

San Bernardino County Employees' Retirement Association

Board Report

September 30, 2022

Table of Contents

Section 1

Total Plan Summary	1
Plan Attrib - 1 Year	2
Plan Attrib - 3 Year	3
Total Plan Performance History	4
Total Asset Allocation	5
Performance by Strategy	6-9
Performance by Manager	10-23
Disclaimer Page	24

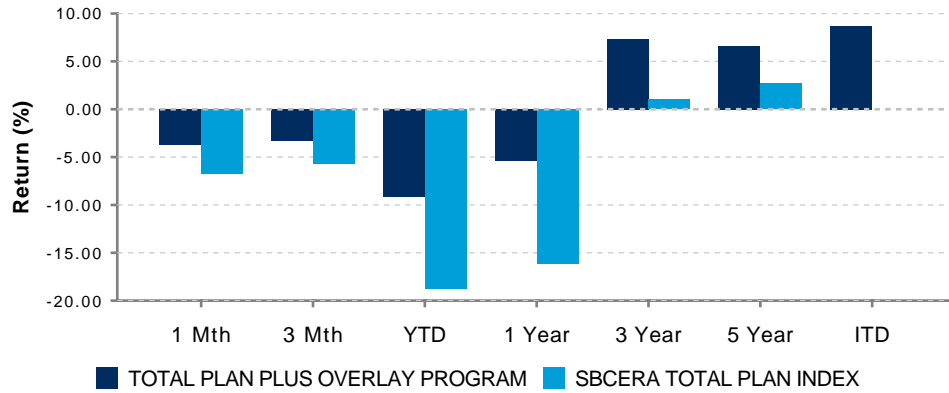
San Bernardino County Retirement

September 30, 2022

Net Mgr



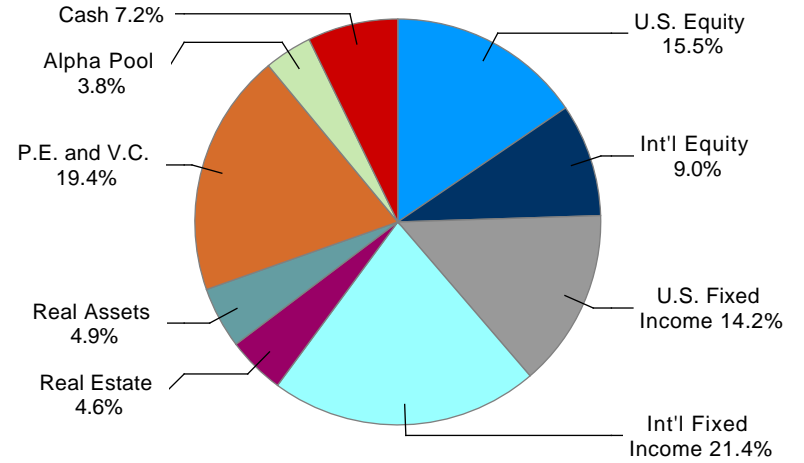
Performance



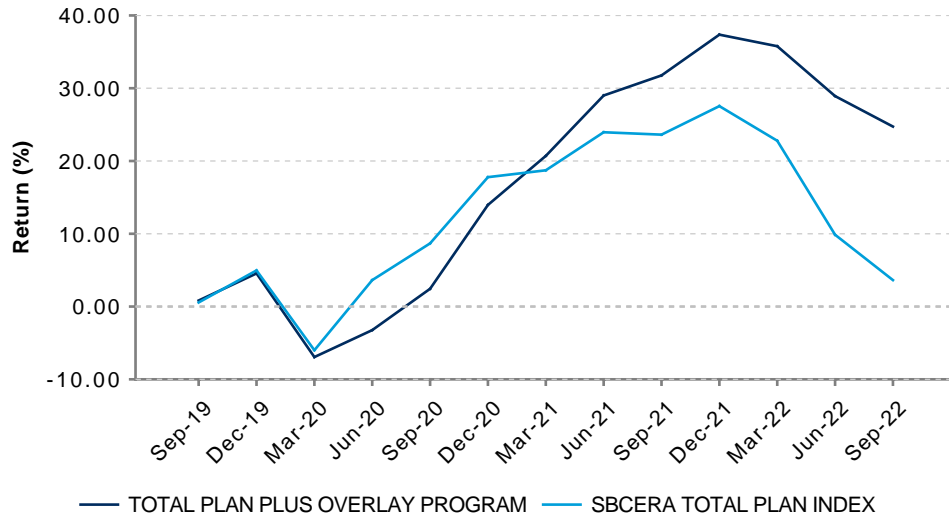
	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	ITD	Incept Date
TOTAL PLAN +OVERLAY PROGRAM	-3.76	-3.25	-9.19	-3.25	-5.34	7.35	6.61	8.71	07/82
SBCERA TOTAL PLAN INDEX	-6.77	-5.68	-18.74	-5.68	-16.17	1.01	2.70		07/82
Excess	3.01	2.43	9.55	2.43	10.83	6.34	3.91		

Asset Allocation

	Ending Market Value
TOTAL PLAN PLUS OVERLAY PROGRAM	13,148,482,295

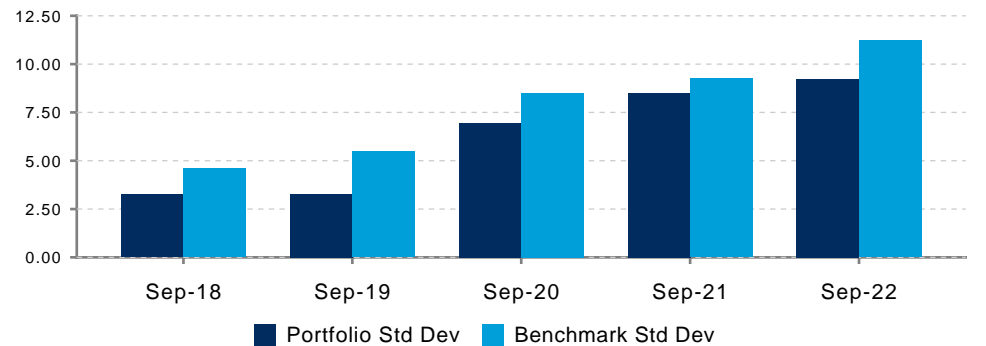


Cumulative Return (%)



3 Year Risk Statistics

	Return	Portfolio Std Dev	Benchmark Std Dev	Sharpe Ratio	Beta	Tracking Error
TOTAL PLAN PLUS OVERLAY PROGRAM	7.35	9.23	11.22	0.73	0.71	5.73



San Bernardino County Retirement

September 30, 2022

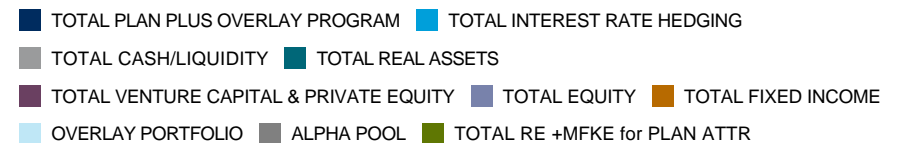
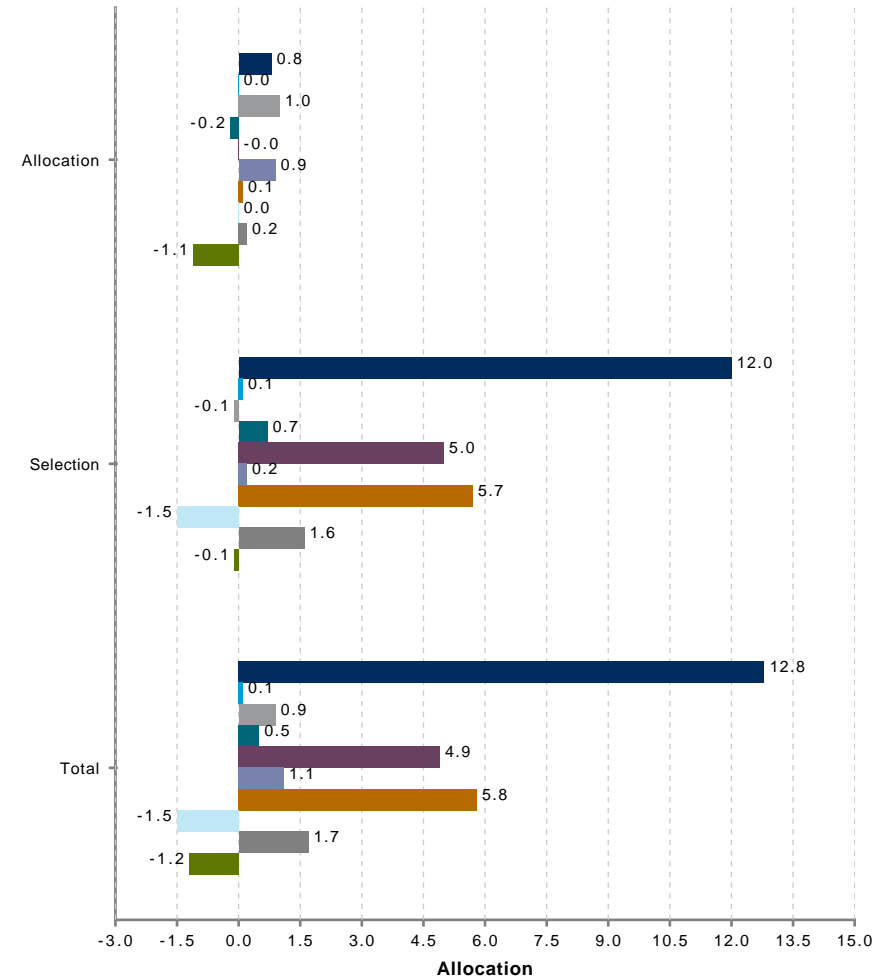
1 Year Plan Attribution



Plan Attribution - 1 Year, Asset Class Level

	Weighting		Returns		Value Added			Total
	Fund	Relative	Fund	Relative	Allocation	Selection	Bench Imp	
TOTAL PLAN PLUS OVERLAY PROGRAM	100.0	0.0	-5.4	12.8	0.8	12.0	0.6	12.8
TOTAL INTEREST RATE HEDGING	0.1	0.1	193.6	191.8	0.0	0.1	-	0.1
TOTAL CASH/LIQUIDITY	8.3	6.3	-0.0	-0.6	1.0	-0.1	-	0.9
TOTAL REAL ASSETS	3.7	-1.3	16.3	17.0	-0.2	0.7	-	0.5
TOTAL VENTURE CAPITAL & PRIVATE EQUITY	18.0	2.0	7.7	30.8	-0.0	5.0	-	4.9
TOTAL EQUITY	15.1	-12.9	-19.2	2.4	0.9	0.2	-	1.1
TOTAL FIXED INCOME	30.1	-4.9	-3.7	18.6	0.1	5.7	-	5.8
OVERLAY PORTFOLIO	8.9	8.9	-36.1	-23.8	0.0	-1.5	-	-1.5
ALPHA POOL	12.3	5.3	-3.6	12.8	0.2	1.6	-	1.7
TOTAL RE +MFKE for PLAN ATTR	3.6	-3.4	20.9	-0.4	-1.1	-0.1	-	-1.2

Value Added Effects



San Bernardino County Retirement

September 30, 2022

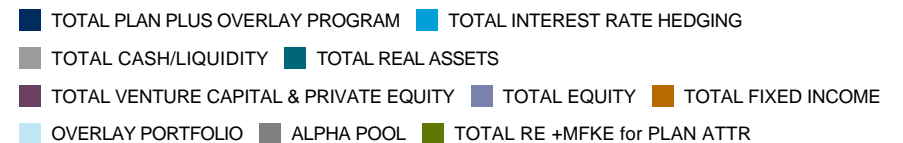
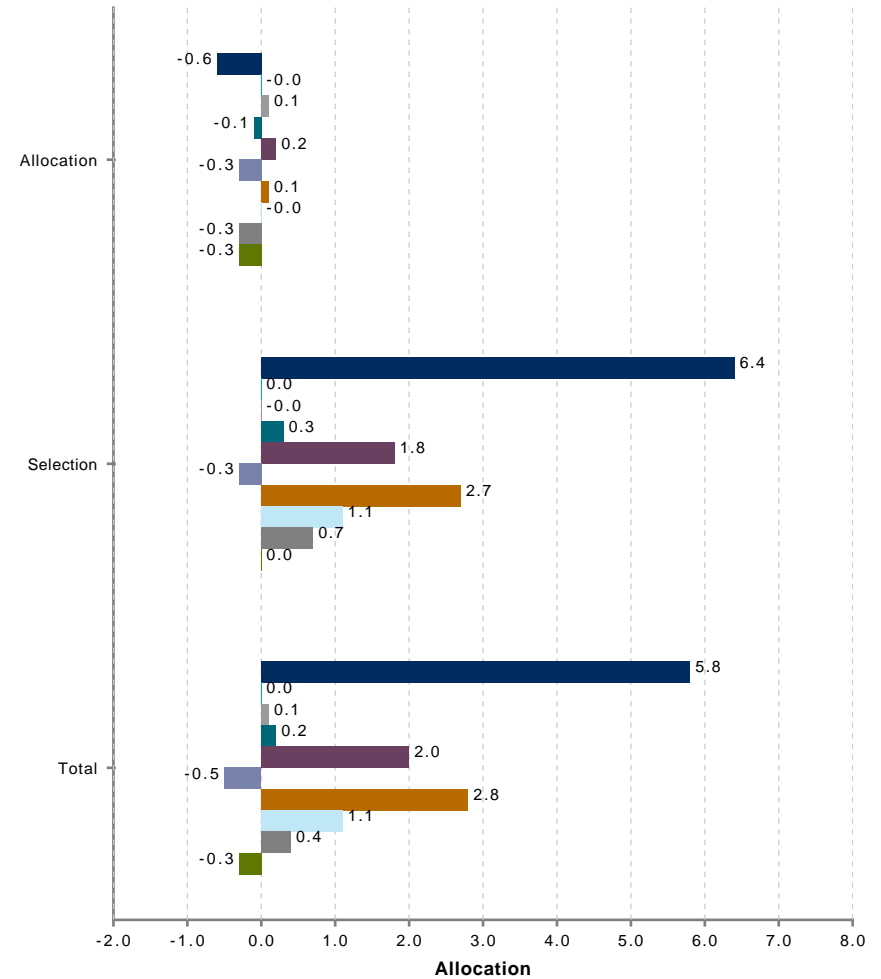
3 Year Plan Attribution



Plan Attribution - 3 Year, Asset Class Level

	Weighting		Returns		Value Added			Total
	Fund	Relative	Fund	Relative	Allocation	Selection	Bench Imp	
TOTAL PLAN PLUS OVERLAY PROGRAM	100.0	0.0	7.3	6.3	-0.6	6.4	0.4	5.8
TOTAL INTEREST RATE HEDGING	0.1	0.1	36.8	36.0	-0.0	0.0	-	0.0
TOTAL CASH/LIQUIDITY	4.9	2.9	0.4	-0.2	0.1	-0.0	-	0.1
TOTAL REAL ASSETS	4.4	-0.6	14.7	6.3	-0.1	0.3	-	0.2
TOTAL VENTURE CAPITAL & PRIVATE EQUITY	16.5	0.5	20.3	11.7	0.2	1.8	-	2.0
TOTAL EQUITY	15.4	-12.6	2.9	-1.0	-0.3	-0.3	-	-0.5
TOTAL FIXED INCOME	35.9	0.9	3.4	8.0	0.1	2.7	-	2.8
OVERLAY PORTFOLIO	3.5	3.5	12.2	11.1	-0.0	1.1	-	1.1
ALPHA POOL	15.3	8.3	2.0	5.5	-0.3	0.7	-	0.4
TOTAL RE +MFKE for PLAN ATTR	4.1	-2.9	11.2	0.9	-0.3	0.0	-	-0.3

Value Added Effects



Total Plan Performance History

**TOTAL PLAN PERFORMANCE HISTORY
SEP-2022**

Net Mgr Returns

Total Plan Returns (by Fiscal Quarter)							
	Q1	Q2	Q3	Q4	FYTD	Fiscal Year	5 Year Annualized Return
2023	-3.25%				-3.25%		6.61%
2022	2.15%	4.25%	-1.16%	-5.04%		-0.06%	
2021	5.87%	11.25%	5.91%	6.88%		33.32%	
2020	0.83%	3.69%	-10.99%	3.98%		-3.24%	
2019	1.96%	-3.95%	4.75%	2.17%		4.81%	

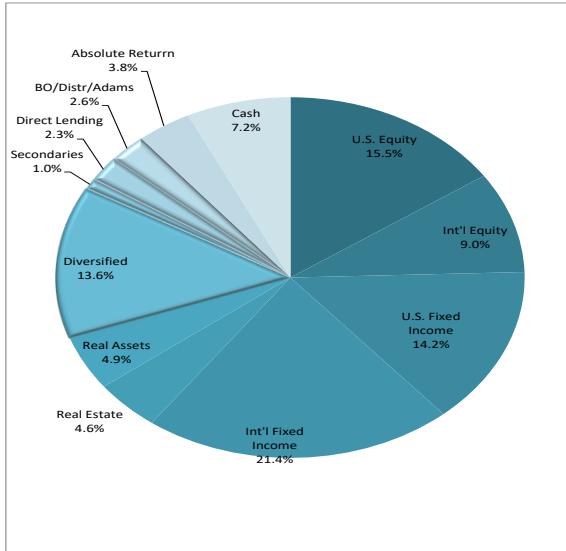
Policy Benchmark Returns (by Fiscal Quarter)							
	Q1	Q2	Q3	Q4	FYTD	Fiscal Year	5 Year Annualized Return
2023	-5.68%				-5.68%		2.70%
2022	-0.26%	3.17%	-3.73%	-10.51%		-11.35%	
2021	4.88%	8.37%	0.80%	4.40%		19.61%	
2020	0.56%	4.38%	-10.44%	10.24%		3.63%	
2019	2.07%	-5.42%	6.81%	3.19%		6.40%	

Excess Returns (by Fiscal Quarter)							
	Q1	Q2	Q3	Q4	FYTD	Fiscal Year	5 Year Annualized Return
2023	2.43%				2.43%		3.91%
2022	2.41%	1.08%	2.57%	5.47%		11.30%	
2021	0.99%	2.88%	5.11%	2.47%		13.71%	
2020	0.27%	-0.69%	-0.55%	-6.26%		-6.87%	
2019	-0.11%	1.47%	-2.06%	-1.02%		-1.59%	

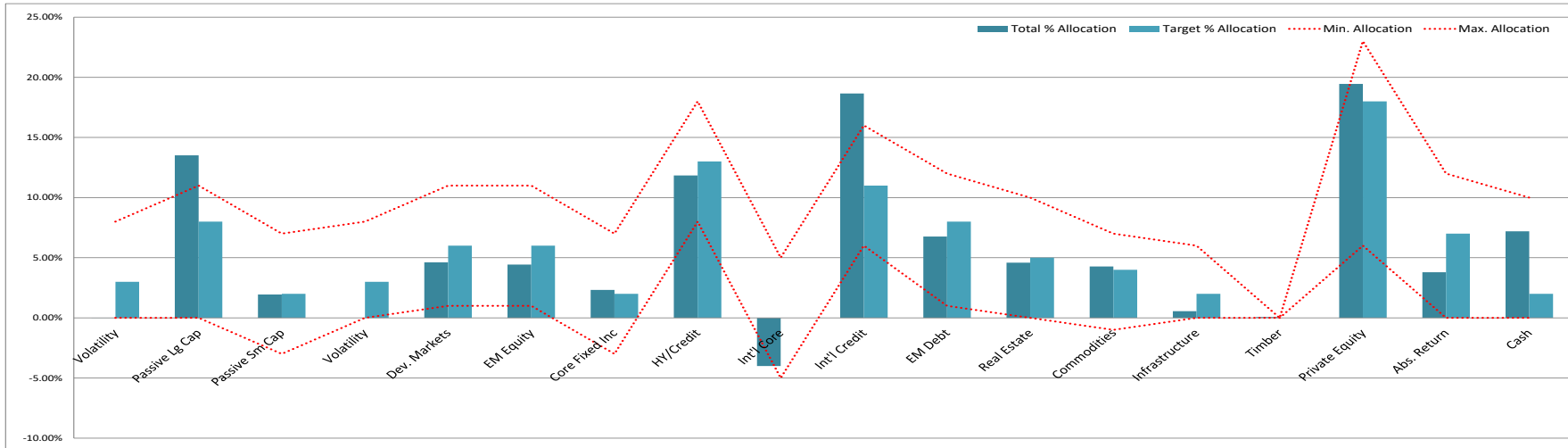
* 5 Year Annualized Returns Effective SEP

Information Classification: General

Total Plan Allocation



Asset Class	Sub-Asset Class	Actual \$ Allocation			Total Alloc	Target Alloc	Target Range	
		Physical	Synthetic	Total			Min	Max
U.S. Equity	Volatility	1,197,930	0	1,197,930	0.01%	3.00%	0%	8%
	Passive Large Cap	1,319,994,227	456,300,000	1,776,294,227	13.51%	8.00%	0%	11%
	Passive Small Cap	0	255,600,000	255,600,000	1.94%	2.00%	-3%	7%
SUB-TOTAL		1,321,192,157	711,900,000	2,033,092,157	15.46%	13.00%	8%	18%
Int'l Equity	Volatility	0	0	0	0.00%	3.00%	0%	8%
	Developed Markets	325,401,462	281,800,000	607,201,462	4.62%	6.00%	1%	11%
	Emerging Markets	390,570,431	192,100,000	582,670,431	4.43%	6.00%	1%	11%
SUB-TOTAL		715,971,894	473,900,000	1,189,871,894	9.05%	15.00%	10%	20%
U.S. Fixed Income	US Core	305,100,000	0	305,100,000	2.32%	2.00%	-3%	7%
	High Yield/Credit	1,556,388,519	0	1,556,388,519	11.84%	13.00%	8%	18%
	SUB-TOTAL	1,556,388,519	305,100,000	1,861,488,519	14.16%	15.00%	10%	20%
Int'l Fixed Income	International Core	-525,943,292	-525,943,292	-525,943,292	-4.00%	0.00%	-5%	5%
	International Credit	1,253,682,629	1,198,643,292	2,452,325,921	18.65%	11.00%	6%	16%
	Em. Market Debt	889,439,003	0	889,439,003	6.76%	8.00%	1%	12%
	SUB-TOTAL	2,143,121,632	672,700,000	2,815,821,632	21.42%	19.00%	13%	23%
Real Estate	Real Estate	602,998,746	0	602,998,746	4.59%	5.00%	0%	10%
Real Assets	Commodities	561,467,468	0	561,467,468	4.27%	4.00%	-1%	7%
	Infrastructure	73,268,261	0	73,268,261	0.56%	2.00%	0%	6%
	Timber	9,063,135	0	9,063,135	0.07%	0.00%	0%	0%
	SUB-TOTAL	643,798,865	0	643,798,865	4.90%	6.00%	0%	0%
P.E and V.C	Private Equity	2,557,061,830	0	2,557,061,830	19.45%	18.00%	6%	23%
Absolute Return	Absolute Return	2,661,587,926	-2,163,500,000	498,087,926	3.79%	7.00%	0%	12%
Cash	Cash	946,360,727	0	946,360,727	7.20%	2.00%	0%	10%
Total	Total	13,148,482,295	100,000	13,148,582,295	100.00%	100.00%		



Performance by Asset Class/Strategy

	Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
TOTAL PUBIC EQUITY	2,037,164,051	-8.70	-6.42	-23.16	-6.42	-19.18	2.87	3.39	4.27	7.82	Jun-01-83
TOTAL EQUITY BENCHMARK		-9.76	-6.94	-25.32	-6.94	-21.06	3.86	4.62	7.75		Jun-01-83
Excess		1.06	0.51	2.16	0.51	1.88	-0.99	-1.23	-3.48		
U.S. EQUITY	1,321,192,157	-8.62	-5.21	-22.51	-5.21	-15.80	6.23	6.05	4.30	7.38	Jun-01-83
Russell 3000 TR		-9.27	-4.46	-24.62	-4.46	-17.63	7.70	8.62	11.39	10.50	Jun-01-83
Excess		0.65	-0.74	2.11	-0.74	1.82	-1.47	-2.56	-7.08	-3.13	
U.S. PASSIVE EQUITY	1,319,994,227	-8.63	-5.21	-22.52	-5.21	-15.82	6.60	6.39	7.13		Jan-01-97
Russell 3000 TR		-9.27	-4.46	-24.62	-4.46	-17.63	7.70	8.62	11.39		Jan-01-97
Excess		0.65	-0.75	2.10	-0.75	1.81	-1.10	-2.22	-4.25		
INT'L EQUITY	715,971,894	-8.85	-9.35	-24.77	-9.35	-25.99	-3.60	-2.43	2.71	5.69	Apr-01-86
MSCI AC WORLD ex US (NET)		-9.99	-9.91	-26.50	-9.91	-25.17	-1.52	-0.81	3.01		Apr-01-86
Excess		1.14	0.55	1.73	0.55	-0.83	-2.08	-1.62	-0.30		
DEVELOPED MKT INT'L EQUITY	325,401,462	-9.24	-9.52	-24.29	-9.52	-26.02	-5.50	-3.62	6.00	2.24	Jan-01-07
TOTAL DEV INTL EQUITY BM		-9.99	-9.91	-26.50	-9.91	-25.17	-1.52	-0.75	3.71	1.40	Jan-01-07
Excess		0.75	0.38	2.21	0.38	-0.85	-3.98	-2.87	2.28	0.84	
EMERGING MKTS EQUITY	390,570,431	-8.53	-8.76	-24.51	-8.76	-25.55	-3.43	-2.39	-0.43	5.78	Jul-01-04
MSCI EMERGING MARKETS		-11.72	-11.57	-27.16	-11.57	-28.11	-2.07	-1.81	1.05	6.47	Jul-01-04
Excess		3.19	2.82	2.65	2.82	2.57	-1.37	-0.59	-1.47	-0.70	
TOTAL FIXED INCOME	3,696,835,660	-1.67	-1.26	-5.30	-1.26	-3.45	3.46	3.70	5.86	8.43	Sep-01-82
TOTAL FIXED INCOME BENCHMARK		-4.97	-4.75	-18.65	-4.75	-18.81	-4.29	-1.13	0.88		Sep-01-82
Excess		3.30	3.49	13.35	3.49	15.37	7.75	4.83	4.97		
U.S. FIXED INCOME	1,553,714,028	-2.07	0.05	-5.04	0.05	-2.55	6.93	6.55	7.73	9.14	Jul-01-82
Bloomberg U.S. Aggregate		-4.32	-4.75	-14.61	-4.75	-14.60	-3.26	-0.27	0.89	6.78	Jul-01-82
Excess		2.25	4.80	9.57	4.80	12.05	10.18	6.82	6.84	2.36	
HIGH YIELD U.S. FIXED INCOME	1,553,714,028	-2.07	0.05	-5.04	0.05	-2.55	6.93	6.55	7.73	8.44	Jan-01-07
Bloomberg U.S. Aggregate		-4.32	-4.75	-14.61	-4.75	-14.60	-3.26	-0.27	0.89	2.85	Jan-01-07
Excess		2.25	4.80	9.57	4.80	12.05	10.18	6.82	6.84	5.59	
INT'L FIXED INCOME	2,143,121,632	-1.39	-2.17	-5.48	-2.17	-4.02	1.26	2.00	4.68	5.30	Apr-01-92

Performance by Asset Class/Strategy

	Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
INTERNATIONAL FIXED INCOME BENCHMARK		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78	-3.81	-1.36		Apr-01-92
Excess		4.48	6.68	18.40	6.68	20.75	9.04	5.82	6.04		
TOTAL EMERGING MKTS FIXED INCOME	889,439,003	-0.89	-2.33	-7.62	-2.33	-9.05	-2.65	-2.23	1.01	4.01	May-01-04
TOTAL EM FIXED INC BM		-6.91	-5.52	-30.70	-5.52	-30.93	-10.90	-5.58	-0.89	4.37	May-01-04
Excess		6.02	3.19	23.07	3.19	21.89	8.26	3.35	1.90	-0.36	
TOTAL DEVELOPED MKT INTL FIXED INCOME	1,253,682,629	-1.78	-2.12	-4.10	-2.12	-0.44	4.17	4.93	6.82	6.55	Jan-01-07
SBCERA CUSTOM BC GLOBAL AGGREGATE INDEX		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78	-4.03	-2.39	0.83	Jan-01-07
Excess		4.08	6.73	19.78	6.73	24.33	11.95	8.96	9.21	5.72	
INTERNATIONAL CREDIT	1,253,682,629	-1.78	-2.12	-4.10	-2.12	-0.44	4.17	4.93	7.49	7.84	Aug-01-09
TOTAL INT'L CREDIT BM		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78	-4.70	0.37	3.00	Aug-01-09
Excess		4.08	6.73	19.78	6.73	24.33	11.95	9.64	7.11	4.84	
REAL ESTATE	602,998,746	-0.12	1.05	12.47	1.05	20.46	11.02	9.42	9.37	4.26	Mar-01-85
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	9.67	8.20	Mar-01-85
Excess		-3.35	-2.18	-2.95	-2.18	-0.99	0.80	0.56	-0.30	-3.95	
SECONDARIES R.E	98,250,358	0.00	0.44	8.89	0.44	15.64	5.99	6.78		13.43	Nov-01-14
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86		9.45	Nov-01-14
Excess		-3.23	-2.79	-6.53	-2.79	-5.81	-4.23	-2.08		3.97	
CORE R.E.	73,556,912	0.27	-5.22	-0.96	-5.22	-2.00	4.90	5.34	6.43	8.60	Jun-01-97
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	9.67	9.61	Jun-01-97
Excess		-2.96	-8.45	-16.38	-8.45	-23.45	-5.32	-3.52	-3.24	-1.01	
ENHANCED RETURN R.E.	301,378,762	-0.00	4.24	18.65	4.24	27.75	13.31	11.00	11.78	9.49	Jun-01-03
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	9.67	9.11	Jun-01-03
Excess		-3.24	1.00	3.23	1.00	6.30	3.09	2.14	2.11	0.38	
HIGH RETURN - U.S. R.E.	99,502,851	0.00	-0.50	15.85	-0.50	35.72	21.70	12.42	10.69	6.42	Jan-01-03
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	9.67	9.00	Jan-01-03
Excess		-3.23	-3.73	0.43	-3.73	14.27	11.48	3.56	1.02	-2.58	
HIGH RETURN - GLOBAL R.E.	29,876,096	-2.81	-4.95	-5.87	-4.95	-3.77	-0.20	3.70	6.05	4.67	Jul-01-03
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	9.67	9.04	Jul-01-03

Performance by Asset Class/Strategy

	Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Excess		-6.05	-8.18	-21.29	-8.18	-25.23	-10.42	-5.16	-3.62	-4.37	
STRUCTURED R.E.	433,767	0.00	3.93	24.26	3.93	36.51	3.89	4.55	5.60	1.73	Apr-01-05
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	9.67	8.72	Apr-01-05
Excess		-3.23	0.70	8.84	0.70	15.06	-6.33	-4.31	-4.07	-6.99	
TOTAL P.E and V.C	2,557,061,830	-1.85	-4.73	0.35	-4.73	7.75	20.29	18.06	15.63	11.49	Sep-01-87
TOTAL VC & PVT EQUITY BM		-9.27	-4.46	-24.62	-4.46	-17.63	7.70	8.95	10.25	11.84	Sep-01-87
Excess		7.42	-0.27	24.97	-0.27	25.38	12.59	9.10	5.38	-0.35	
DIVERSIFIED	1,787,886,935	-1.90	-5.52	-0.59	-5.52	7.30	22.32	20.45	17.22	10.19	Jul-01-04
Russell 3000 TR		-9.27	-4.46	-24.62	-4.46	-17.63	7.70	8.62	11.39	8.62	Jul-01-04
Excess		7.38	-1.05	24.03	-1.05	24.93	14.62	11.84	5.84	1.56	
BUYOUT	167,003,352	0.01	1.19	23.68	1.19	41.12	26.58	20.53	22.20	17.54	Sep-01-05
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.25	12.89	Sep-01-05
Excess		4.72	5.90	23.57	5.90	34.75	6.92	3.52	7.95	4.66	
SECONDARIES	125,430,153	-8.18	-8.68	-9.40	-8.68	1.21	23.76	19.17	15.70	12.80	Jun-01-05
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.25	12.55	Jun-01-05
Excess		-3.47	-3.97	-9.51	-3.97	-5.16	4.10	2.16	1.45	0.25	
DIRECT LENDING	299,873,301	0.01	-0.05	1.05	-0.05	0.61	10.36	9.48	8.78	7.42	May-01-05
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.25	12.49	May-01-05
Excess		4.72	4.66	0.94	4.66	-5.76	-9.31	-7.52	-5.47	-5.07	
OPPORTUNISTIC DEBT	176,868,090	-1.46	-6.63	-2.50	-6.63	3.47	15.29	12.98	13.21	11.53	Jan-01-06
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.25	12.36	Jan-01-06
Excess		3.25	-1.92	-2.62	-1.92	-2.91	-4.37	-4.02	-1.04	-0.83	
REAL ASSETS	643,798,865	-0.14	1.64	9.27	1.64	16.33	14.67	9.32	5.65		Dec-01-05
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	3.19		Dec-01-05
Excess		7.27	10.25	9.64	10.25	16.89	6.77	4.21	2.46		
TOTAL COMMODITIES	561,467,468	1.22	1.60	8.26	1.60	16.92	15.81	13.26	6.37	5.28	Apr-01-08
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	3.19	2.06	Apr-01-08
Excess		8.64	10.22	8.63	10.22	17.49	7.91	8.16	3.18	3.22	

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Asset Class/Strategy

	Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
TIMBER	9,063,135	0.00	0.23	28.74	0.23	28.36	6.21	2.56	3.40	1.83	Jul-01-05
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	3.19		Jul-01-05
Excess		7.41	8.84	29.11	8.84	28.92	-1.68	-2.54	0.21		
INFRASTRUCTURE	73,268,261	-9.82	0.66	8.20	0.66	7.96	14.99	7.20	4.94	5.77	Oct-01-07
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	3.19	2.57	Oct-01-07
Excess		-2.41	9.28	8.57	9.28	8.52	7.09	2.10	1.75	3.20	
ALPHA POOL	1,802,214,555	-1.16	0.55	-5.29	0.55	-3.21	2.18	3.35	4.41	4.11	Jan-01-08
BBG BARC Agg Bd		-4.32	-4.75	-14.61	-4.75	-14.60	-3.26	-0.27			Jan-01-08
Excess		3.16	5.30	9.32	5.30	11.39	5.44	3.62			
ALPHA POOL CREDIT COMPOSITE	1,594,758,133	-1.32	0.57	-5.99	0.57	-3.64	2.45	3.63	4.83	4.30	Jun-01-06
BBG BARC Agg Bd		-4.32	-4.75	-14.61	-4.75	-14.60	-3.26	-0.27			Jun-01-06
Excess		3.00	5.32	8.62	5.32	10.96	5.70	3.90			
OVERLAY PORTFOLIO	838,843,964	-18.92	-15.27	-41.40	-15.27	-36.14	12.21	7.64		6.70	May-01-15
SBCERA - TOTAL PLAN INDEX		-6.77	-5.68	-18.74	-5.68	-16.17	1.01	2.70			May-01-15
Excess		-12.15	-9.59	-22.66	-9.59	-19.97	11.20	4.94			
CASH	20,002,378	0.00	0.00	0.00	0.00	0.00	0.59	0.35		-0.74	Mar-01-13
ICE BofA US 3-Month Treasury Bill		0.25	0.46	0.61	0.46	0.62	0.59	1.15		0.71	Mar-01-13
Excess		-0.25	-0.46	-0.61	-0.46	-0.62	-0.00	-0.80		-1.44	

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
TOTAL DOMESTIC EQUITY	1,321,192,157.01	-8.62	-5.21	-22.51	-5.21	-15.80	6.23	6.05	5.08	4.30	7.38
Russell 3000 TR		-9.27	-4.46	-24.62	-4.46	-17.63	7.70	8.62	10.90	11.39	10.50
RUSSELL - US SC VOL	250,583.32	0.22	0.57	0.79	0.57	0.79	0.62	1.48	1.24	-18.10	-10.19
<i>Russell 2000 Index</i>		-9.58	-2.19	-25.10	-2.19	-23.50	4.29	3.55	7.51	8.55	10.25
RUSSELL - US LC VOL	947,346.31	0.22	0.57	0.79	0.57	0.79	-55.83	-47.97	-56.54	-52.55	-43.89
<i>Russell 3000 TR</i>		-9.27	-4.46	-24.62	-4.46	-17.63	7.70	8.62	10.90	11.39	12.64
SSGA - S&P CALL WRITE	952,269,527.38	-9.21	-4.88	-23.87	-4.88	-15.77	7.19	7.35	7.98	7.61	5.26
<i>Russell 3000 TR</i>		-9.27	-4.46	-24.62	-4.46	-17.63	7.70	8.62	10.90	11.39	8.24
TOBAM - AB US EQUITY	367,724,700.00	-7.07	-6.05	-18.80	-6.05	-15.28	5.78				5.10
<i>Russell 3000 TR</i>		-9.27	-4.46	-24.62	-4.46	-17.63	7.70				8.29
TOTAL INTERNATIONAL EQUITY	715,971,893.62	-8.85	-9.35	-24.77	-9.35	-25.99	-3.60	-2.43	2.92	2.71	5.69
MSCI AC WORLD ex US (NET)		-9.99	-9.91	-26.50	-9.91	-25.17	-1.52	-0.81	3.29	3.01	
RUSSELL - INTER VOL	16,581.99	0.22	0.57	0.79	0.57	0.79					
<i>OVERLAY BLENDED BM</i>		-9.99	-9.91	-26.50	-9.91	-25.17					
SSGA - MSCI WORLD EX-US	180,730,836.83	-9.21									
MSCI AC WORLD ex US (NET)		-9.99									
TOBAM - AB EM FUND	260,815,853.56	-7.49	-6.80	-24.15	-6.80	-25.32	-3.87	-2.33			0.16
<i>MSCI EMERGING MARKETS</i>		-11.72	-11.57	-27.16	-11.57	-28.11	-2.07	-1.81			3.19
TOBAM - AB WORLD EX-US	144,654,043.52	-9.28	-11.18	-25.68	-11.18	-27.38	-6.59				-5.95
<i>MSCI AC WORLD ex US (NET)</i>		-9.99	-9.91	-26.50	-9.91	-25.17	-1.52				-1.61
MONDRIAN - EM EQUITY	129,754,577.72	-10.55	-12.46	-25.22	-12.46	-26.00	-2.50	-2.25	1.91	-0.27	5.74
<i>MSCI EMERGING MARKETS</i>		-11.72	-11.57	-27.16	-11.57	-28.11	-2.07	-1.81	3.88	1.05	6.11
TOTAL DOMESTIC FIXED INCOME	1,553,714,027.93	-2.07	0.05	-5.04	0.05	-2.55	6.93	6.55	7.05	7.73	9.14
Bloomberg U.S. Aggregate		-4.32	-4.75	-14.61	-4.75	-14.60	-3.26	-0.27	0.54	0.89	6.78
BEACH POINT - SELECT	236,778,369.06	-0.61	1.03	-4.30	1.03	0.04	8.28	7.16	7.97	8.71	9.67
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	8.35

Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
APOLLO - CREDIT STRAT	132,143,261.25	0.66	1.23	0.58	1.23	2.50	11.53	9.82	9.17	7.71	8.69
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	4.89
MANULIFE DEC - SMA	93,819,211.40	-1.63	-1.01	-6.67	-1.01	-6.75	0.71	2.74	3.35	4.12	5.77
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	4.83
WATERFALL - SMA	48,788,061.37	-16.53	-6.64	-21.82	-6.64	-11.80	1.66	5.95	11.23		10.98
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04		3.31
WATERFALL - READY CAP	0.00										
<i>ICE BofA US High Yield Index</i>		-4.02									
WATERFALL - VICTORIA	80,982,449.01	0.00	-0.66	1.26	-0.66	3.12	5.13	7.04	7.75		7.90
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04		3.24
GOLDENTREE - SMA-PB	29,974,996.31	1.04	0.83	4.36	0.83	10.55	19.82	16.03	13.29	27.56	26.86
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	4.69
MACKAY SHIELDS - SMA	45,202,955.32	-3.59	-0.30	-14.52	-0.30	-13.91	-0.47	1.39	3.24	3.99	5.99
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	6.00
GOLDENTREE - SMA	539,131,316.07	-3.88	-0.36	-8.63	-0.36	-6.73	8.63	7.05	8.43		
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04		
AG - CAP RECOVERY PRT VI	0.01	0.00	0.00	100.00	0.00	95.15					
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06					
APOLLO - OFFSHR CREDIT	287,638,662.14	0.71	1.00	-3.06	1.00	-1.92	4.78	4.55	5.08	5.58	9.68
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	8.55
KING STREET CAPITAL LTD	0.01										
<i>ICE BofA US High Yield Index</i>		-4.02									
GOLDENTREE - DIST FUND	3,532,239.13	0.00	50.26	81.22	50.26	116.32	26.32	15.08	11.33	14.77	12.68
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	5.28
KA - BDC	55,722,506.84	0.03	1.52	17.91	1.52	20.85					
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06					
TOTAL INTERNATIONAL FIXED INCOME	2,143,121,631.63	-1.39	-2.17	-5.48	-2.17	-4.02	1.26	2.00	4.43	4.68	5.30

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
INTERNATIONAL FIXED INCOME BENCHMARK		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78	-3.81	-1.01	-1.36	
ALCENTRA SCF	16,041,934.54	-2.58	-10.09	1.62	-10.09	1.61	-0.53	-3.59			-2.63
<i>Bloomberg Global Aggregate ex-USD</i>		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78	-4.03			-2.92
ALCENTRA - VIADUCT	77,617,270.69	9.13	9.13	13.64	9.13	14.06	12.43				10.08
<i>Bloomberg Global Aggregate ex-USD</i>		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78				-5.79
OCM INTL CONVERTIBLES SMA	0.02										
<i>SBCERA CUSTOM BC GLOBAL AGGREGATE INDEX</i>		-5.87									
ALCENTRA DLF	955,452.50	0.00	3.83	11.92	3.83	81.05					
<i>Bloomberg Global Aggregate ex-USD</i>		-5.87	-8.85	-23.88	-8.85	-24.77					
GRAMERCY FUNDS MANAGEMENT LLC	671,351,583.22	-0.48	-0.96	-1.73	-0.96	-1.74	-0.75	-1.95	2.04		3.83
<i>JPMorgan EMBI Global Diversified Index</i>		-6.36	-4.57	-23.95	-4.57	-24.28	-7.15	-2.62	0.90		0.97
CAIRN - SMA	173,920,512.88	-2.37	1.34	5.90	1.34	7.57	5.63	4.86	6.55		6.34
<i>Bloomberg Global Aggregate ex-USD</i>		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78	-4.03	-1.69		-1.55
CAIRN - CLI HOLDINGS	63,900,191.99	-2.58	-16.45	-23.02	-16.45	-22.18	-1.47				3.30
<i>Bloomberg Global Aggregate ex-USD</i>		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78				-7.34
ASHMORE - EM FIXED	118,486,539.47	-7.43	-6.80	-27.40	-6.80	-29.77	-11.19	-6.50	-1.39	-2.26	0.83
<i>JPMorgan EMBI Global Diversified Index</i>		-6.36	-4.57	-23.95	-4.57	-24.28	-7.15	-2.62	0.90	1.08	4.18
BARDIN HILL - MCA	214,069,959.32	1.74	-2.98	-2.15	-2.98	0.70	5.60	4.92	6.32		6.19
<i>HALCYON BLENDED BM</i>		-4.02	-0.68	-14.62	-0.68	-14.06	0.19	1.57	4.16		3.42
MARATHON - SMA	227,221,751.19	0.11	0.45	5.01	0.45	8.58	8.39	10.16	9.02	9.86	6.99
<i>Bloomberg Global Aggregate ex-USD</i>		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78	-4.03	-1.69	-2.39	-0.76
ALCENTRA - CSCOF III	30,127,425.43	0.00	-13.67	-13.58	-13.67	-10.48	1.38	2.37			5.05
<i>Bloomberg Global Aggregate ex-USD</i>		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78	-4.03			-3.55
PGIM EM - DEBT OPP FUND	99,600,880.00	5.09	-5.77	-13.37	-5.77	-18.83	-1.26	-0.20	3.99		2.06
<i>JPMorgan EMBI Global Diversified Index</i>		-6.36	-4.57	-23.95	-4.57	-24.28	-7.15	-2.62	0.90		0.61
ALCENTRA - SMA	449,828,130.38	-5.46	-1.93	-11.65	-1.93	-5.78	2.29	3.94	6.92		7.32
<i>Bloomberg Global Aggregate ex-USD</i>		-5.87	-8.85	-23.88	-8.85	-24.77	-7.78	-4.03	-1.69		-1.55

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
TOTAL REAL ESTATE	602,998,746.38	-0.12	1.05	12.47	1.05	20.46	11.02	9.42	9.13	9.37	4.26
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	8.20
KA - RED IV	12,005,108.59	-0.00	3.04	5.92	3.04	6.90					4.82
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45					16.79
PGIM RE - PRECap VII	11,698,472.60	-4.07	-7.12	-8.88	-7.12	-5.18					-3.87
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45					16.79
APOLLO - RE FUND II	16,929,002.79	0.00	5.16	20.25	5.16	27.19	8.45	8.45			12.84
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86			8.53
BRYANSTON - RETAIL OPP	16,459,864.59	0.00	-19.43	-13.34	-19.43	37.87	44.96	23.85	31.28	29.68	
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	
KA - RED III	7,332,825.70	0.00	3.88	14.56	3.88	27.52	15.62				12.67
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22				9.30
MORGAN STANLEY - RE	229,591.55	0.00	4.07	17.13	4.07	17.24	4.46	0.36	3.19	6.96	3.46
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	8.44
PGIM RE - PRISA III	74,617,989.06	-0.00	3.80	16.15	3.80	26.05	16.36	12.90	13.28	14.19	13.96
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	9.11
PGIM RE - PRECap VI	8,689,576.07	-4.07	-8.38	-9.03	-8.38	-7.97	1.60	4.87			6.58
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86			8.80
STARWOOD - CAP FUND I-2	2,557,742.99	0.00	0.45	2.07	0.45	2.50	0.04	2.32	-0.77	-0.80	0.96
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	8.29
WALTON ST RE FUND V	1,778,940.44	0.00	-1.68	-19.70	-1.68	-19.33	-15.08	-13.39	-9.25	-3.06	-5.34
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	8.01
INVESCO - ASIA CORE RE	66,088,255.29	0.00	-6.32	-2.40	-6.32	-3.55	4.38	4.83	6.74		5.76
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84		9.43
SQUARE MILE - PRT III	4,126.01										
NCREIF PROPERTY INDEX 1 QTR LAG		3.23									
KA - RE FUND V	16,974,033.22	-0.00	5.62	40.09	5.62	53.91	30.29				15.72
NCREIF PROPERTY INDEX 1 QTR LAG		3.23	3.23	15.42	3.23	21.45	10.22				9.02

Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
PTNRS GRP - RE SEC 2017	63,568,420.09	0.00	1.48	11.71	1.48	19.87	11.58	10.50			10.15
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45	10.22	8.86			8.92
APOLLO US REAL ESTATE III, L.P.	25,293,353.97	0.00	3.25	33.59	3.25	64.43					
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45					
KA - REP VI	4,508,662.47	0.00	7.31	20.01	7.31	5.11					
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45					
PTNRS GRP - RE SEC 2013	34,681,938.14	0.00	-1.38	4.37	-1.38	9.43	0.43	3.19	8.83		11.02
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84		9.45
PGIM RE - PRISA II	216,837,165.26	0.00	4.40	19.54	4.40	28.32	12.30	10.36	10.38	11.22	7.21
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	8.95
OAKTREE - RE OPP V	605,010.00	0.00	-0.35	9.59	-0.35	14.39	4.75	1.94	3.63	7.03	7.08
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	9.89
FORTRESS - JP OPP II	3,737,708.97	0.00	4.87	10.83	4.87	15.03	11.07	26.06	27.20	25.61	24.89
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	9.89
348 WEST HOSPITALITY	7,468,656.80	2.75	5.87	13.99	5.87	14.41	9.94	8.29	8.70	7.93	4.19
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	8.97
STARWOOD - GI OPP VII-A	579,053.10	0.00	-3.44	-8.78	-3.44	-7.05	-7.67	0.10	-0.57	1.16	-1.04
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	8.29
INVESCO REAL ESTATE US FUND VI	9,923,607.69										
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>											
WALTON ST RE FUND IV	0.00										
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23									
TRI-CON CAPITAL VII	429,640.97	0.00	2.44	9.74	2.44	21.73	-0.59	10.85	8.21	2.22	-8.79
<i>NCREIF PROPERTY INDEX 1 QTR LAG</i>		3.23	3.23	15.42	3.23	21.45	10.22	8.86	8.84	9.67	8.72
TOTAL VENTURE CAPITAL & PRIVATE EQUITY	2,557,061,829.88	-1.85	-4.73	0.35	-4.73	7.75	20.29	18.06	15.96	15.63	11.49
TOTAL VC & PVT EQUITY BM		-9.27	-4.46	-24.62	-4.46	-17.63	7.70	8.95	8.94	10.25	11.84
IND VENT - FUND V	169,910.46	-46.31	-46.31	-41.30	-46.31	-39.72	-6.99	-4.05	-1.68	13.23	16.14

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	10.74
LEXINGTON - PRT VII	3,794,125.14	-0.00	-2.48	2.43	-2.48	12.00	16.44	13.18	11.07	12.39	14.00
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	13.21
LEXINGTON - PRT VI	241,799.25	0.00	0.00	-45.20	0.00	-42.91	-9.98	-2.22	-0.80	3.26	4.22
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	12.19
PARTNERS GRP - MCA	478,737,062.78	-2.83	-11.05	-8.47	-11.05	-2.84	12.66	11.66	17.74		14.25
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		14.49
BLKRK TCP - ENERGY OPP	5,124,581.83	-11.73	3.68	61.58	3.68	62.42	9.69	10.60	12.99		12.02
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		14.69
PTNRS GRP - SEC 2004	858,278.56	-2.58	-11.59	12.28	-11.59	21.64	15.41	7.60	7.31	6.71	5.65
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	13.12
KA - PARTNERS FUND IV	18,751,060.88	-0.21	6.06	20.97	6.06	37.58	31.77	23.92			23.92
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			17.00
KA - SOLUTIONS FUND	9,421,089.83	-0.00	-0.78	4.60	-0.78	5.61	33.72				26.63
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66				17.55
IND VENT - PRT HOLD VI	11,231,887.71	5.81	5.81	-9.44	5.81	39.79					
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					
KA - CAP ADVISORS II	11,189,148.13	-0.06	1.48	8.12	1.48	12.90					
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					
LEXINGTON - MID MRKT I	278,131.30	0.00	-9.91	-66.04	-9.91	-59.67	-24.02	-10.19	-3.04	1.50	5.97
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	12.55
APOLLO - FUND VII	118,560.34	0.00	1.88	10.58	1.88	122.21	68.94	32.46	21.09	25.00	22.37
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	10.48
ARES - SPECIAL SITS I	36,717,386.86	-0.38	-0.38	5.18	-0.38	18.58	22.50	15.68	3.37		3.25
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		14.74
BLKRK TCP - DIR LEND 8	25,580,560.06	0.02	-0.86	0.80	-0.86	3.02	7.03	5.60			5.26
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.68
IND VENT - PRT HOLD III	43,628,765.24	-10.28	-10.28	-11.99	-10.28	-11.22	37.37	35.10	27.32		26.65

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		14.74
ARES - PCS	26,945,858.63	0.00	-0.12	4.80	-0.12	7.08	9.01	8.07			8.56
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.99
KA - FRG	0.01	0.00	0.00	0.00	0.00	0.00					
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					
CRESTLINE - PRT FIN	26,625,031.79	-0.00	3.10	5.11	3.10	3.83	11.25				10.40
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66				17.18
BLKRK TCP - CO-INV 2017	0.00										
STATE STREET PE 1 QTR LAG		-4.71									
ASL - SOF IV	16,560,992.61	-6.57	-6.57	54.18	-6.57	54.18					39.85
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					21.29
KA - KCLOP II	35,704,346.92	0.00	-11.81	-0.27	-11.81	7.20					21.43
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					22.34
ADAMS STREET - MCA	102,624,867.02	-1.99	-1.99	5.21	-1.99	10.14					34.07
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					28.52
IND VENT - IV ARROWHEAD	5,000,000.01	0.00									
STATE STREET PE 1 QTR LAG		-4.71									
KA - PARTNERS FUND V	21,453,747.44	0.00	1.28	3.43	1.28						
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71						
BLKRK TCP - OPP FUND V	513,376.95	15.78	1.23	-3.67	1.23	7.26	11.35	3.82	6.00	8.25	4.93
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	10.86
LEXINGTON - MID MRKT II	2,511,048.94	0.00	0.57	14.08	0.57	25.09	30.51	25.09	22.34	19.70	17.23
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	10.93
PATHWAY - PPEF VII	213,780,166.43	-0.23	-13.02	-16.39	-13.02	-10.82	14.48	15.74	14.92	16.43	6.44
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	12.99
PTNRS GRP - SEC 2006	14,666.92	-2.58	-6.08	-39.38	-6.08	-43.47					
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					
IND VENT - SECONDARY VIII	27,826,860.77	-11.15	-11.15	-26.19	-11.15	-30.54	25.47	37.62			36.51

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.98
KA - PEIF 2 CO-INV	11,052,372.78	0.00	13.75	32.01	13.75	32.01	51.66				44.04
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66				18.10
TCW CRES - MEZZ PRTNR V	118,215.24	0.00	-5.31	-11.52	-5.31	-22.38	46.55	23.10	18.10	15.62	13.11
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	10.52
BLKRK TCP - WATERMAN	63,387,061.94	-0.09	-1.70	-1.32	-1.70	-0.80	9.47	10.16	10.78		10.43
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		14.51
PATHWAY - MCA	560,053,247.02	-0.73	0.28	6.51	0.28	18.70	31.57	29.11	22.66		16.43
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		13.85
SIG GUFF - DIST OPP III	1,718,370.20	3.15	4.77	10.74	4.77	10.74	16.20	12.24	10.50	10.70	9.90
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	10.67
PTNRS GRP - EU MEZ 2005	0.01										
STATE STREET PE 1 QTR LAG		-4.71									
BLKRK TCP - CO-INV 2019	25,533,880.23	0.22	0.57	0.79	0.57	2.11	9.53				10.12
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66				20.34
WATERFALL - SENTINEL I	32,463,521.87	0.00	-4.47	13.24	-4.47	34.01	18.78				15.22
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66				18.46
KA - RENEWABLE OPP PRT	19,926,382.71	0.00	-2.91	26.10	-2.91	23.90					42.89
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					21.29
BLKRK TCP - DIR LEND 9	19,584,042.40	-0.30	1.24	1.81	1.24	3.89					6.04
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					22.04
ASL - EU STRAT PTNR '04	620,847.93	-6.62	-10.19	-24.43	-10.19	-25.85	-15.55	-5.92	-0.95	1.49	1.02
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	13.19
KA - PEIF 2	12,083,686.32	0.41	10.93	44.05	10.93	50.02	57.32				50.71
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66				18.10
IND VENT - PRT HOLD V	47,972,485.97	-0.66	-0.92	32.41	-0.92	49.90	38.61				40.88
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66				18.46
WATERFALL - PE CO-INV	63,813,079.99	0.00	-1.40	28.40	-1.40	55.31	18.94				15.53

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66				18.46
IND VENT - SECONDARY IX	32,374,895.29	-2.67	-3.74	-6.97	-3.74	11.37					
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					
CRESTLINE - PRT FIN II	17,206,177.15	0.00	2.49	7.14	2.49	8.74					10.01
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					25.81
IND VENT - TECH BUYOUT II	4,430,546.29	-5.93									
STATE STREET PE 1 QTR LAG		-4.71									
BLKRK TCP - OPP FUND VI	421,151.60	1.79	-18.33	-35.75	-18.33	-38.06	6.78	0.24	4.14	4.53	5.49
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	13.44
INDUSTRY VENTURES - MCA	1,908.31										
STATE STREET PE 1 QTR LAG		-4.71									
ASL - SOF I	4,001,350.62	-17.05	-17.05	-24.09	-17.05	-22.47	4.13	5.68	7.82		7.94
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		13.99
KA - ENERGY VII	6,777,183.35	0.00	10.50	101.98	10.50	97.50	-11.76	-5.85			0.90
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.98
IND VENT - DIRECT II	74,418,840.48	-0.67	-0.45	46.72	-0.45	60.58					26.49
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					21.29
IND VENT - PARTNERSHIP	52,287,628.27	0.32	0.32	13.52	0.32	38.13	39.93	29.42			22.37
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.45
APOLLO - EU PRINCIPAL	113,206.39	40.10	34.75	403.46	34.75	380.33	111.95	51.69	43.29	38.18	29.96
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	14.34
ARES - EU LOAN FUNDING	7,577,351.41	-25.67	-28.46	-32.11	-28.46	-30.92	-2.05	0.93			0.92
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.69
ARES - ICOF III	31,566,135.77	0.00	-4.97	-0.93	-4.97	4.73	5.68	6.42			5.70
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.45
BLKRK TCP SS FUND IX	28,619,357.59	0.24	3.87	-12.26	3.87	-21.98	7.53	9.14	7.16		6.54
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		14.92
PTNRS GRP - SEC 2008	1,435,952.38	-2.58	-17.34	-21.29	-17.34	-22.19	5.71	2.91	3.15	5.24	5.76

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	14.51
IND VENT - SPECIAL OPP	2,610,880.83	-36.73	-36.78	-26.73	-36.78	-29.97	33.64	36.06			37.36
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.68
ASL - SOF III	24,718,483.94	-3.09	-3.09	5.07	-3.09	14.23	18.57	22.83			22.83
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			17.00
BNY MELLON ALCENTRA MEZZ III	0.00	0.00	0.00	0.00	0.00	0.00	15.20	10.26	9.30	8.19	9.60
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	13.93
IND VENT - PRT HLDNG II	62,775,111.77	-10.78	-10.78	-13.71	-10.78	-0.97	32.17	28.01	20.13	24.88	24.82
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	14.30
IND VENT - FUND VI	236,759.13	-22.71	-22.71	-64.74	-22.71	-60.29	-2.58	-2.53	-0.94	0.82	2.57
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	13.66
CATALYST - FUND LP II	33,885,353.65	-0.09	-0.22	0.32	-0.22	-0.19	25.26	13.38	9.30	12.72	11.77
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	10.86
AURORA - EQ PARTNERS IV	608,699.04	0.00	1.46	3.37	1.46	-6.06	12.65	15.84	18.66	16.69	16.40
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	13.93
IND VENT - DIRECT	50,972,598.28	0.00	2.10	16.07	2.10	33.35	42.63	28.60			23.38
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.68
ASL - SOF II	199,105.28	0.00	0.00	-10.88	0.00	-10.88	-16.20	-4.34	3.00		2.90
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		14.74
IND VENT - PRT HOLD 3-A	6,293,820.43	0.00	-3.42	3.00	-3.42	5.37	12.28	3.02	3.36		2.03
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		14.74
ARES - MCA	35,203.06	3.07	42.80	74.29	42.80	74.35					
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37					
IND VENT - SEC VII	8,861,859.53	-21.75	-21.75	-23.03	-21.75	-27.46	18.55	21.37	17.42		16.98
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63		14.74
ASL - EU STRAT PTNR '08	3,563,566.66	-9.12	-12.57	-13.04	-12.57	-13.01	1.23	4.63	8.36	9.83	7.08
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00	14.63	14.25	13.90
ARES - ICOF II	19,076,556.75	0.00	-13.24	-7.47	-13.24	5.81	7.05	10.24			9.72

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66	17.00			16.99
IND VENT - TECH BUYOUT	51,340,855.63	0.08	-0.89	5.46	-0.89	15.37	14.35				8.29
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71	6.37	19.66				18.10
ARES - PCS II	35,157,585.09	0.00	-2.46	1.13	-2.46						
STATE STREET PE 1 QTR LAG		-4.71	-4.71	0.11	-4.71						
KA CO-INV	10,283,170.00	0.00	1.88		1.88						
STATE STREET PE 1 QTR LAG		-4.71	-4.71		-4.71						
IND VENT - DIRECT III	1,480,028.46	0.00									
STATE STREET PE 1 QTR LAG		-4.71									
TOTAL REAL ASSETS	643,798,864.80	-0.14	1.64	9.27	1.64	16.33	14.67	9.32	6.46	5.65	
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	4.83	3.19	
STARWOOD - ENERGY INFRA	51,128.03	0.00	-7.06	-0.75	-7.06	-5.03	6.79	12.02	11.26	10.52	8.44
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	4.83	3.19	4.02
ENERGY SPEC - PTNR VI	1,042,695.03	0.00	18.87	42.09	18.87	41.08	5.37	20.77	19.26	13.97	0.75
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	4.83	3.19	3.26
PINNACLE - PHYS FIN II	321,079,142.40	1.02	2.49	3.41	2.49	9.82	14.72	12.53	9.37	7.01	6.38
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	4.83	3.19	3.53
PINNACLE - NAT RESOURCE	239,294,502.86	2.18	0.81	16.58	0.81	30.50	19.54	14.70	8.92	6.57	7.19
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	4.83	3.19	2.06
KA - MLP	68,066,405.58	-10.08	-0.11	10.28	-0.11	11.18	5.01				2.21
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90				4.65
HIGHSTAR - FUND III	0.00										
TOTAL REAL ASSETS BENCHMARK		-7.41									
TIMBERVEST- CROSSOVER 2	6,105,044.64	0.00	-0.76	-4.91	-0.76	-4.85	-6.84	-5.37	-5.55	-3.68	-2.01
TOTAL REAL ASSETS BENCHMARK		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	4.83	3.19	1.90
FORTRESS - FTAI	0.02										
TOTAL REAL ASSETS BENCHMARK		-7.41									

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
TIMBERVEST - PRTNRS II	0.01										
<i>TOTAL REAL ASSETS BENCHMARK</i>		-7.41									
HANCOCK TIMBERLAND VIII	2,958,090.59	0.00	2.32	47.67	2.32	47.47	18.68	9.76	7.46	8.18	2.50
<i>TOTAL REAL ASSETS BENCHMARK</i>		-7.41	-8.62	-0.37	-8.62	-0.56	7.90	5.10	4.83	3.19	3.16
KA - ACQUISITION	5,201,855.64	-6.16	12.26	-11.10	12.26	-18.25					
<i>TOTAL REAL ASSETS BENCHMARK</i>		-7.41	-8.62	-0.37	-8.62	-0.56					
ALPHA POOL	1,802,214,554.82	-1.16	0.55	-5.29	0.55	-3.21	2.18	3.35	4.16	4.41	4.11
BBG BARC Agg Bd		-4.32	-4.75	-14.61	-4.75	-14.60	-3.26	-0.27			
SSGA - TREASURY POOL	207,456,421.88	0.14	0.37	0.29	0.37	0.31	0.40	1.07	0.95	0.74	0.77
<i>ICE BofA US 3-Month Treasury Bill</i>		0.25	0.46	0.61	0.46	0.62	0.59	1.15	0.95	0.68	0.54
ZAIS - OPPORTUNITY FUND	130,877,984.99	-3.53	-0.08	-8.84	-0.08	-8.55	-1.00	0.17	1.58	3.85	6.58
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	5.75
ZAIS - ZEPHYR 7	0.06										
<i>ICE BofA US High Yield Index</i>		-4.02									
ZAIS - Zephyr 8	50,193,581.90	0.00	-2.79	-6.16	-2.79	-2.37	6.86				6.75
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67				-0.25
ZAIS - SMA	364,417,246.03	1.05	5.15	-3.60	5.15	-0.63	5.63	5.62	7.84	7.47	7.30
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	4.30
APOLLO CRAFT MID CAP TRADE	0.01										
<i>ICE BofA US High Yield Index</i>		-4.02									
ZAIS ZEPHYR A 6 LP	0.01										
<i>ICE BofA US High Yield Index</i>		-4.02									
CORRUM - GLBL CR OPP	206,526,543.88	0.00	-0.00	-2.18	-0.00	2.20	-5.13	-0.37	1.44	2.88	1.47
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04	3.86	5.42
ARES - ECO MSTR FUND II	534,169,574.54	-4.09	-0.43	-8.86	-0.43	-7.89	2.39	2.36			4.16
<i>ICE BofA US High Yield Index</i>		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41			3.05
APOLLO - MCA	2,201,275.47	0.22	0.57	-18.12	0.57	18.26	12.99	14.12	16.24		15.68

San Bernardino County Retirement

September 30, 2022

Net Mgr



Performance by Manager											
	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
ICE BofA US High Yield Index		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04		2.93
BIRCH GROVE - CRED STRT	200,647,232.97	1.20	-0.09	-5.61	-0.09	-3.86	5.40	6.12	5.42		5.62
ICE BofA US High Yield Index		-4.02	-0.68	-14.62	-0.68	-14.06	-0.67	1.41	4.04		3.59
APOLLO ACCORD+	81,871,663.93	0.00	-5.69		-5.69						
ICE BofA US High Yield Index		-4.02	-0.68		-0.68						
ZAIS ZEPHYR 9	23,853,029.15	0.00	5.81		5.81						-0.61
ICE BofA US High Yield Index		-4.02	-0.68		-0.68						-11.41
OVERLAY PORTFOLIO	838,843,963.84	-18.92	-15.27	-41.40	-15.27	-36.14	12.21	7.64	15.00		6.70
SBCERA - TOTAL PLAN INDEX		-6.77	-5.68	-18.74	-5.68	-16.17	1.01	2.70			
RUSSELL - CC LARGE	1,253,704.25	0.22	0.57	0.79	0.57	0.79					
Russell 3000 TR		-9.27	-4.46	-24.62	-4.46	-17.63					
RUSSELL - CRNCY OVERLAY	42,680,645.80										
91 Day Treasury Bill		0.25									
RUSSELL - BETA OVERLAY	793,675,219.24	-18.52	-13.01	-37.45	-13.01	-31.56	15.60	9.15	16.61	20.24	22.44
SBCERA - TOTAL PLAN INDEX		-6.77	-5.68	-18.74	-5.68	-16.17	1.01	2.70			
RUSSELL - CC INTER	549,348.95	0.22	0.57	0.79	0.57	0.79					
RUSSELL COVERED BLENDED BM		-9.99	-9.91	-26.50	-9.91	-25.17					
RUSSELL - CC SMALL	685,045.60	0.22	0.57	0.79	0.57	0.79					
Russell 3000 TR		-9.27	-4.46	-24.62	-4.46	-17.63					
RUSSELL - IR HEDGING	20,529,407.27	41.88	40.33	279.33	40.33	193.55	36.76	-2.67	-8.30	-11.78	-13.92
BBG BARC Agg Bd		-4.32	-4.75	-14.61	-4.75	-14.60	-3.26	-0.27			
CASH WITH TREASURY	20,002,377.56	0.00	0.00	0.00	0.00	0.00	0.59	0.35	0.25		-0.74
ICE BofA US 3-Month Treasury Bill		0.25	0.46	0.61	0.46	0.62	0.59	1.15	0.95		0.71
CASH W/CBB & WF	20,002,377.56	0.00	0.00	0.00	0.00	0.00	0.59	0.35	0.25		
ICE BofA US 3-Month Treasury Bill		0.25	0.46	0.61	0.46	0.62	0.59	1.15	0.95		
CASH ACCOUNT	926,358,349.80	0.02	-0.02	-0.11	-0.02	-0.05	0.36	0.78	0.36	-1.94	3.38

San Bernardino County Retirement
September 30, 2022

Net Mgr



Performance by Manager

	Ending Market Value	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year	ITD
<i>ICE BofA US 3-Month Treasury Bill</i>		0.25	0.46	0.61	0.46	0.62	0.59	1.15	0.95	0.68	
SBCERA Transition	2,674,490.65	-0.09	0.35	-0.46	0.35	-0.83	0.31	2.58	2.99	3.96	3.71
<i>ICE BofA US 3-Month Treasury Bill</i>		0.25	0.46	0.61	0.46	0.62	0.59	1.15	0.95	0.68	0.53

This report was prepared for you by State Street Bank and Trust Company (or its affiliates, "State Street") utilizing scenarios, assumptions and reporting formats as mutually agreed between you and State Street and information or data provided by State Street's third party data sources ("Suppliers"). While reasonable efforts have been made to ensure the accuracy of the information contained in this report, there is no guarantee, representation or warranty, express or implied, as to its accuracy or completeness. This information is provided "as is" and State Street and its Suppliers disclaim any and all liability and makes no guarantee, representation, or warranty with respect to your use of or reliance upon this information in making any decisions or taking (or not taking) any actions. Neither State Street nor its Suppliers verify the accuracy or completeness of any data, including data provided by State Street for other purposes, or data provided by you or third parties. You should independently review the report (including, without limitation, the assumptions, market data, securities prices, securities valuations, tests and calculations used in the report), and determine that the report is suitable for your purposes.

State Street provides products and services to professional and institutional clients, which are not directed at retail clients. This report is for informational purposes only and it does not constitute investment research or investment, legal or tax advice, and it is not an offer or solicitation to buy or sell any product, service, or securities or any financial instrument, and it does not transfer rights of any kind (except the limited use and redistribution rights described below) or constitute any binding contractual arrangement or commitment of any kind. You may use this report for your internal business purposes and, if such report contains any data provided by Suppliers, including, but not limited to, market or index data, you may not redistribute this report, or an excerpted portion thereof, to any third party, including, without limitation, your investment managers, investment advisers, agents, clients, investors or participants, whether or not they have a relationship with you or have a reasonable interest in the report, without the prior written consent of each such third party data source. You are solely responsible and liable for any and all use of this report.