



**Mendocino County Employees'
Retirement Association**

Performance Review

Quarter ended December 31, 2023

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Agenda

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- Economic and Capital Markets Review
 - MCERA 4Q 2023 Performance

Global Economic Update

Equity Markets Surge in 4Q, Following Decline in 3Q

Stocks have recovered losses of 2022, bonds still have ground to make up

S&P 500 surged 11.7% in 4Q23

- Loss through first three quarters of 2022 was 23.9%; the rebound in the following five quarters brought the index back to a positive return of 1.7% over the past two years.

Fixed income recovered in 4Q

- The Bloomberg Aggregate surged 6.8% after suffering a sharp loss of 3.2% in 3Q.
- The Aggregate was on track for another negative year through 3Q; softening Fed language on rates in 4Q turned the market around.
- CPI-U: declined in 4Q compared to 3Q but is still up 3.4% year-over-year, and the index is 10% higher than it was at the start of 2022

Economy defied recession fears

- GDP growth came in at 2.1% in 1Q, 2.2% in 2Q, 4.9% in 3Q, and a very healthy 3.3% in 4Q.

Returns for Periods ended 12/31/23

	Quarter	1 Year	2 Years	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	12.07	25.96	0.88	15.16	11.48	7.74
S&P 500	11.69	26.29	1.69	15.69	12.03	7.56
Russell 2000	14.03	16.93	-3.55	9.97	7.16	7.91
Global ex-U.S. Equity						
MSCI World ex USA	10.51	17.94	0.54	8.45	4.32	4.62
MSCI Emerging Markets	7.86	9.83	-6.32	3.69	2.66	--
MSCI ACWI ex USA Small Cap	10.12	15.66	-3.79	7.89	4.88	7.28
Fixed Income						
Bloomberg Aggregate	6.82	5.53	-4.19	1.10	1.81	3.85
90-day T-Bill	1.37	5.01	3.22	1.88	1.25	1.90
Bloomberg Long Gov/Credit	13.24	7.13	-11.62	1.12	3.22	5.21
Bloomberg Global Agg ex-US	9.21	5.72	-7.29	-1.56	-0.79	2.25
Real Estate						
NCREIF Property Index	-3.02	-7.94	-1.44	4.33	6.80	8.03
FTSE Nareit Equity	16.22	13.73	-7.25	7.39	7.65	9.27
Alternatives						
HFRI Fund Weighted	3.64	7.57	1.55	7.01	4.54	6.31
Cambridge Private Equity*	-0.42	4.17	0.19	14.59	14.27	13.87
Bloomberg Commodity	-4.63	-7.91	3.40	7.23	-1.11	2.83
Gold Spot Price	11.02	13.45	6.44	10.09	5.59	8.19
Inflation - CPI-U	-0.34	3.35	4.89	4.07	2.79	2.54

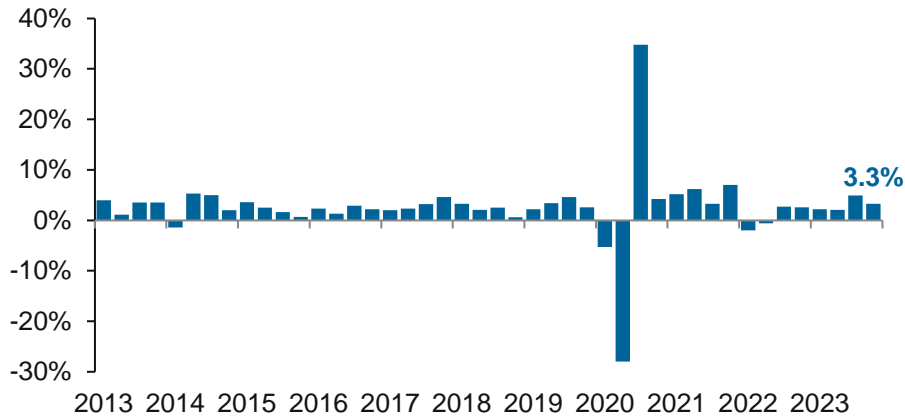
*Cambridge PE data as of 9/30/23.

Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices

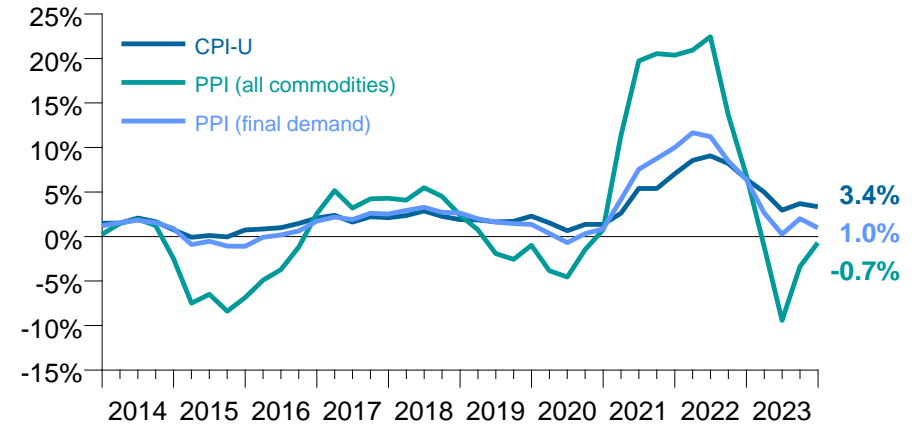
U.S. Economy—Summary

For periods ended 12/31/23

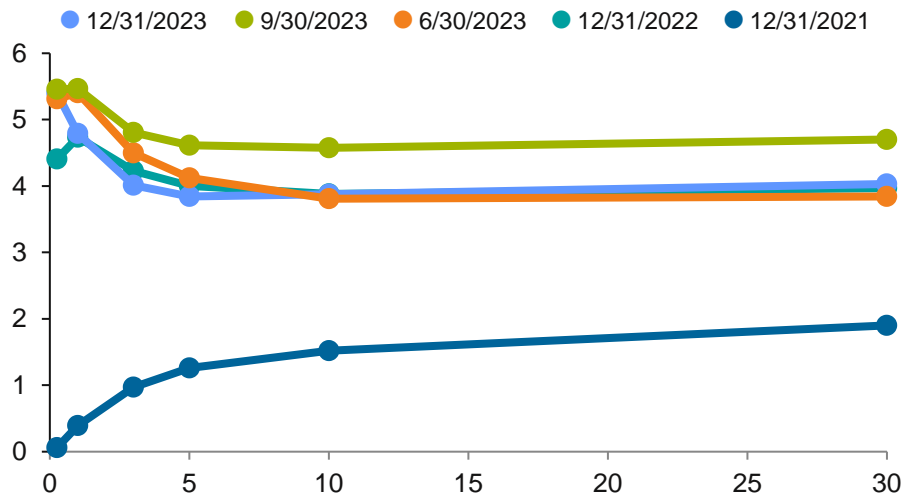
Quarterly Real GDP Growth



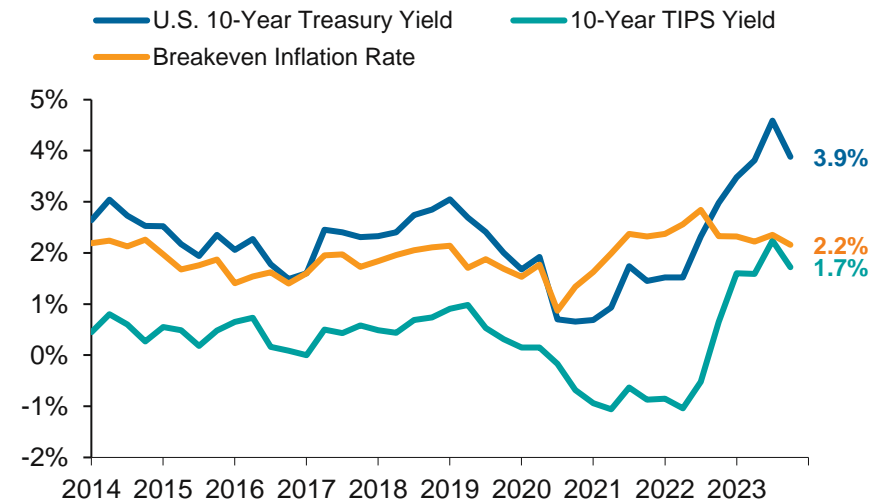
Inflation Year-Over-Year



U.S. Treasury Yield Curves



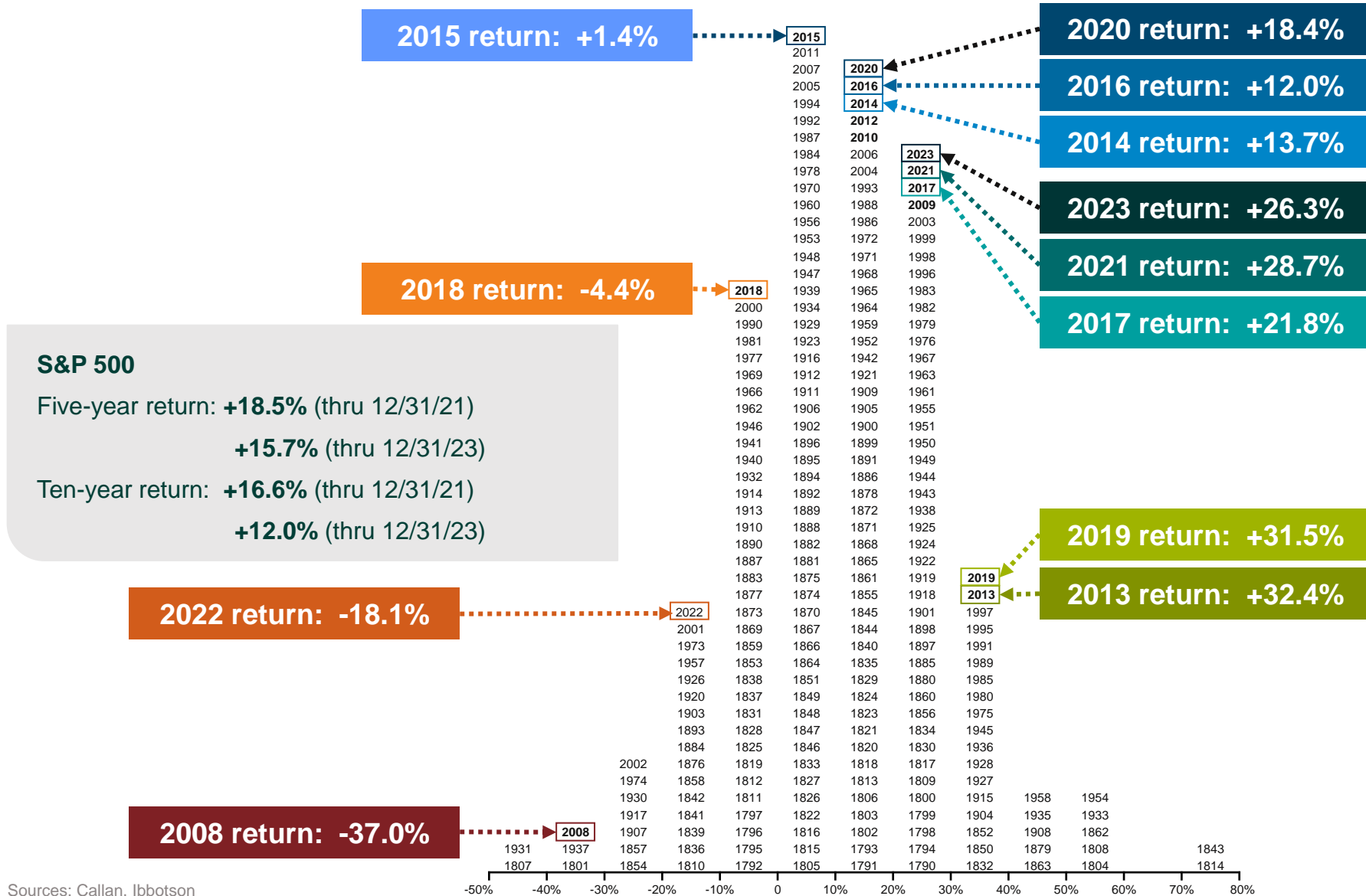
Historical 10-Year Yields Through 12/31/23



Sources: Bloomberg, Bureau of Labor Statistics, Callan

Stock Market Returns by Calendar Year

Performance in perspective: History of the U.S. stock market (233 years of returns)



U.S. Equity Performance: 4Q23

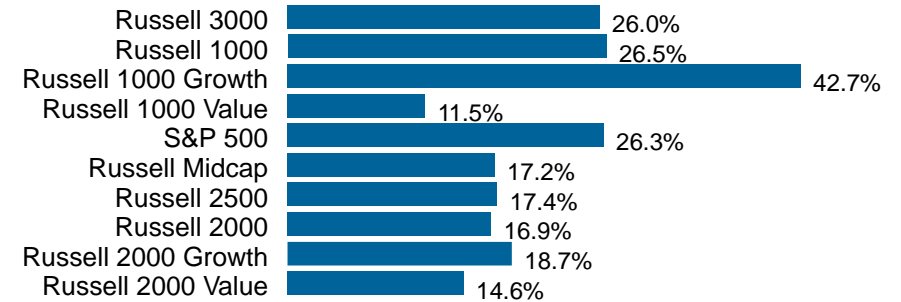
The U.S. equity market rallied in 4Q, closing the year near record highs

- U.S. equity markets rebounded in the last two months of the year as possible rate cuts in 2024 started to get priced in.
- 2023 saw the narrowest breadth of leadership (“the Magnificent Seven”) since 1987 with just 27% of stocks outperforming the S&P 500. Historically such concentrated leadership has not been the sign of a healthy market.
- However, gains started broadening out in the last two months of the year with the equal-weighted S&P index outperforming the capitalization-weighted version.
- Smaller cap stocks also outperformed their large cap counterparts in 4Q23, further proof of the broadening out of returns. For the full year large cap stocks outperformed small cap stocks by almost 10 percentage points.
- Growth vs. value performance was mixed across market capitalization during the quarter. Within large cap growth outperformed value; the opposite was true within small cap.

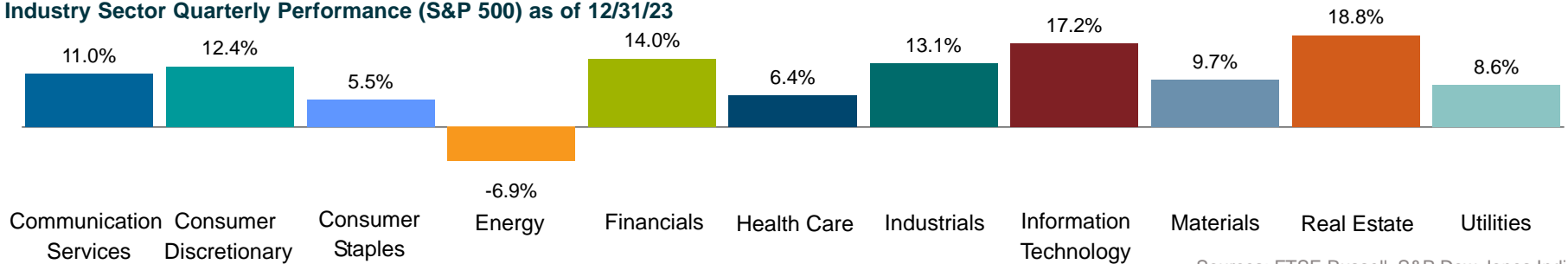
U.S. Equity: Quarter Ended 12/31/23



U.S. Equity: One Year Ended 12/31/23



Industry Sector Quarterly Performance (S&P 500) as of 12/31/23



Sources: FTSE Russell, S&P Dow Jones Indices

Global/Global ex-U.S. Equity Performance: 4Q23

Dovish central banks drove market higher

Broad market

- Dovish signaling from central banks and dropping yields led to a broad market rally in 4Q.
- Global ex-U.S. small caps reclaimed some of their lagging performance in 4Q but ended the year as the worst-performing broad-based index, albeit up over 12%. Elevated borrowing costs and the persistent risk of a recession have kept investors away.
- Japan's low rates have benefited exporters, and the threat of being delisted spurred a stock buy-back spree. Coupled with an increased focus on governance, Japan hit a multi-decade high.

Emerging markets

- Emerging markets underperformed developed markets.
 - India's rally couldn't overcome China's weakness, whose economic growth was near the government's target, but investor concerns around stimulus and a surprisingly sluggish reopening drove stocks lower.

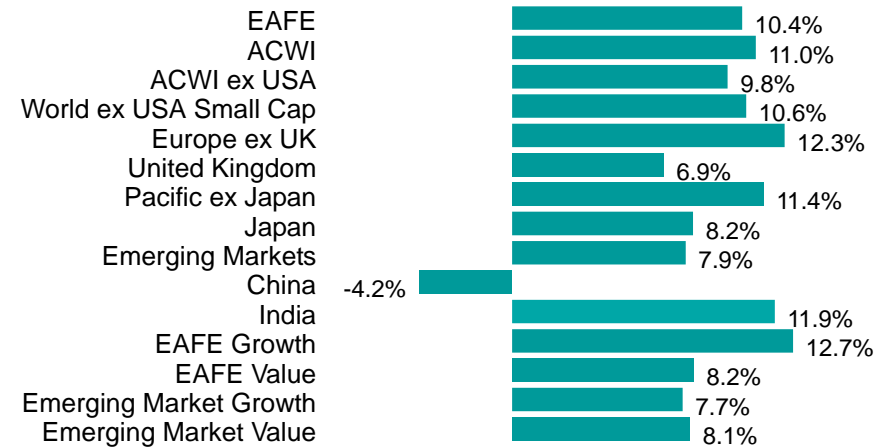
Growth vs. value

- Energy, a volatile area in the market, pulled back value's rally after having a strong 3Q. Global ex-U.S. growth rallied on lowering yields but couldn't overcome earlier underperformance and ended the year behind its value peers in both emerging and developed markets.

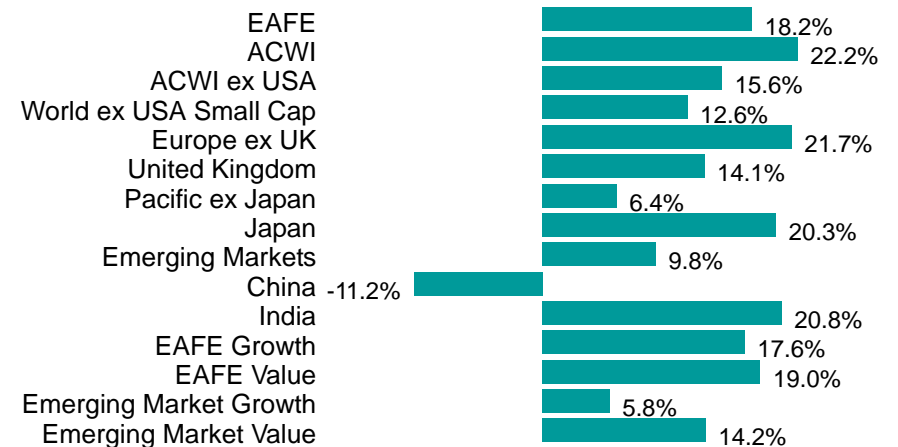
U.S. dollar vs. other currencies

- The U.S. dollar weakened in 4Q as investors believed that U.S. interest rates would fall faster than much of the developed world.

Global Equity Returns: Quarter Ended 12/31/23



Global Equity Returns: One Year Ended 12/31/23



Source: MSCI

U.S. Fixed Income Performance: 4Q23

Bonds bounce back at year-end; U.S. Treasury yield has volatile 2023

Strong returns at end of year

- Driven by falling rates and strong risk-on sentiment, the Agg returned 6.8%, the highest quarterly return since 2Q89 (when the 90-day T-bill was over 8% and inflation hit 14% earlier in the decade)!
- 10-year U.S. Treasury yield closed the year at 3.88%.
 - A round trip from 12/2022, masking significant volatility during the year
 - High was 4.98% in October and low was 3.30% in April
- Corporates and mortgages outperformed Treasuries for the quarter and year.
- High yield corporates soared as defaults remained low, economy resilient.

U.S. Treasury yield curve remained inverted, but less so

- 106 bps as of 6/30; 44 bps as of 9/30; 35 bps as of 12/31

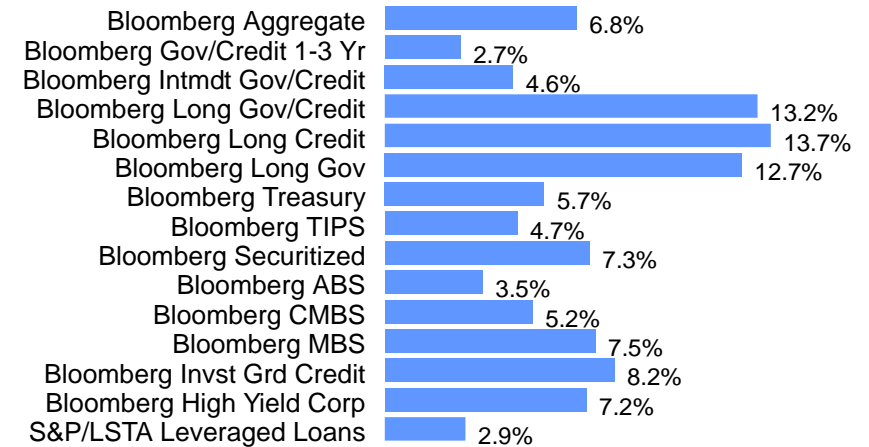
Fed kept Fed Funds rate on hold and softened language

- Pivoted from “higher for longer” to projected rate cuts in 2024
- Inflation over past six months below Fed’s 2% target
 - Core PCE Price Index was 1.9% annualized in November
- Markets expect six rate cuts in 2024 versus three in the Fed’s Summary of Economic Projections

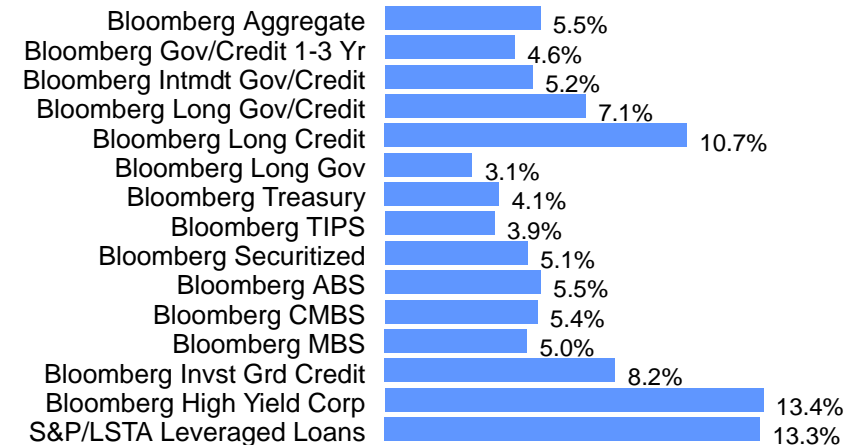
Valuations

- Investment grade and high yield corporate spreads now below 10-year averages

U.S. Fixed Income Returns: Quarter Ended 12/31/23



U.S. Fixed Income Returns: One Year Ended 12/31/23



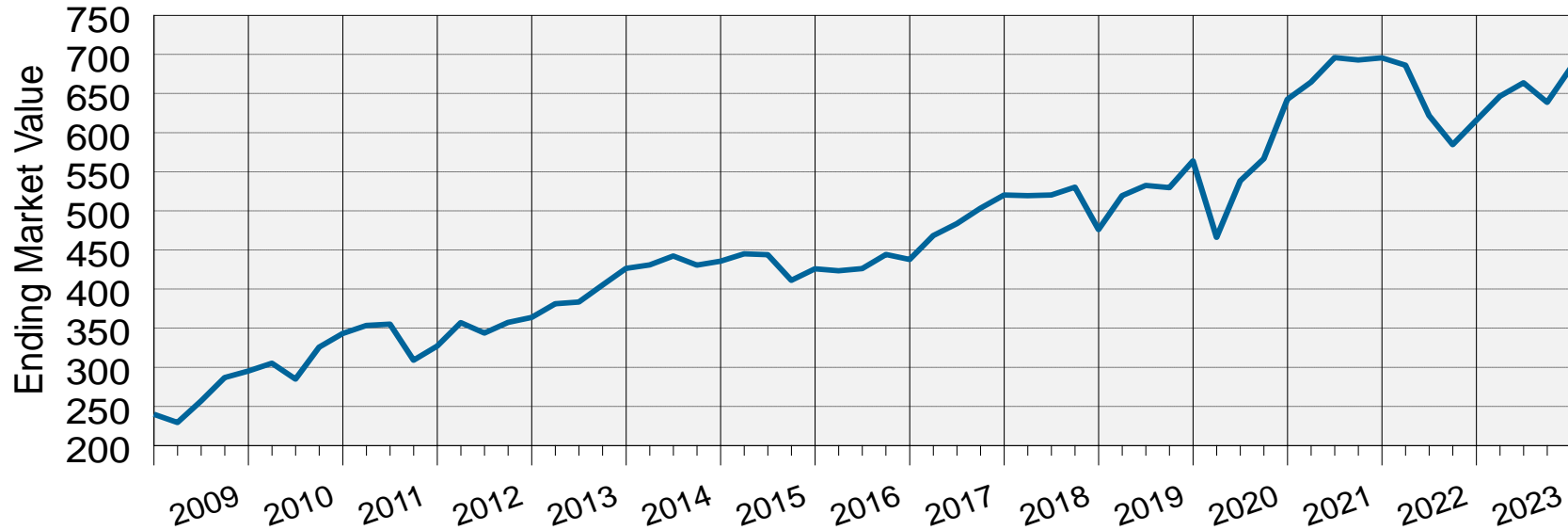
Sources: Bloomberg, Callan, S&P Dow Jones Indices

Callan

MCERA Plan Performance

Total MCERA Plan Growth

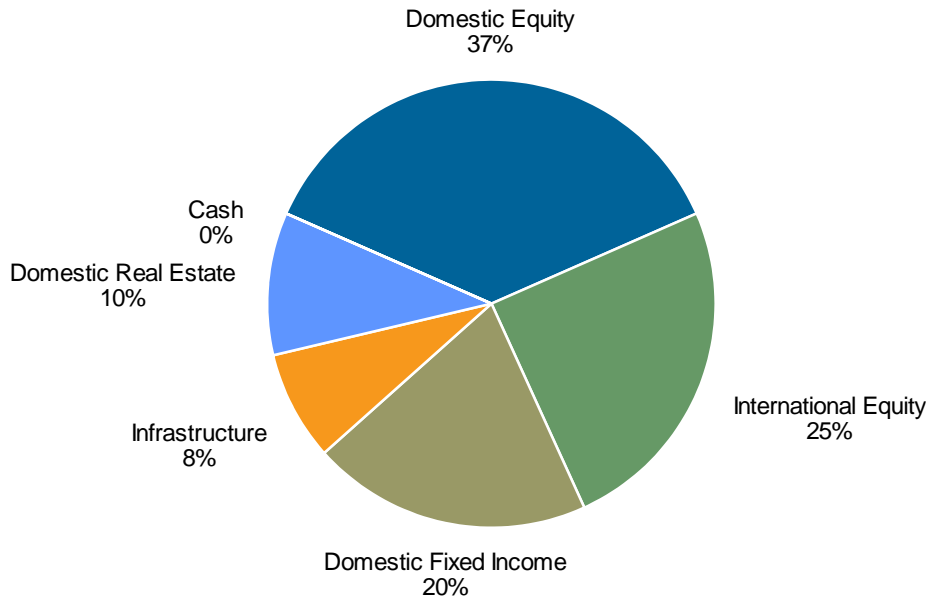
MCERA Ending Market Value for 15 Years Ended December 31, 2023



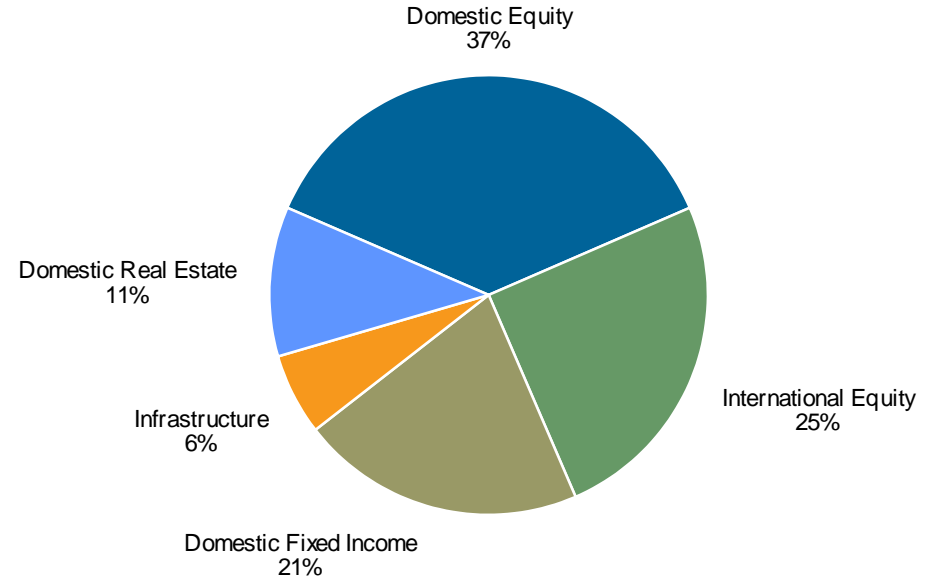
	December 31, 2023				June 30, 2023	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Equities	\$252,064,623	36.85%	\$(8,326,415)	\$18,828,161	\$241,562,877	36.39%
International Equities	\$169,391,173	24.77%	\$3,206,467	\$7,379,283	\$158,805,423	23.92%
Domestic Fixed Income	\$138,029,338	20.18%	\$2,857,914	\$5,490,414	\$129,681,010	19.53%
Infrastructure	\$53,840,741	7.87%	\$(1,067,977)	\$2,487,246	\$52,421,472	7.90%
Real Estate	\$70,509,472	10.31%	\$(1,186,702)	\$(8,998,258)	\$80,694,431	12.16%
Cash	\$143,203	0.02%	\$(533,879)	\$0	\$677,082	0.10%
Total Fund	\$683,978,549	100.00%	\$(5,050,592)	\$25,186,846	\$663,842,295	100.00%

MCERA Actual vs Target Asset Allocation as of December 31, 2023

Actual Asset Allocation



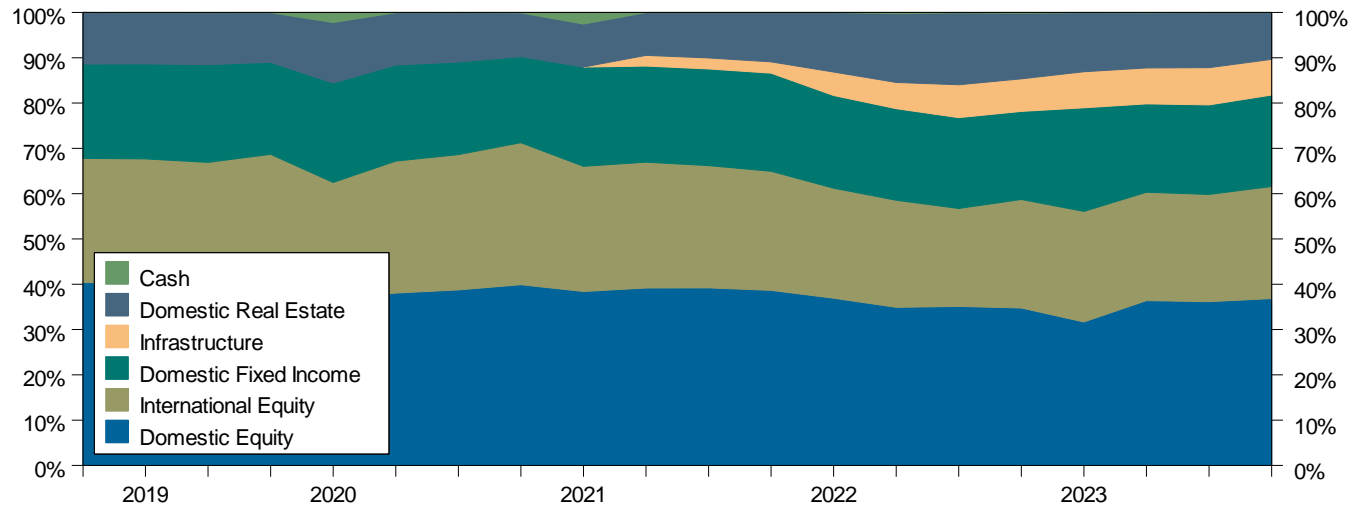
Target Asset Allocation



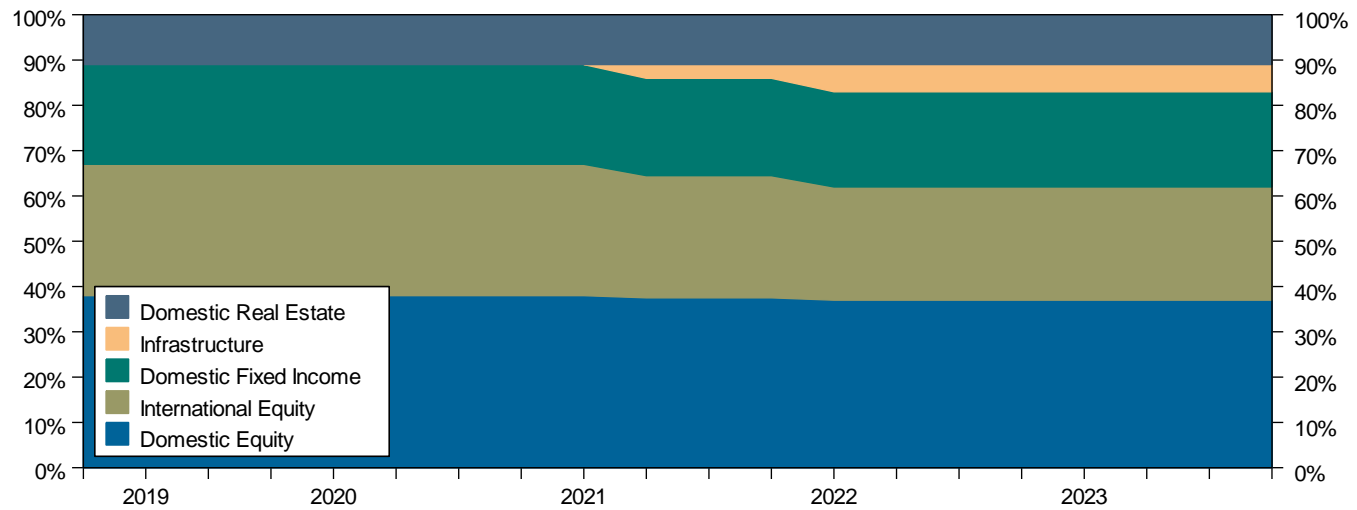
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity	252,065	36.9%	37.0%	(0.1%)	(1,007)
International Equity	169,391	24.8%	25.0%	(0.2%)	(1,603)
Domestic Fixed Income	138,029	20.2%	21.0%	(0.8%)	(5,606)
Infrastructure	53,841	7.9%	6.0%	1.9%	12,802
Domestic Real Estate	70,509	10.3%	11.0%	(0.7%)	(4,728)
Cash	143	0.0%	0.0%	0.0%	143
Total	683,979	100.0%	100.0%		

MCERA Actual vs Target Historical Asset Allocation

Actual Historical Asset Allocation



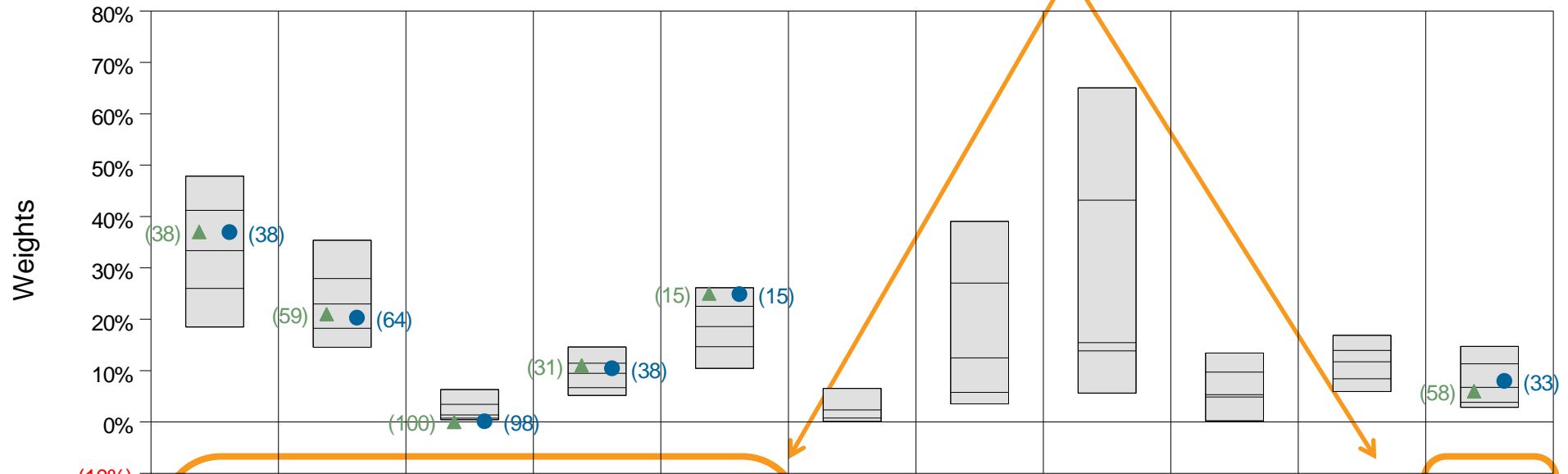
Target Historical Asset Allocation



MCERA Asset Class Weights vs Callan Public Fund Sponsor Database

Asset Class Weights vs Callan Public Fund Sponsor Database

Currently Invested



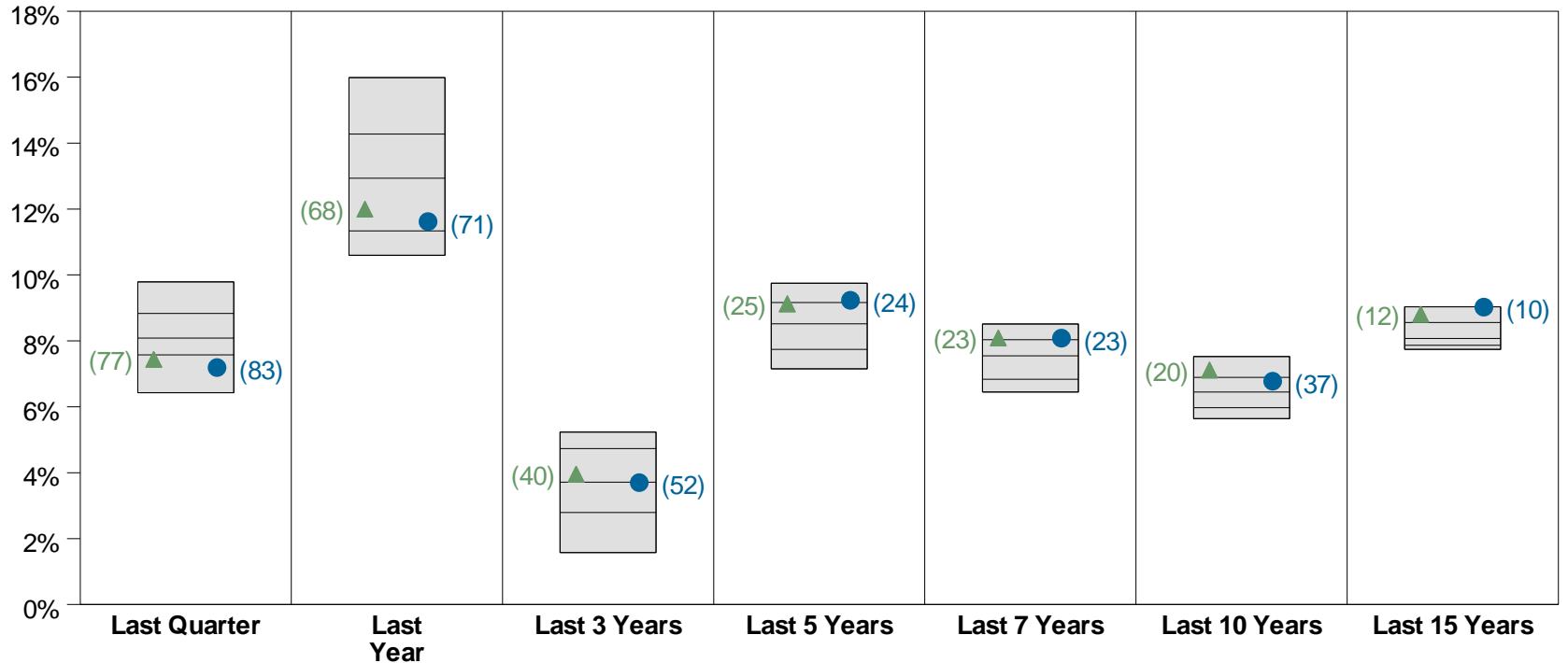
	Domestic Equity	Domestic Fixed Income	Cash	Domestic Real Estate	International Equity	Intl Fixed-Inc	Alternative	Global Equity Broad	Hedge Funds	Private Equity	Dvsfd Real Assets
10th Percentile	47.85	35.38	6.31	14.60	26.13	6.54	39.04	65.06	13.43	16.86	14.73
25th Percentile	41.21	27.92	3.43	11.46	22.53	2.34	27.03	43.17	9.70	13.92	11.32
Median	33.35	22.98	1.36	9.46	18.59	0.77	12.47	15.45	5.33	11.71	6.73
75th Percentile	26.01	18.23	0.75	6.68	14.66	0.13	5.78	13.84	4.86	8.41	3.83
90th Percentile	18.48	14.55	0.43	5.17	10.46	0.02	3.53	5.63	0.23	5.91	2.85
Fund ●	36.85	20.18	0.02	10.31	24.77	-	-	-	-	-	7.87
Target ▲	37.00	21.00	0.00	11.00	25.00	-	-	-	-	-	6.00
% Group Invested	99.02%	97.06%	85.29%	71.57%	96.08%	26.47%	59.80%	9.80%	14.71%	17.65%	16.67%

Asset Allocation as of December 31, 2023

	December 31, 2023			September 30, 2023		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Equities	\$252,064,623	36.85%	\$(5,626,415)	\$26,671,984	\$231,019,054	36.15%
Large Cap Equities	\$171,619,068	25.09%	\$(5,500,000)	\$18,277,118	\$158,841,951	24.85%
Vanguard S&P 500 Index	171,619,068	25.09%	(5,500,000)	18,277,118	158,841,951	24.85%
Mid Cap Equities	\$38,868,533	5.68%	\$(126,415)	\$3,531,210	\$35,463,738	5.55%
Fidelity Low Price Stocks	18,629,011	2.72%	0	1,816,942	16,812,069	2.63%
Janus Enterprise	20,239,522	2.96%	(126,415)	1,714,268	18,651,669	2.92%
Small Cap Equities	\$41,577,022	6.08%	\$0	\$4,863,656	\$36,713,365	5.74%
Prudential Small Cap Value	21,527,684	3.15%	0	2,957,421	18,570,263	2.91%
AB Small Cap Growth	20,049,337	2.93%	0	1,906,235	18,143,102	2.84%
International Equities	\$169,391,173	24.77%	\$3,000,000	\$14,988,503	\$151,402,670	23.69%
Europacific	28,667,660	4.19%	0	2,694,403	25,973,257	4.06%
Harbor International	33,116,406	4.84%	0	2,923,409	30,192,997	4.72%
Oakmark International	32,995,467	4.82%	1,000,000	2,613,527	29,381,940	4.60%
Mondrian International	31,607,607	4.62%	0	2,705,853	28,901,754	4.52%
T. Rowe Price Intl Small Cap	27,052,331	3.96%	1,000,000	2,805,432	23,246,899	3.64%
NinetyOne	15,951,702	2.33%	1,000,000	1,245,879	13,705,823	2.14%
Domestic Fixed Income	\$138,029,338	20.18%	\$2,651,447	\$9,094,851	\$126,283,039	19.76%
Dodge & Cox Income	68,919,160	10.08%	1,221,720	4,664,718	63,032,722	9.86%
PIMCO	69,110,178	10.10%	1,429,727	4,430,134	63,250,317	9.90%
Infrastructure	\$53,840,741	7.87%	\$(334,682)	\$1,587,839	\$52,587,584	8.23%
IFM Global Infrastructure	26,861,934	3.93%	0	685,325	26,176,609	4.10%
JP Morgan Infrastructure	26,978,807	3.94%	(334,682)	902,513	26,410,975	4.13%
Real Estate	\$70,509,472	10.31%	\$(603,087)	\$(6,533,627)	\$77,646,186	12.15%
RREEF Private Fund	37,380,483	5.47%	(327,064)	(2,474,086)	40,181,632	6.29%
Barings Core Property Fund	31,781,989	4.65%	(276,024)	(4,059,541)	36,117,554	5.65%
625 Kings Court	1,347,000	0.20%	0	0	1,347,000	0.21%
Cash	\$143,203	0.02%	\$(6,972)	\$0	\$150,175	0.02%
Total Fund	\$683,978,549	100.0%	\$(919,710)	\$45,809,550	\$639,088,709	100.0%

MCERA Total Fund Performance as of December 31, 2023

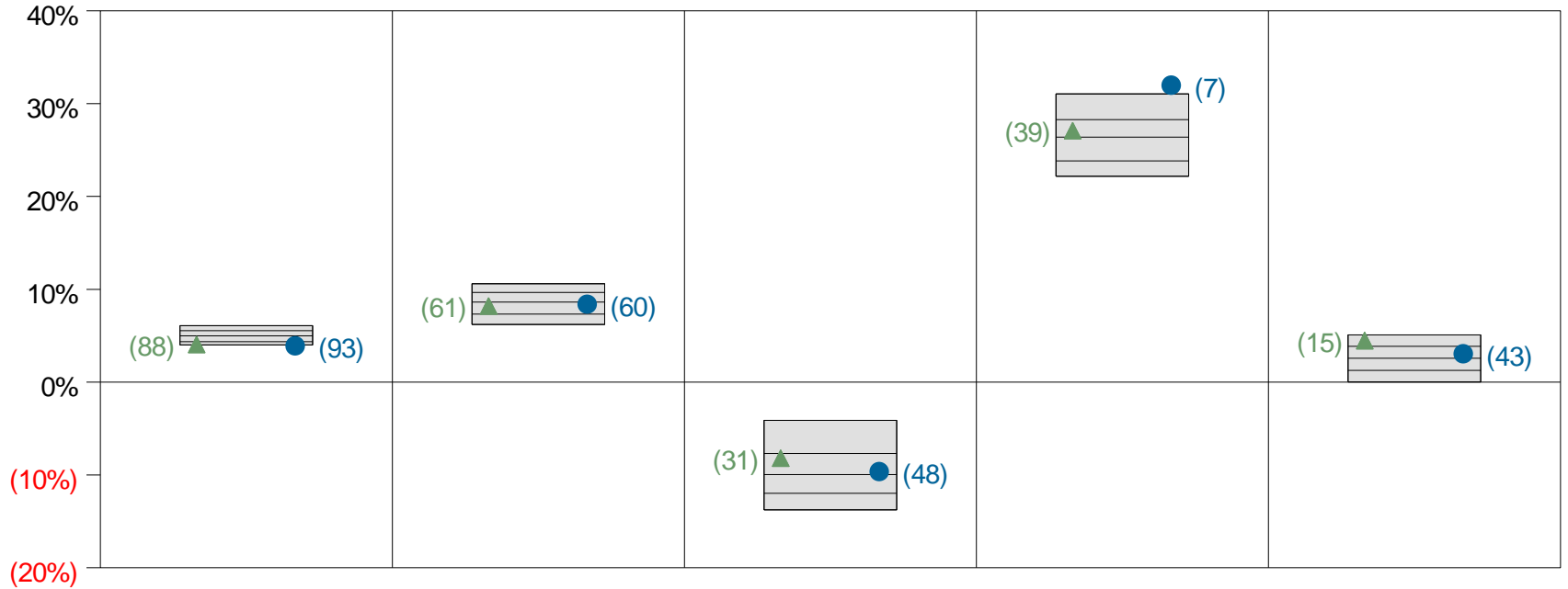
Performance vs Callan Public Fund Sponsor Database (Net)



10th Percentile	9.79	15.99	5.23	9.75	8.51	7.53	9.03
25th Percentile	8.83	14.27	4.73	9.16	8.03	6.89	8.56
Median	8.09	12.93	3.71	8.51	7.55	6.45	8.07
75th Percentile	7.58	11.33	2.79	7.74	6.84	5.97	7.87
90th Percentile	6.42	10.60	1.58	7.15	6.45	5.64	7.74
Total Fund ●	7.16	11.59	3.67	9.21	8.05	6.75	9.00
Total Fund Benchmark ▲	7.44	12.00	3.96	9.13	8.09	7.12	8.81

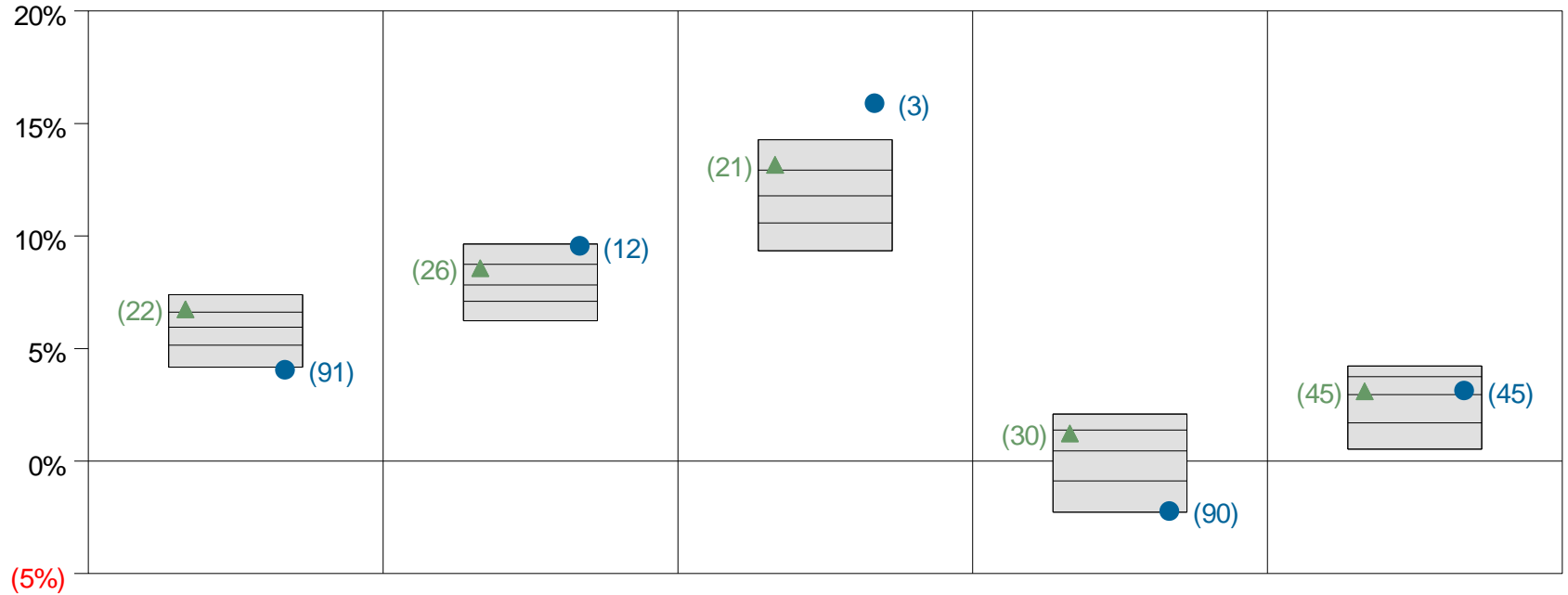
The Callan Public Fund Sponsor Database consists of public employee pension total funds including both Callan LLC client and surveyed non-client funds. Returns greater than one year are annualized.

MCERA Total Fund Fiscal Year Performance as of December 31, 2023



	FYTD	FY 2023	FY 2022	FY 2021	FY 2020
10th Percentile	6.09	10.60	(4.11)	31.04	5.08
25th Percentile	5.55	9.65	(7.69)	28.27	3.85
Median	4.99	8.62	(9.95)	26.39	2.57
75th Percentile	4.36	7.33	(11.97)	23.83	1.26
90th Percentile	4.02	6.22	(13.76)	22.17	0.02
Total Fund ●	3.81	8.29	(9.74)	31.89	2.96
Total Fund Benchmark ▲	4.04	8.21	(8.20)	27.09	4.47

MCERA Total Fund Fiscal Year Performance

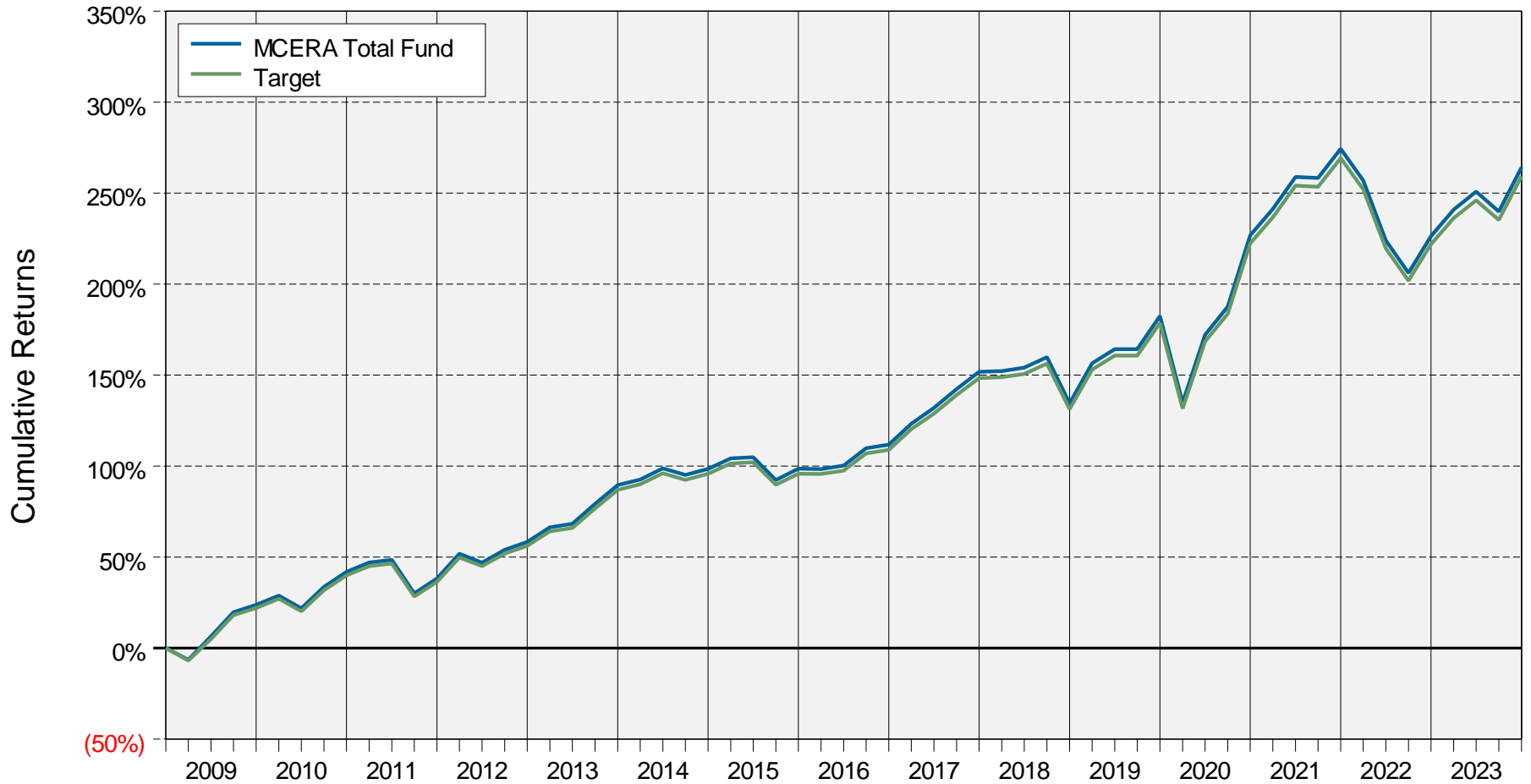


	FY 2019	FY 2018	FY 2017	FY 2016	FY 2015
10th Percentile	7.39	9.65	14.28	2.08	4.23
25th Percentile	6.61	8.75	12.92	1.38	3.75
Median	5.95	7.83	11.78	0.45	2.95
75th Percentile	5.15	7.10	10.58	(0.88)	1.70
90th Percentile	4.18	6.23	9.34	(2.27)	0.53
Total Fund ●	4.01	9.52	15.86	(2.26)	3.09
Total Fund Benchmark ▲	6.75	8.57	13.16	1.23	3.10

MCERA Cumulative Total Fund Performance

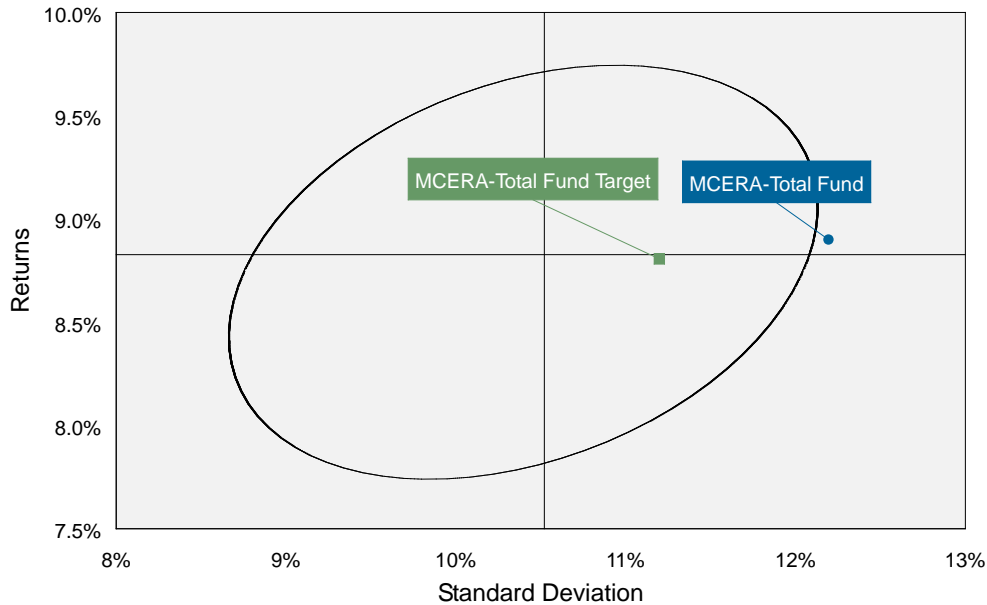
For 15 Years Ended December 31, 2023

Fifteen Year Cumulative Returns

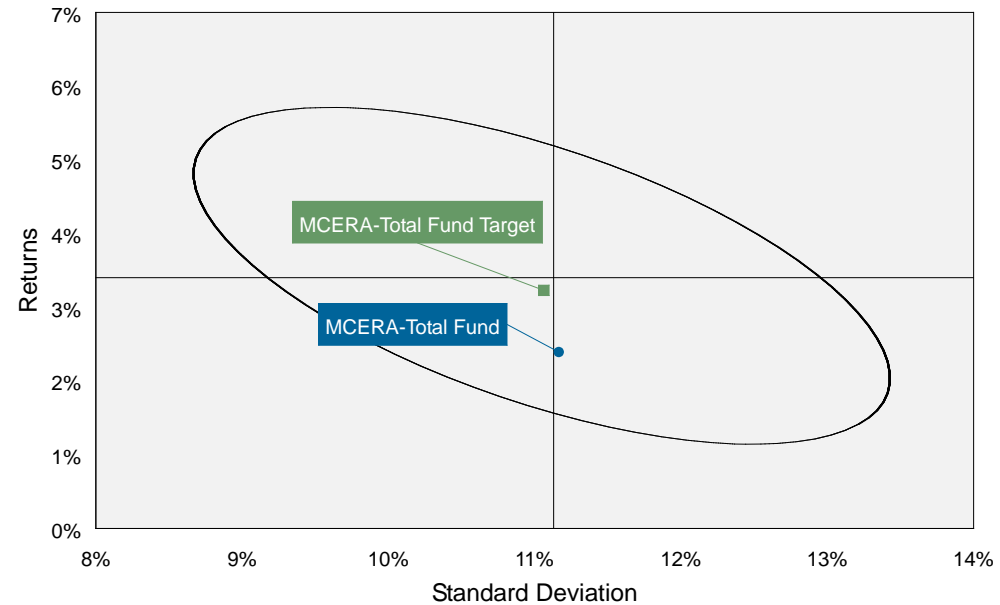


MCERA Annualized Return vs Risk

15 Years Ended December 31, 2023
Group: Callan Public Fund Sponsor Database



2 3/4 Years Ended December 31, 2023
Group: Callan Public Fund Sponsor Database



- The charts above plot 15 year and 2.75-year annualized return vs standard deviation of the MCERA Total Fund and the Total Fund Target.
- The trailing 2.75-year period represents the time period since the MCERA infrastructure allocation was initiated.
- Over the trailing 15-year period the MCERA Total Fund has achieved an annualized return in line with the Total Fund Target with higher volatility.

Total Fund Relative Attribution

December 31, 2023

Relative Attribution Effects for the Quarter Ended December 31, 2023

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	36%	37%	11.72%	12.07%	(0.12%)	(0.06%)	(0.18%)
Domestic Fixed Income	20%	21%	7.13%	6.82%	0.06%	0.01%	0.07%
Domestic Real Estate	12%	11%	(8.42%)	(5.37%)	(0.37%)	(0.14%)	(0.51%)
International Equity	24%	25%	9.69%	9.82%	(0.03%)	(0.03%)	(0.05%)
Infrastructure	8%	6%	3.02%	(5.37%)	0.69%	(0.28%)	0.41%
Cash	0%	0%	0.00%	0.00%	0.00%	(0.00%)	(0.00%)
Total			7.16%	7.44%	+ 0.23%	+ (0.50%)	(0.28%)

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	35%	37%	23.54%	25.96%	(0.76%)	(0.27%)	(1.03%)
Domestic Fixed Income	20%	21%	7.01%	5.53%	0.30%	0.05%	0.35%
Domestic Real Estate	13%	11%	(18.37%)	(13.33%)	(0.76%)	(0.47%)	(1.23%)
International Equity	24%	25%	16.42%	16.21%	0.06%	(0.06%)	0.00%
Infrastructure	8%	6%	9.87%	(13.33%)	2.04%	(0.52%)	1.52%
Cash	0%	0%	0.00%	0.00%	0.00%	(0.00%)	(0.00%)
Total			11.59%	12.00%	+ 0.86%	+ (1.27%)	(0.41%)

Investment Manager Returns for Periods Ended December 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 15 Years
Domestic Equities	11.72%	23.54%	8.87%	15.14%	13.00%	11.06%	14.17%
Russell 3000 Index	12.07%	25.96%	8.54%	15.16%	12.81%	11.48%	13.84%
Large Cap Equities							
Vanguard S&P 500 Index	11.69%	26.27%	9.98%	15.67%	13.39%	-	-
S&P 500 Index	11.69%	26.29%	10.00%	15.69%	13.42%	-	-
Mid Cap Equities							
Fidelity Low Priced Stock	10.81%	14.35%	10.28%	13.00%	10.29%	8.74%	12.90%
Russell MidCap Value Idx	12.11%	12.71%	8.36%	11.16%	7.76%	8.26%	12.40%
Janus Enterprise (1)	9.31%	18.10%	5.27%	13.72%	13.25%	12.00%	15.32%
Russell MidCap Growth Idx	14.55%	25.87%	1.31%	13.81%	12.49%	10.57%	14.68%
Small Cap Equities							
Prudential Small Cap Value (2)	15.93%	17.07%	13.84%	11.26%	5.69%	-	-
MSCI US Small Cap Value Idx	15.74%	15.75%	10.96%	11.26%	7.14%	-	-
Russell 2000 Value Index	15.26%	14.65%	7.94%	10.00%	6.10%	-	-
AB US Small Growth (3)	10.51%	18.27%	(7.42%)	10.75%	12.19%	8.90%	15.24%
Russell 2000 Growth Index	12.75%	18.66%	(3.50%)	9.22%	8.08%	7.16%	12.07%

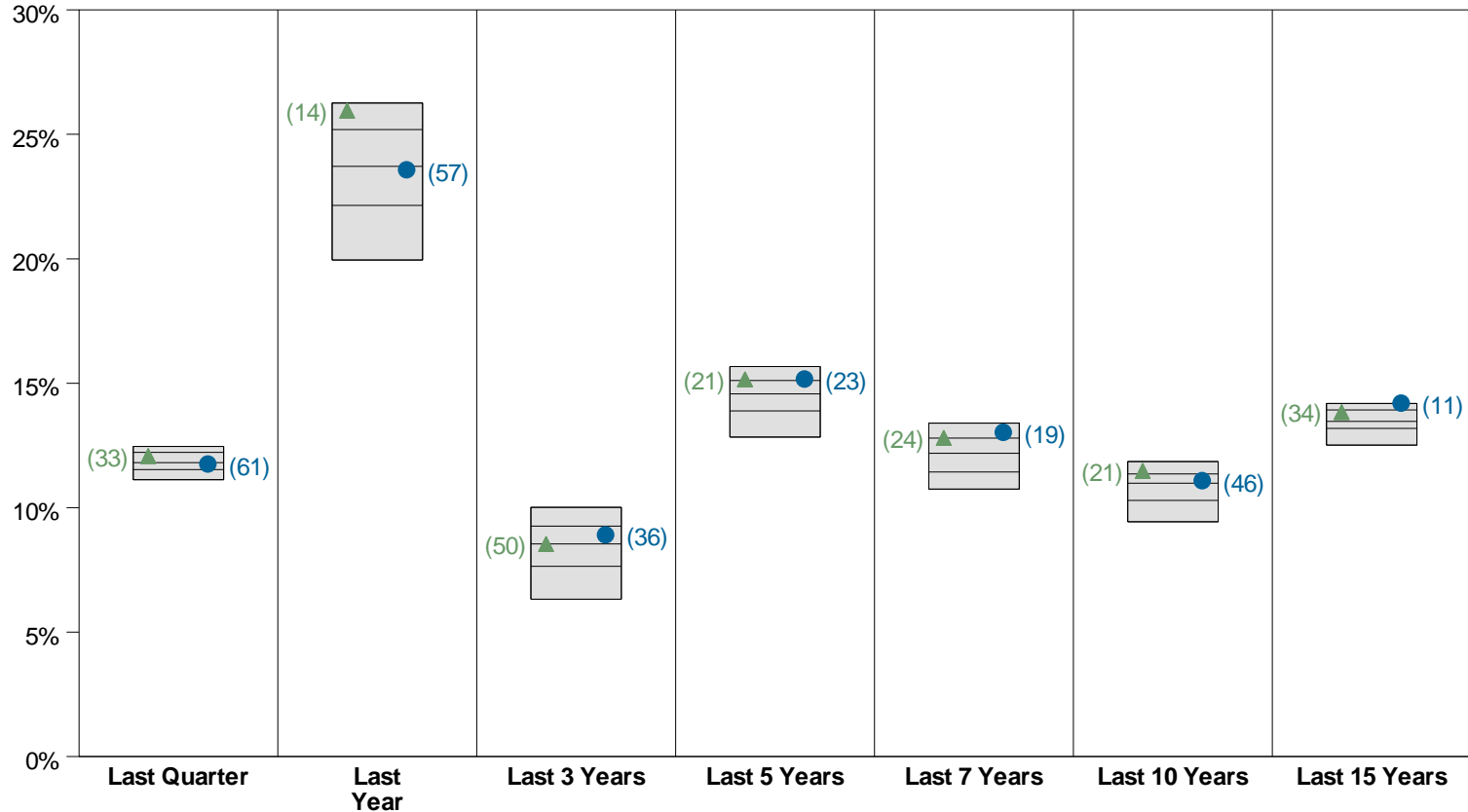
Investment Manager Returns for Periods Ended December 31, 2023 (continued)

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 15 Years
International Equities	9.69%	16.42%	0.29%	7.51%	6.16%	3.46%	7.32%
MSCI ACWI ex-US Index	9.82%	16.21%	2.04%	7.60%	6.84%	4.32%	6.45%
EuroPacific	10.37%	16.05%	(2.66%)	8.04%	7.35%	4.90%	7.82%
Harbor International (1)	9.68%	16.23%	3.20%	8.43%	6.10%	3.12%	6.71%
Oakmark International (2)	8.58%	18.34%	2.76%	7.61%	5.34%	3.53%	9.10%
Mondrian International	9.15%	19.39%	3.56%	5.72%	5.03%	3.06%	-
MSCI EAFE Index	10.42%	18.24%	4.02%	8.16%	6.91%	4.28%	6.93%
MSCI ACWI ex-US Index	9.82%	16.21%	2.04%	7.60%	6.84%	4.32%	7.24%
T. Rowe Price Intl Small Cap	11.66%	14.46%	(4.41%)	8.82%	-	-	-
MSCI ACWI ex US Small Cap	10.12%	15.66%	1.49%	7.89%	6.70%	-	-
NinetyOne	8.42%	9.90%	(5.36%)	3.59%	-	-	-
MSCI Emerging Markets Index	7.86%	9.83%	(5.08%)	3.69%	4.98%	-	-
Domestic Fixed Income	7.13%	7.01%	(2.46%)	2.02%	2.07%	2.37%	3.76%
Blmbg Aggregate Index	6.82%	5.53%	(3.31%)	1.10%	1.29%	1.81%	2.68%
Dodge & Cox Income	7.32%	7.69%	(1.66%)	2.70%	2.50%	2.79%	4.29%
PIMCO	6.93%	6.30%	(3.26%)	1.31%	1.62%	1.93%	-
Blmbg Aggregate Index	6.82%	5.53%	(3.31%)	1.10%	1.29%	1.81%	2.68%
Infrastructure	3.02%	9.87%	-	-	-	-	-
IFM Global Infrastructure	2.62%	8.71%	-	-	-	-	-
JP Morgan Infrastructure	3.42%	11.04%	-	-	-	-	-
NFI-ODCE Equal Weight Net	(5.37%)	(13.33%)	4.35%	3.78%	4.72%	-	-
Real Estate	(8.42%)	(18.37%)	1.50%	2.27%	3.57%	5.80%	6.45%
Real Estate Custom Benchmark (3)(4)	(5.37%)	(13.33%)	4.35%	3.78%	4.72%	6.75%	7.93%
RREEF Private	(6.16%)	(15.41%)	4.10%	3.92%	4.77%	6.83%	5.80%
Barings Core Property Fund	(11.24%)	(21.51%)	(1.54%)	0.17%	1.93%	4.31%	-
NFI-ODCE Equal Weight Net	(5.37%)	(13.33%)	4.35%	3.78%	4.72%	6.65%	5.20%
625 Kings Court	0.00%	(20.68%)	6.41%	8.77%	10.90%	10.83%	8.82%
Total Fund	7.16%	11.59%	3.67%	9.21%	8.05%	6.75%	9.00%
Total Fund Benchmark*	7.44%	12.00%	3.96%	9.13%	8.09%	7.12%	8.81%

MCERA Domestic Equity Composite Performance

For Periods Ended December 31, 2023

Performance vs Public Fund - Domestic Equity (Net)



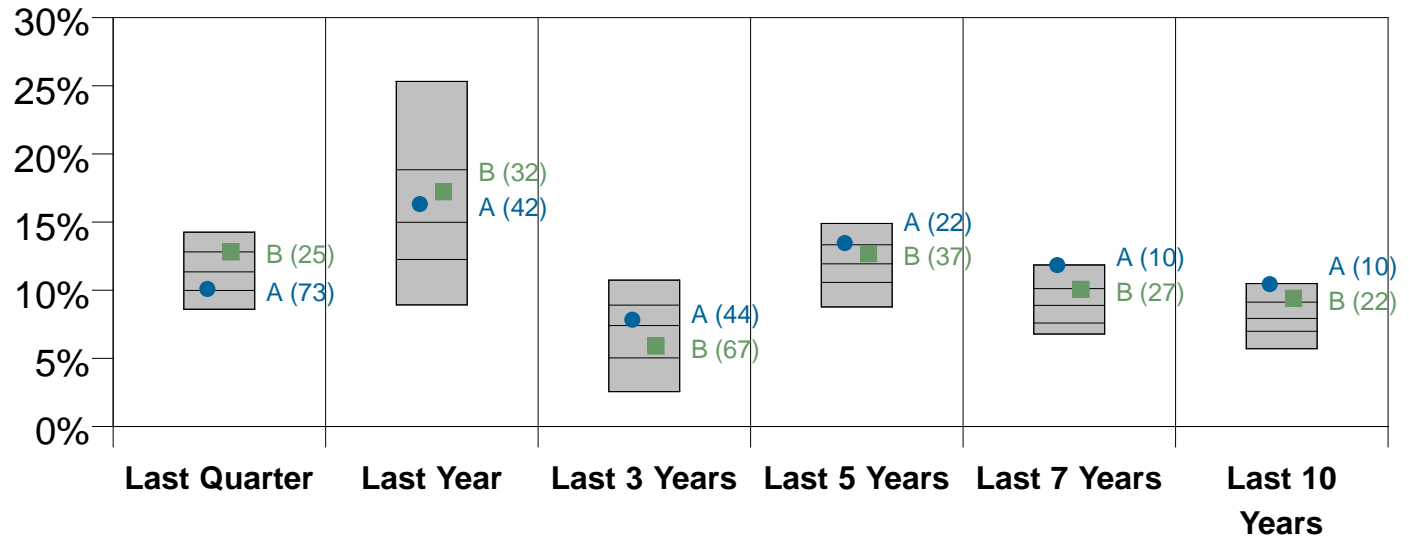
10th Percentile	12.46	26.26	10.01	15.67	13.40	11.85	14.19
25th Percentile	12.22	25.19	9.26	15.11	12.79	11.36	13.93
Median	11.81	23.72	8.54	14.57	12.19	10.98	13.47
75th Percentile	11.53	22.14	7.65	13.89	11.43	10.30	13.19
90th Percentile	11.12	19.95	6.32	12.84	10.75	9.43	12.52

Domestic Equity Composite	●	11.72	23.54	8.87	15.14	13.00	11.06	14.17
Russell 3000 Index	▲	12.07	25.96	8.54	15.16	12.81	11.48	13.84

MCERA Domestic Mid Cap Equity Composite Performance

For Periods Ended December 31, 2023

Performance vs Callan Mid Cap Mutual Funds (Net)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	14.27	25.33	10.76	14.90	11.85	10.49
25th Percentile	12.82	18.85	8.92	13.34	10.13	9.13
Median	11.35	15.00	7.41	11.95	8.90	7.93
75th Percentile	9.99	12.27	5.03	10.57	7.60	7.00
90th Percentile	8.61	8.93	2.58	8.78	6.79	5.71

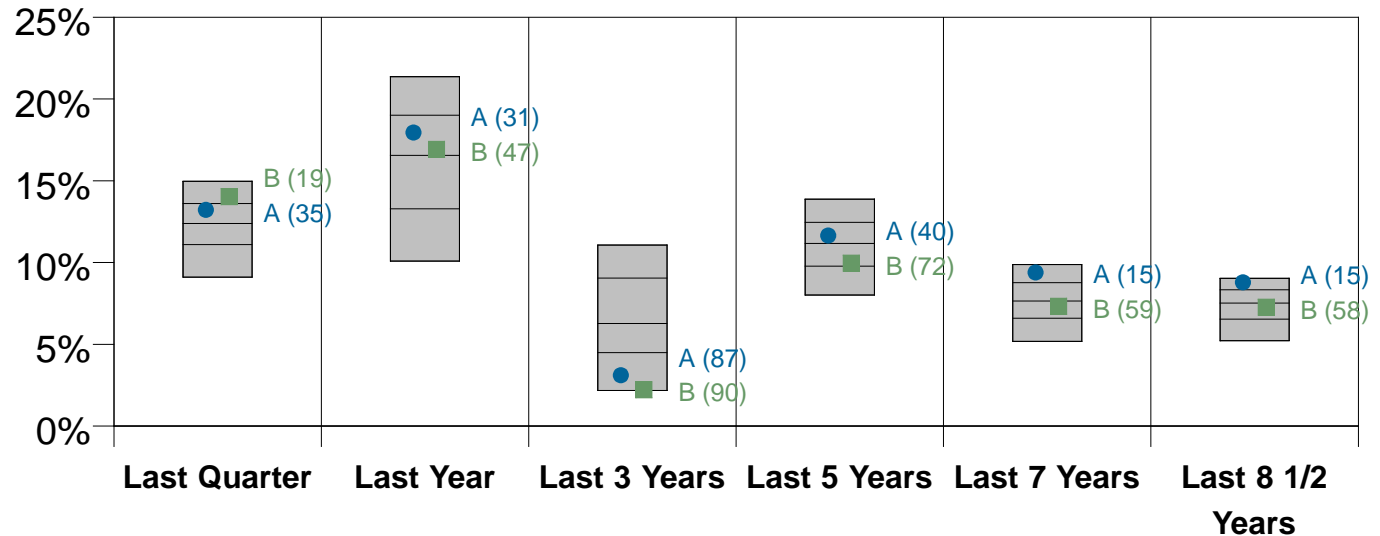
Mid Cap Equity Composite	● A	10.10	16.32	7.84	13.45	11.84	10.44
Russell:Midcap Index	■ B	12.82	17.23	5.92	12.68	10.07	9.42

MCERA Mid Cap Equity portfolio leads the Russell Midcap Index in the intermediate- and long-term. The Portfolio is above peer median for trailing 1-, 3-, 5-, 7- and 10-year periods.

MCERA Domestic Small Cap Equity Composite Performance

For Periods Ended December 31, 2023

Performance vs Callan Small Cap Mutual Funds (Net)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 8 1/2 Years
10th Percentile	14.98	21.37	11.08	13.88	9.88	9.05
25th Percentile	13.61	19.02	9.06	12.46	8.78	8.34
Median	12.40	16.56	6.27	11.18	7.65	7.52
75th Percentile	11.11	13.30	4.49	9.79	6.60	6.54
90th Percentile	9.11	10.09	2.18	8.02	5.19	5.23

Small Cap Equity Composite	● A	13.22	17.95	3.11	11.66	9.39	8.78
Russell:2000 Index	■ B	14.03	16.93	2.22	9.97	7.33	7.27

MCERA Small Cap Equity portfolio leads the Russell 2000 Index in the intermediate- and long-term. The Portfolio is above peer median for last quarter, and trailing 1-, 5-, 7-, and 8.5-year periods.

Summary and Conclusions from the Domestic Equity Structure Evaluation

At the August meeting, the MCERA Board reviewed a Domestic Equity structure study for the MCERA portfolio. The study examined the merits and characteristics of the existing structure and discussed potential alternatives. Key conclusions from that study were as follows:

The overall structure remains sound and has performed well.

- *Simple five manager structure*
- *Limited overlap between managers*
- *Passively implemented large cap equity*
- *Active management in small and mid cap*
- *Balanced allocations to growth and value*
- *Strategic overweight to small cap equity*
- *Strong performance relative to stated benchmarks*

Callan remains comfortable with the existing domestic equity structure.

At the October meeting, Callan presented an in-depth review of the existing domestic equity managers to the MCERA Board and continued discussion of “Alternative Structure 2”:

- *Alternative Structure 2: Replace existing small and mid cap managers (4) with smid cap managers (2-3) and increase the allocation to the S&P 500 Index.*

Status Update of SMID Cap Equity Manager Searches

Per the direction of the Board, Callan conducted three simultaneous manager searches for SMID Cap Core, SMID Cap Value, and SMID Cap Growth Equity.

We identified the following semi-finalists in each style category.

SMID Cap Core:

- AllianceBernstein
- BlackRock
- Boston Trust
- EARNEST
- Jennison
- T. Rowe Price
- Wellington

SMID Cap Growth:

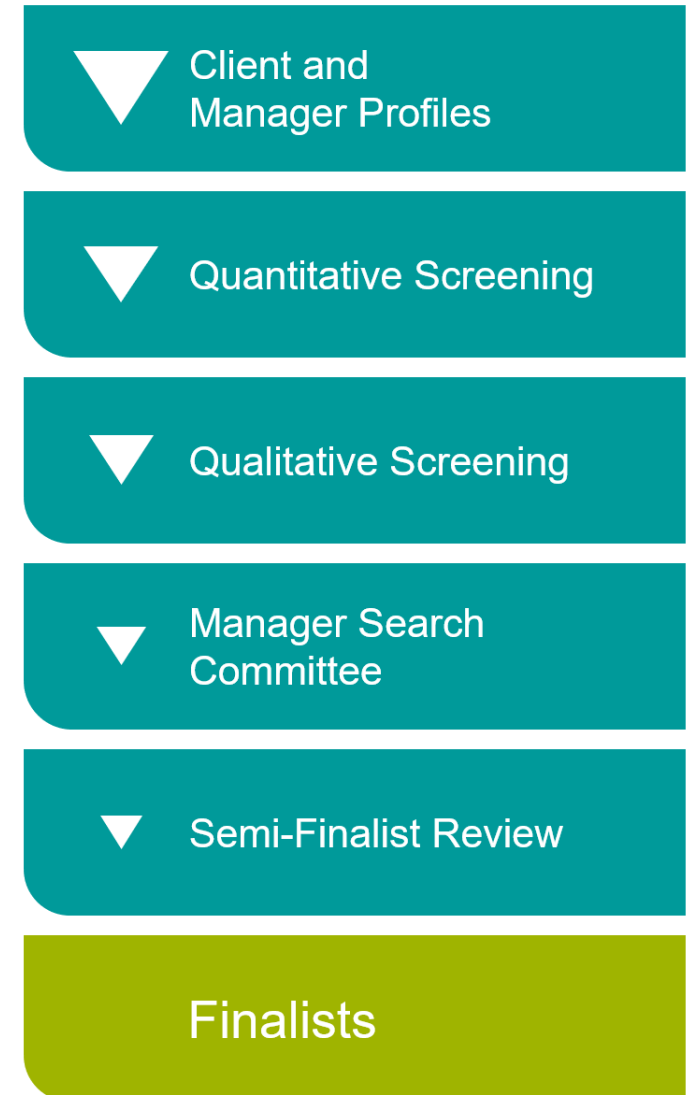
- AllianceBernstein
- Baird Equity Asset Management
- Riverbridge Partners
- William Blair & Company

SMID Cap Value:

- Boston Partners
- Dimensional Fund Advisors
- Thompson, Seigel & Walmsley (TSW)
- Victory Capital Management



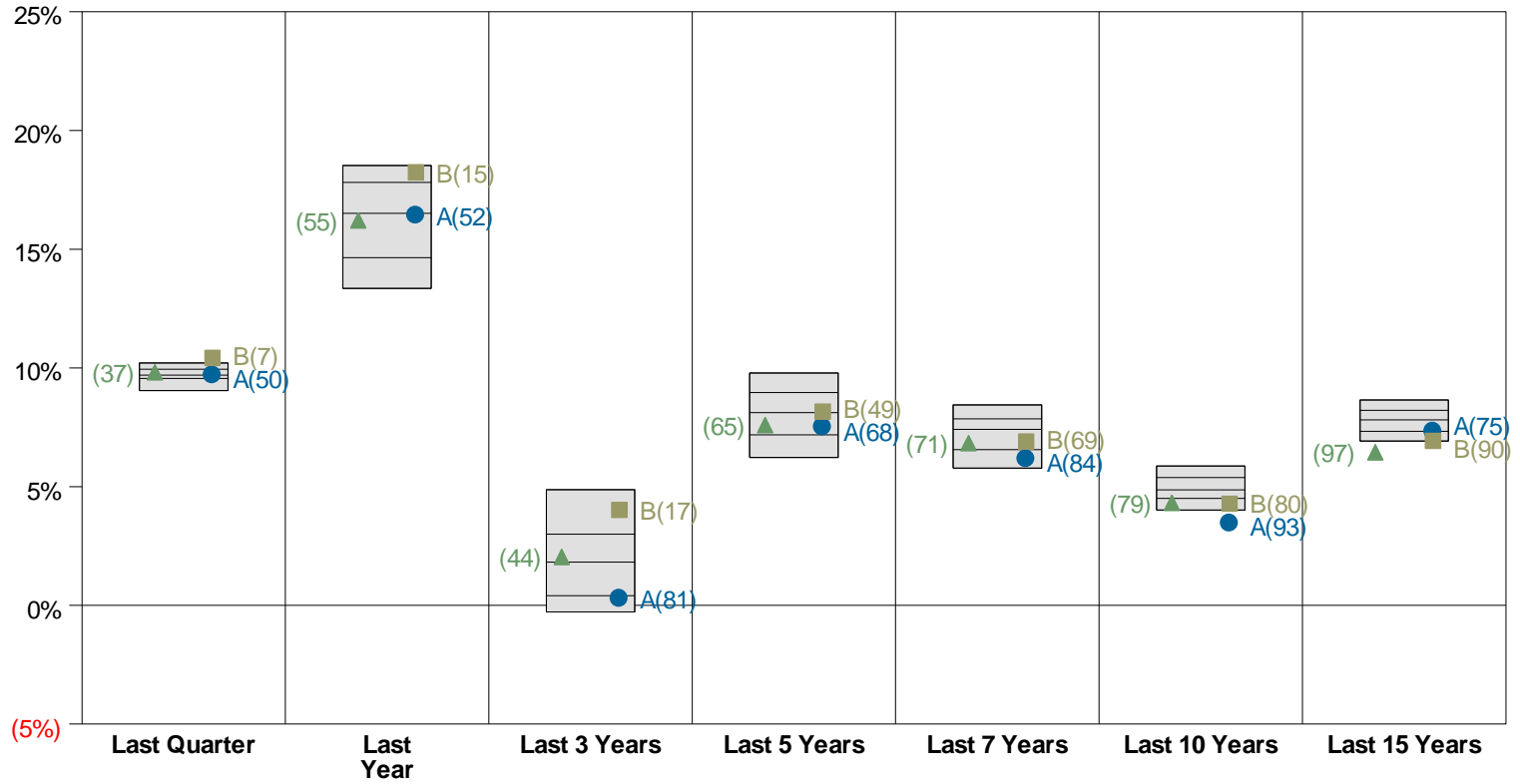
Manager Search Process



MCERA International Equity Composite Performance

For Periods Ended December 31, 2023

Performance vs Public Fund - International Equity (Net)

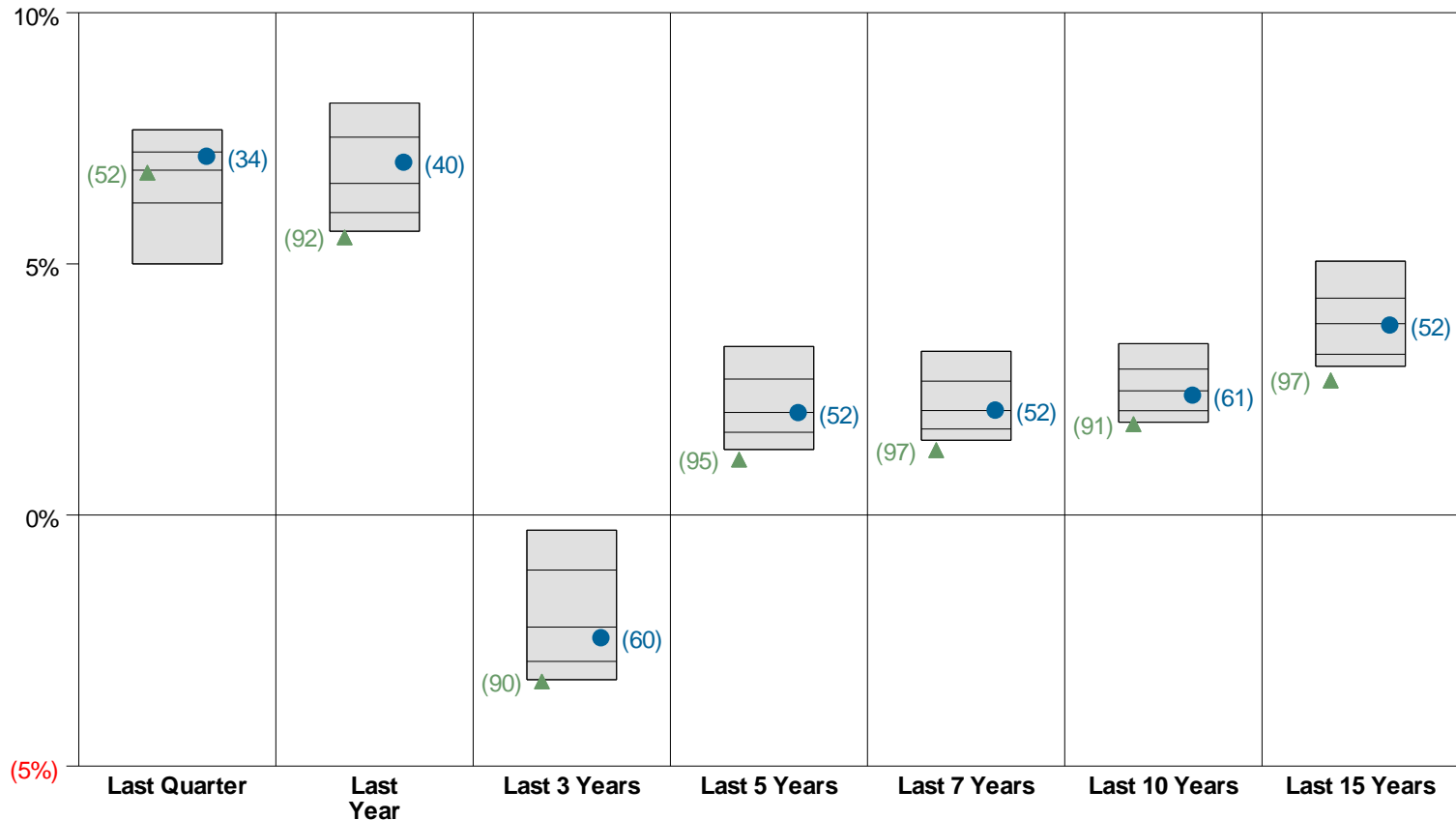


10th Percentile		10.21	18.53	4.87	9.79	8.44	5.87	8.65
25th Percentile		9.95	17.82	3.00	8.96	7.86	5.38	8.21
Median		9.70	16.51	1.82	8.11	7.41	4.87	7.81
75th Percentile		9.55	14.64	0.41	7.18	6.56	4.50	7.33
90th Percentile		9.05	13.35	(0.28)	6.23	5.78	4.01	6.92
International Equity Composite	● A	9.69	16.42	0.29	7.51	6.16	3.46	7.32
MSCI EAFE Index	■ B	10.42	18.24	4.02	8.16	6.91	4.28	6.93
MSCI ACWI ex-US Index	▲	9.82	16.21	2.04	7.60	6.84	4.32	6.45

MCERA Fixed Income Composite Performance

For Periods Ended December 31, 2023

Performance vs Public Fund - Domestic Fixed (Net)



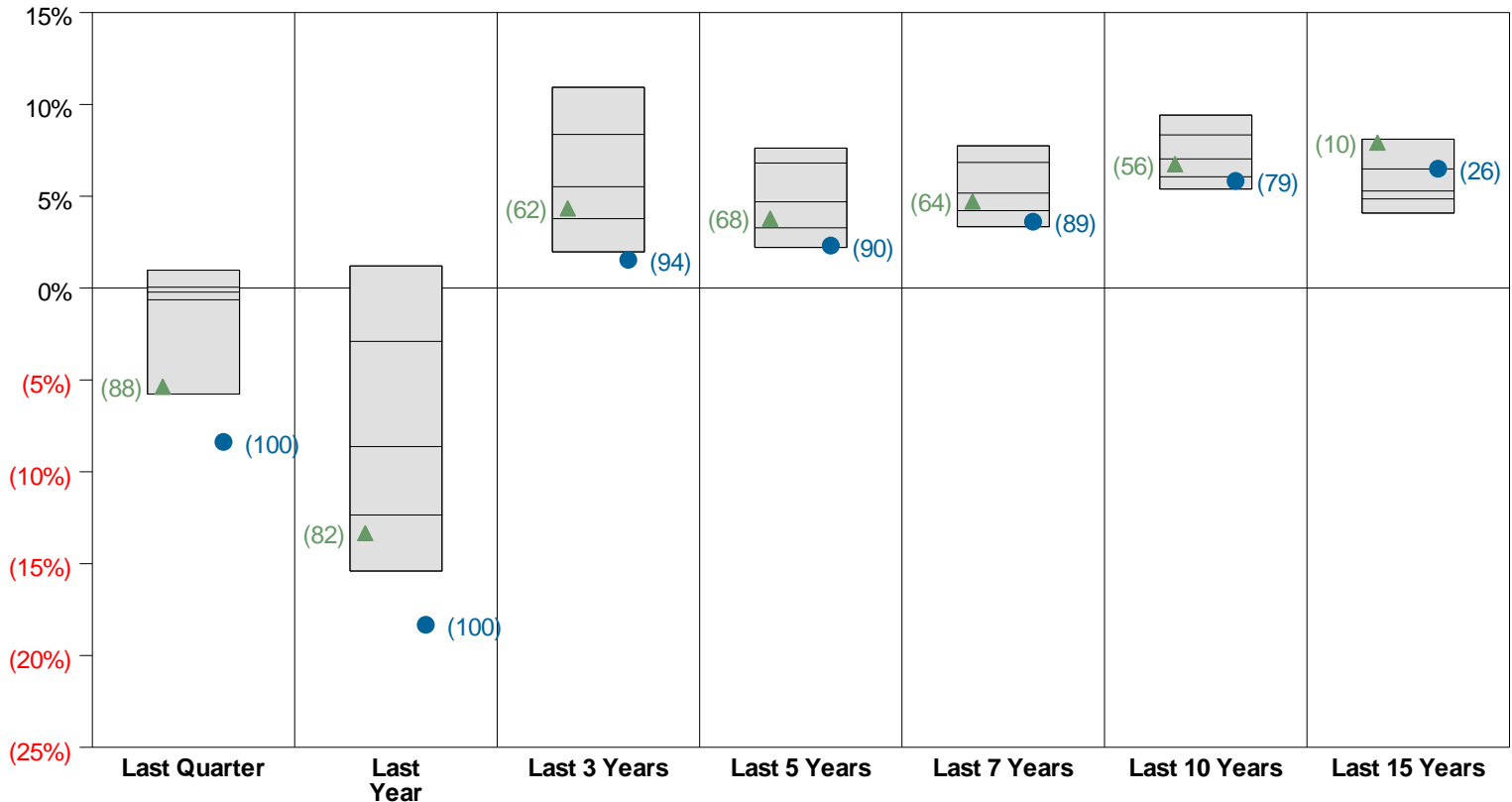
10th Percentile	7.67	8.20	(0.30)	3.36	3.26	3.41	5.05
25th Percentile	7.23	7.52	(1.10)	2.71	2.66	2.91	4.32
Median	6.87	6.60	(2.23)	2.04	2.08	2.47	3.81
75th Percentile	6.21	6.02	(2.91)	1.65	1.71	2.08	3.20
90th Percentile	5.00	5.65	(3.28)	1.30	1.49	1.85	2.96

Domestic Fixed Income Composite	●	7.13	7.01	(2.46)	2.02	2.07	2.37	3.76
Blmbg:Aggregate	▲	6.82	5.53	(3.31)	1.10	1.29	1.81	2.68

MCERA Real Estate Composite Performance

For Periods Ended December 31, 2023

Performance vs Callan Open End Core Cmmingled Real Est (Net)



10th Percentile	0.98	1.21	10.93	7.62	7.74	9.42	8.10
25th Percentile	0.05	(2.89)	8.37	6.81	6.84	8.34	6.49
Median	(0.22)	(8.63)	5.52	4.70	5.17	7.03	5.29
75th Percentile	(0.63)	(12.35)	3.79	3.29	4.22	6.06	4.86
90th Percentile	(5.76)	(15.40)	1.97	2.21	3.34	5.40	4.08
Real Estate Composite	● (8.42)	(18.37)	1.50	2.27	3.57	5.80	6.45
Real Estate Custom Benchmark	▲ (5.37)	(13.33)	4.35	3.78	4.72	6.75	7.93

Manager Monitoring Summary

December 31, 2023

	Philosophy/			Performance
	Overall	Process	Org/Team	
Domestic Equity				
Vanguard S&P 500 Index	Green	Green	Green	Green
Fidelity Low Priced Stock	Yellow	Green	Yellow	Green
Janus Enterprise	Green	Green	Green	Green
Prudential Small Cap Value	Yellow	Green	Yellow	Yellow
AB US Small Growth	Green	Green	Yellow	Green
Non-US Equity				
EuroPacific Growth	Green	Green	Green	Green
Harbor International	Green	Green	Green	Yellow
Oakmark International	Green	Green	Green	Green
Mondrian International	Green	Green	Green	Yellow
T. Rowe Price Intl Small Cap	Green	Green	Green	Green
NinetyOne	Green	Green	Green	Green
Fixed Income				
Dodge & Cox Income	Green	Green	Green	Green
PIMCO	Green	Green	Green	Green
Infrastructure				
IFM Global Infrastructure	Green	Green	Green	Green
JP Morgan Infrastructure	Green	Green	Green	Green
Real Estate				
RREEF America II	Green	Green	Green	Green
Barings Core Property Fund	Yellow	Green	Green	Yellow

- **Fidelity Low Priced Stock:** Notable transition in portfolio manager duties from Joel Tillinghast to new PM's Sam Chamovitz and Morgen Peck by year-end 2023.
- **Prudential QMA Small Cap Value:** The deep value orientation of this strategy came back into favor in 2021 and it has outpaced the Russell 2000 Value Index in 2022 and 2023. Callan continues to monitor the organization and team following turnover in 2021.
- **AllianceBernstein Small Cap Growth:** Bruce Aronow, Co-Chief Investment Officer (CIO) for the US Small and SMID Cap Growth Equities strategies, retired at the end of 2023. Samantha Lau, previous co-CIO for the US Small and SMID Cap Growth Equities strategies, became the sole CIO.
- **Harbor International (Marathon):** The Fund's process and style are extremely flexible which can lead to significant deviations from the benchmark and result in extended periods of under and out performance.
- **Mondrian:** Strategy provides downside protection but has experienced longer term performance struggles during strong up market.
- **Dodge & Cox Income:** Tom Dugan, Director of Fixed Income, retired at the end 2023 and is succeeded by Lucy Johns, previously Associate Director of Fixed Income.
- **PIMCO:** Lead PM Scott Mather announced leave of absence in 2022, which culminated in his retirement. Qi Wang and Dan Ivascyn were subsequently added to the team.
- **Barings:** Underperformance driven largely by write downs on four office assets in the portfolio.

Callan

Callan Update

Published Research Highlights from 4Q23

**2023 Nuclear
Decommissioning Funding
Study**



**2023 Investment
Management Fee Study**



**2023 Asset Manager ESG
Study**



**Callan's Retirement
Conundrum Webinar**



Recent Blog Posts

**ILS on Pace for
Banner Year in
2023**

Sean Lee

**Carbon-
Footprinting
Basics for
Institutional
Investors**

Amit Bansal

**Key Issues to
Know for the
Proposed
Fiduciary Rule**

Jana Steele

Additional Reading

Alternatives Focus quarterly newsletter

Active vs. Passive quarterly charts

Capital Markets Review quarterly newsletter

Monthly Updates to the Periodic Table

Market Pulse Flipbook quarterly markets update

Real Estate Indicators market outlook

Callan Institute Events

Upcoming conferences, workshops, and webinars

Callan College

Intro to Investments—Learn the Fundamentals

This course is for institutional investors, including trustees and staff members of public plans, corporate plans, and nonprofits. This session familiarizes trustees and staff with basic investment theory, terminology, and practices.

- March 19-21, 2024 – Virtual Session via Zoom
- June 18-19, 2024 – In Person Session in Chicago

Intro to Alternatives

This course is for institutional investors, including trustees and staff members of public plans, corporate plans, and nonprofits. This session familiarizes trustees and staff with alternative investments like private equity, hedge funds, and real estate and how they can play a key role in any portfolio. You will learn about the importance of allocations to alternatives and how to consider integrating, evaluating, and monitoring them.

- February 21–22, 2024 – Virtual Session via Zoom

Please visit our website at callan.com/events-education as we add dates to our 2024 calendar!

Mark Your Calendar

2024 National Conference

April 8–10, 2024 – San Francisco

2024 Regional Workshops

June 25, 2024 – Atlanta

June 27, 2024 – San Francisco

October 22, 2024 – Denver

October 24, 2024 – Location TBD

Watch your email for further details and an invitation.

Webinars & Research Café Sessions

Webinar: Capital Markets Assumptions

January 17, 2024 – Virtual Session via Zoom

Webinar: Market Intelligence

January 19, 2024 – Virtual Session via Zoom

Research Café: ESG Interview Series

March 12, 2024 – Virtual Session via Zoom

2024 National Conference

April 8–10, 2024 | San Francisco, California

Speakers

Ian Bremmer

President and Founder of Eurasia Group and
GZERO Media

Cassie Kozyrkov

CEO at Data Scientific, Founder of Decision
Intelligence, AI Strategist

Mark Zandi

Chief Economist of Moody's Analytics,
Cofounder of Economy.com

Tim Urban

Blog Creator, Wait, But Why

Workshops

Callan's *2024 DC Trends Survey* Results
The Value of Risk Assets Portfolio Diversification
Callan's Fee Study Workshop
Market Intel Live!



Callan Updates

Firm updates by the numbers, as of 12/31/23

Total Associates: ~200

Ownership

- ▶ 100% employees
- ▶ ~70% of employees are equity owners
- ▶ ~55% of shareholders identify as women or minority

Total General and Investment Consultants: more than 55

Total Specialty and Research Consultants: more than 50

Total CFA/CAIA/FRMs: more than 55

Total Institutional Investor Clients: more than 475

Assets Under Advisement: more than \$4 trillion

Atlanta Office Move

- ▶ In December, Callan's Atlanta office moved just a few miles from its previous location.

Milestones

- ▶ Our Alternatives Consulting Group completed a 5-year strategic growth plan, and now has 26 research specialists.

“[The investment consulting business] has become extremely complex... front-line consultants have to possess a greater deal of broad-based knowledge than ever before... it also means that we have more consultants and analysts with specialized areas of expertise to back them up.”

— Ron Peyton, Executive Chairman, when asked what's changed since 1974, in *Pensions & Investments* 50th Anniversary Special Edition article, **“Minimizing risk over chasing returns: Insights from consulting veteran Ronald Peyton.”**



Diversity, Equity & Belonging (DEB)

Building a diverse workforce, pursuing equitable outcomes, and creating a sense of belonging

Five-Year Strategic Plan: Key Areas



DEB Leadership:

Greg Allen, Executive Sponsor and Lauren Mathias, Champion

DEB Council:

Annie Boschetti, Citlali Cuevas, Laura Dawson, Mike Joecken, Lindsay Jones, Paola Juarez, Erik Partida, Juan Pablo Piz, Avery Robinson, Jeff Salyer, Álvaro Vega, Nicole Wubbena

Recent client DEB projects: Investment manager Callan DEI Score trends, investment manager team and employee demographics review versus peers, diverse-owned manager searches, incorporating diversity in an IPS, and review of DEI in DC plans

Accomplishments

- ▶ Inclusive culture education for all
- ▶ Engagement surveys
- ▶ Inclusive interviewing and resume review guides
- ▶ Equitable policies for promotion and partnership
- ▶ Enhanced pay equity and supplier diversity policies
- ▶ Pronoun education
- ▶ DEB Awareness Calendar
- ▶ Buddy Program for onboarding new Callanites
- ▶ CallanLearns professional development platform



Near-Term Future Plans

- ▶ Employee resource groups (ERGs)
- ▶ Mentorship program
- ▶ DEB progress report



Important Disclosures

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