.26	5.36	6.28	
Excess Return			0.66	2.74	3.23	3.30	3.30	1.93	1.49	0.93	0.28	
Energy MLP												
Tortoise Capital Advisors	23,328,667	4.88	-2.46	3.05	4.16	3.77	3.77	6.53	1.88	-	8.04	Nov-2010
<i>S&P MLP Index</i>			-1.31	6.39	7.46	7.15	7.15	4.90	-1.73	-	4.28	
Excess Return			-1.15	-3.34	-3.30	-3.38	-3.38	1.63	3.61	-	3.76	
Hedge Fund												
Entrust Hedge Fund of Fund[CE]	22,355,941	4.67	-0.81	-0.17	0.17	0.79	0.79	-0.46	-0.12	-	2.03	Aug-2010
<i>HFRI Fund of Funds Composite Index</i>			-0.02	0.44	1.16	3.25	3.25	3.35	3.21	-	3.18	
Excess Return			-0.79	-0.61	-0.99	-2.46	-2.46	-3.81	-3.33	-	-1.15	
Magnitude Institutional LTD Class A*[CE]	28,519,882	5.96	-0.01	0.94	3.84	5.69	5.69	3.45	4.83	-	4.92	May-2012
<i>HFRI Fund of Funds Composite Index</i>			-0.02	0.44	1.16	3.25	3.25	3.35	3.21	-	3.55	
Excess Return			0.01	0.50	2.68	2.44	2.44	0.10	1.62	-	1.37	
<i>90 Day Libor + 400 Bp</i>			0.52	1.57	4.69	6.11	6.11	5.31	4.89	-	4.77	May-2012

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