



Q3 2019 PERFORMANCE REPORT

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

November 18, 2019

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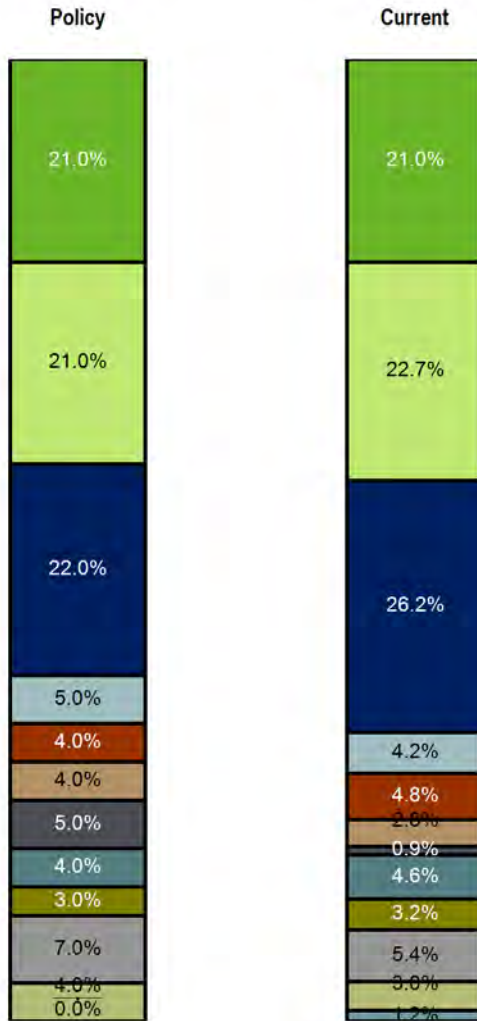
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BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

TOTAL ASSET ALLOCATION VS. POLICY TARGETS



Asset Allocation vs. Target				
	Current	Policy	Current	Difference*
U.S. Equity	\$545,081,079	21.00%	21.03%	0.03%
Non-US Equity	\$587,848,313	21.00%	22.68%	1.68%
Fixed Income	\$679,470,556	22.00%	26.22%	4.22%
Global Asset Allocation	\$109,933,555	5.00%	4.24%	-0.76%
Opportunistic Credit	\$125,005,763	4.00%	4.82%	0.82%
Private Debt	\$71,866,354	4.00%	2.77%	-1.23%
Private Equity	\$22,759,424	5.00%	0.88%	-4.12%
Hedge Funds	\$119,192,513	4.00%	4.60%	0.60%
Long/Short Equity	\$83,267,436	3.00%	3.21%	0.21%
Real Estate	\$139,857,113	7.00%	5.40%	-1.60%
Infrastructure	\$77,079,514	4.00%	2.97%	-1.03%
Cash	\$30,407,471	0.00%	1.17%	1.17%
Total	\$2,591,769,090	100.00%	100.00%	

*Difference between Policy and Current Allocation



Chicago Policemen's Annuity and Benefit Fund

INVESTMENT HIGHLIGHTS - NET

				Ending September 30, 2019							
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	2,591,769,090	100.0	100.0	0.4	10.8	2.9	7.2	5.7	7.8	8.4	Jan-84
<i>Policy Index</i>				0.1	9.8	4.0	7.3	5.7	7.4	--	Jan-84
<i>Allocation Index</i>				0.0	10.0	2.3	6.4	5.5	7.6	--	Jan-84
Total Equity	1,216,196,828	46.9	45.0	-1.0	15.1	-0.8	9.6	7.0	9.5	6.8	Oct-96
<i>MSCI ACWI</i>				0.0	16.2	1.4	9.7	6.7	8.3	6.4	Oct-96
Total Fixed Income	679,470,556	26.2	22.0	1.6	6.9	7.3	3.1	3.1	4.2	7.1	Jan-84
<i>BBgBarc US Aggregate TR</i>				2.3	8.5	10.3	2.9	3.4	3.7	7.1	Jan-84
Total Private Equity	22,759,424	0.9	5.0	7.0	4.8	5.6	3.7	5.0	9.8	8.1	Oct-95
<i>Cambridge Associates US All PE</i>				0.0	9.7	7.8	14.2	11.4	14.0	14.3	Oct-95
Total Infrastructure	77,079,514	3.0	4.0	6.4	7.2	13.3	21.2	21.8	16.6	9.2	Nov-07
<i>NCREIF Property Index</i>				1.4	4.8	6.2	6.8	8.6	9.8	6.4	Nov-07
Total Real Estate	139,857,113	5.4	7.0	1.3	4.8	4.9	3.9	5.3	6.7	5.7	Oct-95
<i>NCREIF Property Index 1 Qtr. Lag</i>				1.5	4.8	6.5	6.9	8.8	9.2	9.4	Oct-95
Total Hedge Funds	159,859,286	6.2	4.0	2.5	1.3	1.3	4.3	--	--	4.7	Aug-16
<i>HFRI Fund of Funds Composite Index</i>				-0.8	5.3	0.1	3.2	2.0	2.7	3.3	Aug-16
Total Global Asset Allocation	109,933,555	4.2	5.0	-0.6	7.3	3.3	5.0	3.0	--	4.9	Dec-11
<i>60% MSCI ACWI (Net) / 40% FTSE WGBI</i>				0.4	12.4	4.4	6.4	4.9	5.9	6.2	Dec-11
Opportunistic Credit	77,297,636	3.0	4.0	-0.2	4.2	3.6	--	--	--	5.1	Nov-16
<i>Opportunistic Credit Custom Index</i>				1.3	9.1	5.4	5.3	--	--	5.3	Nov-16
Private Debt	78,907,708	3.0	4.0	2.6	7.5	9.8	--	--	--	7.9	Nov-16
<i>Private Debt Custom Index</i>				1.3	4.1	5.6	5.0	--	--	5.0	Nov-16

*Opportunistic Credit Custom Index: 50% BBgBarc High Yield / 50% ICE BofA ML US HY BB-B Rated Constrained Index.

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



Chicago Policemen's Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Composite	2,591,769,090	100.00	100.00	0.45	75	10.78	88	2.89	77	7.19	76	5.72	76	7.79	58	8.44	Jan-84
Policy Index				0.10	90	9.84	96	4.00	49	7.26	73	5.71	76	7.41	74	--	Jan-84
Over/Under				0.35		0.94		-1.11		-0.07		0.01		0.38			
Allocation Index				-0.04	94	10.02	94	2.28	88	6.44	94	5.46	85	7.60	65	--	Jan-84
InvMetrics Public DB Net Median				0.78		13.33		3.98		7.90		6.27		7.91		8.66	Jan-84
Total Equity	1,216,196,828	46.93	45.00	-0.96	64	15.11	59	-0.79	62	9.60	40	7.01	46	9.55	38	6.81	Oct-96
MSCI ACWI				-0.03	46	16.20	53	1.38	46	9.71	39	6.65	55	8.35	61	6.36	Oct-96
Over/Under				-0.93		-1.09		-2.17		-0.11		0.36		1.20		0.45	
eV All Global Equity Net Median				-0.25		16.47		0.82		8.88		6.87		9.00		7.89	Oct-96
Total Domestic Equity	545,081,079	21.03	21.00	-0.56	64	17.12	60	-1.42	57	11.47	43	9.45	43	12.26	47	10.61	Jan-84
Russell 3000				1.16	37	20.09	38	2.92	33	12.83	30	10.44	29	13.08	30	10.86	Jan-84
Over/Under				-1.72		-2.97		-4.34		-1.36		-0.99		-0.82		-0.25	
eV All US Equity Net Median				0.37		18.46		-0.35		10.60		8.80		12.07		11.51	Jan-84
Total Large Cap	306,669,471	11.83	13.00	0.74	64	17.74	64	1.64	58	11.01	62	9.10	55	12.13	54	8.79	Oct-95
Russell 1000				1.42	45	20.53	38	3.87	39	13.19	36	10.62	32	13.23	30	9.16	Oct-95
Over/Under				-0.68		-2.79		-2.23		-2.18		-1.52		-1.10		-0.37	
eV US Large Cap Equity Net Median				1.28		19.31		2.56		12.01		9.43		12.32		9.31	Oct-95
NTGI Russell 1000	206,625,792	7.97		1.42	45	20.54	38	3.88	39	13.16	36	10.61	32	--	--	12.59	Mar-12
Russell 1000				1.42	45	20.53	38	3.87	39	13.19	36	10.62	32	13.23	30	13.03	Mar-12
Over/Under				0.00		0.01		0.01		-0.03		-0.01				-0.44	
eV US Large Cap Equity Net Median				1.28		19.31		2.56		12.01		9.43		12.32		11.96	Mar-12
Great Lakes	100,043,679	3.86		-0.64	93	16.30	57	-1.27	74	8.38	76	7.45	52	11.65	33	10.12	Jul-89
S&P 500/Citi Pure Value				0.49	77	16.63	55	-2.74	86	9.71	52	6.71	70	13.37	5	--	Jul-89
Over/Under				-1.13		-0.33		1.47		-1.33		0.74		-1.72			
eV US Large Cap Value Equity Net Median				1.48		17.12		1.68		9.78		7.48		11.19		10.09	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% HFRI Equity Hedge (Total) Index, 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% Cambridge Associates US All PE, 7% NCREIF Property (1 Qtr Lag), 4% HFRI Fund of Funds Composite Index, 4% 50% BBgBarc High Yield/ 50% ICE BofA ML US HY BB-B Rated Constrained Index, 4% 30% CPI+3%/70% S&P/LSTA Leveraged Loan Index



Chicago Policemen's Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total SMID Cap	194,039,294	7.49	6.00	-0.59	49	18.97	45	-2.82	45	13.82	18	11.02	18	12.85	29	9.63	Nov-04
Russell 2500				-1.28	57	17.72	56	-4.04	57	9.51	50	8.57	40	12.22	38	9.05	Nov-04
Over/Under				0.69		1.25		1.22		4.31		2.45		0.63		0.58	
eV US Small-Mid Cap Equity Net Median				-0.62		18.21		-3.42		9.51		7.98		11.75		9.27	Nov-04
William Blair SMID Growth	80,593,418	3.11		0.86	1	25.20	21	1.91	21	17.67	3	14.18	5	14.91	20	11.31	Nov-04
Russell 2500 Growth				-3.18	55	19.97	54	-4.11	59	12.33	59	10.22	47	13.48	35	9.99	Nov-04
Over/Under				4.04		5.23		6.02		5.34		3.96		1.43		1.32	
eV US Small-Mid Cap Growth Equity Net Median				-2.86		21.07		-3.14		12.81		9.68		13.11		9.81	Nov-04
Fisher Investment	66,609,956	2.57		-2.12	83	17.42	43	-4.36	50	12.05	10	9.10	11	--	--	10.77	Feb-13
Russell 2500 Value				0.13	55	15.41	69	-4.35	50	6.87	48	6.98	31	11.00	42	8.90	Feb-13
Over/Under				-2.25		2.01		-0.01		5.18		2.12		--		1.87	
eV US Small-Mid Cap Value Equity Net Median				0.42		16.73		-4.41		6.63		6.07		10.80		8.68	Feb-13
Chicago Equity SMID Value	46,835,920	1.81		-0.85	69	11.39	87	-7.68	75	--	--	--	--	--	--	-2.29	May-18
Russell 2500 Value				0.13	55	15.41	69	-4.35	50	6.87	48	6.98	31	11.00	42	1.96	May-18
Over/Under				-0.98		-4.02		-3.33		--		--		--		-4.25	
eV US Small-Mid Cap Value Equity Net Median				0.42		16.73		-4.41		6.63		6.07		10.80		0.67	May-18
Total Micro Cap	44,372,314	1.71	2.00	-8.61	--	6.03	--	-10.41	--	--	--	--	--	--	--	-10.41	Oct-18
BMO Micro Cap Equity	44,372,314	1.71		-8.61	99	6.03	83	-10.41	47	--	--	--	--	--	--	-10.41	Oct-18
Russell Microcap				-5.45	96	7.92	76	-15.98	88	5.32	68	6.15	72	9.81	77	-15.98	Oct-18
Over/Under				-3.16		-1.89		5.57		--		--		--		5.57	
eV US Micro Cap Value Equity Net Median				-1.47		12.53		-11.00		6.86		8.20		11.19		-11.00	Oct-18
Total International Equity	587,848,313	22.68	21.00	-1.90	48	13.90	46	-0.78	34	7.69	28	4.94	35	6.23	50	8.57	Jan-84
MSCI ACWI ex USA				-1.80	43	11.56	66	-1.23	40	6.33	50	2.90	72	4.46	84	--	Jan-84
Over/Under				-0.10		2.34		0.45		1.36		2.04		1.77		--	
eV All ACWI ex-US Equity Net Median				-1.98		12.91		-2.53		6.27		4.03		6.22		--	Jan-84



Chicago Policemen's Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Developed Int'l Equity	422,487,565	16.30	15.00	-1.48	32	15.00	36	-1.87	44	7.53	30	4.74	36	--	--	5.85	Jan-11
MSCI ACWI ex USA				-1.80	43	11.56	66	-1.23	40	6.33	50	2.90	72	4.46	84	3.41	Jan-11
Over/Under				0.32		3.44		-0.64		1.20		1.84				2.44	
eV All ACWI ex-US Equity Net Median				-1.98		12.91		-2.53		6.27		4.03		6.22		4.88	Jan-11
Artisan Partner	101,052,467	3.90		0.38	5	20.03	11	6.43	3	9.16	14	4.64	38	7.36	27	6.73	Apr-05
MSCI ACWI ex USA				-1.80	43	11.56	66	-1.23	40	6.33	50	2.90	72	4.46	84	4.80	Apr-05
Over/Under				2.18		8.47		7.66		2.83		1.74		2.90		1.93	
eV All ACWI ex-US Equity Net Median				-1.98		12.91		-2.53		6.27		4.03		6.22		5.89	Apr-05
William Blair International Growth	122,968,868	4.74		-1.38	51	18.26	6	-0.78	23	6.99	28	4.20	46	6.66	37	5.43	Apr-05
MSCI EAFE				-1.07	41	12.80	43	-1.34	27	6.48	36	3.27	63	4.90	80	4.46	Apr-05
Over/Under				-0.31		5.46		0.56		0.51		0.93		1.76		0.97	
eV All EAFE Equity Net Median				-1.38		12.13		-4.13		5.81		3.91		6.30		5.38	Apr-05
UBS International	84,318,961	3.25		-2.51	70	10.63	69	-5.27	75	7.29	32	2.99	71	5.25	72	9.55	Jan-84
MSCI ACWI ex USA				-1.80	43	11.56	66	-1.23	40	6.33	50	2.90	72	4.46	84	--	Jan-84
Over/Under				-0.71		-0.93		-4.04		0.96		0.09		0.79			
eV All ACWI ex-US Equity Net Median				-1.98		12.91		-2.53		6.27		4.03		6.22		--	Jan-84
Acadian	114,147,268	4.40		-2.42	68	11.02	50	-7.44	46	7.24	20	6.98	21	--	--	6.70	Jan-14
MSCI EAFE Small Cap				-0.44	17	12.05	40	-5.93	24	5.94	48	6.02	40	7.45	73	4.70	Jan-14
Over/Under				-1.98		-1.03		-1.51		1.30		0.96				2.00	
eV EAFE Small Cap Equity Net Median				-1.80		10.91		-7.87		5.51		5.71		8.39		4.73	Jan-14



Chicago Policemen's Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Emerging Markets Equity	165,360,748	6.38	6.00	-2.94	34	11.32	25	2.83	28	7.95	22	3.90	26	--	--	4.93	Jan-14
<i>MSCI Emerging Markets</i>				<u>-4.25</u>	63	<u>5.90</u>	74	<u>-2.02</u>	72	<u>5.97</u>	56	<u>2.33</u>	61	<u>3.37</u>	76	<u>2.45</u>	<i>Jan-14</i>
Over/Under				1.31		5.42		4.85		1.98		1.57				2.48	
<i>eV Emg Mkts All Cap Equity Net Median</i>				<u>-3.66</u>		<u>8.22</u>		<u>-0.28</u>		<u>6.32</u>		<u>2.97</u>		<u>3.95</u>		<u>2.91</u>	<i>Jan-14</i>
EARNEST Partners	79,677,373	3.07		-2.91	34	9.70	36	2.03	32	7.92	22	2.97	51	--	--	4.57	Jan-14
<i>MSCI Emerging Markets</i>				<u>-4.25</u>	63	<u>5.90</u>	74	<u>-2.02</u>	72	<u>5.97</u>	56	<u>2.33</u>	61	<u>3.37</u>	76	<u>2.45</u>	<i>Jan-14</i>
Over/Under				1.34		3.80		4.05		1.95		0.64				2.12	
<i>eV Emg Mkts All Cap Equity Net Median</i>				<u>-3.66</u>		<u>8.22</u>		<u>-0.28</u>		<u>6.32</u>		<u>2.97</u>		<u>3.95</u>		<u>2.91</u>	<i>Jan-14</i>
Lazard	85,683,375	3.31		-2.96	34	12.88	15	3.58	22	7.98	22	4.87	15	--	--	5.28	Jan-14
<i>MSCI Emerging Markets</i>				<u>-4.25</u>	63	<u>5.90</u>	74	<u>-2.02</u>	72	<u>5.97</u>	56	<u>2.33</u>	61	<u>3.37</u>	76	<u>2.45</u>	<i>Jan-14</i>
Over/Under				1.29		6.98		5.60		2.01		2.54				2.83	
<i>eV Emg Mkts All Cap Equity Net Median</i>				<u>-3.66</u>		<u>8.22</u>		<u>-0.28</u>		<u>6.32</u>		<u>2.97</u>		<u>3.95</u>		<u>2.91</u>	<i>Jan-14</i>
Long/Short Equities	83,267,436	3.21	3.00	3.26	19	8.24	51	2.74	35	--	--	--	--	--	--	2.56	Mar-18
<i>Long/Short Custom Index</i>				<u>0.57</u>	38	<u>1.79</u>	79	<u>2.36</u>	37	<u>1.52</u>	80	<u>0.96</u>	82	<u>0.52</u>	94	<u>2.17</u>	<i>Mar-18</i>
Over/Under				2.69		6.45		0.38								0.39	
<i>eV Alt Fundamental - Long/Short Equity Median</i>				<u>-0.32</u>		<u>8.25</u>		<u>-0.43</u>		<u>5.86</u>		<u>5.07</u>		<u>7.00</u>		<u>0.89</u>	<i>Mar-18</i>
UBS Bucktown CPD LLC	51,934,000	2.00		3.02	20	9.94	43	3.87	29	--	--	--	--	--	--	2.72	May-18
<i>Long/Short Custom Index</i>				<u>0.57</u>	38	<u>1.79</u>	79	<u>2.36</u>	37	<u>1.52</u>	80	<u>0.96</u>	82	<u>0.52</u>	94	<u>2.24</u>	<i>May-18</i>
Over/Under				2.45		8.15		1.51								0.48	
<i>eV Alt Fundamental - Long/Short Equity Median</i>				<u>-0.32</u>		<u>8.25</u>		<u>-0.43</u>		<u>5.86</u>		<u>5.07</u>		<u>7.00</u>		<u>1.16</u>	<i>May-18</i>
Pluscios L/S EQ FD	31,333,436	1.21		3.65	16	5.53	66	0.93	44	--	--	--	--	--	--	2.94	Apr-18
<i>Long/Short Custom Index</i>				<u>0.57</u>	38	<u>1.79</u>	79	<u>2.36</u>	37	<u>1.52</u>	80	<u>0.96</u>	82	<u>0.52</u>	94	<u>2.20</u>	<i>Apr-18</i>
Over/Under				3.08		3.74		-1.43								0.74	
<i>eV Alt Fundamental - Long/Short Equity Median</i>				<u>-0.32</u>		<u>8.25</u>		<u>-0.43</u>		<u>5.86</u>		<u>5.07</u>		<u>7.00</u>		<u>1.27</u>	<i>Apr-18</i>

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



Chicago Policemen's Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Fixed Income	679,470,556	26.22	22.00	1.59	44	6.90	53	7.27	53	3.05	53	3.07	58	4.20	48	7.12	Jan-84
BBgBarc US Aggregate TR				2.27	26	8.52	43	10.30	22	2.92	56	3.38	51	3.75	58	7.07	Jan-84
Over/Under				-0.68		-1.62		-3.03		0.13		-0.31		0.45		0.05	
eV All US Fixed Inc Net Median				1.41		7.39		7.55		3.12		3.38		4.05		7.17	Jan-84
Core/Core Plus Fixed Income	296,125,798	11.43	16.00	2.23	68	9.11	36	10.15	57	3.37	26	3.67	30	--	--	4.05	Dec-10
BBgBarc US Aggregate TR				2.27	55	8.52	73	10.30	49	2.92	66	3.38	63	3.75	73	3.36	Dec-10
Over/Under				-0.04		0.59		-0.15		0.45		0.29				0.69	
eV US Core Fixed Inc Net Median				2.29		8.88		10.27		3.07		3.45		4.04		3.59	Dec-10
LM	93,595,972	3.61		2.13	82	9.09	36	9.74	83	3.02	55	3.51	45	4.23	37	4.97	May-06
BBgBarc US Aggregate TR				2.27	55	8.52	73	10.30	49	2.92	66	3.38	63	3.75	73	4.52	May-06
Over/Under				-0.14		0.57		-0.56		0.10		0.13		0.48		0.45	
eV US Core Fixed Inc Net Median				2.29		8.88		10.27		3.07		3.45		4.04		4.74	May-06
Wellington	102,158,348	3.94		2.31	47	9.65	17	10.27	52	4.23	4	4.03	10	5.02	10	5.12	Dec-04
BBgBarc US Aggregate TR				2.27	55	8.52	73	10.30	49	2.92	66	3.38	63	3.75	73	4.25	Dec-04
Over/Under				0.04		1.13		-0.03		1.31		0.65		1.27		0.87	
eV US Core Fixed Inc Net Median				2.29		8.88		10.27		3.07		3.45		4.04		4.46	Dec-04
Wells Capital	100,371,478	3.87		2.25	64	8.59	69	10.25	53	3.01	56	3.54	42	4.42	28	4.85	Mar-04
BBgBarc US Aggregate TR				2.27	55	8.52	73	10.30	49	2.92	66	3.38	63	3.75	73	4.14	Mar-04
Over/Under				-0.02		0.07		-0.05		0.09		0.16		0.67		0.71	
eV US Core Fixed Inc Net Median				2.29		8.88		10.27		3.07		3.45		4.04		4.33	Mar-04
Global Multi Sector Fixed Income	82,516,889	3.18	3.00	2.05	3	9.30	14	7.67	16	3.04	69	--	--	--	--	3.06	Jun-15
BBgBarc Global Aggregate TR				0.71	51	6.32	41	7.60	16	1.59	85	1.99	81	2.34	99	3.19	Jun-15
Over/Under				1.34		2.98		0.07		1.45						-0.13	
eV Global Unconstrained Fixed Inc Net Median				0.74		5.69		4.72		4.06		2.75		3.45		3.15	Jun-15
Manulife Asset Management	82,516,889	3.18		2.05	3	9.30	14	7.67	16	3.04	69	--	--	--	--	3.06	Jun-15
BBgBarc Global Aggregate TR				0.71	51	6.32	41	7.60	16	1.59	85	1.99	81	2.34	99	3.19	Jun-15
Over/Under				1.34		2.98		0.07		1.45						-0.13	
eV Global Unconstrained Fixed Inc Net Median				0.74		5.69		4.72		4.06		2.75		3.45		3.15	Jun-15

*Total Fixed Income Composite includes \$15.75 in residual assets from terminated managers



Chicago Policemen's Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Absolute Return Fixed Income	47,243,304	1.82	--	1.18	41	5.50	57	4.01	62	3.35	67	--	--	--	--	2.64	Jun-15
3-Month LIBOR + 3%				1.30	26	4.14	65	5.63	34	4.98	31	4.37	8	3.85	43	4.54	Jun-15
Over/Under				-0.12		1.36		-1.62		-1.63						-1.90	
eV Global Unconstrained Fixed Inc Net Median				0.74		5.69		4.72		4.06		2.75		3.45		3.15	Jun-15
Mackay Shields	47,243,304	1.82		1.18	41	5.50	57	4.01	62	3.35	67	--	--	--	--	2.64	Jun-15
3-Month LIBOR + 3%				1.30	26	4.14	65	5.63	34	4.98	31	4.37	8	3.85	43	4.54	Jun-15
Over/Under				-0.12		1.36		-1.62		-1.63						-1.90	
eV Global Unconstrained Fixed Inc Net Median				0.74		5.69		4.72		4.06		2.75		3.45		3.15	Jun-15
Short Duration	203,439,870	7.85	--	0.64	99	2.26	99	2.90	99	--	--	--	--	--	--	2.10	Jan-17
BBgBarc US Govt/Credit 1-3 Yr. TR				0.69	99	3.42	99	4.64	99	1.82	99	1.59	99	1.52	99	2.13	Jan-17
Over/Under				-0.05		-1.16		-1.74								-0.03	
eV US Core Fixed Inc Net Median				2.29		8.88		10.27		3.07		3.45		4.04		4.45	Jan-17
HGK Asset Management	203,439,870	7.85		0.64	90	2.26	99	2.90	99	--	--	--	--	--	--	2.10	Jan-17
BBgBarc US Govt/Credit 1-3 Yr. TR				0.69	76	3.42	70	4.64	48	1.82	73	1.59	75	1.52	81	2.13	Jan-17
Over/Under				-0.05		-1.16		-1.74								-0.03	
eV US Short Duration Fixed Inc Net Median				0.78		3.76		4.61		2.00		1.81		1.97		2.40	Jan-17
Emerging Market Debt	50,144,680	1.93	3.00	1.34	17	--	--	--	--	--	--	--	--	--	--	--	--
JP Morgan GBI - EM Global Diversified Index				-0.79	61	7.86	74	10.13	40	3.06	72	0.55	81	2.47	78	--	
Over/Under				2.13													
eV All Emg Mkts Fixed Inc Net Median				-0.05		9.96		9.75		3.91		3.75		5.52		--	
Lazard EM Income Fund L	25,144,680	0.97		0.58	34	--	--	--	--	--	--	--	--	--	--	1.43	Mar-19
JP Morgan GBI - EM Global Diversified Index				-0.79	61	7.86	74	10.13	40	3.06	72	0.55	81	2.47	78	3.41	Mar-19
Over/Under				1.37												-1.98	
eV All Emg Mkts Fixed Inc Net Median				-0.05		9.96		9.75		3.91		3.75		5.52		4.76	Mar-19
Blackrock EM Local Curr	25,000,000	0.96		--	--	--	--	--	--	--	--	--	--	--	--	0.00	Aug-19
JP Morgan GBI - EM Global Diversified Index				-0.79	61	7.86	74	10.13	40	3.06	72	0.55	81	2.47	78	-1.70	Aug-19
Over/Under																1.70	
eV All Emg Mkts Fixed Inc Net Median				-0.05		9.96		9.75		3.91		3.75		5.52		-1.20	Aug-19

*Blackrock EM Local Curr was funded in August 2019, therefore three month performance is unavailable



Chicago Policemen's Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Private Equity	22,759,424	0.88	5.00	7.01	--	4.80	--	5.65	--	3.71	--	4.99	--	9.83	--	8.06	Oct-95
Cambridge Associates US All PE				0.00	--	9.65	--	7.80	--	14.16	--	11.39	--	14.01	--	14.31	Oct-95
Over/Under				7.01		-4.85		-2.15		-10.45		-6.40		-4.18		-6.25	
Adams Street Partners	3,040,452	0.12		-1.98	--	-7.27	--	-4.06	--	0.13	--	1.73	--	6.76	--	8.38	Oct-95
Invesco Vent Alpha Fund	19,705,851	0.76		8.64	--	6.88	--	6.88	--	--	--	--	--	--	--	8.18	Jul-17
Total Infrastructure	77,079,514	2.97	4.00	6.35	--	7.16	--	13.27	--	21.23	--	21.84	--	16.57	--	9.19	Nov-07
NCREIF Property Index				1.41	--	4.79	--	6.23	--	6.76	--	8.57	--	9.77	--	6.35	Nov-07
Over/Under				4.94		2.37		7.04		14.47		13.27		6.80		2.84	
Global Infrastructure Partners	3,953,820	0.15		271.05	--	219.85	--	245.93	--	83.09	--	66.82	--	39.02	--	27.66	Nov-07
Global Infrastructure Partners III	20,826,481	0.80		1.37	--	2.22	--	10.22	--	--	--	--	--	--	--	3.19	Jan-17
Ullico Infra Taxable	51,944,217	2.00		2.65	--	5.59	--	9.99	--	--	--	--	--	--	--	6.95	May-18
Global Infrastructure Partners IV	109,376	0.00		0.00	--	--	--	--	--	--	--	--	--	--	--	0.00	Jun-19
Total Real Estate	139,857,113	5.40	7.00	1.31	--	4.79	--	4.88	--	3.89	--	5.28	--	6.73	--	5.65	Oct-95
NCREIF Property Index 1 Qtr. Lag				1.51	--	4.75	--	6.50	--	6.89	--	8.83	--	9.25	--	9.42	Oct-95
Over/Under				-0.20		0.04		-1.62		-3.00		-3.55		-2.52		-3.77	
Private Real Estate	123,504,697	4.77	--	0.90	--	2.07	--	3.39	--	3.73	--	5.68	--	--	--	7.41	Dec-10
Sound Mark Partners LLC	17,485,664	0.67		2.12	--	6.38	--	7.78	--	--	--	--	--	--	--	5.84	Sep-17
Brookfield RE Fund B	3,478,377	0.13		2.42	--	6.09	--	7.93	--	--	--	--	--	--	--	7.17	Jul-17
UBS Realty Investors	15,480,862	0.60		0.97	--	-2.39	--	-0.76	--	2.95	--	5.57	--	7.21	--	3.56	Jan-07
M.S. Prime Property	21,017,478	0.81		1.03	--	3.41	--	5.05	--	7.17	--	8.28	--	5.80	--	5.03	Dec-06
Mesirow RE Value	1	0.00		-44.27	--	-26.97	--	-26.78	--	-9.88	--	-0.19	--	--	--	2.25	Jul-12
DRA Advisors	222,074	0.01		23.12	--	12.33	--	13.20	--	6.27	--	45.06	--	27.34	--	21.25	Oct-07
Morgan Stanley RE VI	241,070	0.01		0.82	--	5.95	--	5.55	--	9.25	--	7.37	--	8.71	--	-11.57	Jul-07
Lone Star X	11,019,149	0.43		4.06	--	5.63	--	7.48	--	--	--	--	--	--	--	-29.40	Dec-17
Lone Star Global	404,437	0.02		0.71	--	-34.55	--	-34.33	--	-14.48	--	-4.07	--	0.28	--	0.23	Aug-08
Lone Star Fund VI	1,382,626	0.05		0.75	--	1.27	--	0.38	--	1.45	--	-3.01	--	6.08	--	6.20	Jul-08
Apollo Real Estate Advisors	194,396	0.01		5.52	--	-10.34	--	-43.85	--	-31.34	--	-21.71	--	-7.30	--	-14.39	May-08
AG Core Plus Realty II	404,638	0.02		-0.94	--	1.21	--	1.16	--	-12.05	--	0.40	--	8.20	--	5.08	Aug-07
ABR Chesapeake III	32,424	0.00		7.24	--	-33.54	--	-24.63	--	-11.82	--	-3.33	--	-0.75	--	-0.52	Sep-06
Mesirow FIN RE Val III	6,378,004	0.25		0.31	--	6.39	--	7.67	--	--	--	--	--	--	--	-1.08	May-18
Lone Star XI	760,678	0.03		-5.76	--	--	--	--	--	--	--	--	--	--	--	-5.76	Jun-19
Blackstone Property	30,000,035	1.16		0.00	--	--	--	--	--	--	--	--	--	--	--	0.00	Jun-19
Terracap IV Inst	15,000,000	0.58		--	--	--	--	--	--	--	--	--	--	--	--	0.00	Aug-19
NCREIF Property Index				1.41	--	4.79	--	6.23	--	6.76	--	8.57	--	9.77	--	1.41	Aug-19
Over/Under				--		--		--		--		--		--		-1.41	



Chicago Policemen's Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
REIT	16,352,416	0.63	--	4.52	1	21.82	1	14.49	1	5.42	99	6.02	99	8.44	23	12.43	Dec-08
eV EAFE REIT Net Median				2.20		17.83		11.97		8.17		7.08		7.88		10.76	Dec-08
ING Clarion	16,352,416	0.63		4.52	1	21.82	1	14.49	1	5.42	99	6.02	99	8.44	23	12.43	Dec-08
NAREIT Equity Index				7.80	1	26.96	1	18.42	1	7.36	99	10.26	1	13.04	1	15.21	Dec-08
Over/Under				-3.28		-5.14		-3.93		-1.94		-4.24		-4.60		-2.78	
eV EAFE REIT Net Median				2.20		17.83		11.97		8.17		7.08		7.88		10.76	Dec-08
Total Hedge Funds	159,859,286	6.17	4.00	2.55	8	1.30	97	1.28	48	4.32	53	--	--	--	--	4.74	Aug-16
HFRI Fund of Funds Composite Index				-0.82	54	5.29	61	0.08	60	3.18	73	1.96	69	2.68	89	3.26	Aug-16
Over/Under				3.37		-3.99		1.20		1.14						1.48	
eV Alt Fund of Funds - Multi-Strategy Median				-0.58		6.08		1.00		4.43		2.88		4.44		4.68	Aug-16
Pluscios	62,593,213	2.42		-0.01	43	0.25	97	-2.62	81	3.93	61	--	--	--	--	4.37	Aug-16
HFRI Fund of Funds Composite Index				-0.82	54	5.29	61	0.08	60	3.18	73	1.96	69	2.68	89	3.26	Aug-16
Over/Under				0.81		-5.04		-2.70		0.75						1.11	
eV Alt Fund of Funds - Multi-Strategy Median				-0.58		6.08		1.00		4.43		2.88		4.44		4.68	Aug-16
EnTrust Permal	56,599,300	2.18		6.02	2	1.02	97	2.55	31	--	--	--	--	--	--	4.76	Feb-17
HFRI Fund of Funds Composite Index				-0.82	54	5.29	61	0.08	60	3.18	73	1.96	69	2.68	89	2.86	Feb-17
Over/Under				6.84		-4.27		2.47								1.90	
eV Alt Fund of Funds - Multi-Strategy Median				-0.58		6.08		1.00		4.43		2.88		4.44		3.99	Feb-17
Blueprint Capital Advisors	40,666,773	1.57		1.67	10	4.16	75	3.75	20	--	--	--	--	--	--	2.87	Aug-17
Blueprint Capital Custom Index				-0.82	54	5.29	61	0.08	60	--	--	--	--	--	--	2.03	Aug-17
Over/Under				2.49		-1.13		3.67								0.84	
eV Alt Fund of Funds - Multi-Strategy Median				-0.58		6.08		1.00		4.43		2.88		4.44		3.29	Aug-17
Total Global Asset Allocation	109,933,555	4.24	5.00	-0.64	73	7.28	73	3.33	37	5.01	52	3.04	66	--	--	4.88	Dec-11
60% MSCI ACWI (Net) / 40% FTSE WGBI				0.37	51	12.36	29	4.43	32	6.41	34	4.88	35	5.86	45	6.24	Dec-11
Over/Under				-1.01		-5.08		-1.10		-1.40		-1.84				-1.36	
eV Global TAA Net Median				0.44		10.63		1.69		5.38		3.83		5.72		5.42	Dec-11
PIMCO	109,933,555	4.24		-0.64	73	7.50	71	3.93	34	5.03	52	3.09	66	--	--	4.62	Dec-11
PIMCO All Asset Index				1.24	25	9.28	64	7.89	15	3.93	63	4.06	47	5.08	63	4.28	Dec-11
Over/Under				-1.88		-1.78		-3.96		1.10		-0.97				0.34	
eV Global TAA Net Median				0.44		10.63		1.69		5.38		3.83		5.72		5.42	Dec-11



Chicago Policemen's Annuity and Benefit Fund

TOTAL PLAN NET PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Opportunistic Credit	77,297,636	2.98	4.00	-0.23	--	4.17	--	3.58	--	--	--	--	--	--	--	5.06	Nov-16
Opportunistic Credit Custom Index				1.28	--	9.13	--	5.36	--	5.30	--	--	--	--	--	5.30	Nov-16
Over/Under				-1.51		-4.96		-1.78								-0.24	
Beach Point LP	24,331,811	0.94		2.19	--	5.02	--	4.51	--	--	--	--	--	--	--	7.16	Dec-16
Voya	22,395,193	0.86		1.83	--	6.19	--	5.08	--	--	--	--	--	--	--	3.95	Nov-16
Eagle Point Credit Management	19,960,865	0.77		-5.68	--	0.08	--	1.32	--	--	--	--	--	--	--	2.79	Aug-18
Voya Bank Loan	10,609,766	0.41		0.97	--	6.10	--	--	--	--	--	--	--	--	--	6.10	Jan-19
Private Debt	78,907,708	3.04	4.00	2.64	--	7.51	--	9.80	--	--	--	--	--	--	--	7.89	Nov-16
Private Debt Custom Index				1.30	--	4.14	--	5.63	--	4.98	--	--	--	--	--	5.01	Nov-16
Over/Under				1.34		3.37		4.17								2.88	
Clareant Euro Dir	20,019,292	0.77		2.55	--	8.02	--	10.31	--	--	--	--	--	--	--	9.69	Nov-16
Dorchester Secondaries Offshore IV	17,026,100	0.66		3.34	--	12.49	--	15.19	--	--	--	--	--	--	--	9.99	Mar-17
Monroe Capital (PE)	15,764,131	0.61		0.34	--	2.16	--	3.91	--	--	--	--	--	--	--	8.44	Nov-16
Crestline Opportunity FD III	16,527,547	0.64		6.28	--	7.00	--	9.46	--	--	--	--	--	--	--	7.49	Jun-17
Clareant Euro Dir III	2,529,283	0.10		0.00	--	0.00	--	--	--	--	--	--	--	--	--	0.00	Dec-18
Monroe Capital Private	7,041,354	0.27		2.12	--	8.12	--	--	--	--	--	--	--	--	--	8.14	Nov-18
Cash	29,435,527	1.14	--	0.51	--	1.72	--	2.32	--	1.62	--	1.08	--	--	--	0.75	Dec-10
91 Day T-Bills				0.50	--	1.68	--	2.26	--	1.54	--	0.97	--	0.52	--	0.58	Dec-10
Over/Under				0.01		0.04		0.06		0.08		0.11				0.17	
Cash	29,435,527	1.14		0.51	89	1.72	73	2.32	68	1.62	57	1.08	60	0.68	23	2.43	Sep-98
91 Day T-Bills				0.50	90	1.68	89	2.26	82	1.54	71	0.97	71	0.52	67	1.83	Sep-98
Over/Under				0.01		0.04		0.06		0.08		0.11		0.16		0.60	
Transitions	971,944	0.04	--	1.28	--	5.63	--	5.16	--	6.51	--	4.95	--	--	--	3.69	Jul-14
Tax Reclaims	971,944	0.04		1.28	--	5.63	--	5.16	--	6.51	--	4.95	--	--	--	3.69	Jul-14

*Opportunistic Credit Custom Index: 50% BBgBarc High Yield / 50% ICE BofA ML US HY BB-B Rated Constrained Index

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

