



Q2 2019 PERFORMANCE REPORT

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

September 23, 2019

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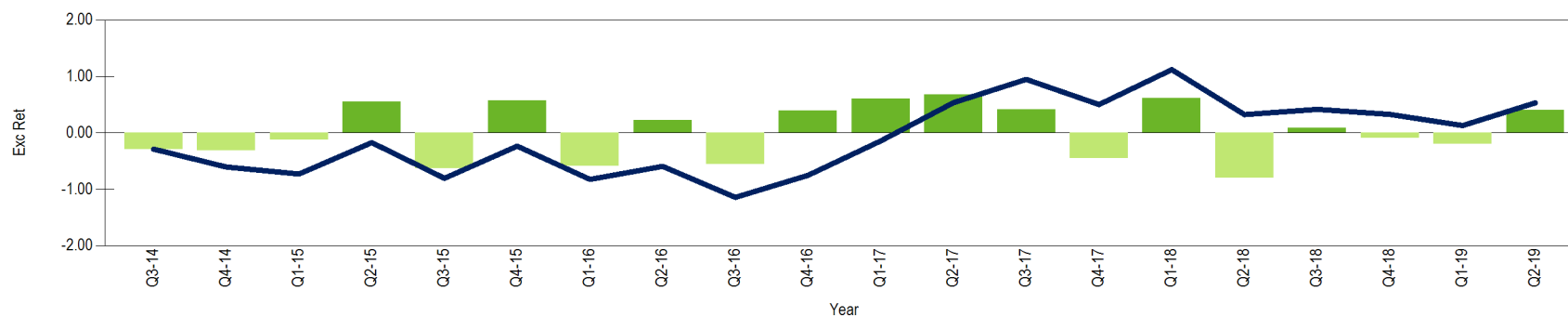
BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

Chicago Police Annuity and Benefit Fund

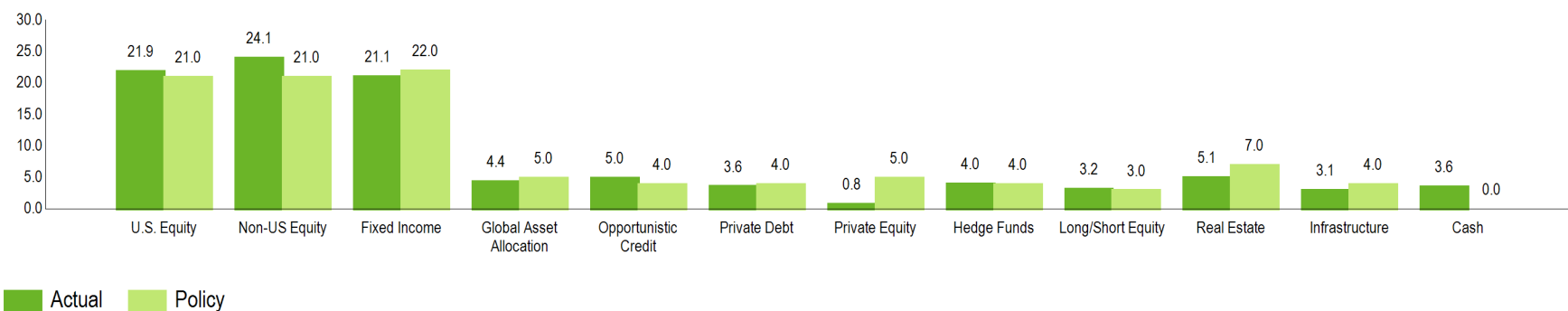
TOTAL PLAN PERFORMANCE SUMMARY

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank
Composite	\$2,503,767,017	2.84%	79	10.29%	85	4.54%	90	8.16%	74	5.39%	71
Allocation Index		2.44%	94	10.06%	88	4.33%	92	7.77%	86	5.30%	75
Policy Index		2.85%	79	9.84%	90	6.09%	55	8.54%	58	5.35%	74
InvMetrics Public DB Net Median		3.23%		12.29%		6.24%		8.73%		5.84%	

Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)



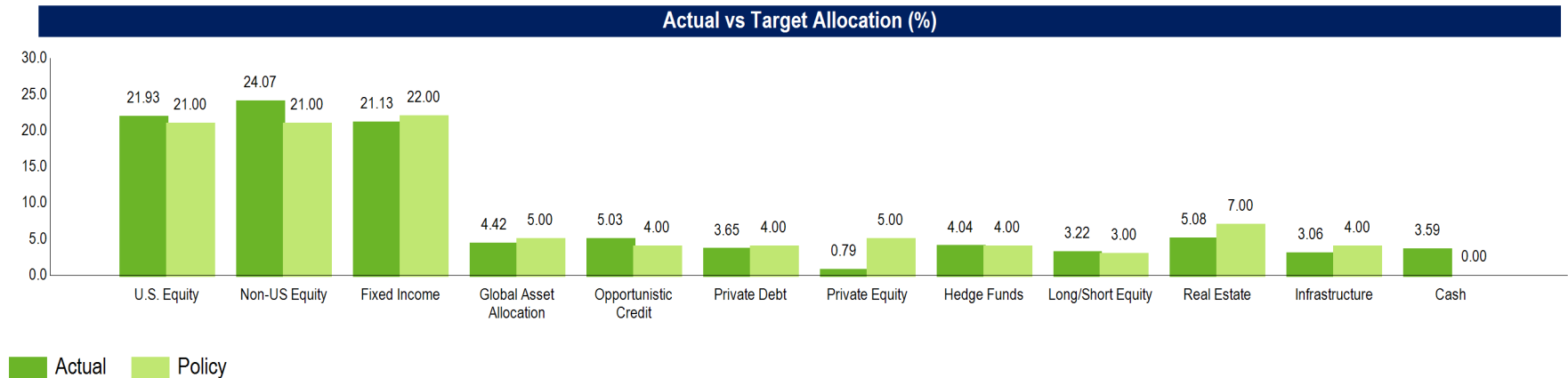
Chicago Police Annuity and Benefit Fund

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Policy Index		2.85%	79	9.84%	90	6.09%	55	8.54%	58	5.35%	74
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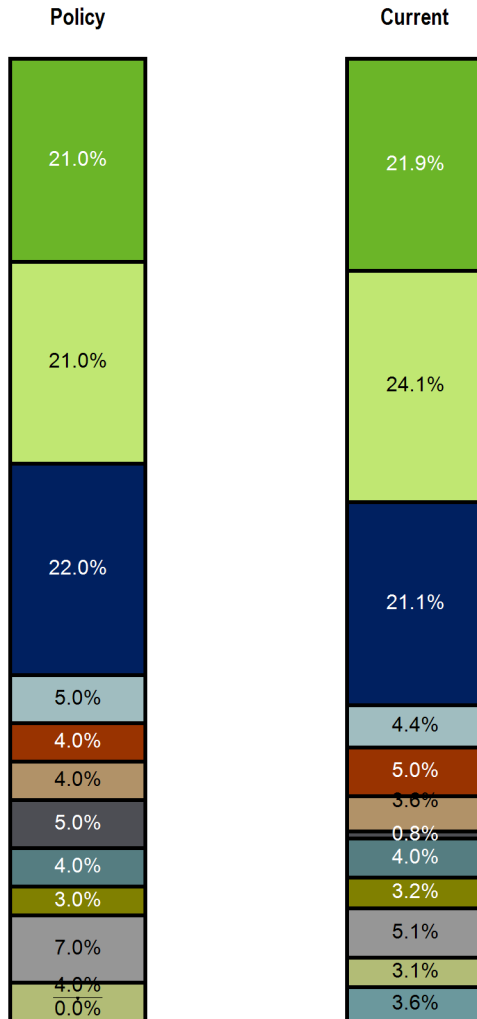
3 Years Ending June 30, 2019									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	
Composite	8.16%	74	6.24%	23	1.08	29	1.18	20	
Allocation Index	7.77%	86	6.42%	25	0.99	61	1.10	46	
Policy Index	8.54%	58	5.67%	11	1.26	9	1.42	6	

5 Years Ending June 30, 2019									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
Composite	5.39%	71	6.55%	25	0.69	54	1.14	42	
Allocation Index	5.30%	75	6.39%	21	0.69	53	1.11	46	
Policy Index	5.35%	74	6.07%	14	0.74	36	1.28	20	



Chicago Police Annuity and Benefit Fund

TOTAL PLAN ASSET ALLOCATION VS. POLICY TARGETS



Asset Allocation vs. Target				
	Current	Policy	Current	Difference*
U.S. Equity	\$549,126,229	21.00%	21.93%	0.93%
Non-US Equity	\$602,637,602	21.00%	24.07%	3.07%
Fixed Income	\$529,001,859	22.00%	21.13%	-0.87%
Global Asset Allocation	\$110,636,380	5.00%	4.42%	-0.58%
Opportunistic Credit	\$125,831,051	4.00%	5.03%	1.03%
Private Debt	\$91,276,042	4.00%	3.65%	-0.35%
Private Equity	\$19,878,922	5.00%	0.79%	-4.21%
Hedge Funds	\$101,118,692	4.00%	4.04%	0.04%
Long/Short Equity	\$80,642,050	3.00%	3.22%	0.22%
Real Estate	\$127,152,180	7.00%	5.08%	-1.92%
Infrastructure	\$76,598,329	4.00%	3.06%	-0.94%
Cash	\$89,867,680	0.00%	3.59%	3.59%
Total	\$2,503,767,017	100.00%	100.00%	

*Difference between Policy and Current Allocation



Chicago Police Annuity and Benefit Fund

INVESTMENT HIGHLIGHTS - NET

	Market Value (\$)	% of Portfolio	Policy %	Ending June 30, 2019					Inception (%)	Inception Date
				3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)		
Composite	2,503,767,017	100.0	100.0	2.8	4.5	8.2	5.4	9.0	8.5	Jan-84
Allocation Index				2.4	4.3	7.8	5.3	8.8	--	Jan-84
Policy Index				2.9	6.1	8.5	5.3	8.4	--	Jan-84
Total Equity	1,232,405,881	49.2	45.0	3.9	3.2	11.9	6.6	11.4	6.9	Oct-96
MSCI ACWI				3.6	5.7	11.6	6.2	10.1	6.4	Oct-96
Total Domestic Equity	549,126,229	21.9	21.0	4.2	5.5	13.1	9.4	14.0	10.7	Jan-84
Russell 3000				4.1	9.0	14.0	10.2	14.7	10.9	Jan-84
Total International Equity	602,637,602	24.1	21.0	3.9	1.4	10.8	4.2	8.3	8.7	Jan-84
MSCI ACWI ex USA				3.0	1.3	9.4	2.2	6.5	--	Jan-84
Total Fixed Income	529,001,859	21.1	22.0	2.2	6.0	2.9	2.7	4.6	7.1	Jan-84
BBgBarc US Aggregate TR				3.1	7.9	2.3	2.9	3.9	7.1	Jan-84
Total Private Equity	19,878,922	0.8	5.0	5.3	5.3	2.4	4.6	10.4	7.8	Oct-95
Private Equity Benchmark (1 Qtr. Lag)				4.8	12.7	15.4	11.9	11.5	16.9	Oct-95
Total Infrastructure	76,598,329	3.1	4.0	0.0	7.9	19.5	21.2	15.7	8.8	Nov-07
NCREIF Property Index				1.5	6.5	6.9	8.8	9.2	6.4	Nov-07
Total Real Estate	127,152,180	5.1	7.0	1.0	4.8	3.4	5.4	6.9	5.7	Oct-95
NCREIF Property Index 1 Qtr. Lag				1.8	6.8	7.1	9.1	8.5	9.5	Oct-95
Total Hedge Funds	143,877,855	5.7	4.0	-0.5	0.3	--	--	--	4.3	Aug-16
HFRI Fund of Funds Composite Index				1.5	1.2	4.2	2.2	3.2	3.8	Aug-16
Total Global Asset Allocation	110,636,380	4.4	5.0	2.7	4.5	6.6	2.6	--	5.1	Dec-11
60% MSCI ACWI (Net) / 40% FTSE WGBI				3.7	6.0	7.4	4.2	7.1	6.4	Dec-11
Opportunistic Credit	83,071,889	3.3	4.0	2.5	5.7	--	--	--	5.7	Nov-16
Opportunistic Credit Custom Index				2.2	6.4	6.3	--	--	5.4	Nov-16
Private Debt	91,276,042	3.6	4.0	4.1	10.1	--	--	--	7.6	Nov-16
Private Debt Custom Index				1.4	5.7	4.9	--	--	5.0	Nov-16

*Long/Short Custom Index: 100% FTSE T-Bill 3 Months TR

*Opportunistic Credit Custom Index: 50% CS Leveraged Loan / 50% ICE BofA ML US HY BB-B Rated Constrained Index.

*Private Debt Custom Index: 3 - Month LIBOR + 3%.



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Ending June 30, 2019														
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Composite	2,503,767,017	100.00	100.00	2.84	79	4.54	90	8.16	74	5.39	71	9.02	45	8.49	Jan-84
Allocation Index				2.44	94	4.33	92	7.77	86	5.30	75	8.83	57	--	Jan-84
Over/Under				0.40		0.21		0.39		0.09		0.19			
Policy Index				2.85	79	6.09	55	8.54	58	5.35	74	8.41	73	--	Jan-84
InvMetrics Public DB Net Median				3.23		6.24		8.73		5.84		8.97		8.45	Jan-84
Total Equity	1,232,405,881	49.22	45.00	3.91	42	3.25	64	11.93	36	6.60	43	11.38	37	6.93	Oct-96
MSCI ACWI				3.61	48	5.74	47	11.62	38	6.16	50	10.15	59	6.44	Oct-96
Over/Under				0.30		-2.49		0.31		0.44		1.23		0.49	
eV All Global Equity Net Median				3.40		5.19		10.40		6.11		10.65		8.16	Oct-96
Total Domestic Equity	549,126,229	21.93	21.00	4.19	43	5.50	52	13.13	42	9.42	37	14.03	47	10.71	Jan-84
Russell 3000				4.10	45	8.98	34	14.02	35	10.19	28	14.67	34	10.90	Jan-84
Over/Under				0.09		-3.48		-0.89		-0.77		-0.64		-0.19	
eV All US Equity Net Median				3.80		5.80		12.16		8.32		13.89		11.65	Jan-84
Total Large Cap	304,904,753	12.18	14.00	4.62	39	7.49	57	12.13	57	8.97	53	13.69	52	8.85	Oct-95
Russell 1000				4.25	48	10.02	39	14.15	36	10.45	31	14.77	26	9.20	Oct-95
Over/Under				0.37		-2.53		-2.02		-1.48		-1.08		-0.35	
eV US Large Cap Equity Net Median				4.14		8.25		12.70		9.14		13.77		9.35	Oct-95
NTGI Russell 1000	203,730,468	8.14		4.24	48	10.03	39	14.12	36	10.48	31	--	--	12.83	Mar-12
Russell 1000				4.25	48	10.02	39	14.15	36	10.45	31	14.77	26	13.28	Mar-12
Over/Under				-0.01		0.01		-0.03		0.03				-0.45	
eV US Large Cap Equity Net Median				4.14		8.25		12.70		9.14		13.77		12.11	Mar-12
Great Lakes	101,174,285	4.04		5.38	13	5.95	50	10.33	56	7.39	43	13.47	27	10.23	Jul-89
S&P 500/Citi Pure Value				3.82	46	1.79	82	11.07	40	6.17	69	17.10	1	--	Jul-89
Over/Under				1.56		4.16		-0.74		1.22		-3.63			
eV US Large Cap Value Equity Net Median				3.71		5.93		10.52		7.15		12.68		10.05	Jul-89

*Current Policy Index: 9% Russell 1000, 3% Russell 2500 Growth, 3% Russell 2500 Value, 4% S&P 500/Citi Pur Value, 2% Russell Micro Cap Index, 6% MSCI Emerging Markets, 3% MSCI EAFE, 4% MSCI EAFE Small Cap, 8% MSCI ACWI ex USA, 3% Citi 3-Month TBill, 16% BBgBarc US Aggregate TR, 3% BBgBarc Global Aggregate TR, 3% JP Morgan GBI - EM Global Diversified Index, 4% NCREIF Property Index, 5% - 60% MSCI ACWI (Net) / 40% CITI WGBI, 5% Private Equity Benchmark (1 Qtr. Lag), 7% NCREIF Property (1 Qtr Lag), 4% HFRI Fund of Funds Composite Index, 4% 50% CS Leveraged Loan / 50% ICE BofA ML US HY BB-B Rated Constrained Index, 4% 30% CPI+3%/70% S&P/LSTA Leveraged Loan Index



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

Ending June 30, 2019															
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total SMID Cap	195,533,865	7.81	6.00	4.14	47	3.88	44	15.62	24	10.62	18	14.75	33	9.85	Nov-04
<i>Russell 2500</i>				<u>2.96</u>	65	<u>1.77</u>	52	<u>12.34</u>	46	<u>7.66</u>	44	<u>14.44</u>	38	<u>9.30</u>	Nov-04
Over/Under				1.18		2.11		3.28		2.96		0.31		0.55	
<i>eV US Small-Mid Cap Equity Net Median</i>				3.99		2.32		11.92		7.15		13.76		9.62	Nov-04
William Blair SMID Growth	79,874,976	3.19		6.35	39	9.64	40	18.47	42	13.43	14	16.39	20	11.44	Nov-04
<i>Russell 2500 Growth</i>				<u>4.14</u>	71	<u>6.13</u>	64	<u>16.13</u>	52	<u>9.98</u>	49	<u>15.67</u>	29	<u>10.41</u>	Nov-04
Over/Under				2.21		3.51		2.34		3.45		0.72		1.03	
<i>eV US Small-Mid Cap Growth Equity Net Median</i>				5.39		7.60		16.36		9.33		15.25		10.02	Nov-04
Fisher Investment	68,112,763	2.72		3.99	30	4.22	18	14.88	9	9.05	7	--	--	11.59	Feb-13
<i>Russell 2500 Value</i>				<u>1.89</u>	68	<u>-1.92</u>	50	<u>8.98</u>	52	<u>5.55</u>	41	<u>13.28</u>	32	<u>9.24</u>	Feb-13
Over/Under				2.10		6.14		5.90		3.50				2.35	
<i>eV US Small-Mid Cap Value Equity Net Median</i>				2.65		-1.99		9.06		4.99		12.77		9.24	Feb-13
Chicago Equity SMID Value	47,546,127	1.90		0.87	85	-6.34	84	--	--	--	--	--	--	-2.05	May-18
<i>Russell 2500 Value</i>				<u>1.89</u>	68	<u>-1.92</u>	50	<u>8.98</u>	52	<u>5.55</u>	41	<u>13.28</u>	32	<u>2.27</u>	May-18
Over/Under				-1.02		-4.42								-4.32	
<i>eV US Small-Mid Cap Value Equity Net Median</i>				2.65		-1.99		9.06		4.99		12.77		1.42	May-18
Total Micro Cap	48,687,610	1.94	2.00	1.76	--	--	--	--	--	--	--	--	--	-1.97	Oct-18
BMO Micro Cap Equity	48,687,610	1.94		1.76	36	--	--	--	--	--	--	--	--	-1.97	Oct-18
<i>Russell Microcap</i>				<u>0.92</u>	47	<u>-10.39</u>	54	<u>11.19</u>	35	<u>5.52</u>	67	<u>12.54</u>	66	<u>-11.13</u>	Oct-18
Over/Under				0.84										9.16	
<i>eV US Micro Cap Value Equity Net Median</i>				0.60		-10.21		10.25		7.04		13.17		-9.49	Oct-18



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

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	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date	
Total International Equity	602,637,602	24.07	21.00	3.90	42	1.39	32	10.83	29	4.22	36	8.29	50	8.69	Jan-84	
MSCI ACWI ex USA				2.98	63	1.29	32	9.39	52	2.16	69	6.54	83	--	Jan-84	
Over/Under				0.92		0.10		1.44		2.06		1.75				
eV All ACWI ex-US Equity Net Median				3.52		-0.60		9.44		3.34		8.27		--	Jan-84	
Total Developed Int'l Equity	430,778,121	17.21	15.00	4.79	24	0.53	41	10.26	37	4.00	39	--	--	6.22	Jan-11	
MSCI ACWI ex USA				2.98	63	1.29	32	9.39	52	2.16	69	6.54	83	3.73	Jan-11	
Over/Under				1.81		-0.76		0.87		1.84				2.49		
eV All ACWI ex-US Equity Net Median				3.52		-0.60		9.44		3.34		8.27		5.29	Jan-11	
Artisan Partner	100,873,543	4.03		8.39	2	9.14	1	10.46	35	3.59	43	9.43	27	6.82	Apr-05	
MSCI ACWI ex USA				2.98	63	1.29	32	9.39	52	2.16	69	6.54	83	5.02	Apr-05	
Over/Under				5.41		7.85		1.07		1.43		2.89		1.80		
eV All ACWI ex-US Equity Net Median				3.52		-0.60		9.44		3.34		8.27		6.03	Apr-05	
William Blair International Growth	124,901,032	4.99		5.36	14	0.53	34	9.48	33	3.64	36	8.56	39	5.63	Apr-05	
MSCI EAFE				3.68	37	1.08	31	9.11	40	2.25	65	6.90	80	4.62	Apr-05	
Over/Under				1.68		-0.55		0.37		1.39		1.66		1.01		
eV All EAFE Equity Net Median				2.82		-1.81		8.68		3.11		8.09		5.51	Apr-05	
UBS International	87,186,071	3.48		2.46	68	-1.22	59	10.94	28	2.58	65	7.61	64	9.70	Jan-84	
MSCI ACWI ex USA				2.98	63	1.29	32	9.39	52	2.16	69	6.54	83	--	Jan-84	
Over/Under				-0.52		-2.51		1.55		0.42		1.07				
eV All ACWI ex-US Equity Net Median				3.52		-0.60		9.44		3.34		8.27		--	Jan-84	
Acadian	117,817,476	4.71		2.99	38	-5.63	29	11.13	22	5.95	27	--	--	7.49	Jan-14	
MSCI EAFE Small Cap				1.71	64	-6.35	33	9.06	49	4.40	53	9.67	69	5.01	Jan-14	
Over/Under				1.28		0.72		2.07		1.55				2.48		
eV EAFE Small Cap Equity Net Median				2.46		-7.24		8.89		4.75		10.55		5.44	Jan-14	



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Ending June 30, 2019														
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Emerging Markets Equity	171,859,480	6.86	6.00	1.71	52	4.12	21	12.16	24	3.33	34	--	--	5.73	Jan-14
MSCI Emerging Markets				0.61	82	1.21	56	10.66	49	2.49	58	5.81	72	3.37	Jan-14
Over/Under				1.10		2.91		1.50		0.84				2.36	
eV Emg Mkts All Cap Equity Net Median				1.77		2.15		10.63		2.73		6.55		3.61	Jan-14
EARNEST Partners	82,995,874	3.31		1.19	64	6.15	13	11.69	33	2.93	45	--	--	5.35	Jan-14
MSCI Emerging Markets				0.61	82	1.21	56	10.66	49	2.49	58	5.81	72	3.37	Jan-14
Over/Under				0.58		4.94		1.03		0.44				1.98	
eV Emg Mkts All Cap Equity Net Median				1.77		2.15		10.63		2.73		6.55		3.61	Jan-14
Lazard	88,863,606	3.55		2.20	39	2.28	47	12.63	17	3.73	28	--	--	6.11	Jan-14
MSCI Emerging Markets				0.61	82	1.21	56	10.66	49	2.49	58	5.81	72	3.37	Jan-14
Over/Under				1.59		1.07		1.97		1.24				2.74	
eV Emg Mkts All Cap Equity Net Median				1.77		2.15		10.63		2.73		6.55		3.61	Jan-14
Long/Short Equities	80,642,050	3.22	3.00	2.14	48	-0.27	53	--	--	--	--	--	--	0.60	Mar-18
Long/Short Custom Index				0.61	63	2.29	41	1.36	87	0.84	83	0.46	96	2.15	Mar-18
Over/Under				1.53		-2.56								-1.55	
eV Alt Fundamental - Long/Short Equity Median				1.82		0.24		7.52		4.75		8.07		0.76	Mar-18
UBS Bucktown CPD LLC	50,412,500	2.01		3.82	27	0.83	48	--	--	--	--	--	--	0.71	May-18
Long/Short Custom Index				0.61	63	2.29	41	1.36	87	0.84	83	0.46	96	2.23	May-18
Over/Under				3.21		-1.46								-1.52	
eV Alt Fundamental - Long/Short Equity Median				1.82		0.24		7.52		4.75		8.07		1.69	May-18
Pluscios L/S EQ FD	30,229,550	1.21		-0.55	74	-2.04	61	--	--	--	--	--	--	0.61	Apr-18
Long/Short Custom Index				0.61	63	2.29	41	1.36	87	0.84	83	0.46	96	2.19	Apr-18
Over/Under				-1.16		-4.33								-1.58	
eV Alt Fundamental - Long/Short Equity Median				1.82		0.24		7.52		4.75		8.07		1.83	Apr-18

*Long/Short Custom Index: 100% FTSE T-Bill 3 Months TR



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Ending June 30, 2019														
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Fixed Income	529,001,859	21.13	22.00	2.20	58	6.03	59	2.93	46	2.75	57	4.58	48	7.13	Jan-84
BBgBarc US Aggregate TR				<u>3.08</u>	30	<u>7.87</u>	29	<u>2.31</u>	60	<u>2.95</u>	51	<u>3.90</u>	59	<u>7.06</u>	Jan-84
Over/Under				-0.88		-1.84		0.62		-0.20		0.68		0.07	
eV All US Fixed Inc Net Median				2.44		6.54		2.68		2.99		4.36		7.41	Jan-84
Core Fixed Income	292,240,501	11.67	13.00	3.16	41	8.05	39	2.91	21	3.19	32	--	--	3.90	Dec-10
BBgBarc US Aggregate TR				<u>3.08</u>	56	<u>7.87</u>	49	<u>2.31</u>	64	<u>2.95</u>	57	<u>3.90</u>	73	<u>3.19</u>	Dec-10
Over/Under				0.08		0.18		0.60		0.24		0.71		0.71	
eV US Core Fixed Inc Net Median				3.11		7.85		2.48		3.02		4.32		3.44	Dec-10
LM	92,418,944	3.69		3.04	63	7.89	49	2.62	39	3.03	49	4.47	40	4.90	May-06
BBgBarc US Aggregate TR				<u>3.08</u>	56	<u>7.87</u>	49	<u>2.31</u>	64	<u>2.95</u>	57	<u>3.90</u>	73	<u>4.43</u>	May-06
Over/Under				-0.04		0.02		0.31		0.08		0.57		0.47	
eV US Core Fixed Inc Net Median				3.11		7.85		2.48		3.02		4.32		4.63	May-06
Wellington	100,667,493	4.02		3.35	20	8.27	25	3.80	5	3.49	13	5.56	8	5.04	Dec-04
BBgBarc US Aggregate TR				<u>3.08</u>	56	<u>7.87</u>	49	<u>2.31</u>	64	<u>2.95</u>	57	<u>3.90</u>	73	<u>4.17</u>	Dec-04
Over/Under				0.27		0.40		1.49		0.54		1.66		0.87	
eV US Core Fixed Inc Net Median				3.11		7.85		2.48		3.02		4.32		4.36	Dec-04
Wells Capital	99,154,063	3.96		3.08	55	7.87	49	2.50	50	3.13	39	4.70	28	4.78	Mar-04
BBgBarc US Aggregate TR				<u>3.08</u>	56	<u>7.87</u>	49	<u>2.31</u>	64	<u>2.95</u>	57	<u>3.90</u>	73	<u>4.06</u>	Mar-04
Over/Under				0.00		0.00		0.19		0.18		0.80		0.72	
eV US Core Fixed Inc Net Median				3.11		7.85		2.48		3.02		4.32		4.24	Mar-04
Diversified Fixed Income	20,621,623	0.82	3.00	2.28	46	3.60	68	3.84	62	--	--	--	--	2.61	Jun-15
3-Month LIBOR + 3%				<u>1.37</u>	78	<u>5.68</u>	30	<u>4.86</u>	54	<u>4.27</u>	9	<u>3.81</u>	59	<u>4.49</u>	Jun-15
Over/Under				0.91		-2.08		-1.02						-1.88	
eV Global Unconstrained Fixed Inc Net Median				1.91		4.15		4.99		2.82		4.72		3.20	Jun-15
GAM Unconstrained Bond Fund	20,621,623	0.82		2.28	46	3.60	68	3.84	62	--	--	--	--	2.61	Jun-15
3-Month LIBOR + 3%				<u>1.37</u>	78	<u>5.68</u>	30	<u>4.86</u>	54	<u>4.27</u>	9	<u>3.81</u>	59	<u>4.49</u>	Jun-15
Over/Under				0.91		-2.08		-1.02						-1.88	
eV Global Unconstrained Fixed Inc Net Median				1.91		4.15		4.99		2.82		4.72		3.20	Jun-15



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

Ending June 30, 2019															
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Global Multi Sector Fixed Income	81,654,017	3.26	1.50	2.93	23	6.46	26	2.67	74	--	--	--	--	2.74	Jun-15
<i>BBgBarc Global Aggregate TR</i>				<u>3.30</u>	14	<u>5.85</u>	29	<u>1.62</u>	94	<u>1.20</u>	90	<u>2.89</u>	99	<u>3.21</u>	<i>Jun-15</i>
Over/Under				-0.37		0.61		1.05						-0.47	
<i>eV Global Unconstrained Fixed Inc Net Median</i>				1.91		4.15		4.99		2.82		4.72		3.20	<i>Jun-15</i>
Manulife Asset Management	81,654,017	3.26		2.93	23	6.46	26	2.67	74	--	--	--	--	2.74	Jun-15
<i>BBgBarc Global Aggregate TR</i>				<u>3.30</u>	14	<u>5.85</u>	29	<u>1.62</u>	94	<u>1.20</u>	90	<u>2.89</u>	99	<u>3.21</u>	<i>Jun-15</i>
Over/Under				-0.37		0.61		1.05						-0.47	
<i>eV Global Unconstrained Fixed Inc Net Median</i>				1.91		4.15		4.99		2.82		4.72		3.20	<i>Jun-15</i>
Absolute Return Fixed Income	47,118,224	1.88	1.50	1.47	72	4.32	49	3.90	62	--	--	--	--	2.51	Jun-15
<i>3-Month LIBOR + 3%</i>				<u>1.37</u>	78	<u>5.68</u>	30	<u>4.86</u>	54	<u>4.27</u>	9	<u>3.81</u>	59	<u>4.49</u>	<i>Jun-15</i>
Over/Under				0.10		-1.36		-0.96						-1.98	
<i>eV Global Unconstrained Fixed Inc Net Median</i>				1.91		4.15		4.99		2.82		4.72		3.20	<i>Jun-15</i>
Mackay Shields	47,118,224	1.88		1.47	72	4.32	49	3.90	62	--	--	--	--	2.51	Jun-15
<i>3-Month LIBOR + 3%</i>				<u>1.37</u>	78	<u>5.68</u>	30	<u>4.86</u>	54	<u>4.27</u>	9	<u>3.81</u>	59	<u>4.49</u>	<i>Jun-15</i>
Over/Under				0.10		-1.36		-0.96						-1.98	
<i>eV Global Unconstrained Fixed Inc Net Median</i>				1.91		4.15		4.99		2.82		4.72		3.20	<i>Jun-15</i>
Short Duration	62,367,495	2.49	--	0.71	99	2.97	99	--	--	--	--	--	--	2.05	Jan-17
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>				<u>1.48</u>	99	<u>4.27</u>	99	<u>1.59</u>	97	<u>1.46</u>	99	<u>1.59</u>	99	<u>2.06</u>	<i>Jan-17</i>
Over/Under				-0.77		-1.30								-0.01	
<i>eV US Core Fixed Inc Net Median</i>				3.11		7.85		2.48		3.02		4.32		3.94	<i>Jan-17</i>
HGK Asset Management	62,367,495	2.49		0.71	99	2.97	98	--	--	--	--	--	--	2.05	Jan-17
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>				<u>1.48</u>	50	<u>4.27</u>	51	<u>1.59</u>	72	<u>1.46</u>	73	<u>1.59</u>	78	<u>2.06</u>	<i>Jan-17</i>
Over/Under				-0.77		-1.30								-0.01	
<i>eV US Short Duration Fixed Inc Net Median</i>				1.48		4.30		1.81		1.66		2.10		2.31	<i>Jan-17</i>



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	Ending June 30, 2019											Inception (%)	Inception Date
				3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank			
Emerging Market Debt	25,000,000	1.00	3.00	0.85	--	--	--	--	--	--	--	--	--	--	--	--
JP Morgan GBI - EM Global Diversified Index				5.64	--	8.99	--	4.24	--	-0.45	--	3.41	--	--	--	--
Over/Under				-4.79												
Lazard EM Income Fund L	25,000,000	1.00		0.85	--	--	--	--	--	--	--	--	--	0.85	Mar-19	
JP Morgan GBI - EM Global Diversified Index				5.64	--	8.99	--	4.24	--	-0.45	--	3.41	--	4.23	Mar-19	
Over/Under				-4.79										-3.38		
Total Private Equity	19,878,922	0.79	5.00	5.26	--	5.29	--	2.41	--	4.55	--	10.35	--	7.84	Oct-95	
Private Equity Benchmark (1 Qtr. Lag)				4.81	--	12.72	--	15.39	--	11.86	--	11.48	--	16.89	Oct-95	
Over/Under				0.45		-7.43		-12.98		-7.31		-1.13		-9.05		
Adams Street Partners	3,178,060	0.13		3.02	--	2.38	--	1.40	--	2.83	--	7.46	--	8.57	Oct-95	
Invesco Vent Alpha Fund	16,687,740	0.67		5.71	--	5.79	--	--	--	--	--	--	--	4.81	Jul-17	
Total Infrastructure	76,598,329	3.06	4.00	-0.02	--	7.87	--	19.50	--	21.22	--	15.73	--	8.82	Nov-07	
NCREIF Property Index				1.51	--	6.50	--	6.89	--	8.83	--	9.25	--	6.36	Nov-07	
Over/Under				-1.53		1.37		12.61		12.39		6.48		2.46		
Global Infrastructure Partners	2,013,163	0.08		-24.45	--	-6.09	--	21.46	--	29.90	--	21.64	--	14.69	Nov-07	
Global Infrastructure Partners III	20,832,258	0.83		10.00	--	15.17	--	--	--	--	--	--	--	2.95	Jan-17	
Ullico Infra Taxable	53,576,179	2.14		3.30	--	7.15	--	--	--	--	--	--	--	6.10	May-18	
Global Infrastructure Partners IV	1	0.00		--	--	--	--	--	--	--	--	--	--	0.00	Jun-19	
Total Real Estate	127,152,180	5.08	7.00	1.04	--	4.75	--	3.40	--	5.40	--	6.88	--	5.65	Oct-95	
NCREIF Property Index 1 Qtr. Lag				1.80	--	6.82	--	7.07	--	9.12	--	8.50	--	9.46	Oct-95	
Over/Under				-0.76		-2.07		-3.67		-3.72		-1.62		-3.81		
Private Real Estate	111,408,416	4.45	--	1.05	--	4.08	--	3.31	--	6.42	--	--	--	7.52	Dec-10	
Sound Mark Partners LLC	18,276,669	0.73		4.15	--	7.46	--	--	--	--	--	--	--	5.45	Sep-17	
Brookfield RE Fund B	4,011,454	0.16		1.82	--	6.65	--	--	--	--	--	--	--	6.82	Jul-17	
UBS Realty Investors	17,116,394	0.68		-4.76	--	-0.19	--	3.61	--	6.42	--	6.53	--	3.55	Jan-07	
M.S. Prime Property	20,928,390	0.84		1.44	--	7.55	--	7.51	--	9.40	--	5.65	--	5.05	Dec-06	
Mesirow RE Value	954,301	0.04		57.29	--	14.47	--	9.99	--	12.86	--	--	--	11.25	Jul-12	
DRA Advisors	180,373	0.01		-10.16	--	-10.44	--	-0.51	--	39.91	--	23.33	--	19.61	Oct-07	
Morgan Stanley RE VI	239,118	0.01		-0.71	--	7.02	--	9.01	--	7.35	--	1.96	--	-11.86	Jul-07	
Lone Star X	11,878,764	0.47		0.19	--	7.27	--	--	--	--	--	--	--	-34.83	Dec-17	
Lone Star Global	401,581	0.02		0.11	--	-34.93	--	-15.73	--	-3.81	--	0.77	--	0.17	Aug-08	



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

Ending June 30, 2019															
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Lone Star Fund VI	1,532,056	0.06		0.17	--	-0.83	--	1.11	--	-2.02	--	6.29	--	6.27	Jul-08
Apollo Real Estate Advisors	184,221	0.01		8.27	--	-54.76	--	-33.22	--	-21.72	--	-8.09	--	-15.10	May-08
AG Core Plus Realty II	408,459	0.02		0.62	--	1.04	--	-11.45	--	4.63	--	8.11	--	5.28	Aug-07
ABR Chesapeake III	94,178	0.00		-30.56	--	-20.21	--	-13.81	--	-4.64	--	-1.43	--	-1.07	Sep-06
Mesirow FIN RE Val III	5,141,642	0.21		6.64		3.48		--		--		--		-1.57	May-18
Lone Star XI	58,032	0.00		--	--	--	--	--	--	--	--	--	--	0.00	Jun-19
Blackstone Property	30,000,000	1.20		--	--	--	--	--	--	--	--	--	--	0.00	Jun-19
REIT	15,743,765	0.63	--	1.03	59	8.86	1	4.22	99	4.05	99	10.47	38	12.28	Dec-08
<i>eV EAFE REIT Net Median</i>				1.37		8.75		8.66		5.64		10.08		10.77	Dec-08
ING Clarion	15,743,765	0.63		1.03	59	8.86	1	4.22	99	4.05	99	10.47	38	12.28	Dec-08
<i>NAREIT Equity Index</i>				0.65	69	10.08	1	3.85	99	7.70	1	15.34	1	14.67	Dec-08
<i>Over/Under</i>				0.38		-1.22		0.37		-3.65		-4.87		-2.39	
<i>eV EAFE REIT Net Median</i>				1.37		8.75		8.66		5.64		10.08		10.77	Dec-08
Total Hedge Funds	143,877,855	5.75	4.00	-0.52	96	0.33	79	--	--	--	--	--	--	4.26	Aug-16
<i>HFRI Fund of Funds Composite Index</i>				1.49	59	1.15	66	4.25	71	2.19	73	3.21	87	3.84	Aug-16
<i>Over/Under</i>				-2.01		-0.82								0.42	
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				1.88		2.05		5.32		3.06		5.30		4.93	Aug-16
Pluscios	47,733,507	1.91		-1.00	97	-1.63	87	--	--	--	--	--	--	4.76	Aug-16
<i>HFRI Fund of Funds Composite Index</i>				1.49	59	1.15	66	4.25	71	2.19	73	3.21	87	3.84	Aug-16
<i>Over/Under</i>				-2.49		-2.78								0.92	
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				1.88		2.05		5.32		3.06		5.30		4.93	Aug-16
EnTrust Permal	53,385,185	2.13		-4.76	99	-0.36	83	--	--	--	--	--	--	2.75	Feb-17
<i>HFRI Fund of Funds Composite Index</i>				1.49	59	1.15	66	4.25	71	2.19	73	3.21	87	3.52	Feb-17
<i>Over/Under</i>				-6.25		-1.51								-0.77	
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				1.88		2.05		5.32		3.06		5.30		4.50	Feb-17
Blueprint Capital Advisors	42,759,163	1.71		5.95	5	1.89	55	--	--	--	--	--	--	2.36	Aug-17
<i>Blueprint Capital Custom Index</i>				1.49	59	1.15	66	--	--	--	--	--	--	2.74	Aug-17
<i>Over/Under</i>				4.46		0.74								-0.38	
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				1.88		2.05		5.32		3.06		5.30		3.59	Aug-17



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

Ending June 30, 2019															
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Global Asset Allocation	110,636,380	4.42	5.00	2.66	41	4.51	38	6.64	41	2.58	64	--	--	5.14	Dec-11
60% MSCI ACWI (Net) / 40% FTSE WGBI				<u>3.71</u>	18	<u>6.02</u>	20	<u>7.43</u>	31	<u>4.19</u>	32	<u>7.13</u>	38	<u>6.40</u>	Dec-11
Over/Under				-1.05		-1.51		-0.79		-1.61				-1.26	
eV Global TAA Net Median				2.41		3.35		5.78		3.29		6.73		5.58	Dec-11
PIMCO	110,636,380	4.42		2.66	41	4.94	34	6.84	39	2.61	63	--	--	4.86	Dec-11
PIMCO All Asset Index				<u>3.16</u>	25	<u>7.68</u>	12	<u>4.06</u>	71	<u>3.63</u>	42	<u>5.59</u>	72	<u>4.25</u>	Dec-11
Over/Under				-0.50		-2.74		2.78		-1.02				0.61	
eV Global TAA Net Median				2.41		3.35		5.78		3.29		6.73		5.58	Dec-11
Opportunistic Credit	83,071,889	3.32	4.00	2.46	--	5.71	--	--	--	--	--	--	--	5.68	Nov-16
Opportunistic Credit Custom Index				<u>2.21</u>	--	<u>6.39</u>	--	<u>6.29</u>	--	--	--	--	--	<u>5.35</u>	Nov-16
Over/Under				0.25		-0.68								0.33	
Beach Point LP	23,811,251	0.95		2.29	--	4.32	--	--	--	--	--	--	--	6.99	Dec-16
Opportunistic Credit Custom Index				<u>2.21</u>	--	<u>6.39</u>	--	<u>6.29</u>	--	--	--	--	--	<u>5.57</u>	Dec-16
Over/Under				0.08		-2.07								1.42	
Voya	21,992,658	0.88		1.78	--	4.64	--	--	--	--	--	--	--	3.63	Nov-16
Opportunistic Credit Custom Index				<u>2.21</u>	--	<u>6.39</u>	--	<u>6.29</u>	--	--	--	--	--	<u>5.35</u>	Nov-16
Over/Under				-0.43		-1.75								-1.72	
Eagle Point Credit Management	21,161,897	0.85		3.28	--	--	--	--	--	--	--	--	--	9.48	Aug-18
Opportunistic Credit Custom Index				<u>2.21</u>	--	<u>6.39</u>	--	<u>6.29</u>	--	--	--	--	--	<u>5.39</u>	Aug-18
Over/Under				1.07										4.09	
Monroe Capital Private	5,598,200	0.22		5.87	--	--	--	--	--	--	--	--	--	5.90	Nov-18
Opportunistic Credit Custom Index				<u>2.21</u>	--	<u>6.39</u>	--	<u>6.29</u>	--	--	--	--	--	<u>4.90</u>	Nov-18
Over/Under				3.66										1.00	
Voya Bank Loan	10,507,882	0.42		1.35	--	--	--	--	--	--	--	--	--	5.08	Jan-19
Opportunistic Credit Custom Index				<u>2.21</u>	--	<u>6.39</u>	--	<u>6.29</u>	--	--	--	--	--	<u>7.88</u>	Jan-19
Over/Under				-0.86										-2.80	

*Opportunistic Credit Custom Index: 50% CS Leveraged Loan / 50% ICE BofA ML US HY BB-B Rated Constrained Index.



Chicago Police Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Ending June 30, 2019														
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Private Debt	91,276,042	3.65	4.00	4.06	--	10.07	--	--	--	--	--	--	--	7.59	Nov-16
Private Debt Custom Index				<u>1.37</u>	--	<u>5.68</u>	--	<u>4.86</u>	--	--	--	--	--	<u>4.98</u>	Nov-16
Over/Under				2.69		4.39								2.61	
Clareant Euro Dir	20,504,199	0.82		3.72	--	11.18	--	--	--	--	--	--	--	9.61	Nov-16
Dorchester Secondaries Offshore IV	30,936,051	1.24		8.80	--	14.05	--	--	--	--	--	--	--	9.56	Mar-17
Monroe Capital (PE)	21,289,022	0.85		1.62	--	6.39	--	--	--	--	--	--	--	9.13	Nov-16
Crestline Opportunity FD III	16,355,703	0.65		-0.29	--	7.36	--	--	--	--	--	--	--	5.30	Jun-17
Clareant Euro Dir III	2,191,067	0.09		0.00	--	--	--	--	--	--	--	--	--	0.00	Dec-18
Cash	88,799,182	3.55	0.10	0.59	--	2.31	--	1.49	--	0.98	--	--	--	0.72	Dec-10
91 Day T-Bills				<u>0.57</u>	--	<u>2.27</u>	--	<u>1.40</u>	--	<u>0.87</u>	--	<u>0.47</u>	--	<u>0.53</u>	Dec-10
Over/Under				0.02		0.04		0.09		0.11		0.17		0.19	
Cash	88,799,182	3.55		0.59	93	2.31	60	1.49	50	0.98	63	0.64	25	2.43	Sep-98
91 Day T-Bills				<u>0.57</u>	95	<u>2.27</u>	69	<u>1.40</u>	79	<u>0.87</u>	78	<u>0.47</u>	74	<u>1.82</u>	Sep-98
Over/Under				0.02		0.04		0.09		0.11		0.17		0.61	
Transitions	1,068,498	0.04	--	1.63	--	5.52	--	7.51	--	3.61	--	--	--	3.61	Jul-14
Tax Reclaims	1,068,498	0.04		1.63	--	5.52	--	7.51	--	3.61	--	--	--	3.61	Jul-14

*Private Debt Custom Index: 3 - Month LIBOR + 3%.

