



POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

Q4 2023 PERFORMANCE REVIEW



CALENDAR YEAR INDEX PERFORMANCE

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Dec	QTD	YTD
S&P 500	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	28.7%	-18.1%	4.5%	11.7%	26.3%
Russell 1000	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	26.5%	-19.1%	4.9%	12.0%	26.5%
Russell 2000	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	14.8%	-20.4%	12.2%	14.0%	16.9%
Russell 2500	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	18.2%	-18.4%	10.7%	13.4%	17.4%
MSCI EAFE	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	11.3%	-14.5%	5.3%	10.4%	18.2%
MSCI EM	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	-2.5%	-20.1%	3.9%	7.9%	9.8%
MSCI ACWI	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	18.5%	-18.4%	4.8%	11.0%	22.2%
Private Equity	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	45.0%	-9.3%	-	-	2.2%
BBG TIPS	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	6.0%	-11.8%	2.7%	4.7%	3.9%
BBG Municipal	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	1.5%	-8.5%	2.3%	7.9%	6.4%
BBG Muni High Yield	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	7.8%	-13.1%	3.0%	9.2%	9.2%
BBG US Corporate HY	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	5.3%	-11.2%	3.7%	7.2%	13.4%
BBG US Agg Bond	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	-1.5%	-13.0%	3.8%	6.8%	5.5%
BBG Global Agg	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	-4.7%	-16.2%	4.2%	8.1%	5.7%
BBG Long Treasuries	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	-4.6%	-29.3%	8.6%	12.7%	3.1%
BBG US Long Credit	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	-1.2%	-25.3%	7.3%	13.7%	10.7%
BBG US STRIPS 20+ Yr	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	24.0%	-5.2%	-39.6%	12.9%	18.9%	1.1%
JPM GBI-EM Global Div	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	2.7%	-8.7%	-11.7%	3.2%	8.1%	12.7%
JPM EMBI Glob Div	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	-1.8%	-17.8%	4.7%	9.2%	11.1%
CS Hedge Fund	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	6.4%	8.2%	1.1%	-	1.3%	5.1%
BBG Commodity	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	27.1%	16.1%	-2.7%	-4.6%	-7.9%
Alerian Midstream	-	16.4%	-37.3%	33.8%	-2.4%	-13.3%	24.0%	-23.4%	38.4%	21.5%	-0.5%	6.4%	14.0%
FTSE NAREIT Equity REITs	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	43.2%	-24.4%	9.9%	16.2%	13.7%

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag
Source: FactSet, Barclays, Thomson One



ANNUAL ASSET CLASS PERFORMANCE

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
S&P 500 32.4%	S&P 500 13.7%	S&P 500 1.4%	U.S. High Yield 17.1%	MSCI EM 37.3%	U.S. Treasury 0.9%	S&P 500 31.5%	S&P 500 18.4%	S&P 500 28.7%	Commodities 16.1%	S&P 500 26.3%
MSCI ACWI 22.8%	U.S. Credit 7.5%	EMD (Hard) 1.2%	S&P 500 12.0%	MSCI EAFE 25.0%	U.S. Agg 0.0%	MSCI ACWI 26.6%	MSCI EM 18.3%	Commodities 27.1%	U.S. High Yield -11.2%	MSCI ACWI 22.2%
MSCI EAFE 22.8%	EMD (Hard) 7.4%	U.S. Treasury 0.8%	Commodities 11.8%	MSCI ACWI 24.0%	U.S. TIPS -1.3%	MSCI EAFE 22.0%	MSCI ACWI 16.3%	MSCI ACWI 18.5%	EMD (Local) -11.7%	MSCI EAFE 18.2%
U.S. High Yield 7.4%	U.S. Agg 6.0%	U.S. Agg 0.5%	MSCI EM 11.2%	S&P 500 21.8%	U.S. High Yield -2.1%	MSCI EM 18.4%	U.S. TIPS 11.0%	MSCI EAFE 11.3%	U.S. TIPS -11.8%	U.S. High Yield 13.4%
U.S. Credit -2.0%	U.S. Treasury 5.1%	U.S. Credit -0.8%	EMD (Hard) 10.2%	EMD (Local) 15.2%	U.S. Credit -2.1%	EMD (Hard) 15.0%	U.S. Credit 9.4%	U.S. TIPS 6.0%	U.S. Treasury -12.5%	EMD (Local) 12.7%
U.S. Agg -2.0%	MSCI ACWI 4.2%	MSCI EAFE -0.8%	EMD (Local) 9.9%	EMD (Hard) 10.3%	EMD (Hard) -4.3%	U.S. High Yield 14.3%	U.S. Treasury 8.0%	U.S. High Yield 5.3%	U.S. Agg -13.0%	EMD (Hard) 11.1%
MSCI EM -2.6%	U.S. TIPS 3.6%	U.S. TIPS -1.4%	MSCI ACWI 7.9%	U.S. High Yield 7.5%	S&P 500 -4.4%	U.S. Credit 13.8%	MSCI EAFE 7.8%	U.S. Credit -1.1%	MSCI EAFE -14.5%	MSCI EM 9.8%
U.S. Treasury -2.7%	U.S. High Yield 2.5%	MSCI ACWI -2.4%	U.S. Credit 5.6%	U.S. Credit 6.2%	EMD (Local) -6.2%	EMD (Local) 13.5%	U.S. Agg 7.5%	U.S. Agg -1.5%	U.S. Credit -15.3%	U.S. Credit 8.2%
EMD (Hard) -5.3%	MSCI EM -2.2%	U.S. High Yield -4.5%	U.S. TIPS 4.7%	U.S. Agg 3.5%	MSCI ACWI -9.4%	U.S. Agg 8.7%	U.S. High Yield 7.1%	EMD (Hard) -1.8%	EMD (Hard) -17.8%	U.S. Agg 5.5%
U.S. TIPS -8.6%	MSCI EAFE -4.9%	MSCI EM -14.9%	U.S. Agg 2.6%	U.S. TIPS 3.0%	Commodities -11.2%	U.S. TIPS 8.4%	EMD (Hard) 5.3%	U.S. Treasury -2.3%	S&P 500 -18.1%	U.S. TIPS 4.1%
EMD (Local) -9.0%	EMD (Local) -5.7%	EMD (Local) -14.9%	U.S. Treasury 1.0%	U.S. Treasury 2.3%	MSCI EAFE -13.8%	Commodities 7.7%	EMD (Local) 2.7%	MSCI EM -2.5%	MSCI ACWI -18.4%	U.S. Treasury 3.9%
Commodities -9.5%	Commodities -17.0%	Commodities -24.7%	MSCI EAFE 1.0%	Commodities 1.7%	MSCI EM -14.6%	U.S. Treasury 6.9%	Commodities -3.1%	EMD (Local) -8.7%	MSCI EM -20.1%	Commodities -7.9%



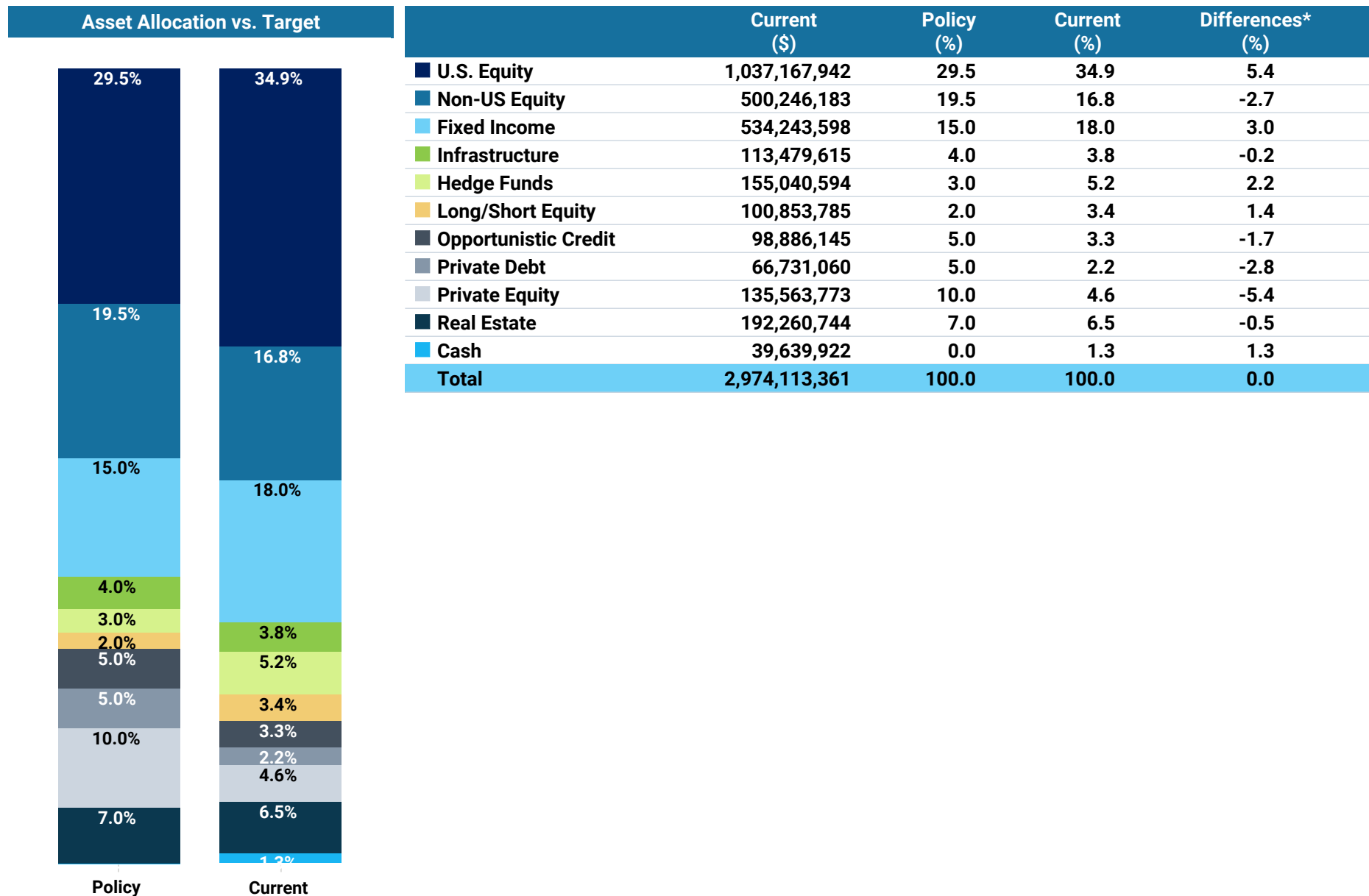
Sources: S&P, MSCI, Bloomberg, JPM, FactSet

TOTAL FUND PERFORMANCE



PROPRIETARY & CONFIDENTIAL

TOTAL ASSET ALLOCATION VS. POLICY TARGETS



*Difference between Policy and Current Allocation

INVESTMENT HIGHLIGHTS - NET

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	2,974,113,361	100.00	6.86	11.81	4.34	8.28	6.42	8.30	Jan-84
Policy Index			7.12	12.10	4.40	7.99	6.28		
Allocation Index			7.30	10.96	2.95	6.65	5.54		
Total Equity	1,638,252,852	55.08	10.55	18.89	4.13	10.59	7.54	7.13	Oct-96
MSCI AC World Index (Net)			11.03	22.20	5.75	11.72	7.93	6.92	
Total Fixed Income	534,243,598	17.96	6.68	7.22	-2.05	1.42	2.01	6.35	Jan-84
Blmbg. U.S. Aggregate Index			6.82	5.53	-3.31	1.10	1.81	6.23	
Opportunistic Credit	98,886,145	3.32	4.47	15.80	7.07	8.08		7.10	Nov-16
Opportunistic Credit Custom Index			5.02	13.42	3.91	5.61		4.80	
Total Hedge Funds	155,040,594	5.21	0.22	4.84	6.90	4.17		4.66	Aug-16
HFRI Fund of Funds Composite Index			3.40	6.34	2.25	5.14		4.14	
Private Debt	66,731,060	2.24	0.00	3.10	7.24	5.78		6.19	Nov-16
Private Debt Custom Index			2.09	8.20	5.20	5.08		4.93	
Total Private Equity	135,563,773	4.56	0.01	-0.04	30.16	26.35	16.67	11.14	Oct-95
CJA US All PE (1 Qtr Lag)			0.77	7.22	17.59	14.63	14.02	14.65	
Total Infrastructure	113,479,615	3.82	0.00	6.28	10.47	6.62	15.13	8.37	Nov-07
NCREIF Property Index 1 Qtr. Lag			-1.37	-8.39	6.04	5.26	7.40	6.15	
Total Real Estate	192,260,744	6.46	0.00	-2.41	10.22	7.59	6.85	5.97	Oct-95
NCREIF Property Index 1 Qtr. Lag			-1.37	-8.39	6.04	5.26	7.40	8.76	
Cash	39,407,627	1.33	1.66	6.04	3.09	2.64	1.69	1.38	Jan-11
90 Day U.S. Treasury Bill			1.37	5.02	2.15	1.88	1.24	0.97	
Transitions	247,353	0.01	0.62	6.85	4.16	4.80		3.97	Jul-14

*Private Equity, Infrastructure, and Real Estate valuations are as of 9/30/2023.

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

*Private Debt Custom Index: 30% CPI+3%/70% S&P/LSTA Leveraged Loan Index.

*Composite includes Cash and Transitions.



TOTAL PLAN NET PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	2,974,113,361	100.0	6.9	11.8	4.3	8.3	7.4	6.4	8.3	Jan-84
Policy Index			<u>7.1</u>	<u>12.1</u>	<u>4.4</u>	<u>8.0</u>	<u>7.4</u>	<u>6.3</u>		
Over/Under			-0.2	-0.3	-0.1	0.3	0.0	0.1		
Allocation Index			<u>7.3</u>	<u>11.0</u>	<u>2.9</u>	<u>6.7</u>	<u>6.1</u>	<u>5.5</u>		
Over/Under			-0.4	0.8	1.4	1.6	1.3	0.9		
Total Equity	1,638,252,852	55.1	10.6 (61)	18.9 (49)	4.1 (58)	10.6 (61)	9.5 (53)	7.5 (52)	7.1 (84)	Oct-96
MSCI AC World Index (Net)			<u>11.0</u> (53)	<u>22.2</u> (33)	<u>5.7</u> (44)	<u>11.7</u> (47)	<u>10.0</u> (47)	<u>7.9</u> (45)	<u>6.9</u> (88)	
Over/Under			-0.4	-3.3	-1.6	-1.1	-0.5	-0.4	0.2	
eV All Global Equity Median			11.1	18.6	5.0	11.5	9.8	7.6	8.2	
Total Domestic Equity	1,037,167,942	34.9	11.5 (57)	22.3 (36)	7.1 (59)	12.8 (52)	11.0 (46)	9.9 (42)	10.7 (69)	Jan-84
Russell 3000 Index			<u>12.1</u> (45)	<u>26.0</u> (24)	<u>8.5</u> (44)	<u>15.2</u> (25)	<u>12.8</u> (27)	<u>11.5</u> (22)	<u>11.1</u> (50)	
Over/Under			-0.6	-3.7	-1.4	-2.4	-1.8	-1.6	-0.4	
eV All US Equity Median			11.8	18.1	8.0	13.0	10.4	9.2	11.1	
Total Large Cap	804,801,485	27.1	11.4 (51)	24.5 (39)	8.8 (51)	14.0 (50)	11.7 (52)	10.4 (53)	9.3 (66)	Oct-95
Russell 1000 Index			<u>12.0</u> (40)	<u>26.5</u> (33)	<u>9.0</u> (49)	<u>15.5</u> (31)	<u>13.2</u> (34)	<u>11.8</u> (28)	<u>9.8</u> (45)	
Over/Under			-0.6	-2.0	-0.2	-1.5	-1.5	-1.4	-0.5	
eV US Large Cap Equity Median			11.4	20.1	8.8	14.0	11.9	10.5	9.6	
Xponance	684,090,186	23.0	11.9 (40)	26.5 (33)					28.0 (35)	Oct-22
Russell 1000 Index			<u>12.0</u> (40)	<u>26.5</u> (33)					<u>27.7</u> (37)	
Over/Under			-0.1	0.0					0.3	
eV US Large Cap Equity Median			11.4	20.1					25.1	
Great Lakes	120,711,299	4.1	8.2 (83)	14.4 (36)	10.5 (39)	12.2 (44)	9.0 (60)	8.7 (54)	10.2 (22)	Jul-89
Russell 1000 Value Index			<u>9.5</u> (58)	<u>11.5</u> (56)	<u>8.9</u> (71)	<u>10.9</u> (69)	<u>8.3</u> (77)	<u>8.4</u> (65)	<u>9.6</u> (70)	
Over/Under			-1.3	2.9	1.6	1.3	0.7	0.3	0.6	
eV US Large Cap Value Equity Median			9.8	12.2	9.9	11.9	9.4	8.8	9.9	

*Policy Index effective 04/01/2021: 23.5% Russell 1000, 3% Russell 2500 Growth, 3% Russell 2500 Value, 7.5% MSCI Emerging Markets, 12% MSCI ACWI ex USA, 3% HFRI Equity Hedge (Total) Index, 13% Bloomberg US Aggregate TR, 2% Bloomberg US TIPS TR, 3% JP Morgan GBI - EM Global Diversified Index, 4% NCREIF Property Index (1 Qtr Lag), 7% Cambridge Associates US All PE (1 Qtr Lag), 7% NCREIF Property (1 Qtr Lag), 4% HFRI Fund of Funds Composite Index, 4% - 50/50 S&P/LSTA Leveraged Loan/Bloomberg High Yield, 4% - 30% CPI+3%/70% S&P/LSTA Leveraged Loan Index.



TOTAL PLAN NET PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total SMID Cap	165,811,618	5.6	13.1 (26)	17.4 (47)	1.0 (77)	9.3 (87)	9.0 (60)	8.4 (52)	8.9 (74)	Nov-04
Russell 2500 Index			13.4 (22)	17.4 (46)	4.2 (61)	11.7 (62)	9.0 (60)	8.4 (52)	9.2 (68)	
Over/Under			-0.3	0.0	-3.2	-2.4	0.0	0.0	-0.3	
eV US Small-Mid Cap Equity Median			11.5	16.7	6.0	12.5	9.6	8.5	9.6	
William Blair SMID Growth	85,036,773	2.9	12.4 (37)	17.9 (45)	0.1 (37)	11.8 (55)	12.0 (40)	10.4 (26)	10.6 (37)	Nov-04
Russell 2500 Growth Index			12.6 (35)	18.9 (40)	-2.7 (63)	11.4 (61)	10.2 (66)	8.8 (64)	9.7 (62)	
Over/Under			-0.2	-1.0	2.8	0.4	1.8	1.6	0.9	
eV US Small-Mid Cap Growth Equity Median			11.6	17.6	-1.2	12.4	11.6	9.1	10.0	
Ariel Investment Small/Mid Cap Value	80,774,845	2.7	13.8 (22)	16.9 (39)					1.3 (84)	Apr-21
Russell 2500 Value Index			13.8 (22)	16.0 (48)					3.6 (60)	
Over/Under			0.0	0.9					-2.3	
eV US Small-Mid Cap Value Equity Median			11.5	15.5					4.6	
Total Micro Cap	66,554,839	2.2	9.3 (77)	10.6 (63)	3.7 (57)	9.8 (56)			5.9 (48)	Oct-18
eV US Micro Cap Equity Median			11.5	12.6	5.8	10.6			5.7	
BMO Micro Cap Equity	66,554,839	2.2	9.3 (77)	10.6 (63)	3.7 (57)	9.8 (56)			5.9 (48)	Oct-18
Russell Microcap Index			16.1 (15)	9.3 (71)	0.6 (80)	8.6 (84)			3.1 (86)	
Over/Under			-6.8	1.3	3.1	1.2			2.8	
eV US Micro Cap Equity Median			11.5	12.6	5.8	10.6			5.7	

TOTAL PLAN NET PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total International Equity	500,231,125	16.8	10.1 (55)	15.4 (64)	0.5 (59)	8.1 (49)	7.8 (35)	5.2 (32)	8.3	Jan-84
MSCI AC World ex USA (Net)			<u>9.8</u> (62)	<u>15.6</u> (60)	<u>1.5</u> (50)	<u>7.1</u> (73)	<u>6.3</u> (72)	<u>3.8</u> (79)		
Over/Under			0.3	-0.2	-1.0	1.0	1.5	1.4		
eV All ACWI ex-US Equity Median			10.3	16.4	1.4	8.1	7.0	4.5		
Total Developed Int'l Equity	340,846,022	11.5	10.4 (49)	15.5 (62)	1.4 (51)	9.1 (30)	8.3 (24)	5.5 (24)	6.3 (23)	Jan-11
MSCI AC World ex USA (Net)			<u>9.8</u> (62)	<u>15.6</u> (60)	<u>1.5</u> (50)	<u>7.1</u> (73)	<u>6.3</u> (72)	<u>3.8</u> (79)	<u>4.1</u> (86)	
Over/Under			0.6	-0.1	-0.1	2.0	2.0	1.7	2.2	
eV All ACWI ex-US Equity Median			10.3	16.4	1.4	8.1	7.0	4.5	5.3	
Artisan Partner	75,188,670	2.5	9.6 (66)	15.5 (61)	1.1 (54)	7.3 (68)	7.6 (39)	3.9 (73)	6.1 (44)	Apr-05
MSCI AC World ex USA (Net)			<u>9.8</u> (62)	<u>15.6</u> (60)	<u>1.5</u> (50)	<u>7.1</u> (73)	<u>6.3</u> (72)	<u>3.8</u> (79)	<u>5.0</u> (79)	
Over/Under			-0.2	-0.1	-0.4	0.2	1.3	0.1	1.1	
eV All ACWI ex-US Equity Median			10.3	16.4	1.4	8.1	7.0	4.5	6.0	
William Blair International Growth	71,840,259	2.4	13.1 (9)	15.8 (62)	-2.9 (90)	9.3 (24)	7.7 (25)	4.8 (34)	5.7 (43)	Apr-05
MSCI EAFE (Net)			<u>10.4</u> (44)	<u>18.2</u> (36)	<u>4.0</u> (40)	<u>8.2</u> (49)	<u>6.9</u> (49)	<u>4.3</u> (61)	<u>4.9</u> (73)	
Over/Under			2.7	-2.4	-6.9	1.1	0.8	0.5	0.8	
eV All EAFE Equity Median			10.2	17.1	3.2	8.1	6.9	4.5	5.4	
UBS International	93,878,915	3.2	7.3 (94)	13.2 (82)	0.5 (59)	7.6 (63)	7.2 (47)	4.5 (53)	9.2	Jan-84
MSCI AC World ex USA (Net)			<u>9.8</u> (62)	<u>15.6</u> (60)	<u>1.5</u> (50)	<u>7.1</u> (73)	<u>6.3</u> (72)	<u>3.8</u> (79)		
Over/Under			-2.5	-2.4	-1.0	0.5	0.9	0.7		
eV All ACWI ex-US Equity Median			10.3	16.4	1.4	8.1	7.0	4.5		
Acadian	99,938,178	3.4	12.2 (18)	17.5 (15)	6.1 (13)	11.0 (4)	9.6 (2)	8.2 (1)	8.2 (1)	Jan-14
MSCI EAFE Small Cap (Net)			<u>11.1</u> (31)	<u>13.2</u> (58)	<u>-0.7</u> (59)	<u>6.6</u> (60)	<u>6.0</u> (61)	<u>4.8</u> (51)	<u>4.8</u> (51)	
Over/Under			1.1	4.3	6.8	4.4	3.6	3.4	3.4	
eV EAFE Small Cap Equity Median			10.5	13.8	0.3	7.0	6.6	4.9	4.9	



TOTAL PLAN NET PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Emerging Markets Equity	159,385,103	5.4	9.3 (19)	15.1 (23)	-1.7 (30)	5.7 (33)	6.4 (30)	4.6 (17)	4.6 (17)	Jan-14
MSCI Emerging Markets (Net)			7.9 (47)	9.8 (56)	-5.1 (50)	3.7 (72)	5.0 (66)	2.7 (69)	2.7 (69)	
Over/Under			1.4	5.3	3.4	2.0	1.4	1.9	1.9	
eV Emg Mkts All Cap Equity Median			7.8	10.9	-5.1	4.8	5.5	3.2	3.2	
Earnest Partners Emerging Markets Equity	79,455,402	2.7	9.9 (12)	15.1 (24)	3.3 (11)	6.9 (21)	7.4 (18)	5.1 (10)	5.1 (9)	Dec-13
MSCI Emerging Markets (Net)			7.9 (47)	9.8 (56)	-5.1 (50)	3.7 (72)	5.0 (66)	2.7 (69)	2.5 (72)	
Over/Under			2.0	5.3	8.4	3.2	2.4	2.4	2.6	
eV Emg Mkts All Cap Equity Median			7.8	10.9	-5.1	4.8	5.5	3.2	3.1	
Lazard	79,929,701	2.7	8.8 (30)	15.2 (23)	-5.9 (57)	4.6 (53)	5.5 (50)	4.1 (24)	4.1 (21)	Dec-13
MSCI Emerging Markets (Net)			7.9 (47)	9.8 (56)	-5.1 (50)	3.7 (72)	5.0 (66)	2.7 (69)	2.5 (72)	
Over/Under			0.9	5.4	-0.8	0.9	0.5	1.4	1.6	
eV Emg Mkts All Cap Equity Median			7.8	10.9	-5.1	4.8	5.5	3.2	3.1	
Long/Short Equities	100,853,785	3.4	3.7 (71)	4.6 (71)	-1.3 (73)	5.6 (72)			4.1 (63)	Mar-18
Long/Short Custom Index			1.4 (83)	5.3 (69)	2.2 (56)	1.9 (90)			1.9 (80)	
Over/Under			2.3	-0.7	-3.5	3.7			2.2	
eV Alt Fundamental - Long/Short Equity Median			6.6	11.4	3.4	8.3			5.7	
UBS Bucktown CPD LLC	61,888,000	2.1	2.8 (78)	4.2 (72)	-1.8 (74)	5.6 (72)			3.8 (66)	Apr-18
Long/Short Custom Index			1.4 (83)	5.3 (69)	2.2 (56)	1.9 (90)			1.9 (80)	
Over/Under			1.4	-1.1	-4.0	3.7			1.9	
eV Alt Fundamental - Long/Short Equity Median			6.6	11.4	3.4	8.3			5.8	
Pluscios L/S EQ FD	38,965,785	1.3	5.2 (62)	5.2 (69)	-0.5 (71)	5.6 (72)			4.5 (56)	Feb-18
Long/Short Custom Index			1.4 (83)	5.3 (69)	2.2 (56)	1.9 (90)			1.9 (77)	
Over/Under			3.8	-0.1	-2.7	3.7			2.6	
eV Alt Fundamental - Long/Short Equity Median			6.6	11.4	3.4	8.3			5.4	

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



TOTAL PLAN NET PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fixed Income	534,243,598	18.0	6.7 (39)	7.2 (36)	-2.1 (66)	1.4 (77)	1.6 (74)	2.0 (59)	6.4 (33)	Jan-84
Blmbg. U.S. Aggregate Index			6.8 (35)	5.5 (64)	-3.3 (84)	1.1 (88)	1.3 (86)	1.8 (68)	6.2 (40)	
Over/Under			-0.1	1.7	1.2	0.3	0.3	0.2	0.2	
eV All US Fixed Inc Median			6.0	6.1	-0.8	2.0	2.0	2.3	6.0	
Core/Core Plus Fixed Income	360,546,656	12.1	7.0 (31)	6.0 (35)	-2.6 (15)	1.8 (22)	1.8 (21)	2.3 (21)	2.7 (15)	Dec-10
Blmbg. U.S. Aggregate Index			6.8 (52)	5.5 (72)	-3.3 (69)	1.1 (84)	1.3 (79)	1.8 (76)	2.0 (82)	
Over/Under			0.2	0.5	0.7	0.7	0.5	0.5	0.7	
eV US Core Fixed Inc Median			6.8	5.9	-3.1	1.4	1.5	2.0	2.4	
Wellington	88,528,456	3.0	7.5 (6)	7.1 (5)	-2.7 (20)	2.2 (4)	2.2 (4)	2.6 (5)	4.0 (5)	Dec-04
Blmbg. U.S. Aggregate Index			6.8 (52)	5.5 (72)	-3.3 (69)	1.1 (84)	1.3 (79)	1.8 (76)	3.1 (76)	
Over/Under			0.7	1.6	0.6	1.1	0.9	0.8	0.9	
eV US Core Fixed Inc Median			6.8	5.9	-3.1	1.4	1.5	2.0	3.4	
Earnest Partners Core Fixed Income	86,612,131	2.9	6.5 (72)	5.3 (81)	-2.8 (21)				-0.5 (78)	Oct-19
Blmbg. U.S. Aggregate Index			6.8 (52)	5.5 (72)	-3.3 (69)				-0.6 (83)	
Over/Under			-0.3	-0.2	0.5				0.1	
eV US Core Fixed Inc Median			6.8	5.9	-3.1				-0.3	
Garcia Hamilton	89,410,640	3.0	7.7 (5)	5.2 (87)	-3.0 (34)				-0.4 (58)	Oct-19
Blmbg. U.S. Aggregate Index			6.8 (52)	5.5 (72)	-3.3 (69)				-0.6 (83)	
Over/Under			0.9	-0.3	0.3				0.2	
eV US Core Fixed Inc Median			6.8	5.9	-3.1				-0.3	
National Investment Services	95,995,429	3.2	6.3 (83)	6.6 (14)	-1.9 (8)				0.4 (9)	Oct-19
Blmbg. U.S. Aggregate Index			6.8 (52)	5.5 (72)	-3.3 (69)				-0.6 (83)	
Over/Under			-0.5	1.1	1.4				1.0	
eV US Core Fixed Inc Median			6.8	5.9	-3.1				-0.3	
Global Multi Sector Fixed Income	20,736,215	0.7	6.5 (44)	7.3 (55)	-0.8 (60)	3.0 (40)	2.4 (58)		2.2 (56)	Jun-15
Blmbg. Global Aggregate			8.1 (21)	5.7 (85)	-5.5 (96)	-0.3 (98)	0.6 (97)		0.7 (89)	
Over/Under			-1.6	1.6	4.7	3.3	1.8		1.5	
eV Global Unconstrained Fixed Inc Median			6.3	7.5	-0.2	2.5	2.6		2.4	
Manulife Asset Management	20,736,215	0.7	6.5 (44)	7.3 (55)	-0.8 (60)	3.0 (40)	2.4 (58)		2.2 (56)	Jun-15
Blmbg. Global Aggregate			8.1 (21)	5.7 (85)	-5.5 (96)	-0.3 (98)	0.6 (97)		0.7 (89)	
Over/Under			-1.6	1.6	4.7	3.3	1.8		1.5	
eV Global Unconstrained Fixed Inc Median			6.3	7.5	-0.2	2.5	2.6		2.4	

*Earnest Partners Core Fixed Income is preliminary as of 12/31 using the benchmark return for the month of December.



TOTAL PLAN NET PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Short Duration	101,238,915	3.4	1.4 (100)	5.7 (64)	2.4 (1)	2.2 (4)	2.1 (5)		2.1 (5)	Jan-17
Blmbg. 1-3 Year Gov/Credit index			<u>2.7</u> (100)	<u>4.6</u> (99)	<u>0.1</u> (1)	<u>1.5</u> (40)	<u>1.4</u> (65)		<u>1.4</u> (65)	
Over/Under			-1.3	1.1	2.3	0.7	0.7		0.7	
eV US Core Fixed Inc Median			6.8	5.9	-3.1	1.4	1.5		1.5	
HGK Asset Management	101,238,915	3.4	1.4 (100)	5.7 (28)	2.4 (5)	2.2 (21)	2.1 (19)		2.5 (7)	Nov-16
Blmbg. 1-3 Year Gov/Credit index			<u>2.7</u> (75)	<u>4.6</u> (83)	<u>0.1</u> (60)	<u>1.5</u> (73)	<u>1.4</u> (75)		<u>1.3</u> (71)	
Over/Under			-1.3	1.1	2.3	0.7	0.7		1.2	
eV US Short Duration Fixed Inc Median			2.9	5.1	0.3	1.8	1.6		1.5	
Emerging Market Debt	51,721,813	1.7	8.0 (57)	14.1 (19)	1.5 (5)				2.2 (25)	Mar-19
JP Morgan GBI - EM Global Diversified Index			<u>8.1</u> (56)	<u>12.7</u> (35)	<u>-3.2</u> (73)				<u>0.3</u> (87)	
Over/Under			-0.1	1.4	4.7				1.9	
eV All Emg Mkts Fixed Inc Median			8.5	11.5	-2.3				1.4	
Lazard EM Income Fund L	25,000,000	0.8	5.0 (91)	11.2 (54)	3.0 (3)				2.3 (25)	Feb-19
JP Morgan GBI - EM Global Diversified Index			<u>8.1</u> (56)	<u>12.7</u> (35)	<u>-3.2</u> (73)				<u>0.1</u> (89)	
Over/Under			-3.1	-1.5	6.2				2.2	
eV All Emg Mkts Fixed Inc Median			8.5	11.5	-2.3				1.5	
Blackrock EM Local Curr	26,721,813	0.9	11.2 (6)	17.1 (3)	0.1 (11)				1.5 (24)	Jul-19
JP Morgan GBI - EM Global Diversified Index			<u>8.1</u> (56)	<u>12.7</u> (35)	<u>-3.2</u> (73)				<u>-0.6</u> (84)	
Over/Under			3.1	4.4	3.3				2.1	
eV All Emg Mkts Fixed Inc Median			8.5	11.5	-2.3				0.5	
Cash	39,407,627	1.3	1.7	6.0	3.1	2.6	2.3	1.7	1.4	Jan-11
90 Day U.S. Treasury Bill			<u>1.4</u>	<u>5.0</u>	<u>2.2</u>	<u>1.9</u>	<u>1.7</u>	<u>1.2</u>	<u>1.0</u>	
Over/Under			0.3	1.0	0.9	0.7	0.6	0.5	0.4	
Cash	38,509,353	1.3	1.7 (13)	6.2 (4)	3.3 (1)	2.8 (1)	2.4 (1)	1.7 (8)	2.5 (1)	Sep-98
90 Day U.S. Treasury Bill			<u>1.4</u> (43)	<u>5.0</u> (69)	<u>2.2</u> (53)	<u>1.9</u> (41)	<u>1.7</u> (48)	<u>1.2</u> (57)	<u>1.9</u> (55)	
Over/Under			0.3	1.2	1.1	0.9	0.7	0.5	0.6	
eV US Cash Management Median			1.4	5.1	2.2	1.8	1.7	1.3	1.9	
Benefit Payments Account	883,215	0.0	1.2	5.3	2.4				1.9	Apr-20
Global Transition Account	15,058	0.0	1.4	5.4	3.1	1.9	1.3	1.8	0.9	Mar-05
90 Day U.S. Treasury Bill			<u>1.4</u>	<u>5.0</u>	<u>2.2</u>	<u>1.9</u>	<u>1.7</u>	<u>1.2</u>	<u>1.4</u>	
Over/Under			0.0	0.4	0.9	0.0	-0.4	0.6	-0.5	



TOTAL PLAN NET PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Transitions	247,353	0.0	0.6	6.9	4.2	4.8	4.9		4.0	Jul-14
Tax Reclaims	247,353	0.0	0.6	6.9	4.2	4.8	4.9		4.0	Jul-14
Opportunistic Credit	98,886,145	3.3	4.5	15.8	7.1	8.1	7.2		7.1	Nov-16
Opportunistic Credit Custom Index			<u>5.0</u>	<u>13.4</u>	<u>3.9</u>	<u>5.6</u>	<u>4.7</u>		<u>4.8</u>	
Over/Under			-0.5	2.4	3.2	2.5	2.5		2.3	
Total Hedge Funds	155,040,594	5.2	0.2 (92)	4.8 (63)	6.9 (17)	4.2 (80)	4.4 (62)		4.7 (59)	Aug-16
HFRI Fund of Funds Composite Index			<u>3.4 (45)</u>	<u>6.3 (53)</u>	<u>2.3 (70)</u>	<u>5.1 (65)</u>	<u>4.1 (69)</u>		<u>4.1 (72)</u>	
Over/Under			-3.2	-1.5	4.6	-0.9	0.3		0.6	
eV Alt Fund of Funds - Multi-Strategy Median			2.7	6.4	3.9	6.3	5.3		5.2	
Pluscios	77,495,116	2.6	0.3 (92)	3.0 (79)	4.7 (39)	4.4 (75)	4.6 (57)		4.8 (61)	Jul-16
HFRI Fund of Funds Composite Index			<u>3.4 (45)</u>	<u>6.3 (53)</u>	<u>2.3 (70)</u>	<u>5.1 (65)</u>	<u>4.1 (69)</u>		<u>4.3 (71)</u>	
Over/Under			-3.1	-3.3	2.4	-0.7	0.5		0.5	
eV Alt Fund of Funds - Multi-Strategy Median			2.7	6.4	3.9	6.3	5.3		5.4	
EnTrust Permal	41,038,083	1.4	0.3 (91)	3.2 (79)	2.2 (70)	0.4 (99)	1.9 (96)		1.9 (96)	Jan-17
HFRI Fund of Funds Composite Index			<u>3.4 (45)</u>	<u>6.3 (53)</u>	<u>2.3 (70)</u>	<u>5.1 (65)</u>	<u>4.1 (69)</u>		<u>4.1 (69)</u>	
Over/Under			-3.1	-3.1	-0.1	-4.7	-2.2		-2.2	
eV Alt Fund of Funds - Multi-Strategy Median			2.7	6.4	3.9	6.3	5.3		5.3	
Blueprint Capital Advisors	36,507,395	1.2	0.0 (93)	11.2 (22)	18.6 (2)	9.9 (13)			8.0 (16)	Aug-17
Blueprint Capital Custom Index			<u>3.4 (45)</u>	<u>6.3 (53)</u>	<u>2.3 (70)</u>	<u>5.1 (65)</u>			<u>3.9 (68)</u>	
Over/Under			-3.4	4.9	16.3	4.8			4.1	
eV Alt Fund of Funds - Multi-Strategy Median			2.7	6.4	3.9	6.3			5.0	
Private Debt	66,731,060	2.2								
Total Private Equity	135,563,773	4.6								
Total Infrastructure	113,479,615	3.8								
Total Real Estate	192,260,744	6.5								

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

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



Q3 2023 PRIVATE MARKET REPORT



PROPRIETARY & CONFIDENTIAL

Chicago Policemen's Annuity and Benefit Fund

RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %						
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR
Private Equity									
Adams Street Co-Investment V, L.P.	2021	\$25,000,000	6.30%	20.22%	34.19%				29.25%
Dover Street X, L.P.	2020	\$25,000,000	-1.65%	2.62%	5.42%	23.37%			30.91%
Glendower Capital Secondary Opportunities Fund V, SCSp	2021	\$25,000,000	-4.98%	-3.76%	-1.74%				46.88%
Invesco Venture Alpha Fund, L.P.	2017	\$25,000,000	-4.63%	-6.12%	-20.10%	26.40%	23.48%		21.41%
Mesirow Financial Private Equity Fund VIII-B, L.P.	2021	\$25,000,000	0.89%	2.27%	3.25%				0.46%
Total		\$125,000,000	-2.58%	-1.96%	-9.70%	23.43%	22.99%		21.45%



Q3 2023 PRIVATE DEBT



PROPRIETARY & CONFIDENTIAL

Chicago Policemen's Annuity and Benefit Fund

RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %						
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR
Private Debt									
Beach Point Select Fund, L.P.	2016	\$20,000,000	2.54%	8.26%	10.05%	13.81%	10.21%		9.79%
Blueprint CAP I, L.P.	2017	\$53,000,000	1.78%	11.18%	11.59%	16.73%	9.01%		7.82%
Brightwood Capital Fund V, L.P.	2021	\$20,000,000	3.21%	11.73%	13.55%				14.42%
Clareant EDL (Levered) II USD Feeder SCSp	2016	\$20,000,000	1.72%	2.31%	2.19%	5.25%	4.45%		6.74%
Clareant EDL (Levered) III USD Feeder SCSp	2018	\$10,000,000	2.02%	-1.64%	-0.54%	8.54%			8.83%
Crestline Opportunity Fund III (Cayman), Ltd.	2017	\$20,000,000	-3.72%	-5.43%	-5.44%	5.67%	8.21%		8.17%
Dorchester Capital Secondaries Offshore IV, L.P.	2017	\$25,000,000	0.41%	7.07%	14.61%	6.08%	3.16%		5.31%
Eagle Point Credit US, L.P.	2018	\$35,000,000	8.18%	14.34%	14.50%	11.40%	6.69%		6.70%
JP Morgan Lynstone Special Situations Fund	2021	\$20,000,000	2.23%	8.68%	10.01%				5.32%
Monroe Capital Private Credit Fund II, L.P.	2016	\$20,000,000	-1.58%	-2.71%	-1.32%	8.74%	6.30%		9.09%
Monroe Capital Private Credit Fund III, L.P.	2018	\$10,000,000	3.01%	8.80%	13.08%	12.00%			12.32%
Monroe Capital Private Credit Fund IV, L.P.	2021	\$20,000,000	3.18%	9.59%	12.16%				10.68%
Voya Credit Opportunities Fund	2016	\$10,000,000	-2.72%	-23.48%	2.64%	-2.54%	0.79%		2.07%
Voya Mortgage Investment Fund	2018	\$10,000,000	2.92%	8.78%	11.11%	4.54%			4.04%
Total		\$293,000,000	3.05%	8.24%	9.53%	10.15%	7.32%		7.45%





Q3 2023 REAL ESTATE REPORT



PROPRIETARY & CONFIDENTIAL

Chicago Policemen's Annuity and Benefit Fund

RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %						
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR
Real Estate									
Ares European Real Estate Fund III, L.P.	2007	\$10,000,000	-33.29%	-31.79%	-41.06%	-13.40%	-12.34%	9.63%	2.58%
Blackstone Property Partners, L.P.	2019	\$30,000,000	-0.50%	-5.94%	-12.36%	5.60%			4.08%
Brookfield Real Estate Finance Fund V, L.P.	2017	\$10,000,000	0.07%	-1.98%	0.25%	4.99%	6.11%		6.50%
DRA Growth and Income Fund VI, L.P.	2007	\$3,236,474	0.00%	0.00%	0.00%	6.84%	-3.16%	26.24%	10.38%
Lone Star Fund VI (U.S.), L.P.	2008	\$10,000,000	-1.03%	5.10%	11.76%	23.01%	14.10%	3.50%	11.58%
Lone Star Fund X (U.S.), L.P.	2017	\$15,000,000	4.75%	16.67%	24.70%	38.04%	19.30%		19.20%
Lone Star Fund XI, L.P.	2019	\$15,000,000	4.12%	9.67%	12.73%	45.09%			31.46%
Lone Star Real Estate Fund (U.S.), L.P.	2008	\$5,000,000	6.13%	32.85%	44.86%	21.31%	-7.88%	2.62%	4.55%
Mesirow Financial Real Estate Value Fund III, L.P.	2018	\$10,000,000	1.09%	2.78%	3.40%	18.33%	14.84%		13.71%
Prime Property Fund, LLC	2006	\$15,213,904	-0.22%	-3.68%	-7.32%	7.25%	5.87%	8.72%	6.02%
Sound Mark Horizons Fund, L.P.	2017	\$25,000,000	0.15%	3.37%	0.40%	9.04%	3.61%		4.02%
TA Associates Realty XII, L.P.	2020	\$40,000,000	-4.17%	-5.31%	-8.36%	16.79%			16.37%
TerraCap Partners IV (Institutional), L.P.	2019	\$15,000,000	-0.26%	-4.23%	-1.58%	7.87%			8.03%
Trumbull Property Fund, L.P.	2006	\$15,885,010	-1.66%	-11.73%	-16.52%	-4.68%	-5.12%	2.28%	2.22%
Total		\$219,335,388	-0.94%	-2.40%	-4.91%	11.78%	5.67%	6.40%	4.63%





Q3 2023 INFRASTRUCTURE REPORT



PROPRIETARY & CONFIDENTIAL

Chicago Policemen's Annuity and Benefit Fund

RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %						
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR
Real Assets									
Carlyle Infrastructure Partners, L.P.	2007	\$25,000,000	-7.26%	-8.30%	-15.34%	-12.11%	-13.43%	7.99%	2.69%
Global Infrastructure Partners III, L.P.	2016	\$25,000,000	0.08%	1.63%	6.39%	16.47%	11.31%		9.99%
Global Infrastructure Partners IV, L.P.	2019	\$25,000,000	1.34%	3.28%	4.56%	3.98%			3.89%
Global Infrastructure Partners, L.P.	2007	\$35,000,000	-8.28%	-71.38%	-74.58%	-38.49%	21.49%	33.84%	14.76%
Ullico Infrastructure Taxable Fund, L.P.	2018	\$62,000,000	1.60%	9.18%	9.94%	10.81%	5.93%		6.26%
Total		\$172,000,000	1.18%	6.04%	7.83%	11.22%	7.68%	13.46%	9.57%

