



Board of Retirement Regular Meeting

Sacramento County Employees' Retirement System

Agenda Item 20

MEETING DATE: February 21, 2024

SUBJECT: Total Fund Investment Performance Review Report—Fourth Quarter 2023

SUBMITTED FOR: Consent Deliberation and Action Receive and File

RECOMMENDATION

Receive and file the SCERS Total Fund Investment Performance Review Report, prepared by Verus Advisory, for the quarter ended December 31, 2023.

PURPOSE

This agenda item complies with SCERS' investment policy statement reporting requirements and contributes to the effective management and oversight of investment activities.

SCERS TOTAL FUND RETURNS

This item summarizes SCERS' Total Fund investment returns as presented in Verus' Investment Performance Review for the period ending December 31, 2023. Please note that returns for SCERS' private equity, private credit, non-core real estate, and real assets portfolios are lagged one quarter.

SCERS TOTAL FUND PERFORMANCE SUMMARY
Quarter Reporting Periods Ending December 31, 2023

SCERS ASSET CLASS	Quarter	Fiscal YTD	1-Year	3-Year	5-Year	Since Inception	Since Inception Date
SCERS TOTAL FUND Return w/Overlay	5.8%	3.8%	10.5%	5.6%	9.3%	8.3%	Jun-86
Policy Index	5.8%	4.2%	10.9%	5.2%	8.1%	8.3%	
InvestorForce Public DB > \$1B	7.0%	4.8%	11.6%	4.6%	8.4%	-	
SCERS TOTAL FUND Return w/o Overlay	5.5%	3.9%	10.4%	5.9%	9.1%	8.2%	Jun-86
Policy Index	5.8%	4.2%	10.9%	5.2%	8.1%	8.3%	
GROWTH ASSET CATEGORY	7.8%	5.7%	16.1%	7.2%	12.3%	10.8%	Mar-17
Custom Benchmark	8.2%	6.4%	17.6%	7.2%	11.4%	9.8%	
DIVERSIFYING ASSET CATEGORY	4.6%	3.0%	5.8%	-0.8%	2.6%	2.3%	Mar-17
Custom Benchmark	4.9%	3.2%	5.3%	-1.4%	2.1%	2.0%	
REAL RETURN ASSET CATEGORY	-0.3%	-1.2%	-1.4%	9.1%	6.9%	8.0%	Mar-17
Custom Benchmark	-1.2%	-2.0%	-2.9%	8.8%	5.8%	6.1%	

SCERS' Total Fund return was up 5.8% for the quarter, gross of fees, in line with the Policy Index return of 5.8% and underperforming the median public fund return of 7.0%. For the year ending December 31, 2023, SCERS' portfolio was up 10.5% compared to the Policy Index return of 10.9% and the median public fund return of 11.6%. Over the 3- and 5-Year periods, SCERS' Total Fund performance is 5.6% and 9.3%, respectively, outperforming the Policy Index and median public fund benchmarks.

The fourth quarter of 2023 delivered strong positive results, led by public equity, which was up nearly 11% in the quarter. Fixed income markets also had a strong quarter, with SCERS' Fixed Income portfolio up over 7%, which signaled a reversal from the prior quarter as markets began to anticipate potential interest rate cuts in 2024. Real Return was the notable detractor in the quarter and for the year, as Real Estate has struggled throughout the year as property markets continue to digest the impact of higher interest rates.

During the fourth quarter, markets staged an "almost everything rally"¹ as inflation moved toward the Federal Reserve's 2% target and anticipation over the potential for central banks to begin cutting interest rates early in 2024. Fixed income markets priced in an expected six rate cuts during 2024 to the Fed Funds Rate, which would bring it down to 3.75% - 4.00% from the current rate of 5.25% - 5.50%. The U.S. economy, supported by strong consumer spending and low unemployment, has proved to be resilient in the face of higher interest rates. In the third quarter of 2023, real GDP for the U.S. grew at an annual rate of 4.9%, with early estimates of fourth quarter GDP coming in at positive 3.3%. On a global basis, economic activity is showing mixed results, with inflation in developed markets generally coming down faster than in the U.S., but economies also experiencing weaker growth. Emerging markets economies also show a wide range of dispersion, with China experiencing sluggish growth and other countries facing headwinds from a stronger U.S. dollar and geopolitical instability, while other emerging markets countries have benefited from a shift away from China, most notably India.

SCERS' Growth asset category was the largest contributor to the positive results in the fourth quarter, as SCERS' Global Public Equity was up 10.9% in the quarter. The equity market rally was broad based across Domestic and International markets, and across large cap and small

¹ Cliffwater Public Markets Commentary – December 2023

cap stocks. Fixed income markets also rallied during the quarter, with SCERS' Fixed Income portfolio up 7.1% in the quarter, resulting in positive returns for the year despite posting negative returns through the first three quarters of 2023.

Growth Asset Category

SCERS GROWTH Performance Summary for the periods ending 12/31/23	Quarter	Fiscal YTD	1-Year	Since Inception	Since Inception Date
SCERS GROWTH ASSET CATEGORY	7.8%	5.7%	16.1%	10.8%	Mar-17
Custom Benchmark	8.2%	6.4%	17.6%	9.8%	
Global Public Equity	10.9%	7.0%	22.1%	9.1%	Jun-11
MSCI ACWI IMI	11.3%	7.6%	22.2%	8.3%	
Private Equity (lagged 1 quarter)	0.8%	1.7%	2.8%	7.0%	Feb-08
Cambridge All PE	0.0%	1.4%	4.3%	11.2%	
Public Credit	3.5%	5.7%	11.9%	4.4%	Nov-13
Custom Benchmark	5.0%	7.0%	13.3%	4.5%	
Private Credit (lagged 1 quarter)	2.6%	4.7%	10.4%	7.7%	Mar-17
Credit Suisse Leveraged Loan + 2%	3.9%	7.7%	14.7%	6.7%	

SCERS' Growth asset category was the largest contributor to the positive results in the fourth quarter, as Global Public Equity was up 10.9%. The equity market rally during the quarter was balanced across Domestic and International markets, and across large cap and small cap stocks. SCERS' Domestic Equity portfolio and International Equity portfolios were up 11.5% and 10.1% in the quarter, respectively. While the "Magnificent Seven" stocks still contributed the majority of gains to U.S. equities during the year, the fourth quarter rally was notably more balanced as small cap stocks outperformed large cap stocks during the quarter, up 14% vs 12%², respectively. International equity markets also were up nearly 10% in the quarter³, which together with the U.S. market resulted in the MSCI ACWI IMI benchmark up 11.3% for the quarter. The results in the fourth quarter capped a strong year for equity markets overall, with both SCERS' Global Equity portfolio and the benchmark index returning 22% for the year.

Public Credit and Private Credit also delivered positive results for the fourth quarter and the year, with both asset classes up double digits for the year, despite lagging their respective benchmarks. Private Equity, while positive in the fourth quarter and the year, significantly lagged other growth asset classes as the impact of higher interest rates continues to impact capital market activity and valuations for private companies. There were signs of improving market sentiment during the fourth quarter for Private Equity as public market valuations increased and transaction levels showed signs of improving. Results for Private Equity and Private Credit are lagged by one quarter.

² As measured by Russell 1000 and Russell 2000 indices, for the quarter ended 12/31/23.

³ MSCI ACWI ex-US Index, +9.8% for the quarter ending 12/31/23

Diversifying Asset Category

SCERS DIVERSIFYING Performance Summary for the periods ending 12/31/23	Quarter	Fiscal YTD	1-Year	Since Inception	Since Inception Date
SCERS DIVERSIFYING ASSET CATEGORY	4.6%	3.0%	5.8%	2.3%	Mar-17
Custom Benchmark	4.9%	3.2%	5.3%	2.0%	
Fixed Income	7.1%	3.2%	6.2%	2.4%	Jun-11
Custom Benchmark	6.4%	3.6%	6.0%	-	
Core/Core Plus Fixed Income	7.6%	3.5%	6.9%	2.6%	Jun-11
Bloomberg Barclays U.S. Aggregate TR	6.8%	3.4%	5.5%	2.0%	
U.S. Treasury	5.5%	2.4%	4.2%	1.0%	Feb-18
Bloomberg Barclays US Treasury TR	5.7%	2.4%	4.1%	1.0%	
Diversifying Absolute Return	0.4%	2.8%	4.9%	2.8%	Nov-11
HFRI FoF Conservative Index	1.8%	3.3%	5.3%	4.6%	
Dedicated Cash	1.4%	2.7%	5.2%	1.8%	Jul-19
Secured Overnight Financing Rate (SOFR)	1.4%	2.7%	5.2%	1.9%	

SCERS' Diversifying Asset Category had a strong fourth quarter, led by Fixed Income, which was up 7.1%, erasing year-to-date losses through the first three quarters of the year. Expectations of rate cuts in the U.S. led to a strong rally across fixed income markets in November and December, resulting in the strongest two-month return for the Bloomberg Barclays Global Aggregate Index in the last 30 years⁴. The U.S. 10-year Treasury yield started the quarter at 4.57% and ended the year at 3.88%. SCERS' Fixed Income portfolio outperformed the benchmark during the quarter and year with balanced contributions from all Core/Core Plus active managers. SCERS' U.S. Treasury portfolio, which comprises approximately 25% of the Fixed Income sub-asset class, was up 5.5% during the quarter, benefiting from the decline in interest rates.

Absolute Return and Cash both delivered positive results during the quarter and year-to-date. SCERS' Absolute Return portfolio, focused on diversifying strategies with low correlation to equity and bond markets, had balanced positive contributions from most managers during the quarter, with the exception of SCERS' trend following allocation. SCERS' trend following investment was down approximately 15% during the quarter due to swings in equity and fixed income markets from the third to fourth quarters. For the year, SCERS' Absolute Return portfolio was up 4.9%, slightly below its benchmark. SCERS' Dedicated Cash allocation has continued to benefit from increased short-term interest rates and was up 1.4% and 5.2% for the quarter and trailing 1-year, in line with the benchmark SOFR rate.

⁴ Cliffwater Public Markets Commentary – December 2023

Real Return Asset Category

SCERS REAL RETURN Performance Summary	Quarter	Fiscal YTD	1-Year	Since Inception	Since Inception Date
SCERS REAL RETURN ASSET CATEGORY					
SCERS Real Return w/ SSgA Proxy	-0.3%	-1.2%	-1.4%	8.0%	Mar-17
Custom Benchmark	-1.2%	-2.0%	-2.9%	6.1%	Mar-17
SCERS Real Estate	-2.0%	-5.2%	-9.1%	9.4%	Jun-11
Custom Benchmark	-3.6%	-5.8%	-11.4%	8.1%	
Core Real Estate (as of 12/31/23)					
Commingled Funds	-1.9%	-4.1%	-10.8%	5.6%	Sep-08
NFI-ODCE	-4.8%	-6.6%	-12.0%	5.2%	Sep-08
Non-Core Real Estate (as of 9/30/23)					
Opportunistic	-2.8%	-11.9%	-9.0%	12.7%	Feb-14
Value Add	-1.4%	-2.6%	3.9%	0.8%	Sep-08
NFI-ODCE net +1%	-4.0%	-6.1%	-11.9%	8.1%	Feb-14
				7.0%	Sep-08
SCERS Real Assets (as of 9/30/23)	1.0%	2.5%	5.7%	6.9%	Jan-13
Custom Benchmark	0.0%	1.3%	6.6%	7.1%	
SCERS Liquid Real Return (as of 12/31/23)	4.2%	2.5%	5.9%	4.3%	Jun-19
SSgA Real Assets	6.0%	3.7%	4.2%	4.0%	

SCERS' Real Return asset category delivered slightly negative returns for the quarter and year ending 12/31/23, declining -0.3% and -1.4%, respectively. The Real Return asset category outperformed the benchmark for the quarter and year. SCERS' Real Estate portfolio declined -2.0% during the quarter and -9.1% for the year, outperforming the benchmark returns of -3.6% and -11.4%, respectively. SCERS' Real Assets portfolio, where returns are lagged one quarter, contributed positively to returns during the quarter, up 1.0% and above benchmark performance. SCERS' Liquid Real Return portfolio was up 4.2% during the quarter, despite declines in energy prices and commodity indices. SCERS' Real Assets and Liquid Real Return have been positive contributors over the past year, up 5.7% and 5.9%, respectively.

SCERS' Real Estate portfolio has been the largest detractor from the Real Return asset category, as real estate markets continue to digest interest rates at multi-decade highs and depressed transaction levels. Real estate is also challenged by debt refinancing tied to property where market values have declined and at elevated interest rates from existing debt. SCERS' Core Real Estate portfolio and Opportunistic Non-Core Real Estate were down -10.8% and -9.0%, respectively, for the trailing 1-year, while Value-Add Non-Core Real Estate was a bright spot, up +3.9%.

SCERS' policy index benchmark includes a blended weighted average of the individual asset class benchmarks, as defined within SCERS' Master IPS, and as shown below. No changes to the policy index benchmark were made during the quarter.

SCERS BENCHMARK SUMMARY As of December 31, 2023	
Asset Class	Policy Index Benchmark
Growth Asset Category	Blended Weighted Average of Asset Class Benchmarks
Global Equity	MSCI ACWI IMI
Private Equity	Cambridge Associates PE/VC Index
Public Credit	50% (BofA High Yield) + 50% (CS High Yield)
Private Credit	CS Leveraged Loan + 2%
Diversifying Asset Category	Blended Weighted Average of Asset Class Benchmarks
Fixed Income	75% Bloomberg Barclays Aggregate Index/25% Bloomberg U.S. Treasury Index
Diversifying Absolute Return	HFRI FoF Conservative Index
Cash	Overnight LIBOR/SOFR
Real Return Asset Category	Blended Weighted Average of Asset Class Benchmarks
Real Estate	60% (NFI-ODCE) + 40% (NFI-ODCE) +1% 60% (Cambridge Associates Private Infrastructure Index) + 30% (Cambridge Associates Private Energy Index) + 10% (NCREIF Farmland Index)
Real Assets	SSGA Real Return Overlay Proxy *
Liquid Real Return	

*SSGA Real Return Overlay Policy: 15% FTSE EPRA/NAREIT Developed Liquid Index, 25% S&P Global Infrastructure Index, 10% S&P Global Large Mid Cap Commodity and Resources Index, 10% Bloomberg Roll select Commodity Index, 30% Bloomberg Barclays 1-10 year U.S. TIPS Index, and 10% Bloomberg Barclays U.S. Dollar Floating Rate <5 Year Index.

ATTACHMENTS

- Board Order
- Verus' Investment Performance Review for SCERS for the period ending December 31, 2023

Prepared by:

/s/

Brian Miller
Senior Investment Officer

Reviewed by:

/s/

Eric Stern
Chief Executive Officer

/s/

Steve Davis
Chief Investment Officer



Retirement Board Order

Sacramento County Employees' Retirement System

Before the Board of Retirement
February 21, 2024

AGENDA ITEM:

Total Fund Investment Performance Report—Fourth Quarter 2023

THE BOARD OF RETIREMENT hereby approves Staff's recommendation to receive and file the SCERS Total Investment Performance Review report, prepared by Verus Advisory, for the quarter ended December 31, 2023.

I HEREBY CERTIFY that the above order was passed and adopted on February 21, 2024 by the following vote of the Board of Retirement, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

ALTERNATES:

(Present but not voting)

James Diepenbrock
Board President

Eric Stern
Chief Executive Officer and
Board Secretary



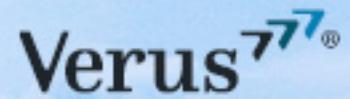
**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

A large, abstract graphic in the upper left corner features a triangular shape filled with a pattern of smaller triangles in shades of blue and teal.

PERIOD ENDING: DECEMBER 31, 2023

Investment Performance Review for

Sacramento County Employees' Retirement System

An abstract graphic overlay consisting of a large, semi-transparent blue triangle containing a white triangle pointing downwards, all set against a background of a golden-yellow hexagonal grid.

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

1ST QUARTER 2024
Investment Landscape

Verus business update

Since our last Investment Landscape webinar:

- Verus hired Adam Babson, *Director of Portfolio Management* (Seattle)
- JC Faubion, CFA, *Senior Consulting Associate*, obtained the CAIA charter
- James Wadner, *Performance Analyst*, recently passed his CFA level I exam
- We celebrated our 38th anniversary. Wurts Johnson & Company (founding name) was established in January 1986.
- Recent research, found at verusinvestments.com/research:
 - *Is now the time to de-risk?*
 - *Liquidity needs during market drawdowns*
 - *2024 Annual Capital Market Assumptions*

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Topics of interest

LIQUIDITY NEEDS DURING MARKET DRAWDOWNS

What is the fundamental reason why investors should care about liquidity? In short, investors want to avoid being forced to sell high-returning assets that have fallen in value in order to pay for benefits, philanthropic spending, expenses, and cover capital calls for their private asset programs. We first touch on the different definitions of liquidity and illustrate how these relate to institutional portfolios. Second, we examine those liquidity characteristics in times of market stress, the way in which illiquid assets often behave, and how that impacts investors. Lastly, we outline a tool that we have created and discuss how this can be used to assist clients with gauging the appropriate level of liquidity in their own portfolios. Overall, we believe investors should put much thought and care into portfolio liquidity decisions.

IS NOW THE TIME TO DE-RISK?

Is now a good time to engage in de-risking strategies? The combination of rising interest rates and relatively strong risk asset performance since 2020 seem to suggest so. We aim to give plan sponsors a better appreciation of the potential benefits of de-risking strategies and examine when it would be most prudent to adopt these strategies. ERISA plan sponsors that have frozen benefits or report actuarial obligations with a market-based interest rate will find this paper most applicable to them.

Annual research

2024 CAPITAL MARKET ASSUMPTIONS

Capital Market Assumptions guide our advice and recommendations. They reflect the best judgments of our research and investment teams regarding the expected long-term behavior of capital markets.

4th quarter summary

THE ECONOMIC CLIMATE

- Real GDP increased at a 2.9% pace from a year ago in Q3 (4.9% quarter-over-quarter annualized rate). The economy has remained relatively strong while inflation now appears likely to fall closer to the Fed's 2% target in 2024. These expectations contributed to a dovish pivot from the Fed, a sharp drop in interest rates, and a notable market rally as the possibility of a soft landing has risen. **p. 8**
- Unemployment fell slightly from 3.8% to 3.7%, though the labor participation rate dropped sharply towards the end of the year. The labor market remains surprisingly resilient after roughly a full year of higher interest rates. **p. 13**

PORTFOLIO IMPACTS

- Consumer sentiment has been incredibly poor, and one of the greatest concerns for Americans is inflation. Although inflation has fallen considerably, prices of goods and services remain high, placing strain on budgets. Because inflation measures the rate of change of prices, rather than the level of prices, lower inflation has failed to ease the financial pressure that many households face. **p. 15**
- The Cboe VIX implied volatility index moved even lower during Q4, from 17.5 to 12.5. At the same time, bond market volatility was very high, as indicated by the "MOVE" Index. Uncertainty around inflation, the Federal Reserve's possible interest rate path and the extent of rate cuts, potential recession, and fears around the U.S. fiscal situation are likely contributing to market shakiness. **p. 31**

THE INVESTMENT CLIMATE

- An abrupt change in Federal Reserve communication regarding interest rate cuts during the quarter coincided with sharply lower bond yields, higher equity valuations, and further tightening of credit spreads. **p. 9**
- U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-over-year. Core CPI (ex-food & energy) declined from 4.1% to 3.9%. Low inflation numbers in October and November (0.0% and 0.1% month-over-month) were counterbalanced by a surprisingly high inflation number in December (0.3% month-over-month). **p. 10**

ASSET ALLOCATION ISSUES

- U.S. equities (S&P 500 +11.7%) led international developed equities (MSCI EAFE +10.4%) and emerging market equities (MSCI EM +7.9%) during the quarter. Domestic equities also led non-U.S. equities over the full year while emerging markets lagged. Wide sector performance differences contributed to U.S. leadership given a much heavier tech focus of the domestic market. **p. 26**
- Style factor performance was mixed during Q4. Small cap outperformed large cap by +2.0%. Value underperformed Growth by -3.2%. Over the full year, small caps underperformed large caps by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period of value underperformance during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades. **p. 27**

Risk assets rallied in Q4 following a dovish pivot from the Federal Reserve and recent economic data suggesting a greater chance of a soft landing

What drove the market in Q4?

"A Soft Landing is in View as Inflation Drops"

HEADLINE CPI MONTH-OVER-MONTH CHANGES

July	Aug	Sept	Oct	Nov	Dec
0.2%	0.6%	0.4%	0.0%	0.1%	0.3%

Article Source: WSJ, November 14th, 2023

HEADLINE & CORE CPI (YEAR-OVER-YEAR)



Source: BLS, as of 12/31/23

"U.S. Labor Market Resilience Keeps Economy Afloat as Year Ends"

U-3 UNEMPLOYMENT RATE

July	Aug	Sept	Oct	Nov	Dec
3.5%	3.8%	3.8%	3.8%	3.7%	3.7%

Article Source: Reuters, December 21st, 2023

"U.S. Consumer Spending, Inflation Slow in Sign of Cooling Economy"

U.S. NOMINAL RETAIL SALES (YEAR-OVER-YEAR)

July	Aug	Sept	Oct	Nov	Dec
2.8%	2.8%	4.0%	2.2%	4.0%	5.6%

Article Source: Bloomberg, November 30th, 2023

"Fed Holds Rates Steady, Indicating Three Cuts Coming in 2024"

FOMC PROJECTED END OF 2023 FED FUNDS RATE

Sep 22 SEP	Dec 22 SEP	Mar 23 SEP	June 23 SEP	Sept 23 SEP	Dec 23 SEP
4.60%	5.10%	5.10%	5.60%	5.60%	5.40%

Article Source: CNBC, December 13th, 2023

CHANGE IN NONFARM PAYROLLS



Source: BLS, as of 12/31/23

TREASURY YIELD MOVEMENTS (FOURTH QUARTER)



Source: Bloomberg, as of 12/31/23

Economic environment



U.S. economics summary

- Real GDP increased at a 2.9% pace year-over-year in Q3 (4.9% quarter-over-quarter annualized rate). The economy has remained relatively strong while inflation appears more likely to fall closer to the Fed's target in 2024. These expectations contributed to a dovish pivot from the Federal Reserve in December, a sharp drop in interest rates, and a notable market rally as the possibility of a soft landing has risen.
- U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-over-year. Core CPI (ex-food & energy) declined further from 4.1% to 3.9%. Low inflation numbers in October and November (0.0% and 0.1% month-over-month) were counterbalanced by a surprisingly high inflation number in December (0.3% month-over-month).
- Consumer spending has been stable, with real personal consumption expenditures up +2.7% year-over-year in November, the strongest growth figure since early 2022. However, strong spending appears to be at the expense

of a low household savings rate (4.1% in November) and may be partly driven by necessity (higher prices of goods & services) rather than by a positive financial or economic outlook.

- The job market has shown mixed signals, increasing in total size during 2023 but arguably with some weakness around the edges. Unemployment rose during the year but fell slightly in Q4 from 3.8% to 3.7%. This historic mismatch between jobs available and workers available has been slowly closing.
- Consumer sentiment improved slightly but remains incredibly poor. Inflation is a central concern for Americans. Although inflation has fallen considerably, prices of goods and services remain high, placing strain on budgets. Because inflation measures the rate of change of prices, rather than the level of prices, lower inflation has failed to ease the financial pressure that many households face.

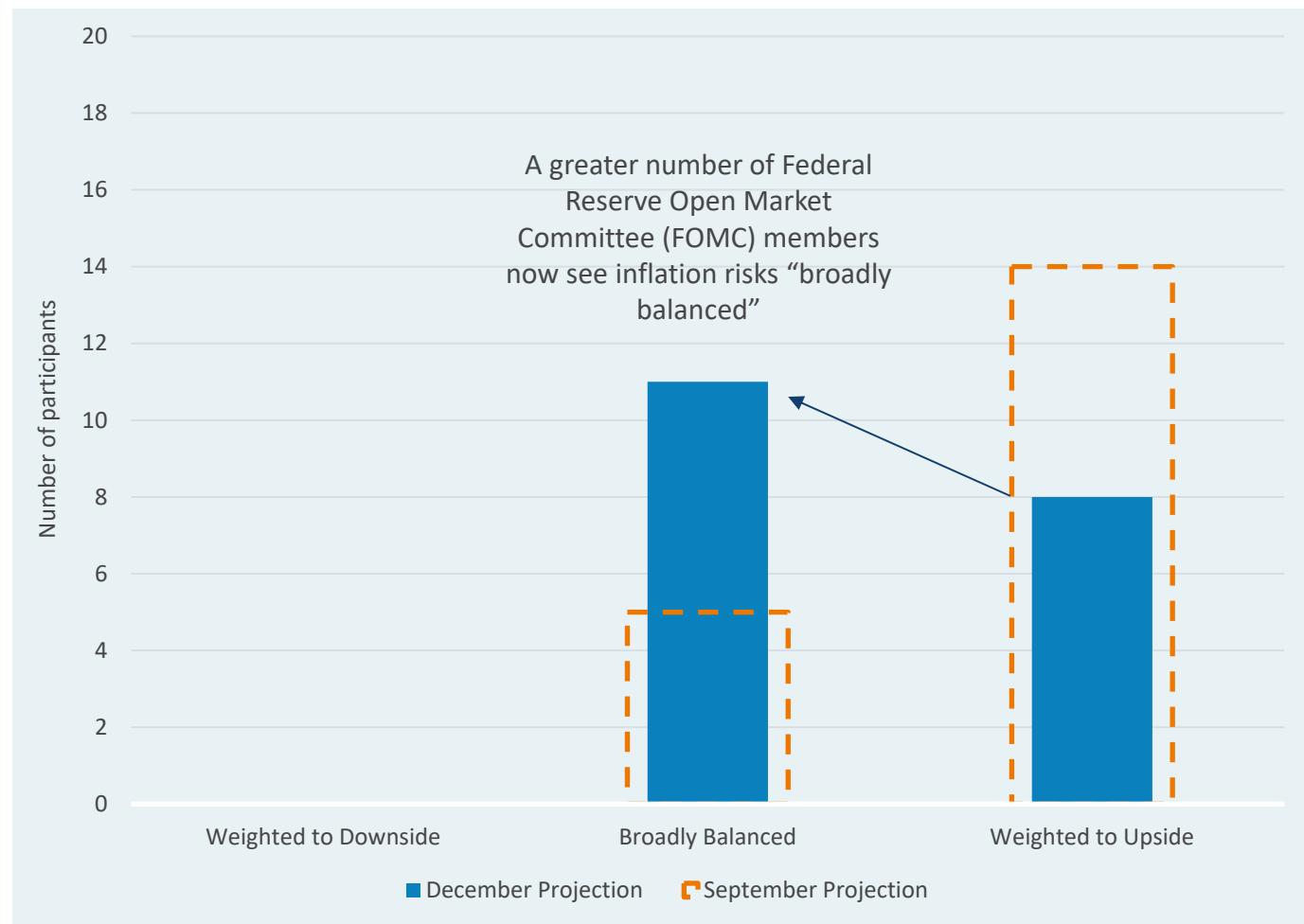
	Most Recent	12 Months Prior
Real GDP (<i>YoY</i>)	2.9% 9/30/23	1.7% 9/30/22
Inflation (<i>CPI YoY, Core</i>)	3.9% 12/31/23	6.4% 12/31/22
Expected Inflation (<i>5yr-5yr forward</i>)	2.2% 12/31/23	2.3% 12/31/22
Fed Funds Target Range	5.25–5.50% 12/31/23	4.25–4.50% 12/31/22
10-Year Rate	3.88% 12/31/23	3.88% 12/31/22
U-3 Unemployment	3.7% 12/31/23	3.5% 12/31/22
U-6 Unemployment	7.1% 12/31/23	6.5% 12/31/22

Shifting signaling from the Federal Reserve

December 2023 risks to core inflation: FOMC participants

On December 13th, the Fed's tone shifted. Powell spoke to a much rosier inflation picture and described a greater focus on both sides of its dual mandate—price stability and full employment.

Although optimistic, Powell's comments emphasized a cautious view of the restrictive policy's impact, *"Our actions have moved our policy rate well into restrictive territory, meaning that tight policy is putting downward pressure on economic activity and inflation, and the full effects of our tightening likely have not yet been felt... Given how far we have come, along with the uncertainties and risks that we face, the Committee is proceeding carefully."*



Source: Federal Reserve December 2023 Summary of Economic Projections

Inflation

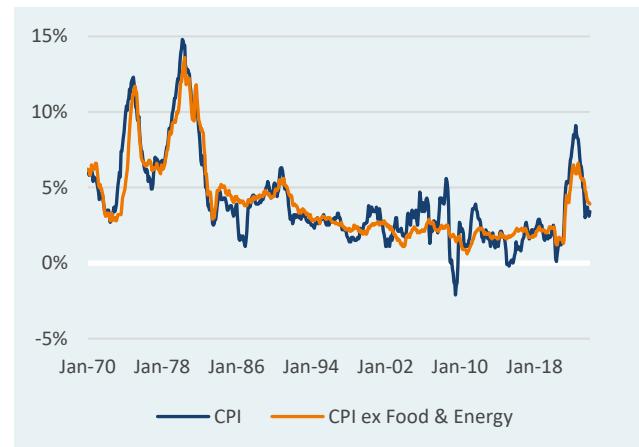
U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-over-year in December. Core CPI (ex-food & energy) declined further from 4.1% to 3.9%. It is not yet clear how long it will take for inflation to return to the Federal Reserve's 2% target, or how bumpy that ride might be. Low inflation numbers in October and November (0.0% and 0.1% month-over-month) were counterbalanced by a surprisingly high inflation release in December (0.3% month-over-month).

Most of the largest initial drivers of U.S. inflation, such as food, energy, and used autos, are now moderating in price and helping to bring inflation down towards the Fed's 2%

target. Additionally, the largest component of the inflation "basket" of goods and services is shelter prices (the cost of rents or renter's equivalent). The calculation of shelter for official government data purposes tends to reflect market rent movements with a lag. Market-based rent indexes reflect much lower rent inflation. For example, the series published by Zillow indicates 3.3% year-over-year inflation as of December. This suggests that as government shelter data catches up with true market rent prices, the greatest support to current inflation levels (shelter costs) will drop materially, potentially bringing inflation officially back to around a 2% level.

Inflation & other economic data released in Q4 suggests a path for inflation to fall towards 2% in 2024

U.S. CPI (YOY)



ZILLOW OBSERVED RENT VS. SHELTER CPI (YOY)



MONTHLY PRICE MOVEMENT (CPI)



Source: BLS, as of 12/31/23

Source: Zillow Observed Rent Index, as of 12/31/23

Source: BLS, as of 12/31/23

GDP growth

Real GDP increased at a 2.9% pace from a year ago in the third quarter (4.9% quarter-over-quarter annualized rate). The large uptick was driven by consumption, which continues to show resiliency. While many investors have expected high inflation and weaker wage growth to impact spending, a combination of pandemic related excess savings and a strong decade of household wealth expansion is likely providing a cushion against an economic slowdown. Outside of consumption, all major categories, besides net exports, positively contributed to GDP growth.

The economy has remained relatively strong while inflation

now appears likely to fall closer to the Fed target in 2024. These expectations contributed to a sharp drop in interest rates towards the end of 2023, and a notable market rally, as the possibility of a soft landing has risen.

A string of positive economic news occurred throughout the fourth quarter. The economic outlook has improved along with this new information, though we continue to believe economic bumpiness is on the horizon—perhaps in mid-2024. However, U.S. markets appear to be fully pricing in the soft-landing narrative, which likely limits the upside if that were to come to fruition.

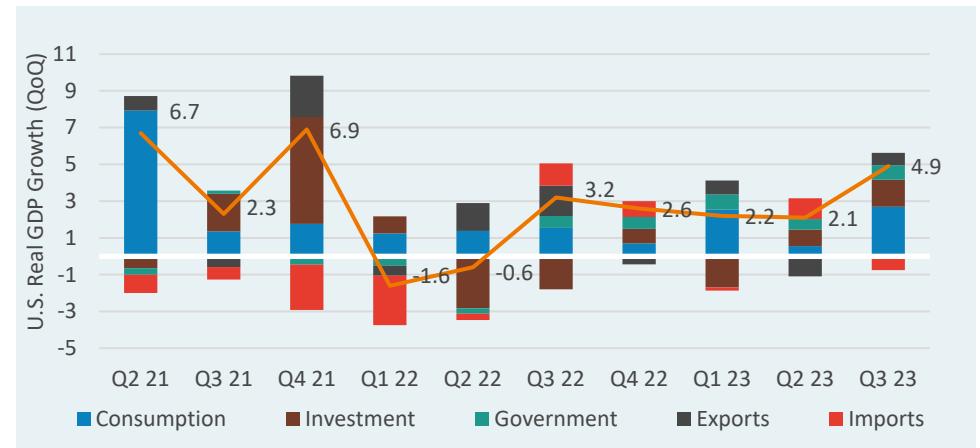
The U.S. economy continues to show resilience despite aggressive monetary tightening & low consumer confidence

U.S. REAL GROSS DOMESTIC PRODUCT



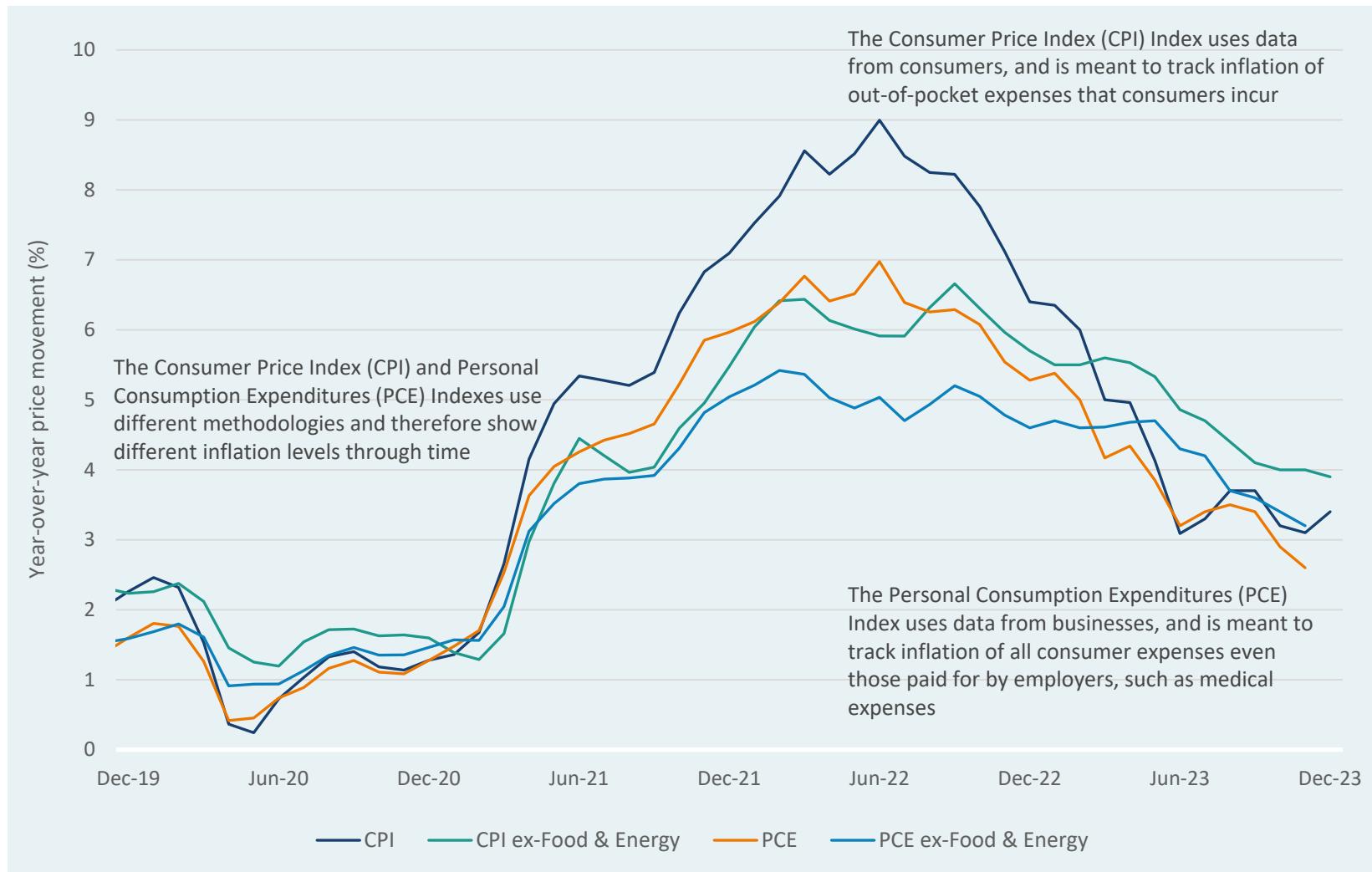
Source: FRED, as of 9/30/23

U.S. REAL GDP COMPONENTS (QoQ)



Source: FRED, as of 9/30/23

How are inflation conditions evolving?



Recent price trends suggest inflation may move closer to the Fed's 2% target in 2024

A moderation of shelter prices, which tend to be lagged in official statistics, could be the most notable driver of lower inflation in future quarters

Labor market

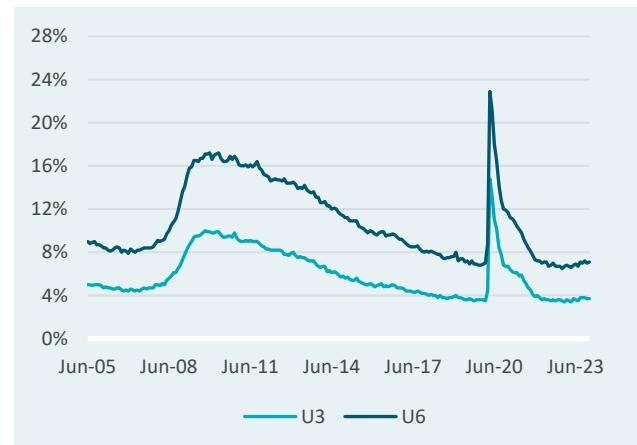
Unemployment fell slightly in Q4 from 3.8% to 3.7%, though the labor participation rate dropped sharply towards the end of the year from 62.8% to 62.5%. According to most available metrics, the labor market remains surprisingly resilient. While throughout history higher interest rates, and yield curve inversion in particular, have typically been followed by recession, the economy has been strong in the face of higher interest rates for roughly a full year. These dynamics have fueled hope that the economy may achieve a soft landing.

Some mixed signals have appeared in recent months. The labor participation rate has fallen for both younger and older

workers, potentially a sign of stalling of strong post-pandemic job growth. Rebalancing within the labor market continued, as the mismatch between the number of workers *available* and the number of *available jobs* closes. This gap was 5.5 million at the beginning of the year and fell to 2.5 million in November. This rebalancing appears to be due to positive factors (a growing workforce) rather than negative factors (fewer jobs available), as more Americans are seeking employment and finding jobs that had previously gone unfilled.

The gap between *available jobs* and *available workers* was cut in half during 2023, as the labor market moves into balance

U.S. UNEMPLOYMENT



LABOR FORCE PARTICIPATION RATE BY AGE



WORKERS AVAILABLE VS. AVAILABLE JOBS



Source: FRED, as of 12/31/23

Source: FRED, as of 12/31/23

Source: BLS, Verus, as of 11/30/23

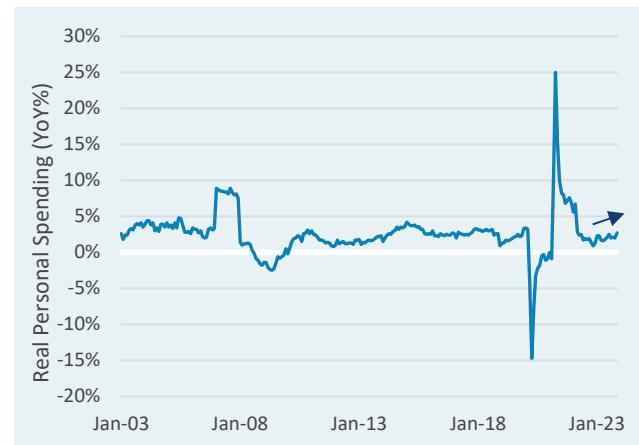
The consumer

We believe there are two important sides to the U.S. consumer picture. First, spending has been stable, as real (inflation-adjusted) personal consumption expenditures continued at a moderate pace, at 2.7% year-over-year in November—the strongest growth figure since early 2022. But second, strong spending appears to be coming at the expense of household savings (very low at 4.1% in November) and may be partly driven by necessity (higher prices of goods and services) rather than driven by a positive financial or economic outlook. This latter point is supported by incredibly poor consumer sentiment.

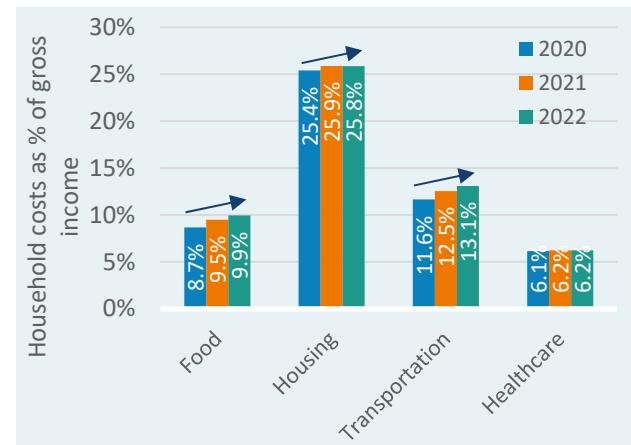
As discussed in last quarter's report, wealth for the majority of

Americans has greatly expanded over the past decade, fueled by higher home prices, a bull market for stocks, and broad economic strength. However, this stands in stark contrast to reports of widespread financial difficulties of Americans. For example, a Lending Club survey conducted in November 2023 indicated that 62% of consumers are living paycheck to paycheck. In this unique environment, it is difficult to gauge the extent to which greater wealth, though often illiquid, might help extend strong spending into future quarters, or whether spending is set to slow as households reset their spending to lower levels to try and return to more conservative budgets with an appropriate savings rate.

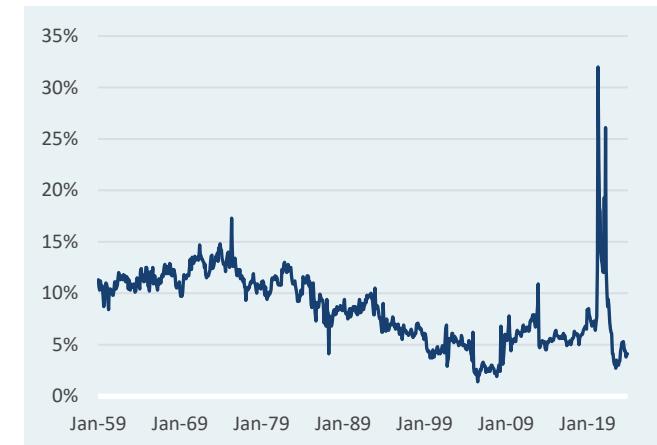
REAL PERSONAL SPENDING



HIGHER COSTS EATING INTO BUDGETS



PERSONAL SAVINGS RATE



Source: FRED, as of 11/30/23

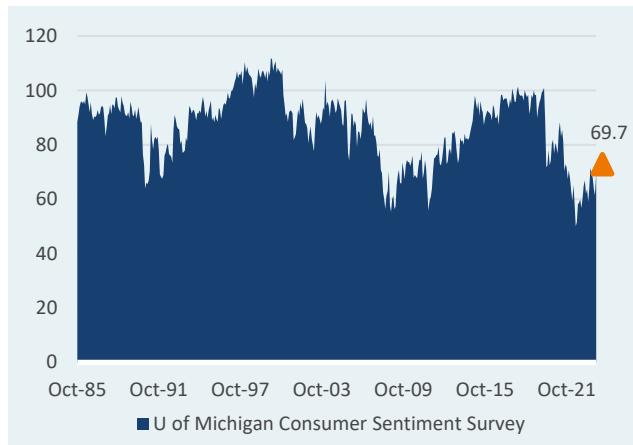
Source: BLS, Verus, as of 9/8/23 – household costs as % of gross income Source: FRED, as of 11/30/23

Sentiment

Sentiment readings were up slightly during Q4 but remain pessimistic. The University of Michigan Consumer Sentiment survey improved from 67.9 to 69.7 on reports that households believe inflation is on a better trajectory.

A confusing aspect of the consumer picture is the large disconnect between economic data (good in many respects) and sentiment readings (very poor overall). For example, inflation has mostly normalized but many Americans continue to express deep concerns about high inflation and difficulties in making ends meet. A major driver of this disconnect is what we might call the “lower inflation conundrum”. As displayed below, prices surged substantially in recent years, meaning inflation was high, but then prices plateaued, which led inflation to come down. *Why hasn’t*

CONSUMER SENTIMENT

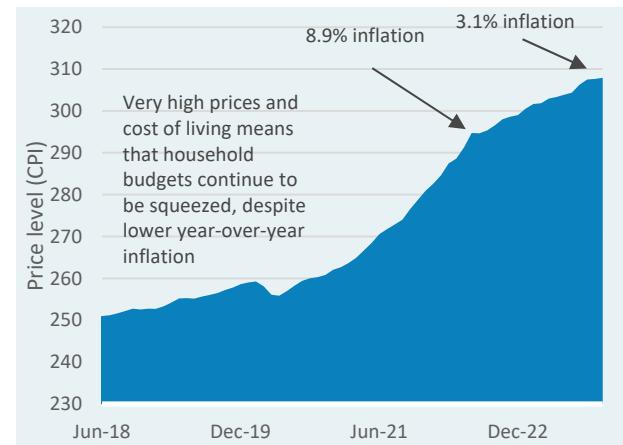


Source: University of Michigan, as of 12/31/23

lower inflation led Americans to feel better about the economy? This is because inflation measures the *rate of change* in the price of goods and services, not the overall level. Prices are currently very high while the rate of inflation is fairly low.

The NFIB Small Business Optimism index improved slightly during Q4, with the gains occurring in December. The index has now been below the 50-year average level for two years. According to the report, 23% of business owners reported inflation as the most important issue for business operations—now a greater concern than the labor shortage. Small businesses remain very pessimistic about conditions and do not expect these conditions to improve in 2024.

THE “LOWER INFLATION” CONUNDRUM



Source: FRED, as of 11/30/23

NFIB SMALL BUSINESS SENTIMENT



Source: NFIB, as of 12/31/23

Sentiment improved slightly during the quarter

Inflation remains very poor

Housing

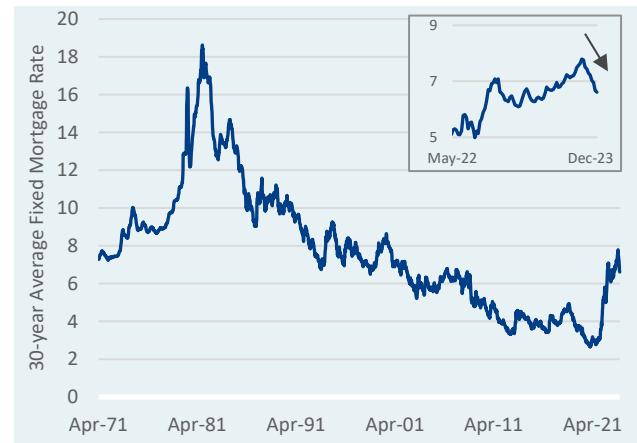
Home prices increased 3.0% in the third quarter, with ongoing support from very low housing inventory levels. It is possible that low inventories, high costs of new construction, a lack of forced sales (home sales due to financial stress), and an unwillingness of current homeowners to sell and sacrifice their existing low mortgage rate, could act as an ongoing support to high home prices despite extreme unaffordability.

On a brighter note, housing affordability on the margin may be moving in a better direction. Despite mild gains in home prices, the 30-year average fixed mortgage rate has fallen from a 23-year high of 7.3% to 6.6% at the

end of December. A moderation in mortgage rates, with expectations for a handful of Federal Reserve rate cuts in 2023, could help affordability and provide a support to home demand in the near-term.

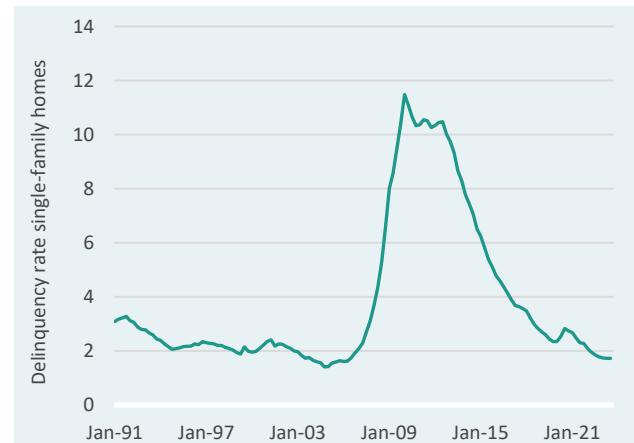
Mortgage delinquency levels of single-family homeowners continue to be muted, at 1.7% as of Q3. Surprisingly, mortgage delinquency rates have consistently declined since the pandemic. This may be a reflection of significant home equity built up for the average homeowner, the ability of homeowners to draw on that equity to help make financial ends meet, and a hesitance to default on a loan if the loan is not underwater.

30-YEAR MORTGAGE RATE (%)



Source: FRED, as of 12/31/23

SINGLE-FAMILY HOME DELINQUENCY RATE (%)



Source: FRED, as of 9/30/23

HOUSING AFFORDABILITY



Source: FRED, as of 9/30/23 – Housing affordability is calculated as the cost of a median priced single-family home at the current mortgage rate, as a percentage of the median family income

International economics summary

- The ongoing threat of inflation, and central banks' tightrope act of working to battle that inflation without tipping economies into recession, was expected to be a key risk of 2024. However, in the fourth quarter inflation has fallen more quickly than expected, while economic growth has generally been more resilient. The global growth picture seems to have improved, all else equal, although growth is still expected to slow materially in the coming quarters.
- Conflicts within the Middle East have led to heightened geopolitical tensions, and broader escalation is a notable risk. While military action has been relatively confined, further conflict could have a material impact on global supply chains and energy markets. The war in Ukraine, which played a large part in initially driving inflation across developed economies, is still fresh in many investors' minds.
- Inflation fell significantly in the Eurozone and U.K., helping to take some pressure off the ECB and BOE (headline inflation receded to 3.4% and 4.0% across the Eurozone and U.K., respectively). Despite the easing of price pressures, interest rates sit at multi-decade highs at both central banks which does little to change expectations for stagnant and potentially even negative economic growth.
- China reported GDP growth of 5.2% in 2023, exceeding the 5% growth target set by the CCP. While the reported figure is slightly above the CCP's target, growth has disappointed investors and economists alike, especially following a nearly three-year COVID-19 lockdown. The country continues to face a variety of challenges including incredibly dire demographic trends, geopolitical tension with the U.S., slowing growth, financial distress amongst the property sector and local government financing vehicles, a heavy national debt burden, and deflation.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.9% 9/30/23	3.4% 12/31/23	3.7% 12/31/23
Eurozone	0.0% 9/30/23	2.9% 12/31/23	6.4% 11/30/23
Japan	1.5% 9/30/23	2.4% 12/31/23	2.4% 11/30/23
BRICS Nations	5.0% 9/30/23	1.5% 12/31/23	4.8% 12/31/22
Brazil	2.0% 9/30/23	4.6% 12/31/23	7.5% 11/30/23
Russia	5.5% 9/30/23	7.4% 12/31/23	2.9% 11/30/23
India	7.6% 9/30/23	5.7% 12/31/23	8.7% 12/31/23
China	5.2% 12/31/23	-0.3% 12/31/23	5.1% 12/31/23

NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy. The Chinese unemployment rate represents the monthly surveyed urban unemployment rate in China.

International economics

The ongoing threat of inflation, and central banks' tightrope act of working to battle that inflation without tipping economies into recession, was expected to be a key risk of 2024. However, in the fourth quarter inflation has fallen more quickly than expected, while economic growth has generally been more resilient. The global growth picture seems to have improved, all else equal, although growth is still expected to slow materially in the coming quarters.

Although broad macroeconomic conditions improved, additional risks surfaced throughout the quarter, as conflicts within the Middle East escalated. Tensions remain high and concerns around global supply chains

and energy markets have been at the forefront—though impacts across commodity markets have been muted so far.

The outlook remains uncertain. Geopolitical tension is still high, especially as the U.S. and China compete for dominance in the technology sector. Developed economies in the Eurozone and Japan are projected by the World Bank to grow less than 1% in 2024, far below historical long-term averages. On the flip side, emerging and developing economies still boast strong growth targets. India is a highlight, as growth expectations for both 2024 and 2025 sit above six-percent.

REAL GDP GROWTH (YEAR-OVER-YEAR)



INFLATION (CPI YEAR-OVER-YEAR)



WORLD BANK REAL GDP FORECASTS



Source: Bloomberg, as of 9/30/23

Source: Bloomberg, as of 12/31/23 – or most recent release

Source: World Bank Global Economic Prospects, as of 1/9/24

Fixed income rates & credit

Fixed income environment

- The 10-year U.S. Treasury yield reversed its gains from the prior quarter, falling from 4.58% to 3.88% in Q4, as the market reassessed inflation conditions and the Federal Reserve's likely path. Further signs that inflation is moderating toward target, along with surprisingly upbeat economic news, likely contributed to the Federal Reserve's "dovish pivot" as it has been referred to. The 10-year yield ended 2023 unchanged.
- During Q4, credit markets delivered strong results, led by lower-quality bonds such as high yield and bank loans. High yield gained +7.2% (Bbg U.S. Corporate High Yield), while bank loans rose +2.8% (S&P/LSTA Leveraged Loan). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) rose 14.0% during the quarter as both falling interest rates and narrower credit spreads acted as a tailwind.
- The U.S. yield curve has remained inverted for 1.5 years, which is

among the most extended periods in modern history. This is indicated by the 10-year minus 2-year Treasury yield—ending the year at -35bps, up from -44bps in Q3. Unique attributes of the current economic environment suggest that this curve inversion may not coincide with a near-term recession.

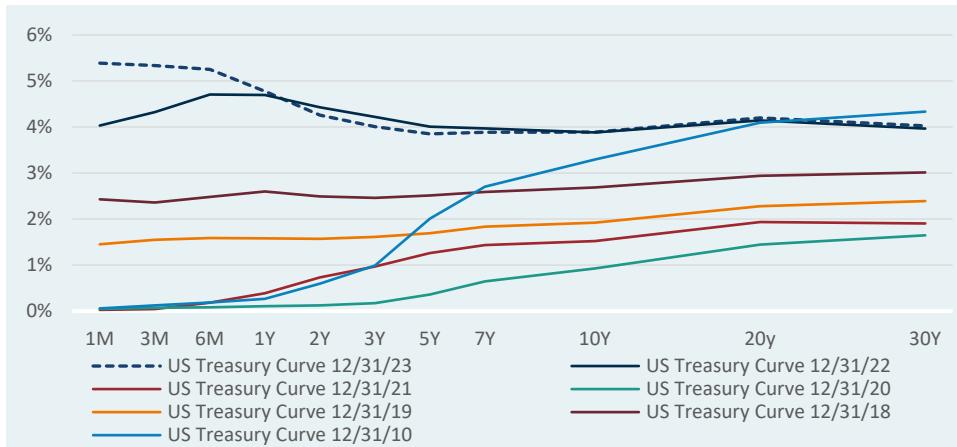
- US interest rates remained steady during the quarter as inflation continued to moderate towards the Federal Reserve Bank's 2.0% target. Importantly, expectations for future rate cuts increased following the statement made by Chairman Powell that future rate hikes may not be required.
- With inflation and economic growth continuing to moderate during the quarter, market expectations for future rate cuts by the Federal Reserve increased. As a result, interest rates across the US Treasury curve declined meaningfully, with shorter-term rates declining more than longer-term rates.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	6.8%	5.5%
Core Plus Fixed Income (Bloomberg U.S. Universal)	6.8%	6.2%
U.S. Treasuries (Bloomberg U.S. Treasury)	5.7%	4.1%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	13.4%	2.7%
U.S. High Yield (Bloomberg U.S. Corporate HY)	7.2%	13.4%
Bank Loans (S&P/LSTA Leveraged Loan)	2.8%	13.3%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	8.1%	12.7%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	9.2%	11.1%
Mortgage-Backed Securities (Bloomberg MBS)	7.5%	5.0%

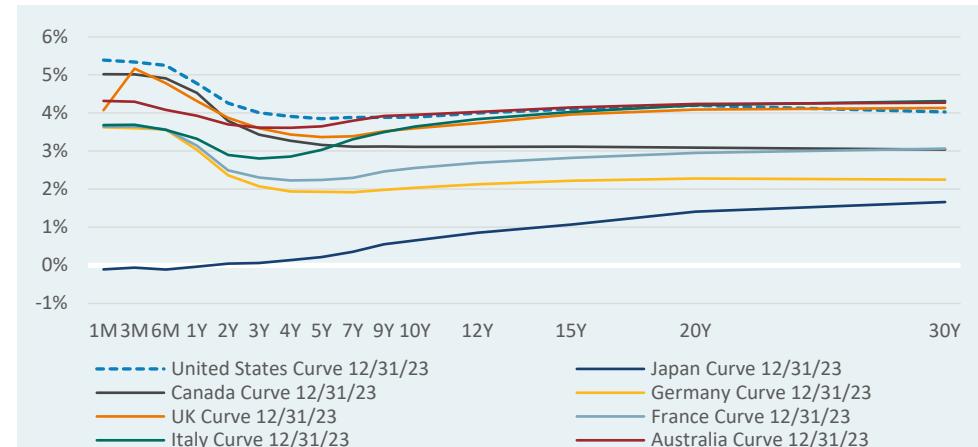
Source: Bloomberg, as of 12/31/23

Yield environment

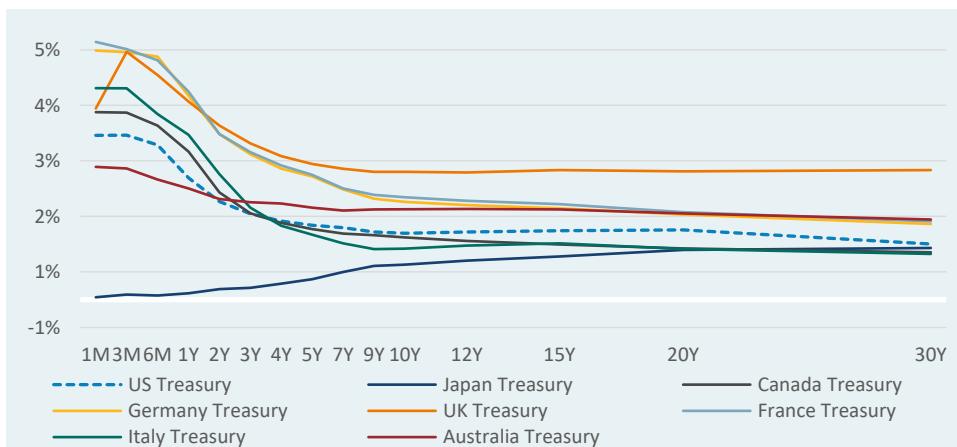
U.S. YIELD CURVE



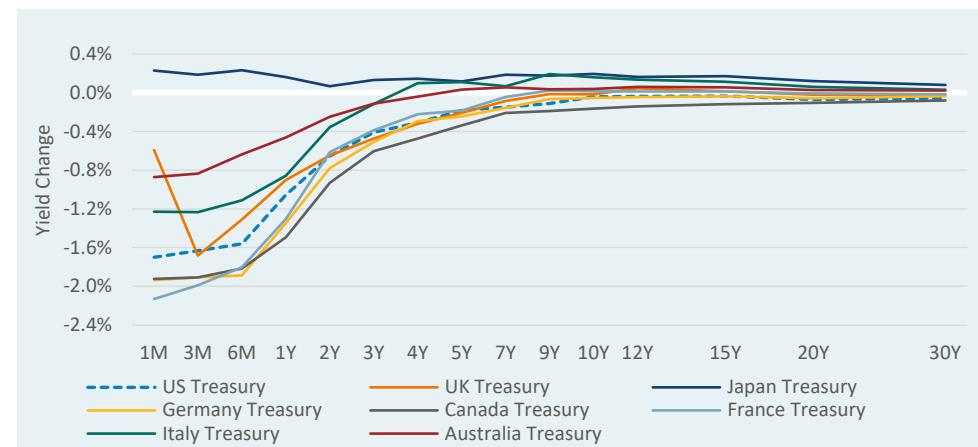
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 12/31/23

Credit environment

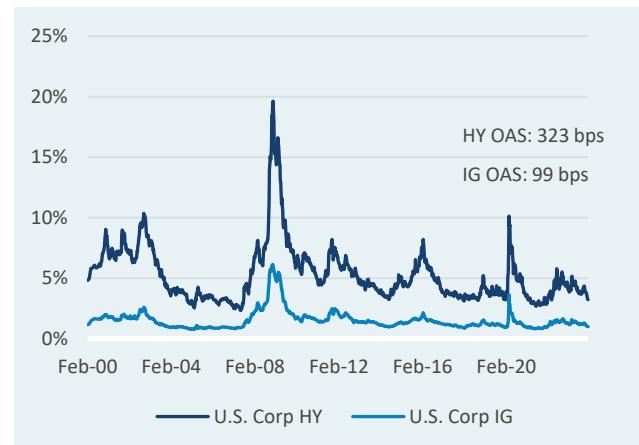
During the fourth quarter, credit markets delivered strong positive results, led by lower-quality credits such as high yield bonds and bank loans. High yield bonds delivered strong results gaining 7.2% (Bbg U.S. Corporate High Yield), while bank loans rose 2.8% (CS Leveraged Loans). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) rose 14.0% during the quarter as both falling interest rates and narrower credit spreads acted as a tailwind.

Higher-quality BB-rated bonds outperformed lower quality credits during the period returning 7.3% compared to 6.8% and 6.6% for B-rated and CCC-rated bonds, respectively. While absolute returns were positive, bank loans delivered a less-than-impressive 2.8%, primarily due to the

combination of falling interest rates and expectations that the Federal Reserve Bank would begin cutting rates in the future.

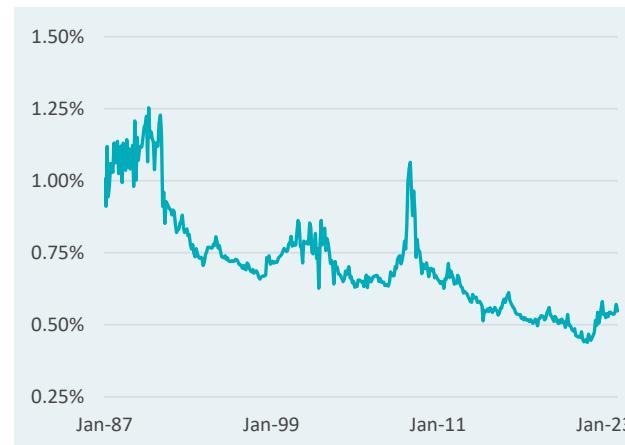
Credit spreads narrowed during the quarter despite concerns related to an economic slowdown, weakening corporate fundamentals, and rising geopolitical tensions. Lower-quality, high yield bond spreads fell by 0.6% to roughly 3.2%, while investment grade spreads decreased by roughly 0.2% to 1.0%. Broadly, spreads remain below their long-term historical averages, which suggests that investors remain confident about the ability of those companies to service their debt. That said, slower U.S. economic growth could lead to wider credit spreads as investors seek safety in higher quality assets.

SPREADS



Source: Barclays, Bloomberg, as of 12/31/23

HIGH YIELD BONDS MONTHLY INCOME RETURN



Source: Bloomberg, as of 12/31/23

CREDIT SPREAD (OAS)

Market	12/31/23	12/31/22
Long U.S. Corp	1.2%	1.6%
U.S. Inv Grade Corp	1.0%	1.3%
U.S. High Yield	3.2%	4.7%
U.S. Bank Loans*	5.0%	5.9%

Source: Barclays, Credit Suisse, Bloomberg, as of 12/31/23

*Discount margin (4-year life)

Default & issuance

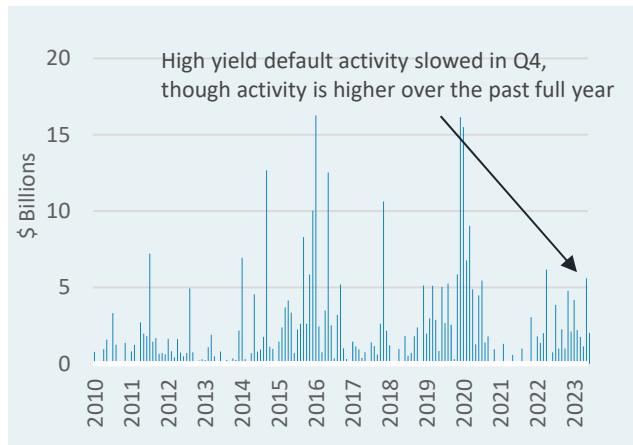
Default activity increased during Q4 as increased borrowing costs acted as a headwind. Eighteen companies defaulted, which were concentrated in the retail, telecommunications, and financial sectors. A total of \$15.8 billion of bank loan and high yield bonds were affected by default or distressed exchanges, up from \$11.5 billion in the prior quarter. Notable company defaults included Rite Aid (Retail), Ligado Networks (Telecommunications), and WeWork (Financial).

For 2023, both the number of defaults and volume increased meaningfully year-over-year. During the period, 88 companies defaulted on \$83.7 billion in high-yield bonds and bank loans compared to 35 companies and \$47.8 billion in 2022. High yield bond default rates have

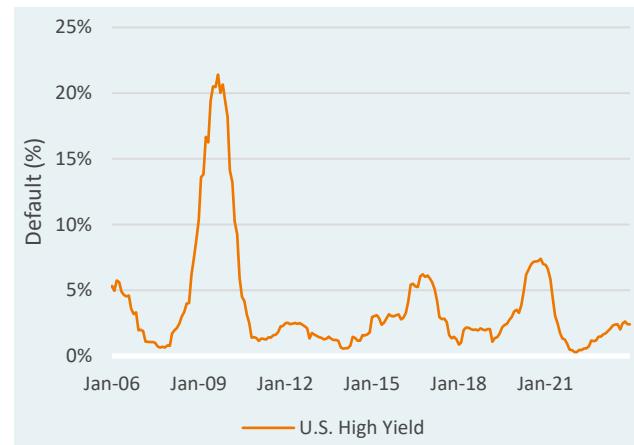
increased to roughly 2.8%, up from 1.7% a year earlier, but are still below the long-term annual average of roughly 3.2%. High-yield default recovery rates ended the year at 32.8%, down sharply from 55.3% a year ago at the same time.

The issuance of investment grade credit slowed from the prior quarter, down to \$204 billion from \$275 billion. With borrowing costs falling as interest rates declined, high-yield bond issuance climbed slightly to \$42 billion, up from \$40 billion in Q3. On a year-over-year basis, the volume of both investment-grade and high yield issuance increased, up \$69.1 billion and \$5.3 billion, respectively.

U.S. HY MONTHLY DEFAULTS (PAR WEIGHTED)



U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



DEVELOPED MARKET ISSUANCE (\$ BILLIONS)

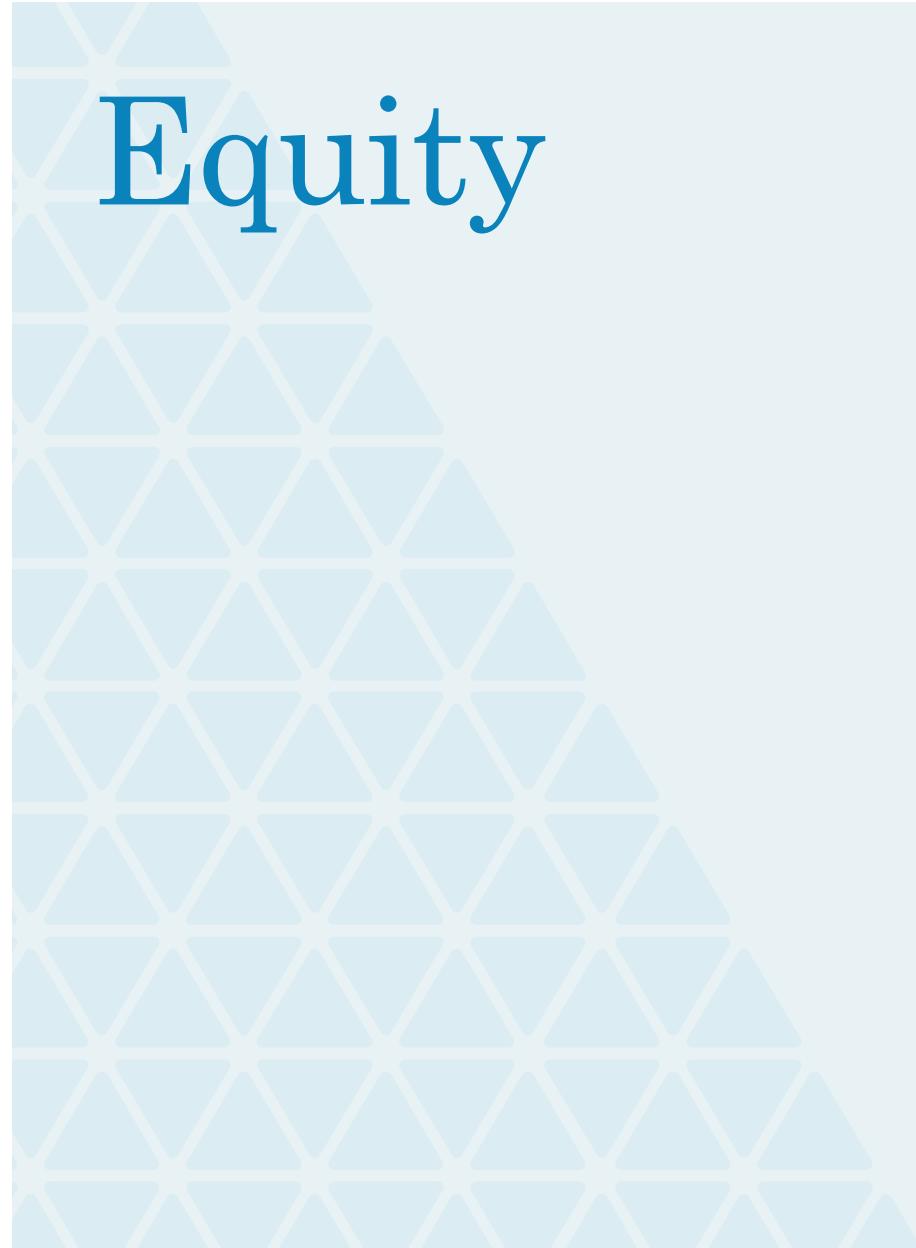


Source: BofA Merrill Lynch, as of 12/31/23

Source: BofA Merrill Lynch, as of 12/31/23 – par weighted

Source: BofA Merrill Lynch, all developed markets, as of 12/31/23

Equity



Equity environment

- Domestic equities delivered a strong rally to finish Q4, driven by a combination of better-than-expected Q3 earnings and signals of easing from the Federal Reserve. The S&P 500 Index gained +26.3% during 2023.
- U.S. equities (S&P 500 +11.7%) led international developed equities (MSCI EAFE +10.4%) and emerging market equities (MSCI EM +7.9%) during the quarter. Domestic equities also led non-U.S. equities over the full year, while emerging markets were laggards. Wide sector performance differences contributed to U.S. leadership, given the much heavier tech focus of the domestic market.
- The U.S. dollar fell sharply, as investors reassessed Federal Reserve policy and interest rates retraced lower. This move created a tailwind for investors with unhedged exposure to foreign currencies. On a trade-weighted

basis, the value of the U.S. dollar fell -4.3%. However, over the full calendar year investors with unhedged currency exposure saw moderate losses, due to wide fluctuations of the dollar.

- Style factor investing delivered mixed performance for investors in Q4. Over the full year, style investing suffered substantially. Small cap underperformed by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades.
- The Cboe VIX implied volatility index moved even lower during the fourth quarter, from 17.5 to 12.5 in December. Priced volatility is incredibly low—at a level that has historically tended to coincide with very strong economic and market conditions.

	QTD TOTAL RETURN (unhedged)	QTD TOTAL RETURN (hedged)	1 YEAR TOTAL RETURN (unhedged)	1 YEAR TOTAL RETURN (hedged)
U.S. Large Cap (S&P 500)	11.7%		26.3%	
U.S. Small Cap (Russell 2000)	14.0%		16.9%	
U.S. Equity (Russell 3000)	12.1%		26.0%	
U.S. Large Value (Russell 1000 Value)	9.5%		11.5%	
US Large Growth (Russell 1000 Growth)	14.2%		42.7%	
Global Equity (MSCI ACWI)	11.0%	9.7%	22.2%	22.7%
International Large (MSCI EAFE)	10.4%	6.0%	18.2%	19.9%
Eurozone (EURO STOXX 50)	13.3%	9.3%	26.5%	25.6%
U.K. (FTSE 100)	6.9%	2.5%	14.3%	8.8%
Japan (TOPIX)	8.2%	3.6%	19.3%	35.7%
Emerging Markets (MSCI Emerging Markets)	7.9%	5.7%	9.8%	10.1%

Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 12/31/23

Domestic equity

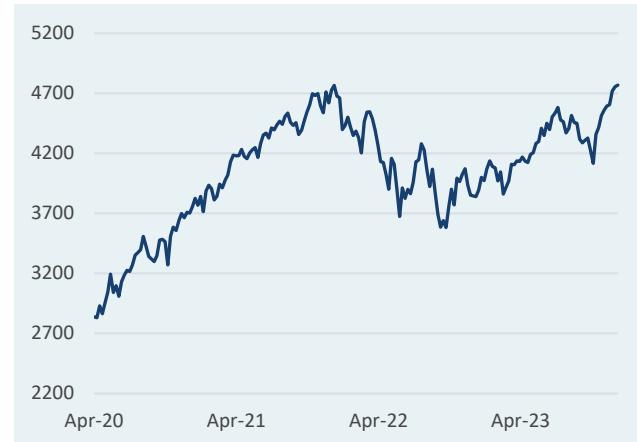
Domestic equities finished the fourth quarter with a strong rally, driven by a combination of better-than-expected Q3 earnings and signals of easing from the Federal Reserve. The S&P 500 Index delivered a gain of +26.3% over 2023, boosted by a +11.7% rise over the final quarter of the year. Shares in the U.S. outperformed international developed and emerging markets over the calendar year.

Third-quarter earnings surprised to the upside, driven by large earnings beats in the communication services and consumer discretionary sectors. Per FactSet, in Q3 earnings grew by 4.9% year-over-year, in contrast to initial expectations of a -0.3% decline at the beginning of the quarter.

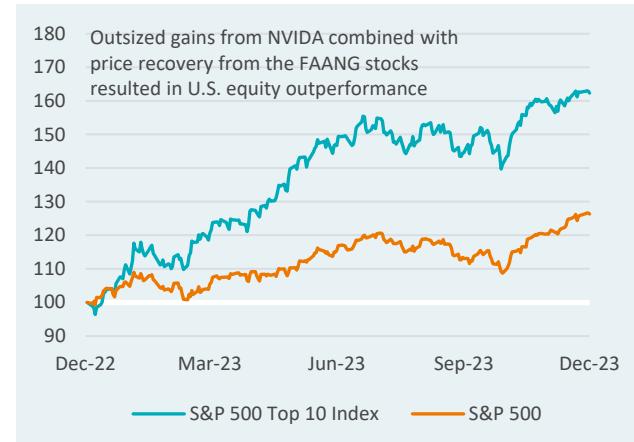
From a sector perspective gains were broad, outside of energy. Real estate and information technology outperformed—driven by easing rates on the long-end of the curve and strong demand within the accelerated computing and artificial intelligence space.

Going forward, domestic equities likely face a challenging environment to build off of the large gains seen in 2023. Valuations remain elevated as the S&P 500 Index approaches a new all-time high. At the same time, earnings growth has been modest, with Q4 earnings expected to come in at +1.3% per FactSet. Although the outlook remains challenged, growth catalysts such as stable inflation, monetary easing, and greater chance of a soft-landing present investors with upside opportunity.

S&P 500 PRICE INDEX



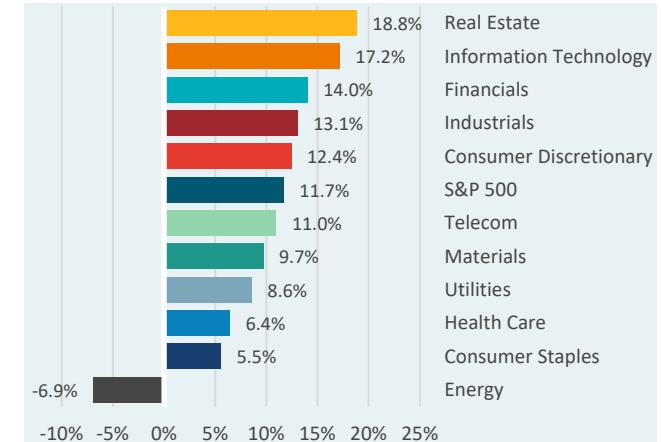
2023 PERFORMANCE (INDEX 100)



Source: Bloomberg, as of 12/31/23

Source: Bloomberg, S&P, as of 12/31/23

Q4 2023 SECTOR PERFORMANCE



Source: Morningstar, as of 12/31/23

Domestic equity size & style

Style factor investing delivered mixed performance for investors in the fourth quarter. Small cap outperformed large cap by +2.0% during Q4 (Russell 2000 vs. Russell 1000). Value underperformed Growth by -3.2% (Russell 1000 Value vs. Russell 1000 Growth). Over the full year, style investing suffered substantially. Small cap underperformed by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades.

The wide variability of style investing continues to be fueled by extreme sector volatility. For example, the information technology sector, which tends to be more concentrated in growth stocks, performed +57.8% in

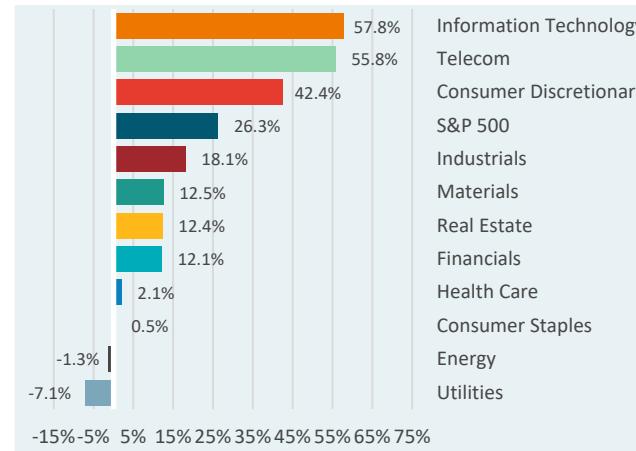
2023. Meanwhile, utilities and energy sectors, which tend to be more concentrated in value stocks, performed -7.1% and -1.3%, respectively. Mega cap growth stocks have propelled the U.S. market higher in 2023—a reversal from significant losses in 2022. Many market-leading stocks are concentrated in technology and telecom sectors, which have outperformed the overall index (+57.8% and +55.8%, respectively).

We believe sector variability and the way this has contributed to style factor volatility is further evidence that style investing should be a long-term decision. Short-term factor timing decisions should typically be pursued only in the rare occasion of obvious market mispricing and a foreseen catalyst for price correction.

VALUE VS. GROWTH 1-YR ROLLING



VALUE VS GROWTH (YOY)



1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	11.5%	26.5%	42.7%
Mid Cap	12.7%	17.2%	25.9%
Small Cap	14.6%	16.9%	18.7%

Source: FTSE, as of 12/31/23

Source: Morningstar, as of 12/31/23

Source: FTSE, as of 12/31/23

International developed equity

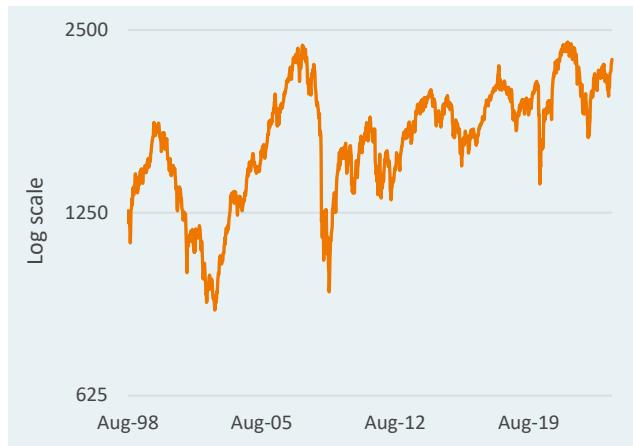
International developed equities also benefited from shifting expectations around Federal Reserve policy in the fourth quarter, with the MSCI EAFE Index delivering a +10.4% gain in unhedged currency terms. Fading dollar strength provided a large boost, as expectations for potential easing from the Federal Reserve contrasted against shifting policy from the ECB and BOE.

In terms of relative performance, international developed shares trailed the U.S., but outperformed emerging market equities. Sector weightings played the largest role, as gains from mega-cap technology names drove domestic

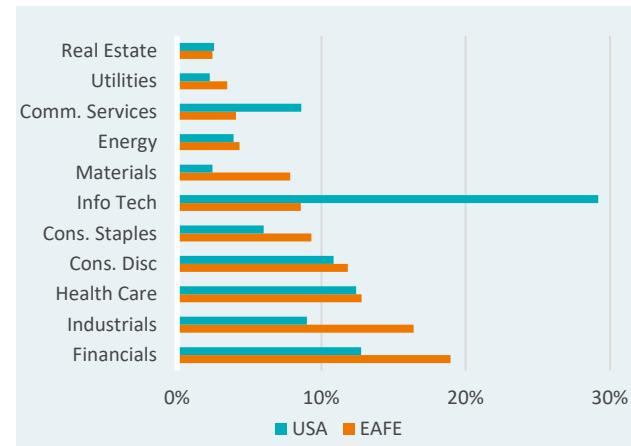
performance, contrasting against the heavier financials and industrial sector composition of the MSCI EAFE index.

Despite macroeconomic challenges, international developed equities saw strong performance in 2023, up +18.2% in unhedged dollar terms. Japanese shares continued to benefit from zero-interest rate policy and shifting investment away from China and into Japan. European shares were lifted by better-than-expected global growth and the ability for companies to pass off higher prices – resulting in strong earnings.

INTERNATIONAL DEVELOPED EQUITY



MSCI EAFE VS. USA SECTOR WEIGHTING



JAPAN TOPIX PRICE INDEX



Source: MSCI, as of 12/31/23

Source: MSCI, as of 12/31/23

Source: Tokyo Stock Exchange, as of 12/31/23

Emerging market equity

Emerging markets saw a positive end to 2023, rising +7.9% in the fourth quarter – helping to notch a +9.8% gain for the index over the 2023 calendar year. While rebounding from losses seen last year (-20.1% decline in 2022), emerging market equities underperformed both domestic and international developed equities for the second straight year.

Most countries within the index saw positive returns in the last quarter of the year, fueled by the broader rally in risk assets as U.S. monetary policy expectations eased. China was the outlier, declining -4.2%.

Chinese shares remain the elephant in the room within emerging markets. The MSCI EM ex China Index outperformed the flagship index by more than 10% in 2023, which highlights the large drag that China has caused, given its nearly 30% country weight in the index. The country continues to face a variety of challenges including incredibly dire demographic trends, geopolitical tension with the U.S., slowing growth, financial distress amongst the property sector and local government financing vehicles, a heavy national debt burden, and deflation. Combined with further consolidation of power within the CCP, the cheap pricing of Chinese equities may be justified.

EMERGING MARKET EQUITY



Q4 2023 MSCI EM COUNTRY RETURNS (USD)



MSCI EM VS. EM EX CHINA (GROWTH \$100K)



Source: MSCI, as of 12/31/23

Source: Bloomberg, MSCI, as of 12/31/23

Source: Bloomberg, MSCI, as of 12/31/23

Equity valuations

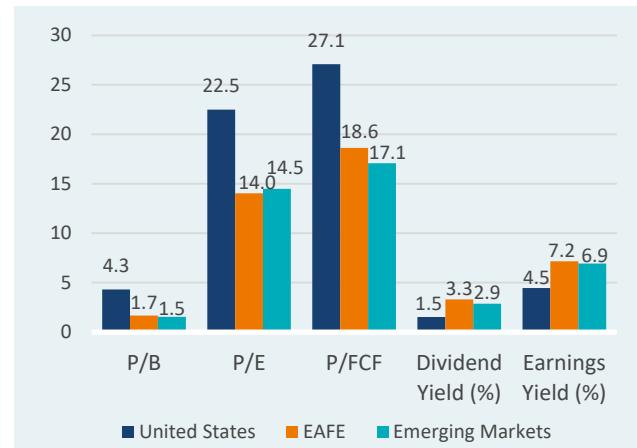
U.S. equity valuation drifted further above those of non-U.S. equities during the quarter. The domestic market is priced at a historic 71% premium over emerging market equities, up from a 59% premium in the third quarter. A portion of the U.S. pricing premium is due to a larger U.S. technology sector, which tends to demand higher valuations, though the valuation gap remains wide even after adjusting for sector composition.

The lower valuations of international developed equities may be at least partly justified due to weaker growth potential and unique challenges in those markets, though rising valuations create a high bar for future profit growth. In order for U.S. equities to justify high valuations over the

longer-term, business will need to generate supernormal earnings growth, and/or stock multiples will need to move upward even further.

U.S. equity market valuations seem to have defied rising interest rates. Theoretically (and historically) speaking, equities should be fairly sensitive to sharply higher interest rates—the present value of stocks is less when rates are high due to the discounting effect, higher interest rates damage profits as financing is more expensive, and the overall economy tends to slow as borrowing costs rise which bodes poorly for profits. At least for now, the U.S. market remains richly valued and median bank forecasts are for a healthy 2024 S&P 500 return.

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 12/31/23

FORWARD PRICE/EARINGS RATIO



Source: MSCI, Bloomberg, as of 12/31/23

2024 S&P 500 MEDIAN FORECAST



Source: Bloomberg, as of 1/10/24. Banks included in forecast include J.P. Morgan, Goldman Sachs, Bank of America, Citibank, Morgan Stanley, Deutsche Bank, and UBS.

Market volatility

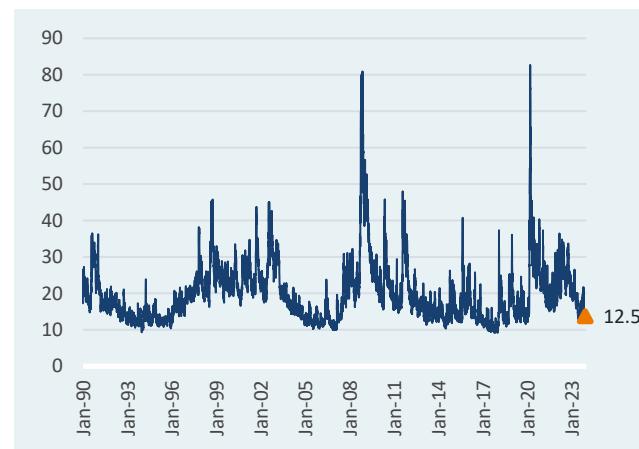
The Cboe VIX implied volatility index moved even lower during the fourth quarter, from 17.5 to 12.5 in December. Priced volatility is incredibly low—at a level that has historically tended to coincide with very strong economic and market conditions.

Realized volatility of global equity markets over the past year has also moderated. The relative volatility of markets has moved back in line with historical behavior—U.S. equities showing the lowest volatility, followed closely by international developed equities, and with emerging market

equities delivering greater risk. This behavior is a reversal of recent years when emerging market volatility was lower than that of developed markets—an uncommon occurrence historically speaking.

Bond markets remain shaky, as indicated by the “MOVE” Index—which calculates the implied volatility of U.S. Treasury securities. Uncertainty around inflation, the Federal Reserve’s interest rate path and the extent of rate cuts, potential recession, and fears around the U.S. fiscal situation, are likely to act as an ongoing support to volatility.

U.S. IMPLIED VOLATILITY (VIX)



REALIZED VOLATILITY



U.S. TREASURY IMPLIED VOL (“MOVE” INDEX)



Source: Cboe, as of 12/31/23

Source: S&P, MSCI, as of 12/31/23

Source: Bloomberg, as of 12/31/23

Long-term equity performance



Source: MPI, as of 12/31/23

Other assets



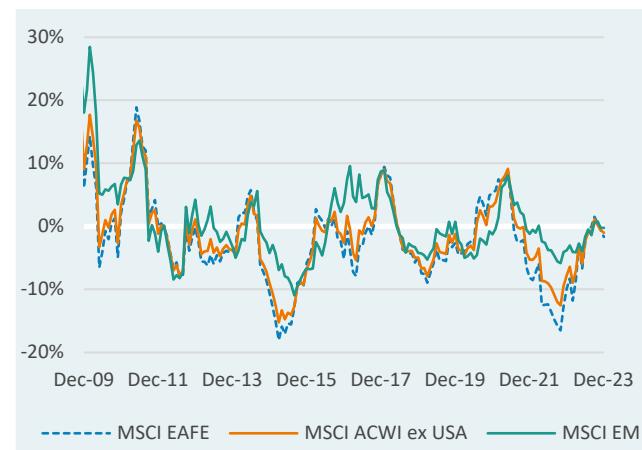
Currency

The U.S. dollar fell sharply in the fourth quarter, as investors reassessed Federal Reserve policy and interest rates retraced lower. This move created a tailwind for investors with unhedged exposure to foreign currencies. On a trade-weighted basis, the value of the U.S. dollar fell -4.3%. However, following wide fluctuations of the dollar during 2023, and the performance volatility that resulted, investors with unhedged foreign currency exposure saw moderate losses. For investors with unhedged international developed equity exposure, this delivered a loss of -1.7%. Unhedged exposure to emerging market currencies resulted in a loss of -0.2%.

As investors evaluate market movements and performance of 2023, it may be worth reflecting on the benefits which a more thoughtful

currency approach might deliver. A better approach may reduce the uncompensated risk of unhedged foreign currency exposure. Additionally, the MSCI Currency Factor Mix Index—a representation of a passive investment in the currency market, by investing in currencies with higher interest rates, currencies that are undervalued, and currencies that are showing positive price momentum—has shown a positive one-year rolling return over most periods with low volatility. This is what was delivered in 2023. During the year, an unhedged exposure to currency markets (assuming MSCI EAFE equity implementation) resulted in a loss of -1.7% and volatility of 7.5%. Meanwhile, an implementation to Currency Factor Mix delivered a gain of +1.4% and volatility of 2.5%.

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 12/31/23

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Bloomberg, as of 12/31/23

EMBEDDED CURRENCY VS CURRENCY FACTORS



Source: Bloomberg, MSCI, as of 12/31/23

Event strategies lead in equity, credit

Stock and credit markets rallied in the fourth quarter, and directionally biased strategies within those markets outperformed non-directional peers. Within the equity focused strategy group:

- Activist strategies, which benefited from their smaller cap exposure, continued their run of strong performance with favorable up capture relative to L/S peers.
- Interestingly, value managers outperformed growth counterparts despite growth indexes outperforming value, likely due to a smaller cap bias.

Within the fixed income / credit focused strategy group:

- Event Driven credit strategies such as Distressed and Credit Arbitrage outperformed Relative Value credit strategies such as Structured Credit and Long/Short Credit, as market directionality paid off and economic optimism benefited special situation, catalyst-oriented positioning.
- Event Driven strategies have outperformed both stocks and high yield over the last few years after struggling to keep up in the decade following the Global Financial Crisis.

4Q RETURNS (%) FOR EQUITY STRATEGIES



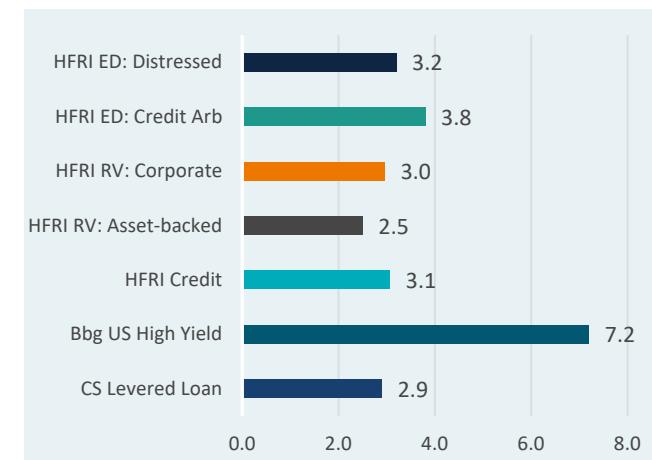
Source: HFR, MPI. Data as of 12/31/23
EH = Equity Hedge ED = Event Driven

HFRI EVENT DRIVEN RETURNS VS STOCKS/HY



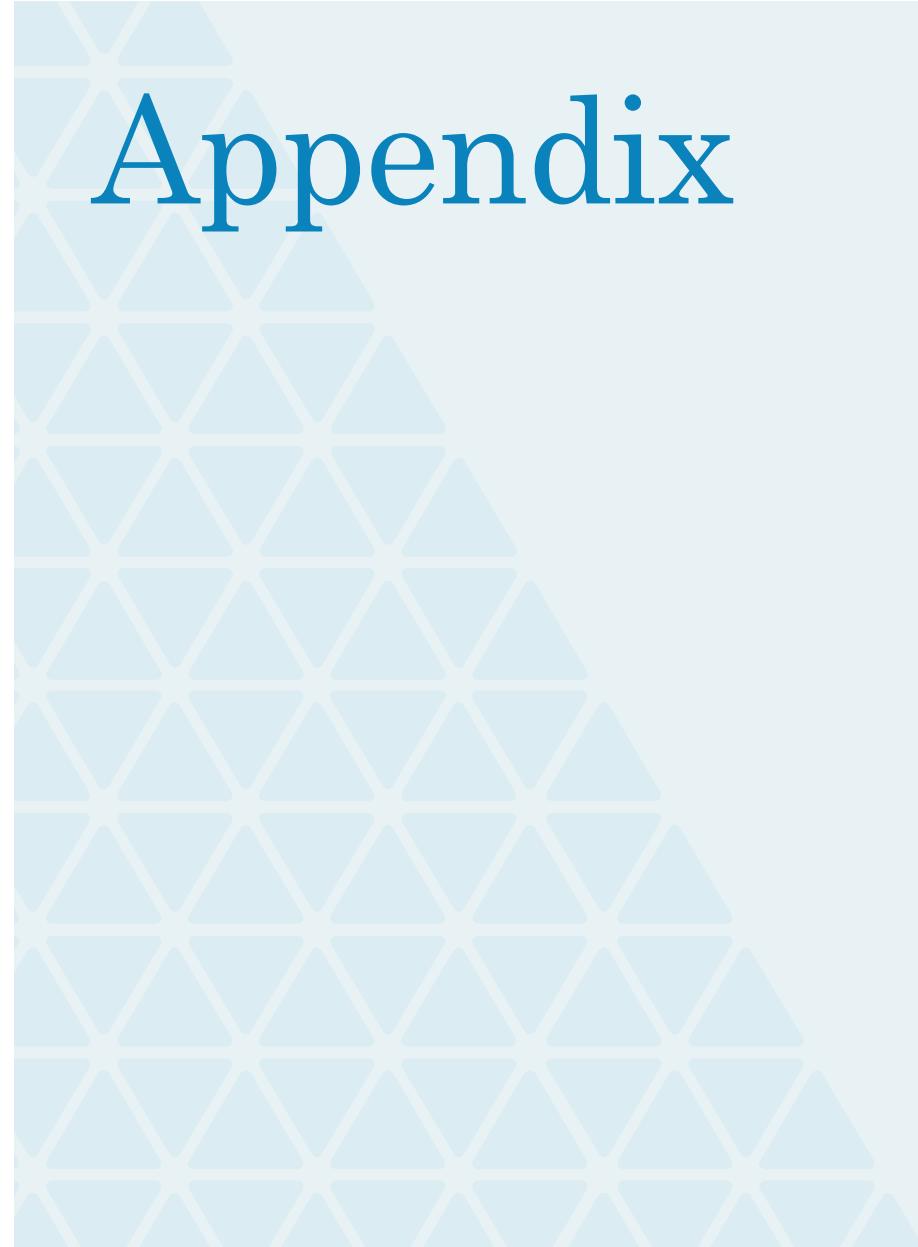
Source: HFR, MPI.. Data as of 12/31/23 HFRI Event Driven (Total)
vs Bloomberg US Corp HY & MSCI World Index

4Q RETURNS (%) FOR CREDIT STRATEGIES



Source: HFR, MPI. Data as of 12/31/23
ED = Event Driven RV = Relative Value

Appendix



Periodic table of returns

BEST ↑ WORST ↓

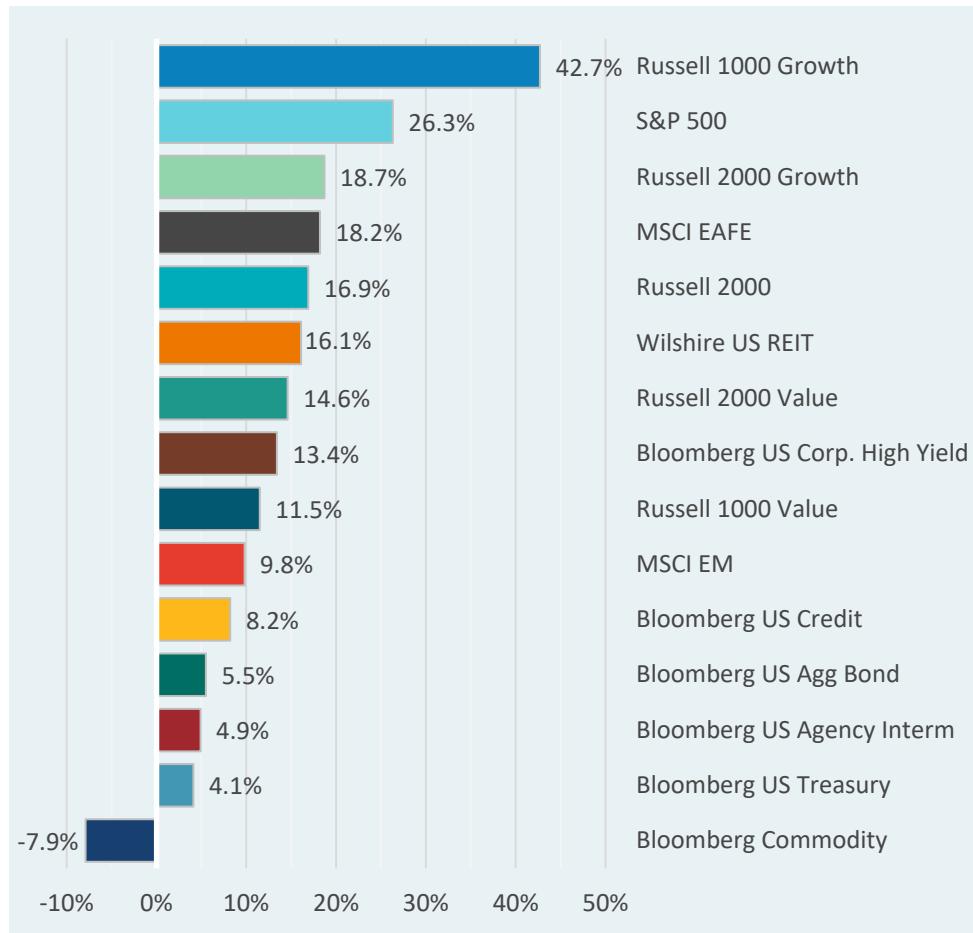
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	5-Year	10-Year
Large Cap Growth	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	42.7	19.5	14.9
Large Cap Equity	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	26.5	15.5	11.8
Small Cap Growth	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	1.5	18.7	10.9	8.4
International Equity	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	-4.7	18.2	10.0	7.4
Small Cap Equity	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	-7.5	16.9	10.0	7.2
60/40 Global Portfolio	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.4	14.0	17.7	-13.0	15.4	9.2	7.2
Small Cap Value	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.0	10.3	14.8	-14.5	14.6	8.2	6.8
Large Cap Value	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	11.3	-14.5	11.5	7.2	5.1
Emerging Markets Equity	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	-17.3	9.8	7.0	4.3
Hedge Funds of Funds	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	-19.1	6.3	5.3	3.3
US Bonds	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	-20.1	5.5	5.1	2.7
Cash	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	-20.4	5.0	3.7	1.8
Real Estate	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.5	-26.4	-5.1	1.8	1.2
Commodities	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	-29.1	-7.9	1.1	-1.1



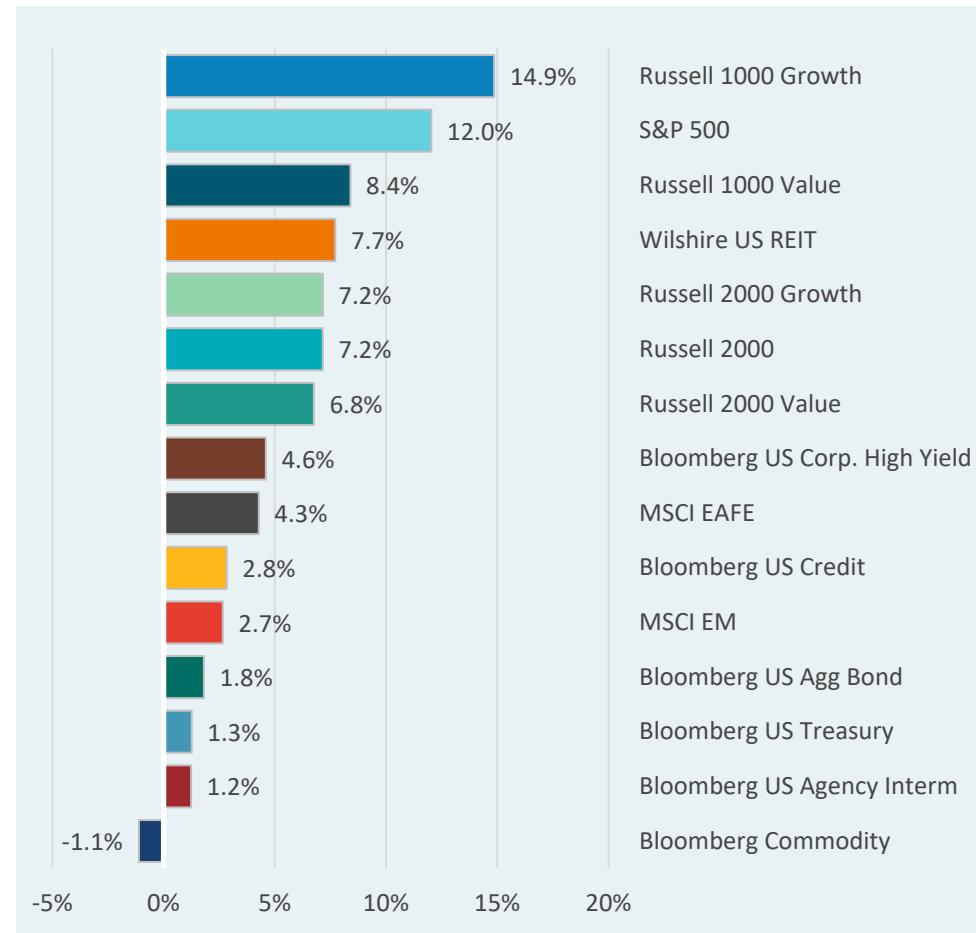
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 9/30/23.

Major asset class returns

ONE YEAR ENDING DECEMBER



TEN YEARS ENDING DECEMBER



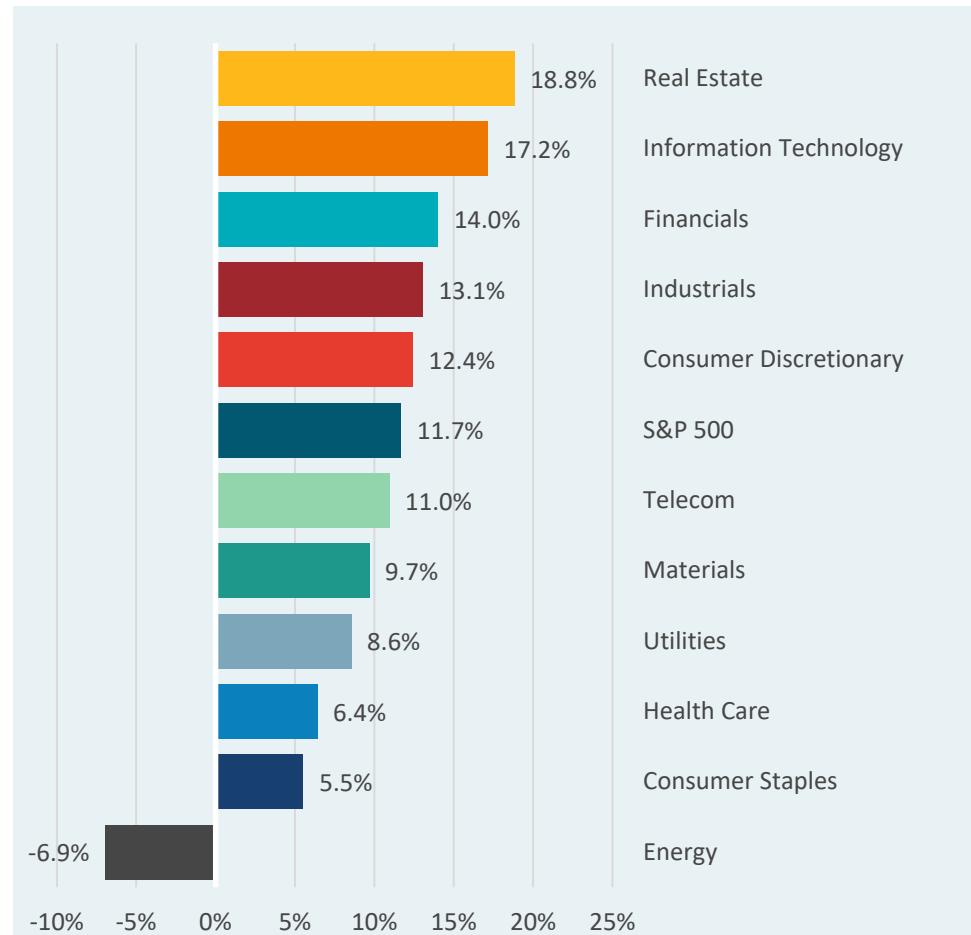
*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 12/31/23

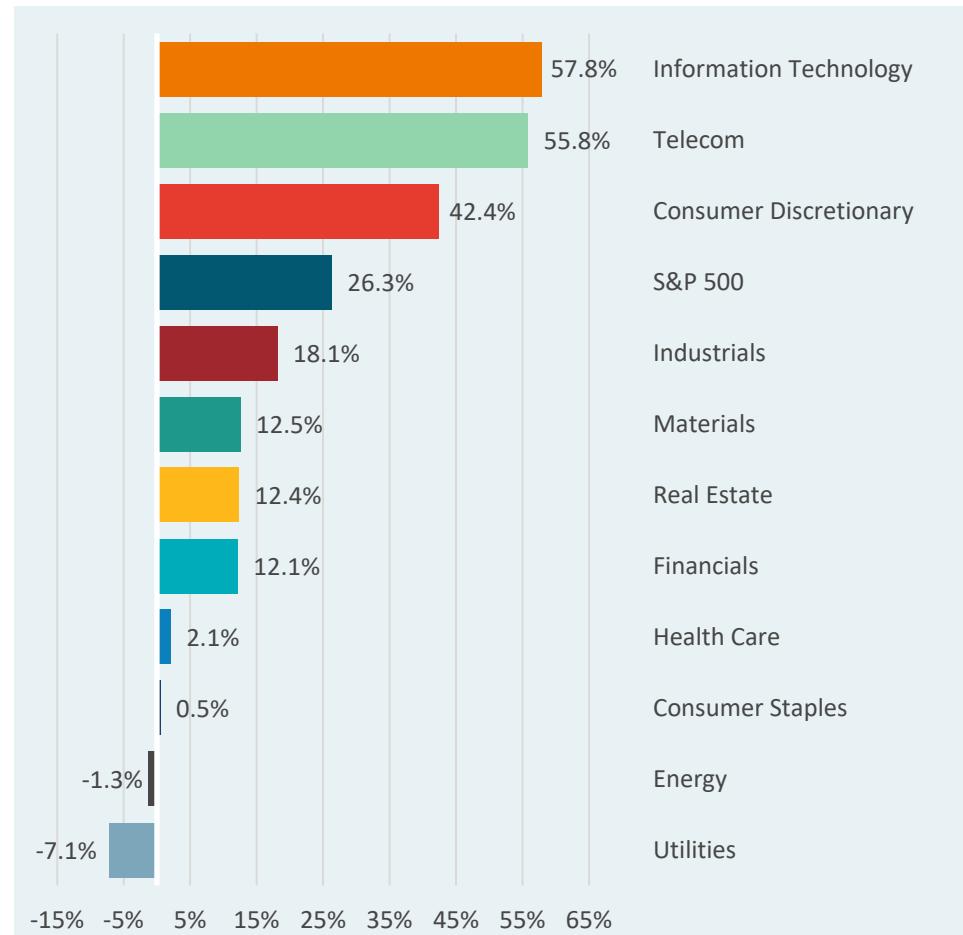
Source: Morningstar, as of 12/31/23

S&P 500 sector returns

QTD



ONE YEAR ENDING DECEMBER

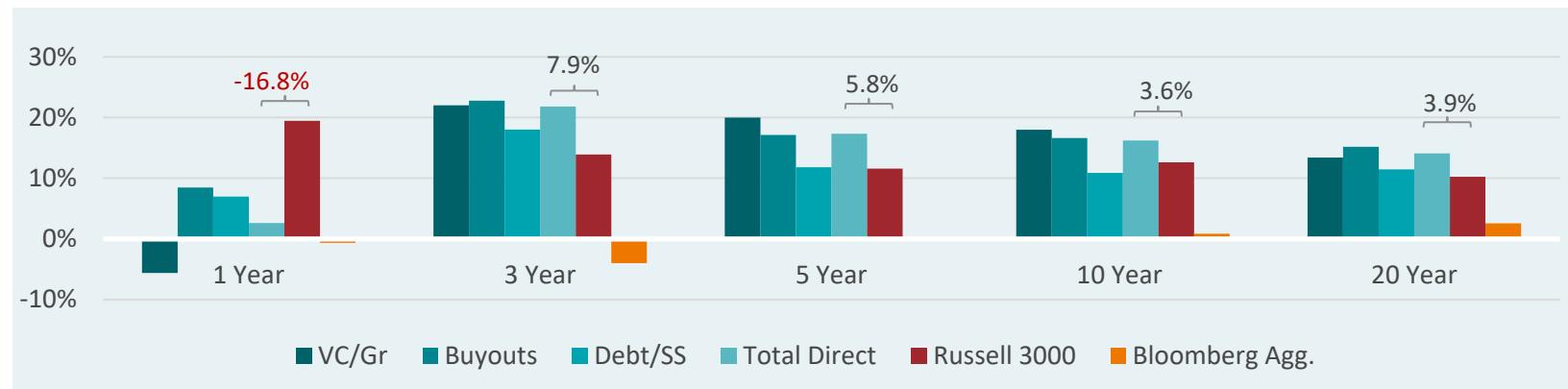


Source: Morningstar, as of 12/31/23

Source: Morningstar, as of 12/31/23

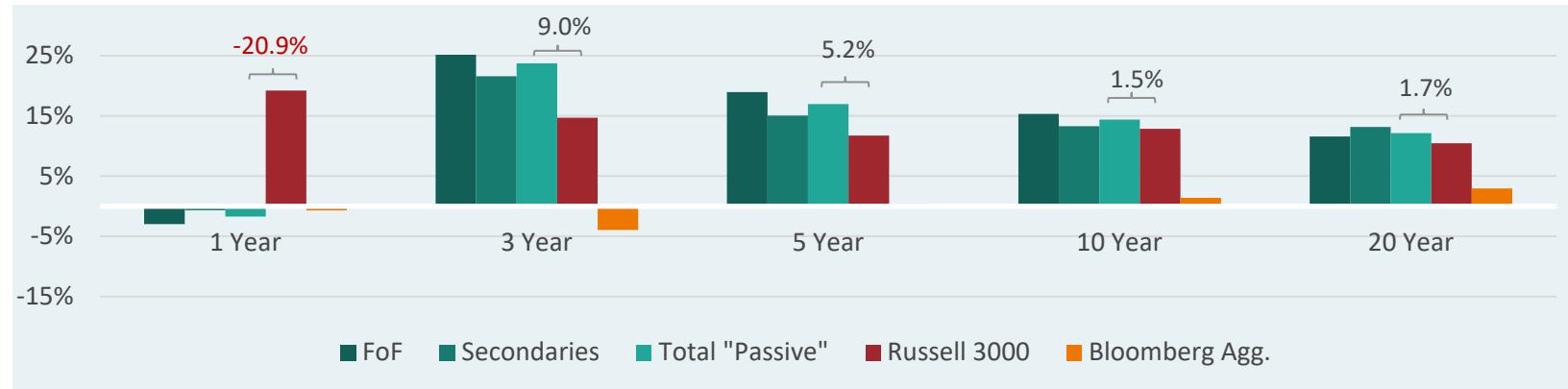
Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



Direct P.E Fund Investments outperformed comparable public equites across all time periods, aside from the 1-year.

"PASSIVE" STRATEGIES

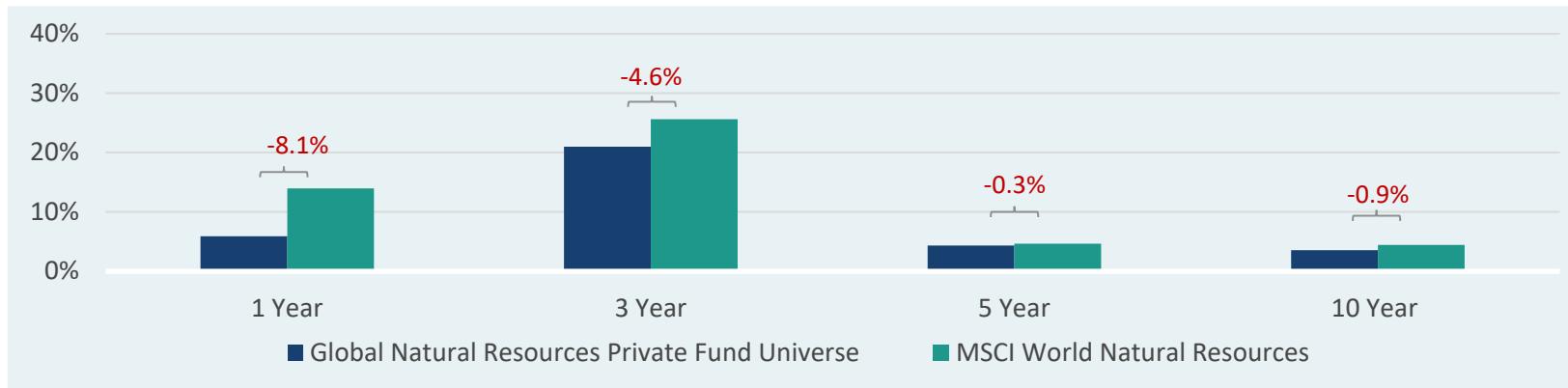


"Passive" strategies outperformed comparable public equities across all time periods, aside from the 1-year.

Sources: Refinitiv PME: U.S. Private Equity Funds sub asset classes as of June 30, 2023. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.

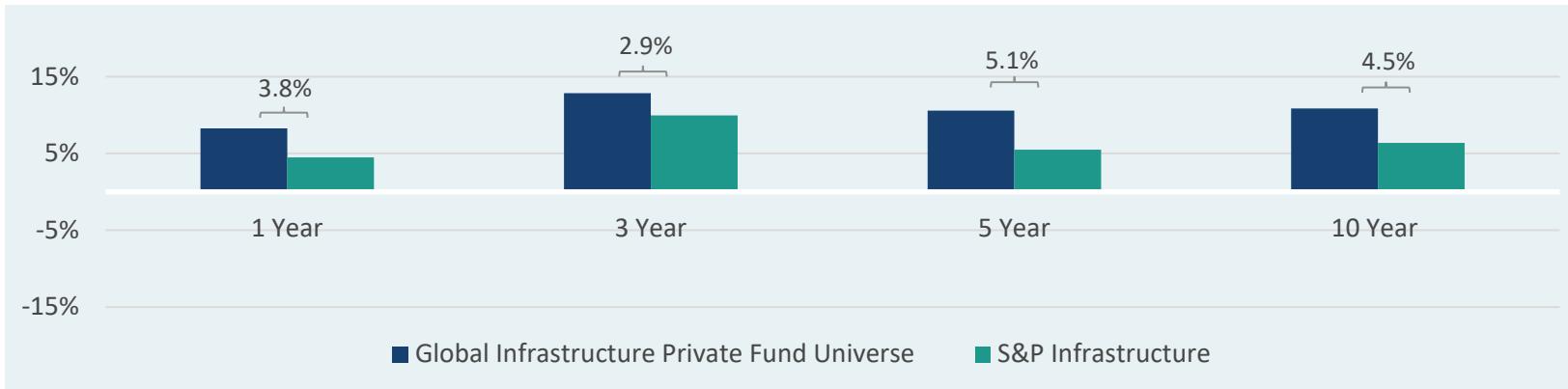
Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



N.R. funds underperformed the MSCI World Natural Resources benchmark across all periods.

GLOBAL INFRASTRUCTURE FUNDS

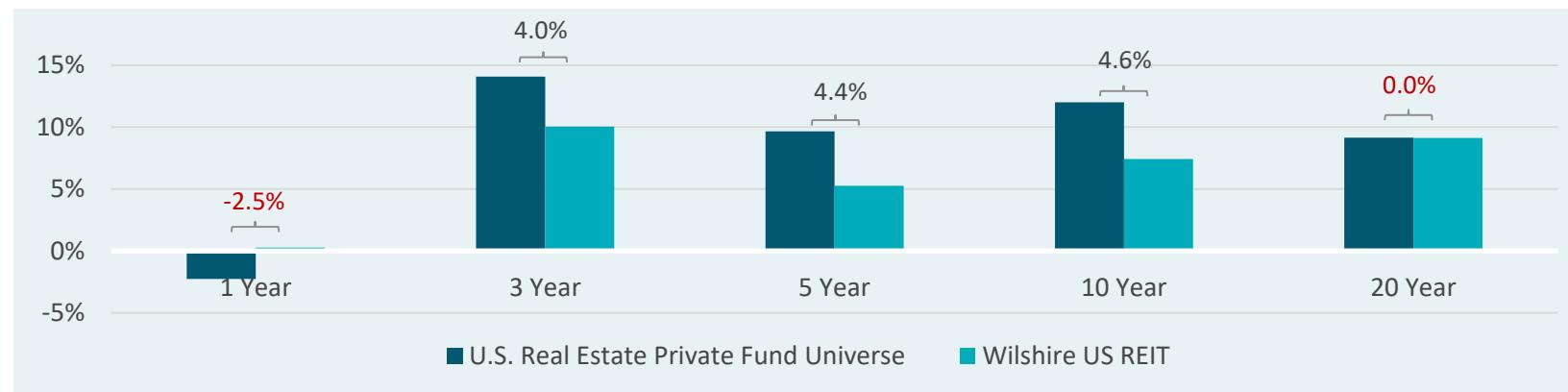


Infra. funds outperformed the S&P Infra. across all periods.

Sources: Refinitiv PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of June 30, 2023. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

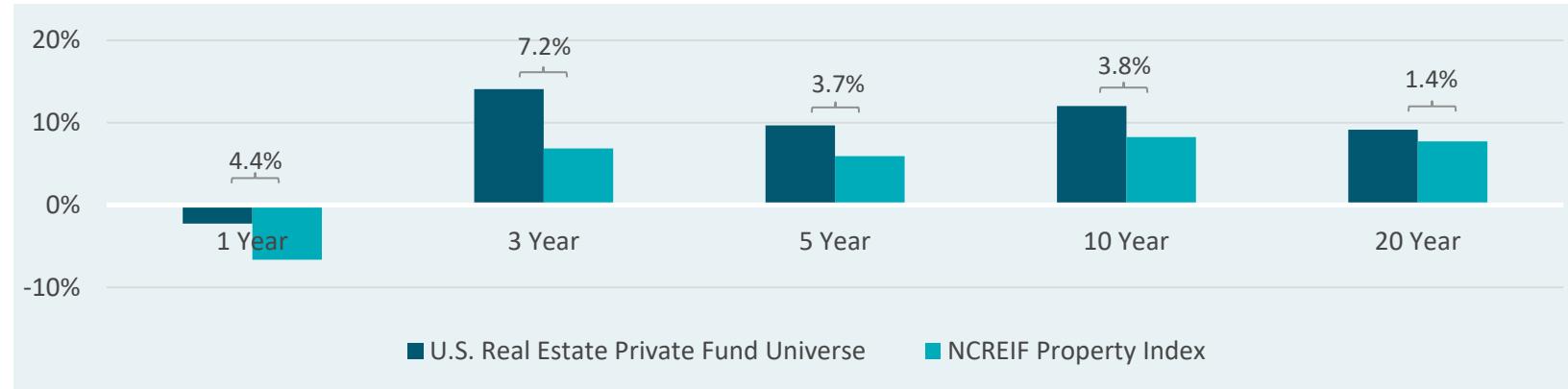
Private vs. liquid and core real estate performance

U.S. PRIVATE REAL ESTATE FUNDS VS. LIQUID UNIVERSE



U.S. Private R.E. fund performance relative to the Wilshire U.S. REIT Index has been mixed.

U.S. PRIVATE REAL ESTATE FUNDS VS. CORE FUNDS



U.S. Private R.E. Funds outperformed the NCREIF Property Index across all time periods.

Sources: Refinitiv PME: U.S. Real Estate universes as of June 30, 2023. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	4.5	11.7	26.3	26.3	10.0	15.7	12.0
S&P 500 Equal Weighted	6.9	11.9	13.9	13.9	9.3	13.8	10.4
DJ Industrial Average	4.9	13.1	16.2	16.2	9.4	12.5	11.1
Russell Top 200	4.1	11.7	29.9	29.9	10.0	16.5	12.7
Russell 1000	4.9	12.0	26.5	26.5	9.0	15.5	11.8
Russell 2000	12.2	14.0	16.9	16.9	2.2	10.0	7.2
Russell 3000	5.3	12.1	26.0	26.0	8.5	15.2	11.5
Russell Mid Cap	7.7	12.8	17.2	17.2	5.9	12.7	9.4
Style Index							
Russell 1000 Growth	4.4	14.2	42.7	42.7	8.9	19.5	14.9
Russell 1000 Value	5.5	9.5	11.5	11.5	8.9	10.9	8.4
Russell 2000 Growth	12.0	12.7	18.7	18.7	(3.5)	9.2	7.2
Russell 2000 Value	12.4	15.3	14.6	14.6	7.9	10.0	6.8

INTERNATIONAL EQUITY

Broad Index							
MSCI ACWI	4.8	11.0	22.2	22.2	5.7	11.7	7.9
MSCI ACWI ex US	5.0	9.8	15.6	15.6	1.5	7.1	3.8
MSCI EAFE	5.3	10.4	18.2	18.2	4.0	8.2	4.3
MSCI EM	3.9	7.9	9.8	9.8	(5.1)	3.7	2.7
MSCI EAFE Small Cap	7.3	11.1	13.2	13.2	(0.7)	6.6	4.8
Style Index							
MSCI EAFE Growth	5.7	12.7	17.6	17.6	0.3	8.8	5.1
MSCI EAFE Value	4.9	8.2	19.0	19.0	7.6	7.1	3.2
Regional Index							
MSCI UK	4.5	6.9	14.1	14.1	8.8	6.9	2.5
MSCI Japan	4.4	8.2	20.3	20.3	0.7	6.9	5.0
MSCI Euro	4.4	12.9	25.2	25.2	6.0	9.3	4.1
MSCI EM Asia	3.3	6.7	7.8	7.8	(6.9)	4.3	4.1
MSCI EM Latin American	8.3	17.6	32.7	32.7	9.9	6.1	2.1

Source: Morningstar, HFRI, as of 12/31/23

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	2.7	4.7	3.9	3.9	(1.0)	3.2	2.4
Bloomberg US Treasury Bills	0.5	1.4	5.1	5.1	2.1	1.9	1.3
Bloomberg US Agg Bond	3.8	6.8	5.5	5.5	(3.3)	1.1	1.8
Bloomberg US Universal	3.8	6.8	6.2	6.2	(3.0)	1.4	2.1
Duration							
Bloomberg US Treasury 1-3 Yr	1.2	2.6	4.3	4.3	(0.1)	1.3	1.0
Bloomberg US Treasury Long	8.6	12.7	3.1	3.1	(11.4)	(1.2)	2.3
Bloomberg US Treasury	3.4	5.7	4.1	4.1	(3.8)	0.5	1.3
Issuer							
Bloomberg US MBS	4.3	7.5	5.0	5.0	(2.9)	0.3	1.4
Bloomberg US Corp. High Yield	3.7	7.2	13.4	13.4	2.0	5.4	4.6
Bloomberg US Agency Interm	1.6	3.2	4.9	4.9	(1.1)	1.1	1.2
Bloomberg US Credit	4.2	8.2	8.2	8.2	(3.2)	2.4	2.8

OTHER

Index							
Bloomberg Commodity	(2.7)	(4.6)	(7.9)	(7.9)	10.8	7.2	(1.1)
Wilshire US REIT	10.2	16.3	16.1	16.1	7.5	7.6	7.7
CS Leveraged Loans	1.6	2.9	13.0	13.0	5.6	5.6	4.4
S&P Global Infrastructure	4.2	10.9	6.8	6.8	6.0	7.4	5.7
Alerian MLP	(3.4)	3.0	23.8	23.8	31.8	10.9	1.6
Regional Index							
JPM EMBI Global Div	4.7	9.2	11.1	11.1	(3.6)	1.7	3.2
JPM GBI-EM Global Div	3.2	8.1	12.7	12.7	(3.2)	1.1	0.1
Hedge Funds							
HFRI Composite	2.6	3.6	7.5	7.5	4.3	7.0	4.5
HFRI FOF Composite	2.3	3.4	6.3	6.3	2.3	5.1	3.3
Currency (Spot)							
Euro	1.2	4.3	3.5	3.5	(3.4)	(0.7)	(2.2)
Pound Sterling	0.7	4.4	6.0	6.0	(2.3)	0.0	(2.6)
Yen	4.9	5.9	(6.4)	(6.4)	(9.9)	(4.9)	(2.9)

Definitions

Bloomberg US Weekly Consumer Comfort Index - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.langerresearch.com)

University of Michigan Consumer Sentiment Index - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. (www.Bloomberg.com)

NFIB Small Business Outlook - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federation of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<http://www.nfib-sbet.org/about/>)

NAHB Housing Market Index – the housing market index is a weighted average of separate diffusion indices for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula "(Good-Poor + 100)/2" to the present and future sales series and "(High/Very High-Low/Very Low + 100)/2" to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.

Notices & disclosures

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Investment Landscape
1st Quarter 2024

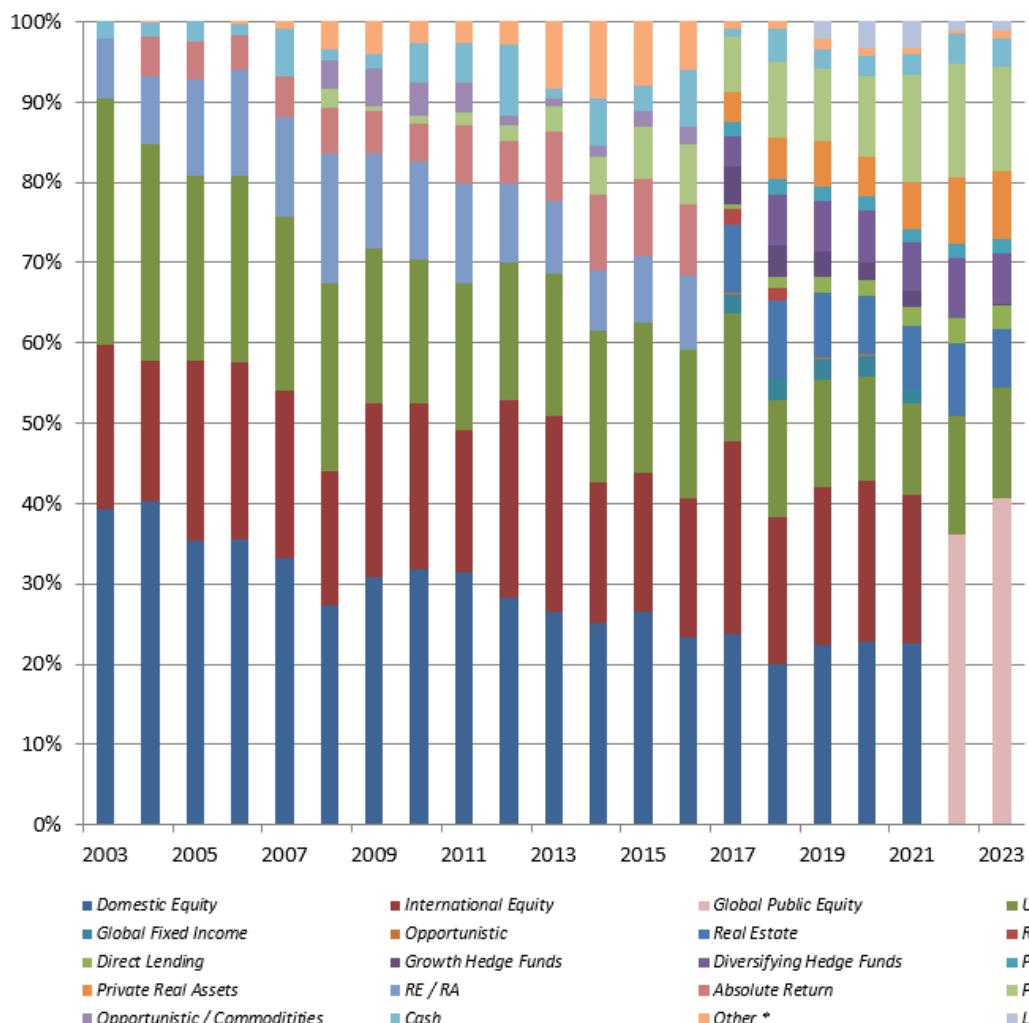
SCERS

Quarter ending December 31st, 2023

- The Total Plan returned +5.8% gross in the fourth quarter of 2023 and ranked in the bottom quartile among other public funds greater than \$1 billion. The Plan outperformed its policy index by 10 bps over this period. Longer-term, the three-year return of +5.6% ranks just outside the top quartile of large public plan peer group. The five-year return of +9.3% ranks in the top quartile of the large public plan peer group.
- Fourth quarter results (net) were enhanced by the following factors:
 1. Within the Growth Asset category (+7.7%) which outperformed the total fund, Public Equity (+10.8%) was the main outperformer of the portfolio, with Domestic Small Cap Growth (+12.1%) and International Small Cap (+12.3%) being the top performing sub-asset classes.
 2. Fixed Income returned +7.1% on the quarter, with Core Fixed Income (+7.6%) being the top performing sub-asset class.
- Fourth quarter results (net) were hindered by the following factors:
 1. Real Estate was the worst performing major asset class, losing -2.0% over the quarter, despite beating its benchmark of -4.8%
 2. Private Equity detracted portfolio performance, returning just +0.8% on the quarter.
 3. Absolute Return underperformed its index and the portfolio, up only +0.4% compared to the index return of +1.8%

Total Fund
Actual Yearly and Quarterly Asset Allocation

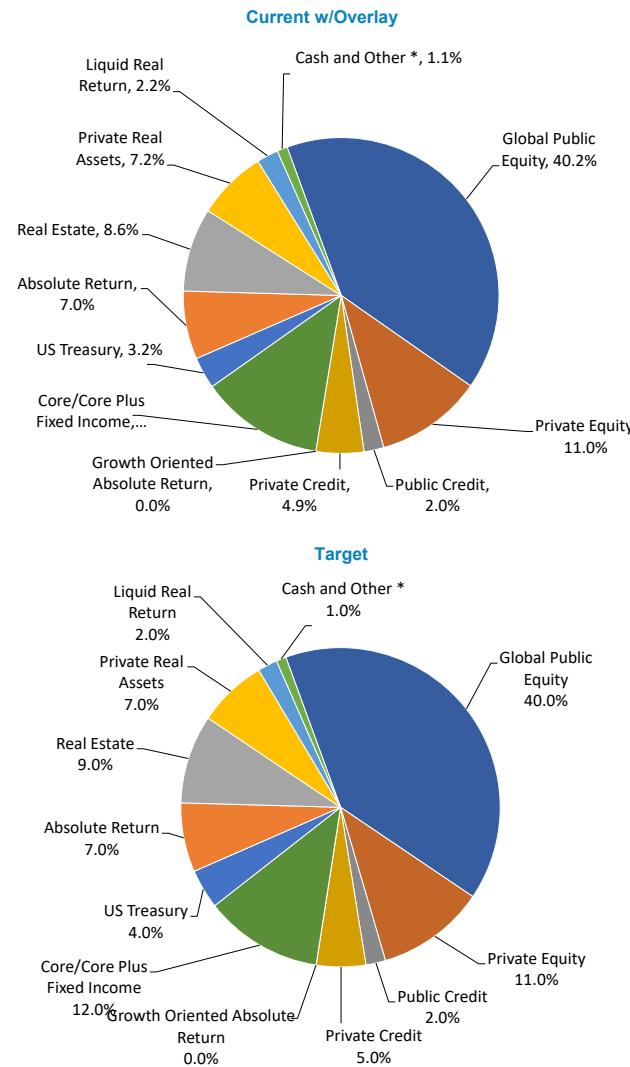
Sacramento County Employees' Retirement System
Period Ending: December 31, 2023



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
US Equity	39.2	40.4	35.4	35.5	33.1	27.2	30.9	31.7	31.4	28.4	26.5	25.2	26.4	23.4	23.8	20.0	22.4	22.8	22.6	-	-
International Equity	20.6	17.5	22.3	22.0	20.9	16.8	21.5	20.7	17.6	24.5	24.3	17.5	17.3	17.2	23.9	18.3	19.6	19.9	18.4	-	-
US Fixed Income	30.6	26.9	23.1	23.3	21.7	23.5	19.3	17.8	18.4	17.1	17.7	18.9	18.7	18.5	16.0	14.6	13.6	13.2	11.4	14.8	13.9
Real Estate / Real Assets	7.5	8.5	11.9	13.1	12.4	16.1	11.9	4.9	7.3	5.2	8.8	9.4	9.7	8.8	2.4	2.6	2.5	2.1	1.7	2.2	2.2
Absolute Return	-	4.9	4.8	4.4	5.1	5.6	5.3	-	-	-	-	-	-	-	0.9	1.6	2.2	3.0	4.6	6.3	7.4
Private Equity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	3.7	1.1	1.0	1.4	2.1	2.2
Opportunistic / Commodities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.0	4.9	8.8	1.2	5.9	3.2	7.1
Cash	2.1	1.8	2.4	1.2	5.8	1.4	1.7	0.1	-	0.4	0.9	3.4	4.1	-	2.6	2.7	2.9	8.4	9.6	7.9	6.0
Other *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	0.9	1.4	1.0	0.8	0.4	0.9

Total Fund Asset Allocation Analysis

Sacramento County Employees' Retirement System Period Ending: December 31, 2023



ASSET ALLOCATION	MARKET VALUE W/OVERLAY	W/ OVERLAY	W/O OVERLAY
Global Public Equity	5,198,191,563	40.2%	40.6%
Private Equity	1,415,206,318	11.0%	13.0%
Public Credit	262,878,149	2.0%	1.7%
Private Credit	630,465,881	4.9%	3.1%
Growth Oriented Absolute Return	113,525	0.0%	0.1%
Core/Core Plus Fixed Income	1,636,569,846	12.7%	10.7%
US Treasury	417,014,715	3.2%	3.2%
Absolute Return	902,474,279	7.0%	6.3%
Real Estate	1,107,396,130	8.6%	7.1%
Private Real Assets	924,761,240	7.2%	8.5%
Liquid Real Return	284,122,338	2.2%	1.2%
Cash and Other *	137,638,162	1.1%	4.4%
TOTAL	12,916,830,147	100.0%	100.0%

ASSET ALLOCATION	ACTUAL	TARGET	DIFF
Global Public Equity	40.2%	40.0%	0.2%
Private Equity	11.0%	11.0%	0.0%
Public Credit	2.0%	2.0%	0.0%
Private Credit	4.9%	5.0%	-0.1%
Growth Oriented Absolute Return	0.0%	0.0%	0.0%
Core/Core Plus Fixed Income	12.7%	12.0%	0.7%
US Treasury	3.2%	4.0%	-0.8%
Absolute Return	7.0%	7.0%	0.0%
Real Estate	8.6%	9.0%	-0.4%
Private Real Assets	7.2%	7.0%	0.2%
Liquid Real Return	2.2%	2.0%	0.2%
Cash and Other *	1.1%	1.0%	0.1%

* Other includes closing accounts (Heitman and SSgA Overlay)

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Total Fund - Gross	12,916,830,147	100.0	5.8 (79)	3.9 (83)	10.5 (81)	5.6 (32)	9.3 (21)	7.4 (21)	8.3	Jul-86
Total Fund - Net			5.7	3.8	10.3	5.4	9.0	7.1	8.1	Jul-86
<i>Policy Index</i>			5.8 (79)	4.2 (72)	10.9 (71)	5.2 (35)	8.1 (64)	6.8 (39)	8.3	Jul-86
<i>InvMetrics Public DB > \$1B Median</i>			7.0	4.8	11.6	4.6	8.4	6.6	-	
Total Fund ex Overlay - Gross	12,801,886,998	99.1	5.5 (83)	3.9 (81)	10.4 (83)	5.9 (26)	9.1 (32)	7.4 (21)	8.2	Jul-86
Total Fund ex Overlay - Net			5.5	3.8	10.2	5.7	8.9	7.1	8.0	Jul-86
<i>Policy Index</i>			5.8 (79)	4.2 (72)	10.9 (71)	5.2 (35)	8.1 (64)	6.8 (39)	8.3	Jul-86
Growth Asset Category - Gross	7,564,680,788	58.6	7.8	5.7	16.1	7.2	12.3	-	10.8	Apr-17
Growth Asset Category - Net			7.7	5.5	15.9	6.9	12.0	-	10.5	Apr-17
<i>Growth Custom</i>			8.2	6.4	17.6	7.2	11.4	-	9.8	
Global Public Equity - Gross	5,247,993,405	40.6	10.9 (46)	7.0 (37)	22.1 (24)	4.8 (53)	11.8 (52)	8.4 (23)	9.1	Jul-11
Global Public Equity - Net			10.8	6.9	21.7	4.5	11.3	8.0	8.7	Jul-11
<i>MSCI ACWI IMI</i>			11.3	7.6	22.2	5.9	11.8	8.0	8.3	
Domestic Equity - Gross	2,674,811,777	20.7	11.5 (83)	8.8 (25)	27.3 (14)	8.7 (48)	15.4 (24)	11.4 (31)	10.5	Jul-86
Domestic Equity - Net			11.4	8.7	26.9	8.4	15.1	11.1	10.2	Jul-86
<i>Russell 3000 Index</i>			12.1 (44)	8.4 (42)	26.0 (31)	8.5 (54)	15.2 (35)	11.5 (30)	10.4	Jul-86
<i>InvMetrics All DB US Equity Median</i>			12.0	8.3	24.3	8.6	14.9	11.2	-	
Large Cap - Gross	2,445,585,702	18.9	11.6	9.3	28.7	9.7	15.8	11.8	7.6	Apr-98
Large Cap - Net			11.5	9.2	28.4	9.5	15.6	11.6	7.4	Apr-98
<i>Russell 1000 Index</i>			12.0	8.4	26.5	9.0	15.5	11.8	8.0	
Large Cap - Index	1,336,001,661	10.3	12.0	8.5	26.5	9.0	15.5	11.8	11.9	Oct-08
Large Cap - Index			12.0	8.5	26.5	9.0	15.5	11.8	11.9	Oct-08
<i>Russell 1000 Index</i>			12.0	8.4	26.5	9.0	15.5	11.8	11.9	
AB - Gross	1,336,001,661	10.3	12.0 (39)	8.5 (36)	26.5 (40)	9.0 (61)	15.5 (60)	11.8 (62)	10.4	May-89
AB - Net			12.0	8.5	26.5	9.0	15.5	11.8	10.4	May-89
<i>Russell 1000 Index</i>			12.0 (40)	8.4 (37)	26.5 (40)	9.0 (66)	15.5 (61)	11.8 (61)	10.6	May-89
<i>eV US Passive Large Cap Equity Median</i>			11.7	8.0	26.3	9.4	15.6	12.0	-	
Large Cap - Enhanced - Gross	373,586,408	2.9	11.2	10.4	28.5	11.3	16.0	-	12.1	Aug-18
Large Cap - Enhanced - Net			11.1	10.3	28.2	11.0	15.7	-	11.8	Aug-18
<i>Russell 1000 Index</i>			12.0	8.4	26.5	9.0	15.5	-	11.9	
AQR US Enhanced Equity - Gross	373,586,408	2.9	11.2 (75)	10.4 (10)	28.5 (14)	11.3 (18)	16.0 (16)	-	12.1	Aug-18
AQR US Enhanced Equity - Net			11.1	10.3	28.2	11.0	15.7	-	11.8	Aug-18
<i>Russell 1000 Index</i>			12.0 (36)	8.4 (49)	26.5 (37)	9.0 (61)	15.5 (40)	-	11.9	Aug-18
<i>eV US Enh Equity Median</i>			11.7	8.4	25.9	9.7	15.1	11.9	-	

See Policy Index and Benchmark History

*Total Fund and asset class composites are ranked against Investment Metrics universes. Managers are ranked against eVestment manager universes. Ranking of 1 is a top ranking and ranking of 100 is a bottom ranking.

**Total Fund ex Overlay returns from 2/1/2006-12/31/2010 were calculated using the overlay impact provided by SSgA.

+ Since inception date denotes first day of the month.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Large Cap (130/30) - Gross	367,189,433	2.8	11.2	9.0	26.1	9.7	16.3	12.3	12.6	Oct-08
Large Cap (130/30) - Net			11.0	8.8	25.6	9.3	15.7	11.6	12.0	Oct-08
<i>Russell 1000 Index</i>			12.0	8.4	26.5	9.0	15.5	11.8	11.9	
JP Morgan 130/30 - Gross	196,323,957	1.5	12.3 (48)	10.2 (45)	30.9 (18)	12.0 (64)	18.7 (34)	13.4 (36)	13.1	Aug-08
JP Morgan 130/30 - Net			12.1	9.8	30.1	11.3	17.9	12.7	12.4	Aug-08
<i>Russell 1000 Index</i>			12.0 (51)	8.4 (62)	26.5 (37)	9.0 (85)	15.5 (56)	11.8 (70)	11.1	Aug-08
eV Extended US Equity Median			12.2	9.7	22.2	13.9	16.5	12.9	-	
DE Shaw Broad Mkt Core Alpha Ext - Gross	170,865,476	1.3	9.9 (64)	7.7 (70)	21.2 (56)	7.3 (92)	-	-	12.4	Feb-19
DE Shaw Broad Mkt Core Alpha Ext - Net			9.8	7.5	20.8	7.0	-	-	12.0	Feb-19
<i>Russell 1000 Index</i>			12.0 (51)	8.4 (62)	26.5 (37)	9.0 (85)	-	-	13.9	Feb-19
eV Extended US Equity Median			12.2	9.7	22.2	13.9	16.5	12.9	-	
Large Cap Active - Gross	368,808,201	2.9	10.8	11.6	40.2	11.0	16.1	11.4	11.7	Oct-08
Large Cap Active - Net			10.6	11.2	39.2	10.1	15.2	10.6	11.0	Oct-08
<i>Russell 1000</i>			12.0	8.4	26.5	9.0	15.4	10.6	10.5	
Eagle Capital - Gross	368,787,917	2.9	10.8 (68)	11.6 (4)	40.2 (1)	11.0 (23)	16.1 (28)	12.3 (23)	14.1	Mar-12
Eagle Capital - Net			10.6	11.2	39.3	10.1	15.2	11.5	13.3	Mar-12
<i>Russell 1000 Index</i>			12.0 (41)	8.4 (44)	26.5 (29)	9.0 (63)	15.5 (40)	11.8 (42)	13.2	Mar-12
eV US Large Cap Core Equity Median			11.7	8.2	22.3	9.6	15.0	11.6	-	
Small Cap - Gross	229,226,074	1.8	10.6	3.9	13.9	-1.0	11.4	8.1	11.4	Jan-91
Small Cap - Net			10.5	3.6	12.9	-1.8	10.6	7.4	10.6	Jan-91
<i>Russell 2000 Index</i>			14.0	8.2	16.9	2.2	10.0	7.2	10.1	
Small Cap - Growth - Gross	100,992,236	0.8	12.2	2.9	13.1	-8.5	11.5	8.9	10.8	Oct-08
Small Cap - Growth - Net			12.1	2.8	12.2	-9.2	10.7	8.3	10.1	Oct-08
<i>Russell 2000 Growth Index</i>			12.7	4.5	18.7	-3.5	9.2	7.2	9.5	
Weatherbie - Gross	100,992,236	0.8	12.2 (37)	2.9 (64)	13.1 (76)	-8.5 (88)	11.5 (65)	10.4 (30)	12.0	Jan-03
Weatherbie - Net			12.1	2.8	12.2	-9.2	10.8	9.7	11.1	Jan-03
<i>Russell 2000 Growth Index</i>			12.7 (30)	4.5 (43)	18.7 (45)	-3.5 (61)	9.2 (88)	7.2 (95)	9.9	Jan-03
eV US Small Cap Growth Equity Median			11.2	4.0	17.6	-1.5	12.4	9.5	-	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Small Cap - Value - Gross	128,233,838	1.0	9.4	4.8	14.5	7.4	9.8	6.6	8.6	Oct-08
Small Cap - Value - Net			9.2	4.3	13.6	6.6	9.1	5.9	7.8	Oct-08
<i>Russell 2000 Value Index</i>			15.3	11.8	14.6	7.9	10.0	6.8	8.0	
Snyder Capital Management - Gross	128,233,838	1.0	9.4 (89)	4.8 (92)	14.5 (71)	-	-	-	6.8	Feb-21
Snyder Capital Management - Net			9.2	4.3	13.6	-	-	-	6.0	Feb-21
<i>Russell 2000 Value Index - Net</i>			15.3 (16)	11.8 (33)	14.6 (71)	-	-	-	6.3	Feb-21
<i>eV US Small Cap Value Equity Median</i>			12.9	9.8	17.3	10.8	12.5	8.3	-	
International Equity - Gross	2,189,457,790	17.0	10.1 (28)	5.1 (51)	17.4 (37)	1.0 (69)	7.9 (56)	4.9 (40)	6.3	Jan-88
International Equity - Net			10.0 (31)	4.9 (56)	16.9 (49)	0.5 (75)	7.4 (78)	4.4 (69)	6.0	Jan-88
<i>MSCI AC World ex USA Index</i>			9.8 (46)	5.8 (27)	16.2 (58)	2.0 (53)	7.6 (71)	4.3 (72)	5.9	Jan-88
<i>InvMetrics All DB Global ex-US Equity Median</i>			9.7	5.1	16.6	2.1	8.3	4.7	-	
International - Developed - Gross	1,593,352,152	12.3	11.2 (24)	5.9 (29)	20.0 (15)	3.6 (38)	9.2 (38)	5.7 (28)	5.0	Apr-98
International - Developed - Net			11.1 (31)	5.6 (32)	19.4 (17)	3.0 (44)	8.5 (58)	5.1 (44)	4.6	Apr-98
<i>MSCI World ex U.S.</i>			10.6 (41)	6.1 (28)	18.6 (22)	5.0 (18)	9.0 (44)	4.8 (52)	5.1	Apr-98
<i>InvMetrics All DB Developed Market ex-US Equity Median</i>			9.9	5.2	16.7	2.3	8.6	4.9	-	
Large Cap - Gross	1,381,302,464	10.7	11.0 (36)	5.6 (44)	20.1 (27)	4.4 (48)	9.4 (48)	5.8 (33)	5.5	Jan-05
Large Cap - Net			10.9 (37)	5.4 (49)	19.5 (36)	3.8 (55)	8.7 (62)	5.2 (48)	5.0	Jan-05
<i>MSCI World ex U.S.</i>			10.6 (40)	6.1 (39)	18.6 (50)	5.0 (41)	9.0 (57)	4.8 (61)	5.5	Jan-05
<i>eV EAFE Large Cap Equity Median</i>			10.1	5.4	18.5	4.3	9.3	5.2	-	
Lazard - Gross	341,718,268	2.6	10.4 (53)	4.2 (69)	18.6 (40)	2.3 (45)	7.7 (72)	5.2 (57)	7.7	Jul-12
Lazard - Net			10.3	4.0	17.9	1.9	7.3	4.8	7.4	Jul-12
<i>MSCI World ex US Gross</i>			10.6 (51)	6.1 (41)	18.6 (40)	3.2 (37)	8.3 (62)	4.7 (71)	6.6	Jul-12
<i>eV All ACWI ex-US Equity Median</i>			10.6	5.6	17.1	1.8	8.9	5.4	-	
Walter Scott & Partners Limited - Gross	514,702,708	4.0	14.5 (19)	3.0 (34)	20.6 (2)	2.3 (26)	10.1 (45)	-	9.4	Apr-17
Walter Scott & Partners Limited - Net			14.4	2.8	19.7	1.5	9.1	-	8.4	Apr-17
<i>MSCI World ex U.S. Growth</i>			12.6 (39)	3.3 (28)	17.9 (26)	0.8 (36)	9.3 (63)	-	7.3	Apr-17
<i>eV EAFE Large Cap Growth Median</i>			11.8	2.3	15.7	-1.2	9.8	5.9	-	
LSV - Gross	524,881,488	4.1	8.1 (61)	9.4 (11)	20.8 (29)	9.1 (33)	9.8 (32)	5.6 (21)	5.4	Jan-05
LSV - Net			8.0	9.2	20.3	8.7	9.4	5.2	4.9	Jan-05
<i>MSCI World ex U.S. Value</i>			8.7 (45)	9.0 (15)	19.4 (50)	9.0 (33)	8.2 (65)	4.0 (70)	4.9	Jan-05
<i>eV EAFE Large Cap Value Median</i>			8.5	6.7	19.4	7.5	9.0	4.5	-	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Small Cap - Gross	212,049,688	1.6	12.5 (18)	7.3 (41)	15.1 (43)	-3.4 (80)	7.0 (65)	4.4 (81)	7.6	Oct-08
Small Cap - Net			12.3	6.9	14.6	-4.0	6.2	3.7	6.7	Oct-08
<i>MSCI World ex U.S. Small Cap Index</i>			10.7 (53)	6.9 (44)	13.2 (66)	0.2 (61)	7.5 (58)	5.0 (70)	7.4	Oct-08
<i>eV EAFE Small Cap Equity Median</i>			10.7	6.6	14.7	1.5	7.9	5.7	-	
William Blair Dev Small Cap - Gross	104,147,508	0.8	14.4 (17)	5.9 (68)	15.5 (59)	-4.9 (85)	8.3 (63)	4.6 (92)	7.9	Oct-08
William Blair Dev Small Cap - Net			14.1	5.4	14.4	-5.7	7.3	3.7	6.9	Oct-08
<i>MSCI World ex U.S. Small Cap Index</i>			10.7 (61)	6.9 (54)	13.2 (78)	0.2 (49)	7.5 (73)	5.0 (82)	7.4	Oct-08
<i>eV ACWI ex-US Small Cap Equity Median</i>			11.2	7.3	16.7	-0.1	8.9	6.4	-	
Acadian Asset Management - Gross	107,902,180	0.8	10.8 (60)	8.6 (43)	-	-	-	-	8.1	Apr-23
Acadian Asset Management - Net			10.6 (61)	8.4 (43)	-	-	-	-	7.9	Apr-23
<i>MSCI AC World ex USA Small Value</i>			10.2 (65)	10.7 (21)	-	-	-	-	13.5	Apr-23
<i>eV ACWI ex-US Small Cap Equity Median</i>			11.2	7.3	16.7	-0.1	8.9	6.4	-	
International - Emerging - Gross	596,101,473	4.6	7.4 (78)	3.2 (100)	13.4 (56)	-6.8 (97)	4.3 (64)	2.5 (49)	5.5	Feb-00
International - Emerging - Net			7.3	3.0	12.9	-7.1	4.0	2.2	5.1	Feb-00
<i>MSCI Emerging Markets Index</i>			7.9	4.9	10.3	-4.7	4.1	3.0	5.9	
Arga Emg - Gross	200,359,836	1.6	7.6 (61)	4.4 (53)	-	-	-	-	6.8	Feb-23
Arga Emg - Net			7.4	4.1	-	-	-	-	6.1	Feb-23
<i>MSCI Emerging Markets Index</i>			7.9 (52)	4.9 (49)	-	-	-	-	2.2	Feb-23
<i>eV Emg Mkts Equity Median</i>			8.0	4.7	12.6	-2.9	5.7	4.2	-	
Baillie Gifford Emg All Cap - Gross	213,011,006	1.6	7.8 (56)	3.0 (73)	14.4 (41)	-8.5 (90)	5.0 (66)	-	7.4	Apr-16
Baillie Gifford Emg All Cap - Net			7.8	3.0	14.4	-8.5	5.0	-	7.4	Apr-16
<i>MSCI Emerging Markets Index</i>			7.9 (52)	4.9 (49)	10.3 (63)	-4.7 (62)	4.1 (80)	-	5.6	Apr-16
<i>eV Emg Mkts Equity Median</i>			8.0	4.7	12.6	-2.9	5.7	4.2	-	
Oaktree Emg - Gross	182,678,983	1.4	6.8 (79)	1.3 (89)	-	-	-	-	-3.1	Feb-23
Oaktree Emg - Net			6.6	0.9	-	-	-	-	-3.9	Feb-23
<i>MSCI Emerging Markets Index</i>			7.9 (52)	4.9 (49)	-	-	-	-	2.2	Feb-23
<i>eV Emg Mkts Equity Median</i>			8.0	4.7	12.6	-2.9	5.7	4.2	-	

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Global/Unconstrained Equity - Gross	383,723,838	3.0	11.1 (44)	5.9 (55)	15.4 (93)	-	-	-	-0.5	Apr-22
Global/Unconstrained Equity - Net			11.1	5.9	15.4	-	-	-	-0.5	Apr-22
<i>MSCI AC World IMI</i>			11.3 (34)	7.6 (17)	22.2 (24)	-	-	-	3.3	Apr-22
<i>InvMetrics All DB Global Equity Median</i>			10.7	5.9	19.4	5.4	11.9	6.3	-	
Artisan Partners Global Opp - Gross	136,163,265	1.1	13.0 (23)	6.9 (48)	23.4 (31)	-	-	-	12.1	Sep-22
Artisan Partners Global Opp - Net			13.0	6.9	23.4	-	-	-	12.1	Sep-22
<i>MSCI ACWI IMI</i>			11.3 (50)	7.6 (39)	22.2 (40)	-	-	-	15.7	Sep-22
<i>eV Global All Cap Equity Median</i>			11.2	6.7	19.8	6.2	12.5	8.4	-	
Nikko Asset Management - Gross	128,280,000	1.0	9.3 (80)	3.2 (87)	12.4 (84)	-	-	-	9.3	Sep-22
Nikko Asset Management - Net			9.3	3.2	12.4	-	-	-	9.3	Sep-22
<i>MSCI ACWI IMI</i>			11.3 (50)	7.6 (39)	22.2 (40)	-	-	-	15.7	Sep-22
<i>eV Global All Cap Equity Median</i>			11.2	6.7	19.8	6.2	12.5	8.4	-	
Third Point Offshore Fund - Gross	34,853,797	0.3	8.0 (90)	7.2 (43)	4.5 (97)	0.7 (83)	8.0 (92)	5.6 (92)	7.9	May-12
Third Point Offshore Fund - Net			8.0	7.2	4.5	0.7	8.0	5.6	7.9	May-12
<i>MSCI ACWI IMI</i>			11.3 (50)	7.6 (39)	22.2 (40)	6.0 (53)	12.0 (54)	8.3 (53)	9.6	May-12
<i>eV Global All Cap Equity Median</i>			11.2	6.7	19.8	6.2	12.5	8.4	-	
Allspring Global Investments - Gross	84,426,775	0.7	12.2 (34)	-	-	-	-	-	11.9	Sep-23
Allspring Global Investments - Net			12.2	-	-	-	-	-	11.9	Sep-23
<i>MSCI AC World IMI</i>			11.3 (50)	-	-	-	-	-	6.6	Sep-23
<i>eV Global All Cap Equity Median</i>			11.2	6.7	19.8	6.2	12.5	8.4	-	
Private Equity - Gross***	1,684,636,652	13.0	0.8 (27)	1.7 (49)	2.8 (70)	16.2 (42)	16.9 (23)	16.3 (17)	7.0	Mar-08
Private Equity - Net***			0.8	1.7	2.8	16.2	16.9	16.3	7.2	Mar-08
<i>Cambridge Associates All PE 1 Qtr Lag</i>			0.0 (43)	1.4 (54)	4.3 (60)	15.3 (55)	13.5 (55)	14.2 (30)	11.2	Jan-08
<i>Russell 3000 +3% 1Q Lag</i>			-2.1 (98)	5.9 (7)	23.5 (2)	12.4 (76)	12.2 (68)	14.3 (29)	12.0	Mar-08
<i>InvMetrics All DB Private Equity Median</i>			0.0	1.7	4.9	15.6	14.3	13.0	-	
Abbott VI - Gross	24,570,537	0.2	-2.5	-0.1	-2.3	9.5	10.9	13.6	6.5	Aug-08
Abbott VI - Net			-2.5	-0.1	-2.3	9.5	10.9	13.6	-	Aug-08
<i>Cambridge Associates All PE 1 Qtr Lag</i>			0.0	1.4	4.3	15.3	13.5	14.2	12.2	
Accel-KKR V - Gross	28,239,610	0.2	4.4	6.7	11.4	31.1	27.4	-	22.7	Feb-17
Accel-KKR V - Net			4.4	6.7	11.4	31.1	27.4	-	22.7	Feb-17
<i>Cambridge Associates All PE 1 Qtr Lag</i>			0.0	1.4	4.3	15.3	13.5	-	15.0	
Accel-KKR VI - Gross	26,952,762	0.2	0.0	0.0	0.0	-	-	-	-20.7	Mar-21
Accel-KKR VI - Net			0.0	0.0	0.0	-	-	-	-20.7	Mar-21
<i>Cambridge Associates All PE 1 Qtr Lag</i>			0.0	1.4	4.3	-	-	-	16.3	

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* Account converted to Global/Unconstrained Equity from Growth Oriented Absolute Return in April 2022. Reflects linked historical returns up to March 2022.

** Private Equity Composite includes the historical returns of Summit Credit and Athyrium Opportunities up to 4/1/17.

*** Returns are one-quarter lag.

+ Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar weighted-returns.

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Accel-KKR Growth Partners II - Gross	9,519,111	0.1	8.9	10.1	15.0	46.8	36.8	-	18.0	Mar-15
Accel-KKR Growth Partners II - Net			8.9	10.1	15.0	46.8	36.8	-	18.0	Mar-15
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.0	
Accel-KKR Growth Partners III - Gross	31,867,494	0.2	2.8	4.4	9.0	16.0	-	-	4.3	Aug-19
Accel-KKR Growth Partners III - Net			2.8	4.4	9.0	16.0	-	-	4.3	Aug-19
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	14.7	
Accel-KKR Growth Partners IV - Gross	9,861,614	0.1	-0.1	0.8	2.1	-	-	-	-21.2	Jul-22
Accel-KKR Growth Partners IV - Net			-0.1	0.8	2.1	-	-	-	-21.2	Jul-22
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	-1.7	
Atalaya Special Opp V - Gross	439,621	0.0	-5.5	-1.1	-17.6	0.2	1.8	3.9	3.5	Aug-13
Atalaya Special Opp V - Net			-5.5	-1.1	-17.6	0.2	1.8	3.9	3.5	Aug-13
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	14.5	
Atalaya Special Opp VI - Gross	1,252,904	0.0	-8.9	-14.0	-12.5	3.5	8.8	-	8.5	May-16
Atalaya Special Opp VI - Net			-8.9	-14.0	-12.5	3.5	8.8	-	8.5	May-16
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	15.4	
Canvas Ventures III - Gross	13,525,078	0.1	-4.3	-4.2	-11.8	0.4	-	-	0.4	Dec-20
Canvas Ventures III - Net			-4.3	-4.2	-11.8	0.4	-	-	0.4	Dec-20
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	18.5	
Cortec Group Fund VII - Gross	26,271,929	0.2	0.0	4.1	18.9	28.2	-	-	24.5	Jan-20
Cortec Group Fund VII - Net			0.0	4.1	18.9	28.2	-	-	24.5	Jan-20
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	15.1	
Cortec Group Fund VIII**	4,347,451	0.0	-8.1	-14.8	-	-	-	-	-14.8	Apr-23
Cortec Group Fund VIII - Net**			-8.1	-14.8	-	-	-	-	-14.8	Apr-23
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	-	-	-	-	3.4	
CRV Select Fund I - Gross	17,745,859	0.1	-0.6	3.1	-10.5	-	-	-	0.2	Jun-21
CRV Select Fund I - Net			-0.6	3.1	-10.5	-	-	-	0.2	Jun-21
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	11.5	
CRV Select Fund II - Gross	5,218,091	0.0	-2.7	3.3	-10.7	-	-	-	-9.0	Apr-22
CRV Select Fund II - Net			-2.7	3.3	-10.7	-	-	-	-9.0	Apr-22
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	-1.9	
CRV XVIII LP - Gross	17,039,717	0.1	-0.9	-3.0	-9.6	-	-	-	1.9	Mar-21
CRV XVIII LP - Net			-0.9	-3.0	-9.6	-	-	-	1.9	Mar-21
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	16.3	

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CRV XIX LP - Gross	5,721,773	0.0	-2.3	-5.8	-16.6	-	-	-	-19.6	Jul-22
CRV XIX LP - Net			-2.3	-5.8	-16.6	-	-	-	-19.6	Jul-22
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	-1.7	
Davidson Kempner LT Dist Opp IV - Gross	18,743,264	0.1	3.2	6.2	14.3	25.5	17.1	-	17.2	Apr-18
Davidson Kempner LT Dist Opp IV - Net			3.2	6.2	14.3	25.5	17.1	-	17.2	Apr-18
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.6	
Davidson Kempner LT Dist Opp V - Gross	31,694,120	0.2	2.0	3.2	8.0	11.4	-	-	14.0	Jun-20
Davidson Kempner LT Dist Opp V - Net			2.0	3.2	8.0	11.4	-	-	14.0	Jun-20
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	15.5	
Dyal Capital Partners II - Gross	38,259,450	0.3	2.1	7.5	14.4	30.1	15.7	-	4.9	Jan-15
Dyal Capital Partners II - Net			2.1	7.5	14.4	30.1	15.7	-	4.9	Jan-15
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.4	
Dyal Capital Partners III - Gross	31,183,317	0.2	6.1	8.4	22.2	27.9	24.1	-	24.4	Jan-17
Dyal Capital Partners III - Net			6.1	8.4	22.2	27.9	24.1	-	24.4	Jan-17
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.5	
Garrison Investment Group - Gross	1,400,024	0.0	-4.0	-6.1	-8.8	49.2	22.9	10.6	10.0	Jun-12
Garrison Investment Group - Net			-4.0	-6.1	-8.8	49.2	22.9	10.6	10.0	Jun-12
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	15.0	
Golden Capital Co Invest - Gross	24,474,495	0.2	11.9	11.2	6.9	-	-	-	5.9	Nov-22
Golden Capital Co Invest - Net			11.9	11.2	6.9	-	-	-	5.9	Nov-22
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	2.2	
Gridiron Capital Fund IV - Gross	54,622,024	0.4	4.7	5.8	10.4	31.7	-	-	30.5	Jun-20
Gridiron Capital Fund IV - Net			4.7	5.8	10.4	31.7	-	-	30.5	Jun-20
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	15.5	
Gridiron Capital Fund V - Gross	15,582,492	0.1	-1.7	37.3	-	-	-	-	14.5	Feb-23
Gridiron Capital Fund V - Net			-1.7	37.3	-	-	-	-	14.5	Feb-23
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	-	-	-	-	4.3	
Harbourvest VIII - Gross	2,538,421	0.0	3.5	-38.9	-41.1	-7.0	-1.2	7.0	6.5	Jan-08
Harbourvest VIII - Net			3.5	-38.9	-41.1	-7.0	-1.2	7.0	-	Jan-08
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	11.2	
Harbourvest Intl VI - Gross	6,128,790	0.0	7.3	-58.6	-57.3	-21.1	-9.4	2.5	-8.2	Apr-09
Harbourvest Intl VI - Net			7.3	-58.6	-57.3	-21.1	-9.4	2.5	-	Apr-09
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	15.8	

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H.I.G. Bayside Loan III - Gross	3,412,307	0.0	-10.5	-13.2	-14.1	-1.4	-3.9	3.4	1.8	Feb-13
H.I.G. Bayside Loan III - Net			-10.5	-13.2	-14.1	-1.4	-3.9	3.4	1.8	Feb-13
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	15.4	
H.I.G. Capital V - Gross	7,992,728	0.1	-20.0	-16.6	-10.1	16.1	13.5	13.6	11.9	Aug-13
H.I.G. Capital V - Net			-20.0	-16.6	-10.1	16.1	13.5	13.6	11.9	Aug-13
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	14.5	
H.I.G. Europe Capital II - Gross	10,420,769	0.1	3.6	1.4	13.5	13.4	10.6	-	-15.1	Feb-14
H.I.G. Europe Capital II - Net			3.6	1.4	13.5	13.4	10.6	-	-15.1	Feb-14
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.9	
Khosla IV - Gross	12,811,697	0.1	-11.0	-9.2	-17.2	14.9	16.1	19.9	16.8	Aug-11
Khosla IV - Net			-11.0	-9.2	-17.2	14.9	16.1	19.9	16.8	Aug-11
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	14.3	
Khosla V - Gross	36,706,754	0.3	-4.5	-1.9	-5.2	33.7	22.6	-	16.0	Dec-14
Khosla V - Net			-4.5	-1.9	-5.2	33.7	22.6	-	16.0	Dec-14
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.1	
Khosla VI - Gross	59,218,504	0.5	-2.2	-0.6	-1.7	27.0	13.4	-	11.4	Sep-18
Khosla VI - Net			-2.2	-0.6	-1.7	27.0	13.4	-	11.4	Sep-18
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.2	
Khosla VII - Gross	17,303,194	0.1	4.9	7.0	13.3	-	-	-	2.1	Feb-21
Khosla VII - Net			4.9	7.0	13.3	-	-	-	2.1	Feb-21
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	15.8	
Linden Capital III - Gross	27,529,032	0.2	4.8	-10.7	-23.6	6.6	17.7	-	15.9	Jul-16
Linden Capital III - Net			4.8	-10.7	-23.6	6.6	17.7	-	15.9	Jul-16
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.6	
Linden Capital Partners IV - Gross	52,836,267	0.4	7.3	9.4	15.5	24.3	16.4	-	16.2	Oct-18
Linden Capital Partners IV - Net			7.3	9.4	15.5	24.3	16.4	-	16.2	Oct-18
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.5	
Linden Capital Partners V - Gross	17,353,221	0.1	4.0	8.3	13.5	-	-	-	6.9	Aug-22
Linden Capital Partners V - Net			4.0	8.3	13.5	-	-	-	6.9	Aug-22
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	-1.8	
Marlin Equity IV - Gross	9,411,163	0.1	-3.7	-6.7	-3.1	2.9	6.2	4.5	4.5	Dec-13
Marlin Equity IV - Net			-3.7	-6.7	-3.1	2.9	6.2	4.5	4.5	Dec-13
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	14.5	

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Marlin Equity V - Gross	31,294,804	0.2	3.3	5.7	12.1	22.6	24.9	-	19.1	Mar-18
Marlin Equity V - Net			3.3	5.7	12.1	22.6	24.9	-	19.1	Mar-18
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.4	
Marlin Heritage - Gross	3,759,834	0.0	-6.1	-16.0	-29.3	-9.0	6.8	-	12.8	Aug-14
Marlin Heritage - Net			-6.1	-16.0	-29.3	-9.0	6.8	-	12.8	Aug-14
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.5	
Marlin Heritage II - Gross	10,455,013	0.1	-5.1	-10.5	-13.5	10.4	10.1	-	4.9	Nov-17
Marlin Heritage II - Net			-5.1	-10.5	-13.5	10.4	10.1	-	4.9	Nov-17
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.3	
Marlin Heritage III - Gross	3,771,479	0.0	-5.9	-5.7	-58.7	-	-	-	-58.7	Jan-23
Marlin Heritage III - Net			-5.9	-5.7	-58.7	-	-	-	-58.7	Jan-23
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	4.3	
Marlin Heritage Europe - Gross	18,508,746	0.1	-3.7	-0.1	14.5	23.1	27.2	-	20.9	Sep-17
Marlin Heritage Europe - Net			-3.7	-0.1	14.5	23.1	27.2	-	20.9	Sep-17
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.7	
New Enterprise 14 - Gross	39,096,877	0.3	8.3	10.6	1.2	12.7	10.9	15.3	13.1	Jun-12
New Enterprise 14 - Net			8.3	10.6	1.2	12.7	10.9	15.3	13.1	Jun-12
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	15.0	
New Enterprise 15 - Gross	27,476,270	0.2	1.7	0.6	-5.5	-5.1	2.8	-	8.2	May-15
New Enterprise 15 - Net			1.7	0.6	-5.5	-5.1	2.8	-	8.2	May-15
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.6	
New Enterprise 16 - Gross	38,608,302	0.3	1.1	3.5	0.4	3.3	7.3	-	6.4	Jun-17
New Enterprise 16 - Net			1.1	3.5	0.4	3.3	7.3	-	6.4	Jun-17
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.7	
New Enterprise 17 - Gross	20,769,550	0.2	-1.5	-2.3	-6.7	7.8	-	-	8.0	Aug-19
New Enterprise 17 - Net			-1.5	-2.3	-6.7	7.8	-	-	8.0	Aug-19
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	14.7	
Oaktree Power Opp Fund VI - Gross	20,094,168	0.2	4.0	14.2	20.4	-	-	-	5.5	Jun-22
Oaktree Power Opp Fund VI - Net			4.0	14.2	20.4	-	-	-	5.5	Jun-22
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	-2.1	
OrbiMed Private Investments VIII - Gross	10,353,938	0.1	-1.2	9.5	9.4	2.5	-	-	2.5	Jan-21
OrbiMed Private Investments VIII - Net			-1.2	9.5	9.4	2.5	-	-	2.5	Jan-21
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	15.3	

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OrbiMed Private Investments IX - Gross	2,918,007	0.0	3.3	17.5	-24.8	-	-	-	-23.1	Dec-22
OrbiMed Private Investments IX - Net			3.3	17.5	-24.8	-	-	-	-23.1	Dec-22
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	2.4	
Private Equity X - Gross	5,600,072	0.0	0.0	-56.2	-56.6	-16.7	-11.6	-0.2	-4.6	Jul-08
Private Equity X - Net			0.0	-56.2	-56.6	-16.7	-11.6	-0.2	-	Jul-08
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	12.5	
RCP Multi-Fund Feeder - Gross	84,688,921	0.7	1.3	3.8	10.5	21.3	11.2	-	11.0	Dec-18
RCP Multi-Fund Feeder - Net			1.3	3.8	10.5	21.3	11.2	-	11.0	Dec-18
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.0	
RRJ Capital Master Fund II - Gross	3,995,683	0.0	-4.2	4.7	-18.6	-2.1	-1.5	5.5	6.3	Jun-13
RRJ Capital Master Fund II - Net			-4.2	4.7	-18.6	-2.1	-1.5	5.5	6.3	Jun-13
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	14.9	
RRJ Capital Master Fund III - Gross	8,422,117	0.1	1.9	-15.6	-5.4	-10.1	-6.4	-	-10.2	Jan-16
RRJ Capital Master Fund III - Net			1.9	-15.6	-5.4	-10.1	-6.4	-	-10.2	Jan-16
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.9	
Shamrock Capital II - Gross	13,762,794	0.1	6.4	9.7	14.2	8.1	-	-	-70.4	Aug-20
Shamrock Capital II - Net			6.4	9.7	14.2	8.1	-	-	-70.4	Aug-20
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	19.6	
Shamrock Capital III - Gross	161,630	0.0	-97.7	-100.0	-100.0	-	-	-	-100.0	Jan-23
Shamrock Capital III - Net			-97.7	-100.0	-100.0	-	-	-	-100.0	Jan-23
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	4.3	
Shamrock Capital Growth Fund V - Gross	10,560,773	0.1	2.5	3.4	0.3	-	-	-	-28.4	Aug-21
Shamrock Capital Growth Fund V - Net			2.5	3.4	0.3	-	-	-	-28.4	Aug-21
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	8.0	
Sixth Street Opp Partners V - Gross	15,075,617	0.1	2.5	5.5	2.5	-	-	-	-3.8	Jul-22
Sixth Street Opp Partners V - Net			2.5	5.5	2.5	-	-	-	-3.8	Jul-22
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	-1.7	
Spectrum Equity VII - Gross	34,304,008	0.3	-4.3	-2.6	-4.4	-9.1	22.5	-	17.3	Jan-15
Spectrum Equity VII - Net			-4.3	-2.6	-4.4	-9.1	22.5	-	17.3	Jan-15
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.4	
Spectrum Equity Fund VIII - Gross	25,104,361	0.2	1.5	3.4	2.4	41.2	19.6	-	-12.7	Jul-18
Spectrum Equity Fund VIII - Net			1.5	3.4	2.4	41.2	19.6	-	-12.7	Jul-18
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.7	

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Spectrum Equity Fund IX - Gross	20,419,895	0.2	1.1	1.3	-2.9	-8.7	-	-	-9.0	Oct-20
Spectrum Equity Fund IX - Net			1.1	1.3	-2.9	-8.7	-	-	-9.0	Oct-20
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	17.5	
Strategic Value Spl Fund V - Gross	18,898,731	0.1	4.3	9.3	18.2	-	-	-	9.8	Sep-21
Strategic Value Spl Fund V - Net			4.3	9.3	18.2	-	-	-	9.8	Sep-21
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	8.2	
Summit EUR Growth Equity II - Gross	47,820,320	0.4	-1.8	15.5	30.1	50.0	42.6	-	69.5	Feb-18
Summit EUR Growth Equity II - Net			-1.8	15.5	30.1	50.0	42.6	-	69.5	Feb-18
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.2	
Summit EUR Growth Equity III - Gross	20,121,135	0.2	-2.2	16.1	19.8	-	-	-	-5.8	Feb-21
Summit EUR Growth Equity III - Net			-2.2	16.1	19.8	-	-	-	-5.8	Feb-21
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	15.8	
Summit Ventures III - Gross	3,607,769	0.0	0.0	-1.6	13.6	10.9	14.0	15.9	13.0	Jul-12
Summit Ventures III - Net			0.0	-1.6	13.6	10.9	14.0	15.9	13.0	Jul-12
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	14.8	
Summit Ventures IV - Gross	51,292,600	0.4	-4.2	-3.3	-4.6	32.0	30.1	-	32.4	Jun-16
Summit Ventures IV - Net			-4.2	-3.3	-4.6	32.0	30.1	-	32.4	Jun-16
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	15.5	
Summit Ventures V - Gross	10,592,120	0.1	-1.4	3.6	4.7	-	-	-	-2.7	Jun-21
Summit Ventures V - Net			-1.4	3.6	4.7	-	-	-	-2.7	Jun-21
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	11.5	
Thoma Bravo XI - Gross	26,990,087	0.2	-5.0	6.8	27.0	4.1	22.1	-	21.3	Jul-14
Thoma Bravo XI - Net			-5.0	6.8	27.0	4.1	22.1	-	21.3	Jul-14
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.5	
Thoma Bravo XII - Gross	33,516,616	0.3	3.3	6.6	12.8	14.4	17.6	-	11.4	Jun-16
Thoma Bravo XII - Net			3.3	6.6	12.8	14.4	17.6	-	11.4	Jun-16
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	15.5	
Thoma Bravo XIII - Gross	63,729,057	0.5	3.8	10.1	18.4	12.0	-	-	25.5	Mar-19
Thoma Bravo XIII - Net			3.8	10.1	18.4	12.0	-	-	25.5	Mar-19
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	14.0	
Threshold Ventures III - Gross	22,415,385	0.2	-4.5	-15.1	-22.6	18.1	-	-	7.8	Nov-19
Threshold Ventures III - Net			-4.5	-15.1	-22.6	18.1	-	-	7.8	Nov-19
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	14.6	

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Threshold Ventures IV - Gross	3,944,609	0.0	-3.9	-8.4	-26.6	-	-	-	-79.1	Jul-22
Threshold Ventures IV - Net			-3.9	-8.4	-26.6	-	-	-	-79.1	Jul-22
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	-	-	-	-1.7	
TPG Opp Partners III - Gross	6,233,729	0.0	-9.4	-9.2	-13.1	2.0	2.0	-	-7.7	Apr-14
TPG Opp Partners III - Net			-9.4	-9.2	-13.1	2.0	2.0	-	-7.7	Apr-14
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.4	
Trinity Ventures XI - Gross	45,407,767	0.4	2.1	3.3	-4.8	9.5	8.1	10.1	6.8	May-13
Trinity Ventures XI - Net			2.1	3.3	-4.8	9.5	8.1	10.1	6.8	May-13
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	14.9	
Trinity Ventures XII - Gross	53,451,809	0.4	7.9	13.9	-11.8	18.3	23.6	-	18.4	May-16
Trinity Ventures XII - Net			7.9	13.9	-11.8	18.3	23.6	-	18.4	May-16
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	15.4	
TSG7 A LP - Gross	14,971,742	0.1	-10.3	-18.0	-12.9	15.2	14.5	-	-180.9	Apr-16
TSG7 A LP - Net			-10.3	-18.0	-12.9	15.2	14.5	-	-180.9	Apr-16
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.4	
TSG7 B LP - Gross	3,906,350	0.0	-4.0	-7.4	-10.0	11.5	10.0	-	-4.7	Feb-16
TSG7 B LP - Net			-4.0	-7.4	-10.0	11.5	10.0	-	-4.7	Feb-16
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	14.0	
TSG8 LP - Gross	36,258,562	0.3	-6.9	-5.6	0.4	6.2	-	-	-62.8	Feb-19
TSG8 LP - Net			-6.9	-5.6	0.4	6.2	-	-	-62.8	Feb-19
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	13.8	
TSG9 LP - Gross	5,309,869	0.0	1.9	-2.6	-	-	-	-	-36.6	Feb-23
TSG9 LP - Net			1.9	-2.6	-	-	-	-	-36.6	Feb-23
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	-	-	-	-	4.3	
TSSP Opportunities Partners IV - Gross	26,252,178	0.2	2.6	6.2	9.4	14.1	-	-	11.6	Feb-19
TSSP Opportunities Partners IV - Net			2.6	6.2	9.4	14.1	-	-	11.6	Feb-19
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	13.8	
Waterland V - Gross	705,035	0.0	18.0	17.1	5.2	23.5	20.9	39.6	23.3	Sep-11
Waterland V - Net			18.0	17.1	5.2	23.5	20.9	39.6	23.3	Sep-11
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	14.5	
Waterland VI - Gross	15,632,921	0.1	9.8	8.8	30.7	17.0	20.4	-	8.2	Aug-15
Waterland VI - Net			9.8	8.8	30.7	17.0	20.4	-	8.2	Aug-15
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	-	13.3	

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Wayzata Opportunities III - Gross	3,002,214	0.0	-9.6	-11.8	1.9	6.8	3.2	0.4	-1.7	Mar-13
Wayzata Opportunities III - Net			-9.6	-11.8	1.9	6.8	3.2	0.4	-1.7	Mar-13
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	13.5	14.2	15.4	
Wynnchurch Capital Partners V - Gross	17,077,606	0.1	1.5	0.1	2.2	23.7	-	-	-3.7	May-20
Wynnchurch Capital Partners V - Net			1.5	0.1	2.2	23.7	-	-	-3.7	May-20
Cambridge Associates All PE 1 Qtr Lag			0.0	1.4	4.3	15.3	-	-	15.1	
Public Credit - Gross	223,592,189	1.7	3.5	5.7	11.9	4.4	5.4	4.4	4.4	Dec-13
Public Credit - Net			3.5	5.7	11.9	4.4	5.4	4.4	4.4	Dec-13
Brigade Custom			5.0	7.0	13.3	3.9	5.4	4.5	4.5	
Brigade Capital - Gross	223,592,189	1.7	3.5 (99)	5.7 (88)	11.9 (56)	4.4 (7)	5.4 (30)	4.4 (38)	4.4	Dec-13
Brigade Capital - Net			3.5 (99)	5.7 (88)	11.9 (56)	4.4 (7)	5.4 (30)	4.4 (38)	4.4	Dec-13
Brigade Custom			5.0 (83)	7.0 (50)	13.3 (20)	3.9 (10)	5.4 (28)	4.5 (33)	4.5	Dec-13
eV US High Yield Fixed Inc Median			6.5	7.0	12.2	2.1	5.1	4.3	-	
Private Credit - Gross	400,584,348	3.1	2.6	4.7	10.4	9.7	8.5	8.3	7.7	Nov-11
Private Credit - Net			2.6	4.7	10.4	9.7	8.5	8.3	7.7	Nov-11
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	6.4	6.4	6.7	
Ares Capital Europe Fund V - Gross	31,249,768	0.2	3.1	5.3	12.9	-	-	-	12.4	Aug-21
Ares Capital Europe Fund V - Net			3.1	5.3	12.9	-	-	-	12.4	Aug-21
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	-	-	-	6.8	
Athyrium Opp II - Gross	6,965,355	0.1	9.1	12.2	28.2	7.6	9.3	-	8.1	Jul-15
Athyrium Opp II - Net			9.1	12.2	28.2	7.6	9.3	-	8.1	Jul-15
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	6.4	-	6.5	
Athyrium Opp III - Gross	7,698,032	0.1	0.1	4.5	11.0	-3.1	1.7	-	-0.1	Jun-17
Athyrium Opp III - Net			0.1	4.5	11.0	-3.1	1.7	-	-0.1	Jun-17
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	6.4	-	6.5	
Benefit St Pr Sr Secure Opp - Gross	21,595,243	0.2	1.7	4.1	9.3	8.5	6.0	-	6.0	Feb-18
Benefit St Pr Sr Secure Opp - Net			1.7	4.1	9.3	8.5	6.0	-	6.0	Feb-18
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	6.4	-	6.6	
Benefit St Pr Sr Secure Opp II - Gross	36,802,829	0.3	3.6	6.9	12.8	6.2	-	-	9.2	Jan-20
Benefit St Pr Sr Secure Opp II - Net			3.6	6.9	12.8	6.2	-	-	9.2	Jan-20
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	-	-	6.7	
IFM US Infrastructure DB FD LP - Gross	36,268,867	0.3	2.5	3.2	10.1	-	-	-	7.8	Apr-21
IFM US Infrastructure DB FD LP - Net			2.5	3.2	10.1	-	-	-	7.8	Apr-21
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	-	-	-	7.2	

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MCP Private Capital IV - Gross	27,482,548	0.2	2.7	9.9	26.0	6.4	-	-	5.6	May-20
MCP Private Capital IV - Net			2.7	9.9	26.0	6.4	-	-	5.6	May-20
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	-	-	6.5	
OrbiMed Royalty & Credit Opp III - Gross	16,580,275	0.1	1.5	4.3	9.8	14.4	-	-	15.9	Oct-19
OrbiMed Royalty & Credit Opp III - Net			1.5	4.3	9.8	14.4	-	-	15.9	Oct-19
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	-	-	6.7	
OrbiMed Royalty & Credit Opp IV - Gross	6,442,438	0.0	4.8	6.2	11.5	-	-	-	10.8	Oct-22
OrbiMed Royalty & Credit Opp IV - Net			4.8	6.2	11.5	-	-	-	10.8	Oct-22
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	-	-	-	13.1	
Shamrock Capital Debt Fund I - Gross	9,508,615	0.1	2.4	3.6	5.5	-	-	-	-40.5	Aug-21
Shamrock Capital Debt Fund I - Net			2.4	3.6	5.5	-	-	-	-40.5	Aug-21
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	-	-	-	6.8	
Silver Point Specialty Credit Fund II - Gross	33,546,704	0.3	2.9	5.6	12.3	9.3	-	-	13.2	Aug-20
Silver Point Specialty Credit Fund II - Net			2.9	5.6	12.3	9.3	-	-	13.2	Aug-20
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	-	-	10.2	
Silver Point Specialty Credit Fund III - Gross	11,143,113	0.1	-7.1	-5.4	-	-	-	-	-8.9	Apr-23
Silver Point Specialty Credit Fund III - Net			-7.1	-5.4	-	-	-	-	-8.9	Apr-23
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	-	-	-	-	11.6	
Summit Credit - Gross	30,457	0.0	-1.4	-28.9	-6.9	3.0	-0.5	4.7	4.8	Nov-11
Summit Credit - Net			-1.4	-28.9	-6.9	3.0	-0.5	4.7	4.8	Nov-11
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	6.4	6.4	6.7	
Summit Credit II - Gross	10,355,672	0.1	-2.3	-9.6	-7.2	3.2	2.0	-	4.2	Dec-14
Summit Credit II - Net			-2.3	-9.6	-7.2	3.2	2.0	-	4.2	Dec-14
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	6.4	-	6.3	
Summit Credit III - Gross	11,696,916	0.1	-1.1	-4.1	-3.3	13.3	12.8	-	12.4	Nov-18
Summit Credit III - Net			-1.1	-4.1	-3.3	13.3	12.8	-	12.4	Nov-18
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	6.4	-	6.5	
Summit Credit IV - Gross	15,014,032	0.1	2.6	5.9	16.4	-	-	-	10.6	Dec-21
Summit Credit IV - Net			2.6	5.9	16.4	-	-	-	10.6	Dec-21
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	-	-	-	6.9	
TCP Direct Lending VIII - Gross	118,203,486	0.9	3.6	6.3	9.5	9.4	8.5	-	7.7	Mar-18
TCP Direct Lending VIII - Net			3.6	6.3	9.5	9.4	8.5	-	7.7	Mar-18
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			3.9	7.7	14.7	8.0	6.4	-	6.6	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Growth Oriented Absolute Return - Gross	7,874,194	0.1	1.2	1.7	2.7	1.3	5.4	3.7	4.6	Sep-04
Growth Oriented Absolute Return - Net			1.2	1.7	2.7	1.3	5.4	3.7	4.6	Sep-04
HFRI FoF Composite Index + 1%			3.7	4.5	7.4	3.3	6.2	5.1	5.9	
Grosvenor SCARF Growth - Gross	7,874,194	0.1	1.2 (68)	1.7 (78)	2.3 (75)	-0.7 (91)	3.0 (81)	2.7 (100)	4.4	Dec-11
Grosvenor SCARF Growth - Net			1.2	1.7	2.3	-0.7	3.0	2.7	4.4	Dec-11
HFRI FoF Composite Index + 1%			3.7 (44)	4.5 (43)	7.4 (40)	3.3 (47)	6.2 (28)	5.1 (23)	5.1	Dec-11
eV Alt Fund of Funds - Multi-Strategy Median			2.5	3.5	5.4	3.0	4.8	4.4	-	
Diversifying Asset Category - Gross	2,867,955,186	22.2	4.6	3.0	5.8	-0.8	2.6	-	2.3	Apr-17
Diversifying Asset Category - Net			4.6	3.0	5.7	-0.9	2.5	-	2.2	Apr-17
Diversifying Custom			4.9	3.2	5.3	-1.4	2.1	-	2.0	
Fixed Income - Gross	1,794,662,575	13.9	7.1	3.2	6.2	-3.0	1.6	2.3	2.4	Jul-11
Fixed Income - Net	1,794,662,575	13.9	7.1	3.1	6.1	-3.1	1.5	2.2	2.3	Jul-11
Fixed Income Custom			6.4	3.6	6.0	-3.0	1.3	1.8	-	
Core/Core Plus Fixed Income - Gross	1,377,787,025	10.7	7.6	3.5	6.9	-2.8	2.1	2.5	2.6	Jul-11
Core/Core Plus Fixed Income - Net			7.6	3.4	6.6	-3.0	1.9	2.3	2.4	Jul-11
Blmbg. U.S. Aggregate Index			6.8	3.4	5.5	-3.3	1.1	1.8	2.0	
Prudential - Gross	343,868,431	2.7	7.1 (28)	4.6 (5)	8.0 (4)	-2.9 (48)	2.1 (17)	-	2.8	Aug-14
Prudential - Net			7.0	4.5	7.8	-3.0	1.9	-	2.6	Aug-14
Blmbg. U.S. Aggregate Index			6.8 (56)	3.4 (79)	5.5 (85)	-3.3 (88)	1.1 (96)	-	1.5	Aug-14
eV US Core Fixed Inc Median			6.9	3.6	6.2	-2.9	1.7	2.3	-	
TCW MetWest Fixed - Gross	344,642,966	2.7	7.6 (5)	3.7 (38)	6.6 (22)	-2.7 (35)	2.0 (22)	2.5 (28)	4.9	Jan-02
TCW MetWest Fixed - Net			7.6	3.6	6.4	-2.9	1.8	2.3	4.7	Jan-02
Blmbg. U.S. Aggregate Index			6.8 (56)	3.4 (79)	5.5 (85)	-3.3 (88)	1.1 (96)	1.8 (96)	3.5	Jan-02
eV US Core Fixed Inc Median			6.9	3.6	6.2	-2.9	1.7	2.3	-	
Brandywine US FI - Gross	337,478,184	2.6	8.5 (3)	2.7 (99)	5.9 (91)	-	-	-	0.2	Jun-22
Brandywine US FI - Net			8.5	2.5	5.6	-	-	-	0.0	Jun-22
Blmbg. U.S. Aggregate Index			6.8 (76)	3.4 (87)	5.5 (98)	-	-	-	0.5	Jun-22
eV US Core Plus Fixed Inc Median			7.0	3.8	6.6	-2.8	1.9	2.4	-	
Reams Core Plus FI - Gross	351,797,444	2.7	7.3 (36)	3.0 (97)	7.0 (51)	-	-	-	2.4	Jun-22
Reams Core Plus FI - Net			7.3	2.9	6.8	-	-	-	2.2	Jun-22
Blmbg. U.S. Aggregate Index			6.8 (76)	3.4 (87)	5.5 (98)	-	-	-	0.5	Jun-22
eV US Core Plus Fixed Inc Median			7.2	4.1	7.0	-2.5	2.3	2.7	-	

See Policy Index and Benchmark History

Total Fund
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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
U.S. Treasury - Gross	416,875,550	3.2	5.5	2.4	4.2	-3.7	0.6	-	1.0	Mar-18
U.S. Treasury - Net			5.5	2.3	4.2	-3.8	0.5	-	1.0	Mar-18
<i>Bloomberg U.S. Treasury Index</i>			5.7	2.4	4.1	-3.8	0.5	-	1.0	
Neuberger Berman - Gross	416,875,550	3.2	5.5 (65)	2.4 (81)	4.2 (70)	-3.7 (80)	0.6 (85)	1.7 (40)	5.6	Jul-88
Neuberger Berman - Net			5.5	2.3	4.2	-3.8	0.5	1.7	5.5	Jul-88
<i>Bloomberg U.S. Government</i>			5.6 (62)	2.5 (80)	4.1 (73)	-3.7 (81)	0.6 (85)	1.3 (83)	5.0	Jul-88
eV US Government Fixed Inc Median			5.7	2.8	4.6	-2.9	1.0	1.6	-	
Absolute Return - Gross	819,709,644	6.3	0.4	2.8	4.9	4.1	4.3	2.4	2.8	Dec-11
Absolute Return - Net			0.4	2.8	4.9	4.1	4.3	2.4	2.8	Dec-11
<i>HFRI FoF Conservative Index</i>			1.8	3.3	5.3	4.3	5.1	4.5	4.6	
Aristea Partners LP - Gross	52,851,336	0.4	1.4 (97)	3.5 (78)	7.6 (82)	5.5 (36)	-	-	5.5	Jan-21
Aristea Partners LP - Net			1.4	3.5	7.6	5.5	-	-	5.5	Jan-21
<i>HFRI FoF Conservative Index</i>			1.8 (80)	3.3 (79)	5.3 (98)	4.3 (47)	-	-	4.3	Jan-21
eV Alt Relative Value - Multi-Market Arbitrage Median			4.2	4.6	8.8	4.0	-	-	-	
BlackRock Event Driven Equity Fund - Gross	56,612,805	0.4	3.7 (66)	5.3 (57)	5.4 (78)	2.4 (84)	-	-	3.5	Mar-20
BlackRock Event Driven Equity Fund - Net			3.7	5.3	5.4	2.4	-	-	3.5	Mar-20
<i>HFRI FoF Conservative Index</i>			1.8 (79)	3.3 (69)	5.3 (78)	4.3 (70)	-	-	5.2	Mar-20
eV Alt All Event Driven Median			4.5	6.4	9.1	5.6	7.5	7.2	-	
Davidson Kempner Instl Partners LP - Gross	61,894,358	0.5	2.3 (65)	3.8 (54)	6.0 (63)	4.1 (51)	-	-	4.9	May-19
Davidson Kempner Instl Partners LP - Net			2.3	3.8	6.0	4.1	-	-	4.9	May-19
<i>HFRI FoF Conservative Index</i>			1.8 (66)	3.3 (62)	5.3 (70)	4.3 (51)	-	-	4.6	May-19
eV Alt All Multi-Strategy Median			4.4	3.9	8.4	4.4	6.6	4.1	-	
Elliott Associates - Gross	81,857,184	0.6	0.0 (92)	1.9 (82)	5.0 (81)	8.0 (17)	8.6 (33)	7.4 (35)	7.9	May-12
Elliott Associates - Net			0.0	1.9	5.0	8.0	8.6	7.4	7.9	May-12
<i>HFRI FoF Conservative Index</i>			1.8 (79)	3.3 (69)	5.3 (78)	4.3 (70)	5.1 (68)	4.5 (94)	4.7	Jan-11
eV Alt All Event Driven Median			4.5	6.4	9.1	5.6	7.5	7.2	-	
Graham Global Inv II - Gross	44,065,974	0.3	-14.7 (100)	-11.4 (100)	-11.4 (100)	6.6 (46)	7.7 (44)	-	3.6	Mar-17
Graham Global Inv II - Net			-14.7	-11.4	-11.4	6.6	7.7	-	3.6	Mar-17
<i>HFRI FoF Conservative Index</i>			1.8 (46)	3.3 (24)	5.3 (52)	4.3 (61)	5.1 (66)	-	4.3	Mar-17
eV Alt All Managed Futures Median			-1.7	0.7	6.8	5.1	7.4	1.6	-	

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Sacramento County Employees' Retirement System
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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Grosvenor SCARF Diversifying - Gross	236,865,788	1.8	1.8 (62)	3.8 (47)	6.8 (41)	3.5 (44)	5.3 (32)	2.0 (100)	2.8	Dec-11
Grosvenor SCARF Diversifying - Net			1.8	3.8	6.8	3.5	5.3	2.0	2.8	Dec-11
HFRI FoF Conservative Index			1.8 (63)	3.3 (54)	5.3 (57)	4.3 (37)	5.1 (33)	4.5 (45)	4.6	Dec-11
eV Alt Fund of Funds - Multi-Strategy Median			2.5	3.5	5.4	3.0	4.8	4.4	-	
Laurion Capital - Gross	62,157,392	0.5	2.1 (88)	4.6 (79)	7.4 (39)	5.1 (43)	9.5 (43)	-	7.8	Mar-14
Laurion Capital - Net			2.1	4.6	7.4	5.1	9.5	-	7.8	Mar-14
HFRI FoF Conservative Index			1.8 (89)	3.3 (86)	5.3 (43)	4.3 (47)	5.1 (64)	-	4.5	Mar-14
eV Alt Relative Value - Equity Relative Value Median			5.9	6.6	2.3	3.3	8.0	-	-	
LMR Fund LTD - Gross	55,517,769	0.4	-1.0 (87)	2.0 (73)	3.0 (78)	8.7 (28)	-	-	5.2	Nov-19
LMR Fund LTD - Net			-1.0	2.0	3.0	8.7	-	-	5.2	Nov-19
HFRI FoF Conservative Index			1.8 (66)	3.3 (62)	5.3 (70)	4.3 (51)	-	-	5.0	Nov-19
eV Alt All Multi-Strategy Median			4.4	3.9	8.4	4.4	6.6	4.1	-	
MW Global Opportunities Fund - Gross	59,344,797	0.5	1.0 (86)	3.4 (68)	7.6 (61)	2.0 (69)	6.0 (81)	-	6.0	Jan-19
MW Global Opportunities Fund - Net			1.0	3.4	7.6	2.0	6.0	-	6.0	Jan-19
HFRI FoF Conservative Index			1.8 (85)	3.3 (68)	5.3 (79)	4.3 (61)	5.1 (84)	-	5.1	Jan-19
eV Alt Fundamental - Long/Short Equity Median			6.6	4.5	10.9	6.7	11.2	8.0	-	
PSquared Event Driven Opp Fund - Gross	55,640,516	0.4	1.1 (85)	5.9 (55)	2.1 (90)	3.0 (75)	-	-	3.2	Aug-20
PSquared Event Driven Opp Fund - Net			1.1	5.9	2.1	3.0	-	-	3.2	Aug-20
HFRI FoF Conservative Index			1.8 (79)	3.3 (69)	5.3 (78)	4.3 (70)	5.1 (68)	4.5 (94)	4.7	Jan-11
eV Alt All Event Driven Median			4.5	6.4	9.1	5.6	7.5	7.2	-	
Sculptor Domestic II - Gross	1,223,787	0.0	0.0 (78)	0.0 (81)	4.8 (74)	-0.9 (79)	6.0 (57)	4.7 (37)	6.2	Jan-12
Sculptor Domestic II - Net			0.0	0.0	4.8	-0.9	6.0	4.7	6.1	Jan-12
HFRI FoF Conservative Index			1.8 (66)	3.3 (62)	5.3 (70)	4.3 (51)	5.1 (65)	4.5 (42)	4.6	Jan-12
eV Alt All Multi-Strategy Median			4.4	3.9	8.4	4.4	6.6	4.1	-	
Tudor BVI Global Fund - Gross	51,677,939	0.4	1.5	3.4	3.4	-	-	-	3.4	Jan-23
Tudor BVI Global Fund - Net			1.5	3.4	3.4	-	-	-	3.4	Jan-23
HFRI FOF Conservative Index			1.8	3.3	5.3	-	-	-	5.3	

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Total Fund
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Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Dedicated Cash Allocation - Gross	253,582,967	2.0	1.4	2.7	5.2	2.3	-	-	1.8	Jul-19
Dedicated Cash Allocation - Net			1.4	2.7	5.2	2.3	-	-	1.8	Jul-19
Secured Overnight Financing Rate			1.4	2.7	5.2	2.3	-	-	1.9	
Real Return Asset Category - Gross	2,164,825,070	16.8	-0.3	-1.2	-1.4	9.1	6.9	-	8.0	Apr-17
Real Return Asset Category - Net			-0.4	-1.2	-1.5	9.0	6.8	-	7.9	Apr-17
Real Return Custom			-1.2	-2.0	-2.9	8.8	5.8	-	6.1	
Real Estate - Gross	920,952,030	7.1	-2.0 (38)	-5.2 (60)	-9.1 (59)	6.2 (59)	6.2 (35)	8.7 (7)	9.4	Jul-11
Real Estate - Net			-2.0	-5.3	-9.2	6.0	5.9	8.2	8.9	Jul-11
Real Estate Custom			-3.6 (62)	-5.8 (61)	-11.4 (63)	6.2 (59)	5.0 (52)	7.3 (62)	8.1	Jul-11
InvMetrics All DB Real Estate Private Median			-2.9	-4.1	-8.0	7.8	5.3	8.1	-	
Core RE - Limited Partnership - Gross	633,934,283	4.9	-1.9	-4.1	-10.8	7.0	6.8	9.3	5.6	Oct-08
Core RE - Limited Partnership - Net			-1.9	-4.1	-10.9	6.8	6.6	8.9	5.1	Oct-08
NFI-ODCE			-4.8	-6.6	-12.0	4.9	4.2	7.3	5.2	
Brookfield Premier RE Partners - Gross*	107,518,953	0.8	0.0	-4.9	-13.1	5.4	5.3	-	5.4	Oct-18
Brookfield Premier RE Partners - Net*			0.0	-4.9	-13.1	5.4	5.3	-	5.4	Oct-18
NFI-ODCE			-4.8	-6.6	-12.0	4.9	4.2	-	4.4	
Clarion Lion Properties - Gross	108,730,320	0.8	-4.4	-5.4	-15.5	4.5	4.6	-	4.8	Oct-18
Clarion Lion Properties - Net			-4.6	-5.8	-16.3	3.7	3.8	-	3.9	Oct-18
NFI-ODCE			-4.8	-6.6	-12.0	4.9	4.2	-	4.4	
Metlife Core Property - Gross	74,560,898	0.6	-7.3	-7.5	-14.1	6.3	5.6	8.7	8.7	Jan-14
Metlife Core Property - Net			-7.3	-7.5	-14.3	5.9	5.2	8.2	8.2	Jan-14
NFI-ODCE			-4.8	-6.6	-12.0	4.9	4.2	7.3	7.3	
Principal US Property - Gross	55,559,687	0.4	-2.3	-6.1	-10.9	4.4	3.9	-	5.8	Nov-15
Principal US Property - Net			-2.3	-6.1	-10.9	4.4	3.9	-	5.8	Nov-15
NFI-ODCE			-4.8	-6.6	-12.0	4.9	4.2	-	5.9	
Prologis Targeted Euro Logistics - Gross*	60,050,907	0.5	0.0	-2.1	-4.1	0.0	5.7	-	8.4	Nov-15
Prologis Targeted Euro Logistics - Net*			0.0	-2.1	-4.1	0.0	5.7	-	8.4	Nov-15
NFI-ODCE			-4.8	-6.6	-12.0	4.9	4.2	-	5.9	
Prologis Targeted US Logistics - Gross*	77,214,936	0.6	0.0	-2.2	-6.1	16.3	15.1	-	15.9	Aug-15
Prologis Targeted US Logistics - Net*			0.0	-2.2	-6.1	16.3	15.1	-	15.9	Aug-15
NFI-ODCE			-4.8	-6.6	-12.0	4.9	4.2	-	6.1	
Townsend Real Estate - Gross*	150,298,583	1.2	0.0	-1.6	-9.1	8.7	7.1	-	8.1	Apr-16
Townsend Real Estate - Net*			0.0	-1.6	-9.1	8.7	7.1	-	8.1	Apr-16
NFI-ODCE			-4.8	-6.6	-12.0	4.9	4.2	-	5.6	

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*Value as of 6/30/2023.

Total Fund
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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Non-Core RE - Opportunistic - Gross	171,404,437	1.3	-2.8	-11.9	-9.0	2.7	2.7	-	12.7	Mar-14
Non-Core RE - Opportunistic - Net			-2.8	-11.9	-9.0	2.7	2.7	-	12.2	Mar-14
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	8.1	
Carlyle China Realty - Gross	6,387,082	0.0	-7.1	-20.1	-25.5	-9.4	-3.9	-	-5.8	Jul-17
Carlyle China Realty - Net			-7.1	-20.1	-25.5	-9.4	-3.9	-	-5.8	Jul-17
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	6.0	
Carlyle China Rome Logistics - Gross	28,391,960	0.2	-6.6	-19.8	-25.1	-9.0	-4.9	-	-5.3	Jul-17
Carlyle China Rome Logistics - Net			-6.6	-19.8	-25.1	-9.0	-4.9	-	-5.3	Jul-17
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	6.0	
CIM Opportunity VIII - Gross	22,908,536	0.2	-2.9	-7.1	-20.4	-11.3	-9.3	-	-2.7	Mar-15
CIM Opportunity VIII - Net			-2.9	-7.1	-20.4	-11.3	-9.3	-	-3.3	Mar-15
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	7.7	
Kohlberg Kravis Roberts - Gross	1,372,086	0.0	-0.1	-0.3	-10.7	-4.2	-9.7	-	-0.3	Mar-14
Kohlberg Kravis Roberts - Net			-0.1	-0.3	-10.7	-4.2	-9.7	-	-0.5	Mar-14
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	8.1	
Lasalle China Logistics Venture LP - Gross	8,518,087	0.1	-4.3	-7.9	-4.8	-	-	-	-24.5	Oct-21
Lasalle China Logistics Venture LP - Net			-4.3	-7.9	-4.8	-	-	-	-24.5	Oct-21
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	-	-	-	5.2	
NREP Nordic Strat II - Gross	15,899,938	0.1	-5.0	-14.6	8.2	17.8	16.1	-	16.1	Jul-16
NREP Nordic Strat II - Net			-5.0	-14.6	8.2	17.8	16.1	-	16.1	Jul-16
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	6.3	
NREP Nordic Strat III - Gross	34,434,933	0.3	-1.4	-13.4	2.7	7.9	3.2	-	4.6	Aug-18
NREP Nordic Strat III - Net			-1.4	-13.4	2.7	7.9	3.2	-	4.6	Aug-18
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	5.7	
NREP Nordic Strat IV - Gross	21,807,120	0.2	-4.5	-16.4	-6.4	29.1	-	-	7.5	Aug-20
NREP Nordic Strat IV - Net			-4.5	-16.4	-6.4	29.1	-	-	7.5	Aug-20
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	-	-	5.4	
NREP Nordic Strat V - Gross	9,031,826	0.1	6.1	-2.4	-21.2	-	-	-	-18.5	Nov-22
NREP Nordic Strat V - Net			6.1	-2.4	-21.2	-	-	-	-18.5	Nov-22
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	-	-	-	-11.2	
Sculptor Real Estate Fund III - Gross	3,513,436	0.0	-2.9	-1.1	18.2	38.2	26.3	-	16.7	Oct-14
Sculptor Real Estate Fund III - Net			-2.9	-1.1	18.2	38.2	26.3	-	14.3	Oct-14
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	7.6	

See Policy Index and Benchmark History

* Non-Core RE returns are lagged one quarter.

**Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Sculptor Real Estate Fund IV - Gross	19,139,433	0.1	3.0	5.7	9.8	15.3	-	-	6.1	Jul-20
Sculptor Real Estate Fund IV - Net			3.0	5.7	9.8	15.3	-	-	6.1	Jul-20
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	-	-	5.3	
Non-Core RE - Value Added - Gross	115,613,310	0.9	-1.4	-2.6	3.9	4.1	6.5	8.8	0.8	Oct-08
Non-Core RE - Value Added - Net			-1.4	-2.6	3.9	4.1	6.5	8.4	-0.1	Oct-08
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	8.3	7.0	
Asana Partners Fund II - Gross	32,173,409	0.2	-0.2	-2.8	3.6	15.8	-	-	-176.4	May-19
Asana Partners Fund II - Net			-0.2	-2.8	3.6	15.8	-	-	-176.4	May-19
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	-	-	5.3	
Asana Partners Fund III - Gross	14,388,014	0.1	-0.6	-8.8	-4.5	-	-	-	-15.8	May-22
Asana Partners Fund III - Net			-0.6	-8.8	-4.5	-	-	-	-15.8	May-22
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	-	-	-	-1.3	
ECE Euro Prime Shopping II - Gross	33,015,741	0.3	-3.9	-3.6	10.9	-0.5	0.4	-	7.2	Aug-15
ECE Euro Prime Shopping II - Net			-3.9	-3.6	10.9	-0.5	0.4	-	6.7	Aug-15
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	7.4	
European RE Debt II - Gross*	433,015	0.0	-3.8	-3.8	-57.5	-49.0	-32.1	-15.3	-15.1	Dec-13
European RE Debt II - Net*			-3.8	-3.8	-57.5	-49.0	-32.1	-15.3	-15.1	Dec-13
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	8.3	8.5	
Hammes II - Gross	3,195,076	0.0	1.9	5.6	9.3	145.8	118.1	-	69.6	Aug-15
Hammes II - Net			1.9	5.6	9.3	145.8	118.1	-	67.7	Aug-15
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	7.4	
Hammes III - Gross	19,917,381	0.2	-0.2	1.8	3.8	18.8	-2.4	-	-2.4	Nov-18
Hammes III - Net			-0.2	1.8	3.8	18.8	-2.4	-	-2.4	Nov-18
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	7.2	5.7	-	5.6	
Hammes IV - Gross	931,671	0.0	-38.6	-38.6	-38.6	-	-	-	-36.2	Dec-22
Hammes IV - Net			-38.6	-38.6	-38.6	-	-	-	-36.2	Dec-22
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	-	-	-	-12.1	
Seven Seas Japan Opp Fund - Gross	11,559,003	0.1	3.9	-0.3	10.1	-	-	-	1.2	Apr-22
Seven Seas Japan Opp Fund - Net			3.9	-0.3	10.1	-	-	-	1.2	Apr-22
NFI-ODCE net +1% 1Q Lag			-4.0	-6.1	-11.9	-	-	-	-1.2	

See Policy Index and Benchmark History

* Non-Core RE returns are lagged one quarter, European RE Debt II as of 3/31/2023.

**Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Private Real Assets - Gross	1,091,874,036	8.5	1.0	2.5	5.7	16.2	9.3	14.9	6.9	Feb-13
Private Real Assets - Net			1.0	2.5	5.7	16.2	9.3	14.9	6.9	Feb-13
<i>Private Real Assets Custom</i>			0.0	1.3	6.6	13.2	7.0	7.1	7.1	
ACM II - Gross	14,850,422	0.1	-1.8	-3.0	-20.7	-11.7	-10.1	-	-9.0	Oct-16
ACM II - Net			-1.8	-3.0	-20.7	-11.7	-10.1	-	-9.0	Oct-16
<i>NCREIF Farmland 1 Qtr Lag</i>			-0.3	0.5	6.0	7.2	6.2	-	6.2	
ARA Partners Fund III LP - Gross**	4,119,762	0.0								
ARA Partners Fund III LP - Net**										
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			0.0	-	-	-	-	-	0.0	
ArcLight Energy VI - Gross	13,599,519	0.1	-4.0	-5.6	-9.2	8.5	-1.8	-	3.2	Sep-15
ArcLight Energy VI - Net			-4.0	-5.6	-9.2	8.5	-1.8	-	3.2	Sep-15
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			0.0	1.5	8.3	11.2	9.9	-	11.7	
Brookfield Infra III - Gross	42,463,648	0.3	3.2	6.4	17.3	14.7	12.8	-	12.3	Jun-16
Brookfield Infra III - Net			3.2	6.4	17.3	14.7	12.8	-	12.3	Jun-16
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			0.0	1.5	8.3	11.2	9.9	-	11.3	
Brookfield Infra IV - Gross	39,511,974	0.3	1.5	6.3	14.1	13.8	-	-	10.7	Oct-19
Brookfield Infra IV - Net			1.5	6.3	14.1	13.8	-	-	10.7	Oct-19
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			0.0	1.5	8.3	11.2	-	-	9.8	
Brookfield Infra Debt Fund III - Gross	17,324,281	0.1	2.0	3.6	-	-	-	-	4.0	Apr-23
Brookfield Infra Debt Fund III - Net			2.0	3.6	-	-	-	-	4.0	Apr-23
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			0.0	1.5	-	-	-	-	4.0	
Brookfield Super Core Infra - Gross	104,334,293	0.8	2.3	4.0	8.0	-	-	-	6.3	Aug-22
Brookfield Super Core Infra - Net			2.3	4.0	8.0	-	-	-	6.3	Aug-22
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			0.0	1.5	8.3	-	-	-	5.7	
Carlyle Power II - Gross	38,814,324	0.3	3.2	4.4	6.5	18.2	12.9	-	7.1	Nov-15
Carlyle Power II - Net			3.2	4.4	6.5	18.2	12.9	-	7.1	Nov-15
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			0.0	1.5	8.3	11.2	9.9	-	11.0	
Digital Colony Partners II - Gross	34,937,387	0.3	2.0	3.9	8.2	-	-	-	6.7	Jun-21
Digital Colony Partners II - Net			2.0	3.9	8.2	-	-	-	6.7	Jun-21
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			0.0	1.5	8.3	-	-	-	9.9	
EnCap Energy IX - Gross	11,351,256	0.1	20.4	23.6	41.2	64.5	10.9	13.3	5.5	Feb-13
EnCap Energy IX - Net			20.4	23.6	41.2	64.5	10.9	13.3	5.5	Feb-13
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			0.0	1.0	3.6	19.8	3.8	2.8	3.3	

See Policy Index and Benchmark History

*Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

**Private Real Assets returns are lagged one quarter.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
EnCap Energy X - Gross	23,432,420	0.2	9.2	15.2	21.1	50.6	20.8	-	10.4	May-15
EnCap Energy X - Net			9.2	15.2	21.1	50.6	20.8	-	10.4	May-15
Cambridge Associates Private Energy 1 Qtr Lag			0.0	1.0	3.6	19.8	3.8	-	3.2	
EnCap Flatrock Midstream III - Gross	10,815,839	0.1	0.7	0.8	5.5	15.0	6.8	-	7.4	Aug-14
EnCap Flatrock Midstream III - Net			0.7	0.8	5.5	15.0	6.8	-	7.4	Aug-14
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	11.2	9.9	-	10.6	
EnCap Flatrock Midstream IV - Gross	12,955,137	0.1	0.9	2.8	5.2	9.4	8.8	-	3.8	Mar-18
EnCap Flatrock Midstream IV - Net			0.9	2.8	5.2	9.4	8.8	-	3.8	Mar-18
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	11.2	9.9	-	10.2	
EQT Infrastructure Fund IV - Gross	38,641,750	0.3	1.9	2.8	11.0	12.5	-	-	2.7	Jul-19
EQT Infrastructure Fund IV - Net			1.9	2.8	11.0	12.5	-	-	2.7	Jul-19
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	11.2	-	-	9.9	
First Reserve - Gross	9,307,967	0.1	-14.3	-16.4	-22.5	-11.9	-5.1	-	-4.0	Jan-15
First Reserve - Net			-14.3	-16.4	-22.5	-11.9	-5.1	-	-4.0	Jan-15
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	11.2	9.9	-	10.7	
Harrison St Social Infra Fd - Gross	109,246,151	0.8	1.2	3.0	5.0	-	-	-	6.5	Aug-21
Harrison St Social Infra Fd - Net			1.2	3.0	5.0	-	-	-	6.5	Aug-21
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	-	-	-	10.0	
IFM Global Infrastructure US LP - Gross	163,296,523	1.3	-0.5	2.9	9.8	11.8	10.3	-	11.3	May-17
IFM Global Infrastructure US LP - Net			-0.5	2.9	9.8	11.8	10.3	-	11.3	May-17
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	11.2	9.9	-	11.3	
ISQ Global Infrastructure Fund II - Gross	55,022,345	0.4	1.4	3.4	10.2	12.8	12.6	-	12.1	Nov-18
ISQ Global Infrastructure Fund II - Net			1.4	3.4	10.2	12.8	12.6	-	12.1	Nov-18
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	11.2	9.9	-	10.1	
ISQ Global Infrastructure Fund III - Gross	20,587,670	0.2	2.7	4.1	23.3	-	-	-	16.7	Jan-22
ISQ Global Infrastructure Fund III - Net			2.7	4.1	23.3	-	-	-	16.7	Jan-22
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	-	-	-	8.9	
Meridiam Infra N America III - Gross	38,056,290	0.3	-2.0	-2.8	-2.0	33.9	-23.6	-	-53.8	Oct-17
Meridiam Infra N America III - Net			-2.0	-2.8	-2.0	33.9	-23.6	-	-53.8	Oct-17
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	11.2	9.9	-	10.4	
Meridiam Infra N America IV - Gross	12,345,188	0.1	0.0							
Meridiam Infra N America IV - Net			0.0							
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	-	-	-	-	-	1.5	

See Policy Index and Benchmark History

**Total Fund
Performance Summary**

**Sacramento County Employees' Retirement System
Period Ending: December 31, 2023**

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Meridiam Sa Infra Euro IV - Gross	9,700,424	0.1	-1.6	-3.6	10.0	-	-	-	-50.2	Aug-21
Meridiam Sa Infra Euro IV - Net			-1.6	-3.6	10.0	-	-	-	-50.2	Aug-21
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	-	-	-	10.0	
NGP Royalty Partners - Gross	30,164,936	0.2	9.6	16.1	23.3	48.8	-	-	37.5	Sep-20
NGP Royalty Partners - Net			9.6	16.1	23.3	48.8	-	-	37.5	Sep-20
Cambridge Associates Private Energy 1 Qtr Lag			0.0	1.0	3.6	19.8	-	-	19.5	
NGP Royalty Partners II - Gross	32,509,459	0.3	6.0	3.1	-12.4	-	-	-	-12.4	Jan-23
NGP Royalty Partners II - Net			6.0	3.1	-12.4	-	-	-	-12.4	Jan-23
Cambridge Associates Private Energy 1 Qtr Lag			0.0	1.0	3.6	-	-	-	3.6	
Paine Schwartz Food Chain V - Gross	35,310,041	0.3	-1.1	-0.4	6.9	22.9	-	-	10.3	Feb-20
Paine Schwartz Food Chain V - Net			-1.1	-0.4	6.9	22.9	-	-	10.3	Feb-20
NCREIF Farmland 1 Qtr Lag			-0.3	0.5	6.0	7.2	-	-	6.5	
Pantheon Ventures - Gross	36,029,837	0.3	-4.7	-3.6	-1.1	8.5	5.4	-	14.0	Aug-14
Pantheon Ventures - Net			-4.7	-3.6	-1.1	8.5	5.4	-	14.0	Aug-14
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	11.2	9.9	-	10.6	
Quantum Energy VI - Gross	25,276,581	0.2	-0.9	-4.7	-23.6	21.8	12.1	-	18.5	Dec-14
Quantum Energy VI - Net			-0.9	-4.7	-23.6	21.8	12.1	-	18.5	Dec-14
Cambridge Associates Private Energy 1 Qtr Lag			0.0	1.0	3.6	19.8	3.8	-	1.5	
Quantum Energy VII - Gross	36,518,242	0.3	-0.7	-2.2	-1.0	36.5	16.3	-	11.5	Sep-17
Quantum Energy VII - Net			-0.7	-2.2	-1.0	36.5	16.3	-	11.5	Sep-17
Cambridge Associates Private Energy 1 Qtr Lag			0.0	1.0	3.6	19.8	3.8	-	5.1	
Ridgewood Water & Strategy Infra II - Gross	16,539,779	0.1	-2.0	1.1	-106.6	-	-	-	-106.6	Jan-23
Ridgewood Water & Strategy Infra II - Net			-2.0	1.1	-106.6	-	-	-	-106.6	Jan-23
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	-	-	-	8.3	
Tailwater Energy Fund III - Gross	21,006,359	0.2	-0.2	-4.5	-1.2	8.6	3.8	-	1.8	Oct-18
Tailwater Energy Fund III - Net			-0.2	-4.5	-1.2	8.6	3.8	-	1.8	Oct-18
Cambridge Associates Private Energy 1 Qtr Lag			0.0	1.0	3.6	19.8	3.8	-	4.2	
Tailwater Energy IV - Gross	25,429,049	0.2	-0.3	0.5	20.3	25.6	-	-	6.0	Nov-19
Tailwater Energy IV - Net			-0.3	0.5	20.3	25.6	-	-	6.0	Nov-19
Cambridge Associates Private Energy 1 Qtr Lag			0.0	1.0	3.6	19.8	-	-	6.6	
Wastewater Opportunity - Gross	8,375,182	0.1	-2.4	-1.8	7.9	15.8	8.2	-	-8.8	Jan-16
Wastewater Opportunity - Net			-2.4	-1.8	7.9	15.8	8.2	-	-8.8	Jan-16
Cambridge Associates Private Infrastructure 1 Qtr Lag			0.0	1.5	8.3	11.2	9.9	-	11.0	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Liquid Real Return - Gross	151,999,004	1.2	4.2	2.5	5.9	4.6	-	-	4.3	Jul-19
Liquid Real Return - Net			4.1	0.8	4.0	3.8	-	-	3.6	Jul-19
SSgA Real Asset			6.0	3.7	4.2	4.6	-	-	4.0	
SSgA Passive Real Return Proxy - Gross	151,401,461	1.2	4.1	1.9	4.6	4.9	6.1	3.2	2.4	Feb-08
SSgA Passive Real Return Proxy - Net			4.1	1.9	4.4	4.7	5.8	3.0	2.2	Feb-08
SSgA Real Asset			6.0	3.7	4.2	4.6	5.8	3.0	-	
Brookfield Liquid Real Return	597,543	0.0								
Cash - Gross	204,417,563	1.6	1.4	2.8	5.5	2.7	2.5	2.0	3.0	Aug-92
Cash - Net			1.4	2.8	5.5	2.7	2.5	2.0	-	Aug-92
Secured Overnight Financing Rate			1.4	2.7	5.2	2.3	2.0	1.3	2.5	
Cash Account - Gross	204,417,563	1.6	1.4	2.8	5.5	2.8	2.7	2.1	3.1	Jul-92
Cash Account - Net			1.4	2.8	5.5	2.8	2.7	2.1	-	Jul-92
Secured Overnight Financing Rate			1.4	2.7	5.2	2.3	2.0	1.3	2.5	

See Policy Index and Benchmark History

Total Fund
Manager Allocation Analysis

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

AB	\$1,336,001,661	10.3
AQR US Enhanced Equity	\$373,586,408	2.9
JP Morgan 130/30	\$196,323,957	1.5
DE Shaw Broad Mkt Core Alpha Ext	\$170,865,476	1.3
Eagle Capital	\$368,787,917	2.9
Huber Capital	\$20,284	0.0
Weatherbie	\$100,992,236	0.8
Snyder Capital Management	\$128,233,838	1.0
Lazard	\$341,718,268	2.6
Walter Scott & Partners Limited	\$514,702,708	4.0
LSV	\$524,881,488	4.1
William Blair Dev Small Cap	\$104,147,508	0.8
Acadian Asset Management	\$107,902,180	0.8
Arga Emg	\$200,359,836	1.6
Baillie Gifford Emg All Cap	\$213,011,006	1.6
Oaktree Emg	\$182,678,983	1.4
CBRE Clarion	\$4,165	0.0
Allspring Global Investments	\$84,426,775	0.7
Artisan Partners Global Opp	\$136,163,265	1.1
Nikko Asset Management	\$128,280,000	1.0
Third Point Offshore Fund	\$34,853,797	0.3
Abbott VI	\$24,570,537	0.2
Accel-KKR V	\$28,239,610	0.2
Accel-KKR VI	\$26,952,762	0.2
Accel-KKR Growth Partners II	\$9,519,111	0.1
Accel-KKR Growth Partners III	\$31,867,494	0.2
Accel-KKR Growth Partners IV	\$9,861,614	0.1
Atalaya Special Opp VI	\$1,252,904	0.0
Atalaya Special Opp V	\$439,621	0.0
Canvas Ventures III	\$13,525,078	0.1
Cortec Group Fund VII	\$26,271,929	0.2
Cortec Group Fund VIII	\$4,347,451	0.0
CRV Select Fund I	\$17,745,859	0.1
CRV Select Fund II	\$5,218,091	0.0

Total Fund
Manager Allocation Analysis

Sacramento County Employees' Retirement System
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CRV XVIII LP	\$17,039,717	0.1
CRV XIX LP	\$5,721,773	0.0
Davidson Kempner LT Dist Opp IV	\$18,743,264	0.1
Davidson Kempner LT Dist Opp V	\$31,694,120	0.2
Dyal Capital Partners II	\$38,259,450	0.3
Dyal Capital Partners III	\$31,183,317	0.2
Garrison Investment Group	\$1,400,024	0.0
Golden Capital Co Invest	\$24,474,495	0.2
Gridiron Capital Fund IV	\$54,622,024	0.4
Gridiron Capital Fund V	\$15,582,492	0.1
Harbourvest VIII	\$2,538,421	0.0
Harbourvest Intl VI	\$6,128,790	0.0
H.I.G. Bayside Loan III	\$3,412,307	0.0
H.I.G. Capital V	\$7,992,728	0.1
H.I.G. Europe Capital II	\$10,420,769	0.1
Khosla IV	\$12,811,697	0.1
Khosla V	\$36,706,754	0.3
Khosla VI	\$59,218,504	0.5
Khosla VII	\$17,303,194	0.1
Linden Capital III	\$27,529,032	0.2
Linden Capital Partners IV	\$52,836,267	0.4
Linden Capital Partners V	\$17,353,221	0.1
Marlin Equity IV	\$9,411,163	0.1
Marlin Equity V	\$31,294,804	0.2
Marlin Heritage	\$3,759,834	0.0
Marlin Heritage II	\$10,455,013	0.1
Marlin Heritage III	\$3,771,479	0.0
Marlin Heritage Europe	\$18,508,746	0.1
New Enterprise 14	\$39,096,877	0.3
New Enterprise 15	\$27,476,270	0.2
New Enterprise 16	\$38,608,302	0.3
New Enterprise 17	\$20,769,550	0.2
Oaktree Power Opp Fund VI	\$20,094,168	0.2
OrbiMed Private Investments VIII	\$10,353,938	0.1
Orbimed Private Investments IX	\$2,918,007	0.0

Total Fund
Manager Allocation Analysis

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

Private Equity X	\$5,600,072	0.0
RCP Multi-Fund Feeder	\$84,688,921	0.7
RRJ Capital Master Fund II	\$3,995,683	0.0
RRJ Capital Master Fund III	\$8,422,117	0.1
Shamrock Capital II	\$13,762,794	0.1
Shamrock Capital III	\$161,630	0.0
Shamrock Capital Growth Fund V	\$10,560,773	0.1
Sixth Street Opp Partners V	\$15,075,617	0.1
Spectrum Equity VII	\$34,304,008	0.3
Spectrum Equity Fund VIII	\$25,104,361	0.2
Spectrum Equity Fund IX	\$20,419,895	0.2
Strategic Value Spl Fund V	\$18,898,731	0.1
Summit EUR Growth Equity II	\$47,820,320	0.4
Summit EUR Growth Equity III	\$20,121,135	0.2
Summit Ventures III	\$3,607,769	0.0
Summit Ventures IV	\$51,292,600	0.4
Summit Ventures V	\$10,592,120	0.1
Thoma Bravo XI	\$26,990,087	0.2
Thoma Bravo XII	\$33,516,616	0.3
Thoma Bravo XIII	\$63,729,057	0.5
Threshold Ventures III	\$22,415,385	0.2
Threshold Ventures IV	\$3,944,609	0.0
TPG Opp Partners III	\$6,233,729	0.0
Trinity Ventures XI	\$45,407,767	0.4
Trinity Ventures XII	\$53,451,809	0.4
TSG7 A LP	\$14,971,742	0.1
TSG7 B LP	\$3,906,350	0.0
TSG8 LP	\$36,258,562	0.3
TSG9 LP	\$5,309,869	0.0
TSSP Opportunities Partners IV	\$26,252,178	0.2
Waterland V	\$705,035	0.0
Waterland VI	\$15,632,921	0.1
Wayzata Opportunities III	\$3,002,214	0.0
Wynnchurch Capital Partners V	\$17,077,606	0.1
Brigade Capital	\$223,592,189	1.7

Total Fund
Manager Allocation Analysis

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

Ares Capital Europe Fund V	\$31,249,768	0.2
Athyrium Opp II	\$6,965,355	0.1
Athyrium Opp III	\$7,698,032	0.1
Benefit St Pr Sr Secure Opp	\$21,595,243	0.2
Benefit St Pr Sr Secure Opp II	\$36,802,829	0.3
IFM US Infrastructure DB FD LP	\$36,268,867	0.3
OrbiMed Royalty & Credit Opp III	\$16,580,275	0.1
Orbimed Royalty & Credit Opp IV	\$6,442,438	0.0
Shamrock Capital Debt Fund I	\$9,508,615	0.1
Silver Point Specialty Credit Fund II	\$33,546,704	0.3
Silver Point Specialty Credit Fund III	\$11,143,113	0.1
Summit Credit	\$30,457	0.0
Summit Credit II	\$10,355,672	0.1
Summit Credit III	\$11,696,916	0.1
Summit Credit IV	\$15,014,032	0.1
TCP Direct Lending VIII	\$118,203,486	0.9
Grosvenor SCARF Growth	\$7,874,194	0.1
Prudential	\$343,868,431	2.7
TCW MetWest Fixed	\$344,642,966	2.7
Brandywine US FI	\$337,478,184	2.6
Reams Core Plus FI	\$351,797,444	2.7
Neuberger Berman	\$416,875,550	3.2
Aristeia Partners LP	\$52,851,336	0.4
BlackRock Event Driven Equity Fund	\$56,612,805	0.4
Davidson Kempner Instl Partners LP	\$61,894,358	0.5
Elliott Associates	\$81,857,184	0.6
Graham Global Inv II	\$44,065,974	0.3
Grosvenor SCARF Diversifying	\$236,865,788	1.8
Laurion Capital	\$62,157,392	0.5
LMR Fund LTD	\$55,517,769	0.4
MW Global Opportunities Fund	\$59,344,797	0.5
PSquared Event Driven Opp Fund	\$55,640,516	0.4
Sculptor Domestic II	\$1,223,787	0.0
Tudor BVI Global Fund	\$51,677,939	0.4
Dedicated Cash Allocation	\$253,582,967	2.0

**Total Fund
Manager Allocation Analysis**

**Sacramento County Employees' Retirement System
Period Ending: December 31, 2023**

Brookfield Premier RE Partners	\$107,518,953	0.8
Clarion Lion Properties	\$108,730,320	0.8
Metlife Core Property	\$74,560,898	0.6
Principal US Property	\$55,559,687	0.4
Prologis Targeted Euro Logistics	\$60,050,907	0.5
Prologis Targeted US Logistics	\$77,214,936	0.6
Townsend Real Estate	\$150,298,583	1.2
Carlyle China Realty	\$6,387,082	0.0
Carlyle China Rome Logistics	\$28,391,960	0.2
CIM Opportunity VIII	\$22,908,536	0.2
Kohlberg Kravis Roberts	\$1,372,086	0.0
Lasalle China Logistics Venture LP	\$8,518,087	0.1
NREP Nordic Strat II	\$15,899,938	0.1
NREP Nordic Strat III	\$34,434,933	0.3
NREP Nordic Strat IV	\$21,807,120	0.2
NREP Nordic Strat V	\$9,031,826	0.1
Sculptor Real Estate Fund III	\$3,513,436	0.0
Sculptor Real Estate Fund IV	\$19,139,433	0.1
Asana Partners Fund II	\$32,173,409	0.2
Asana Partners Fund III	\$14,388,014	0.1
ECE Euro Prime Shopping II	\$33,015,741	0.3
European RE Debt II	\$433,015	0.0
Hammes II	\$3,195,076	0.0
Hammes III	\$19,917,381	0.2
Hammes IV	\$931,671	0.0
Seven Seas Japan Opp Fund	\$11,559,003	0.1
ACM II	\$14,850,422	0.1
ARA Partners Fund III LP	\$4,119,762	0.0
ArcLight Energy VI	\$13,599,519	0.1
Brookfield Infra III	\$42,463,648	0.3
Brookfield Infra IV	\$39,511,974	0.3
Brookfield Infra Debt Fund III	\$17,324,281	0.1
Brookfield Super Core Infra	\$104,334,293	0.8
Carlyle Power II	\$38,814,324	0.3
Digital Colony Partners II	\$34,937,387	0.3
EnCap Energy IX	\$11,351,256	0.1

Total Fund
Manager Allocation Analysis

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

EnCap Energy X	\$23,432,420	0.2
EnCap Flatrock Midstream III	\$10,815,839	0.1
EnCap Flatrock Midstream IV	\$12,955,137	0.1
EQT Infrastructure Fund IV	\$38,641,750	0.3
First Reserve	\$9,307,967	0.1
Harrison St Social Infra Fd	\$109,246,151	0.8
IFM Global Infrastructure US LP	\$163,296,523	1.3
ISQ Global Infrastructure Fund II	\$55,022,345	0.4
ISQ Global Infrastructure Fund III	\$20,587,670	0.2
Meridiam Infra N America III	\$38,056,290	0.3
Meridiam Infra N America IV	\$12,345,188	0.1
Meridiam Sa Infra Euro IV	\$9,700,424	0.1
NGP Royalty Partners	\$30,164,936	0.2
NGP Royalty Partners II	\$32,509,459	0.3
Paine Schwartz Food Chain V	\$35,310,041	0.3
Pantheon Ventures	\$36,029,837	0.3
Quantum Energy VI	\$25,276,581	0.2
Quantum Energy VII	\$36,518,242	0.3
Ridgewood Water & Strategy Infra II	\$16,539,779	0.1
Tailwater Energy IV	\$25,429,049	0.2
Tailwater Energy Fund III	\$21,006,359	0.2
Wastewater Opportunity	\$8,375,182	0.1
Brookfield Liquid Real Return	\$597,543	0.0
SSgA Barclays 1-10 Yrs TIPS Index	\$2,929,708	0.0
SSgA Real Asset	\$148,471,753	1.1
Cash Account	\$204,417,563	1.6
Heitman Adv JMB V	\$8,390	0.0
Transition Account	\$51,649	0.0
SSgA Overlay	\$114,943,150	0.9
Total Fund	\$12,916,830,147	100.0

Total Fund
Risk vs. Return (Gross of Fees)

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	5.6 (32)	8.0 (13)	0.5 (21)	0.1 (35)	2.9 (44)
Policy Index	5.2 (35)	8.0 (13)	0.4 (31)	-	0.0
Total Fund ex Overlay	5.9 (26)	7.5 (12)	0.5 (16)	0.2 (34)	3.0 (50)
Policy Index	5.2 (35)	8.0 (13)	0.4 (31)	-	0.0

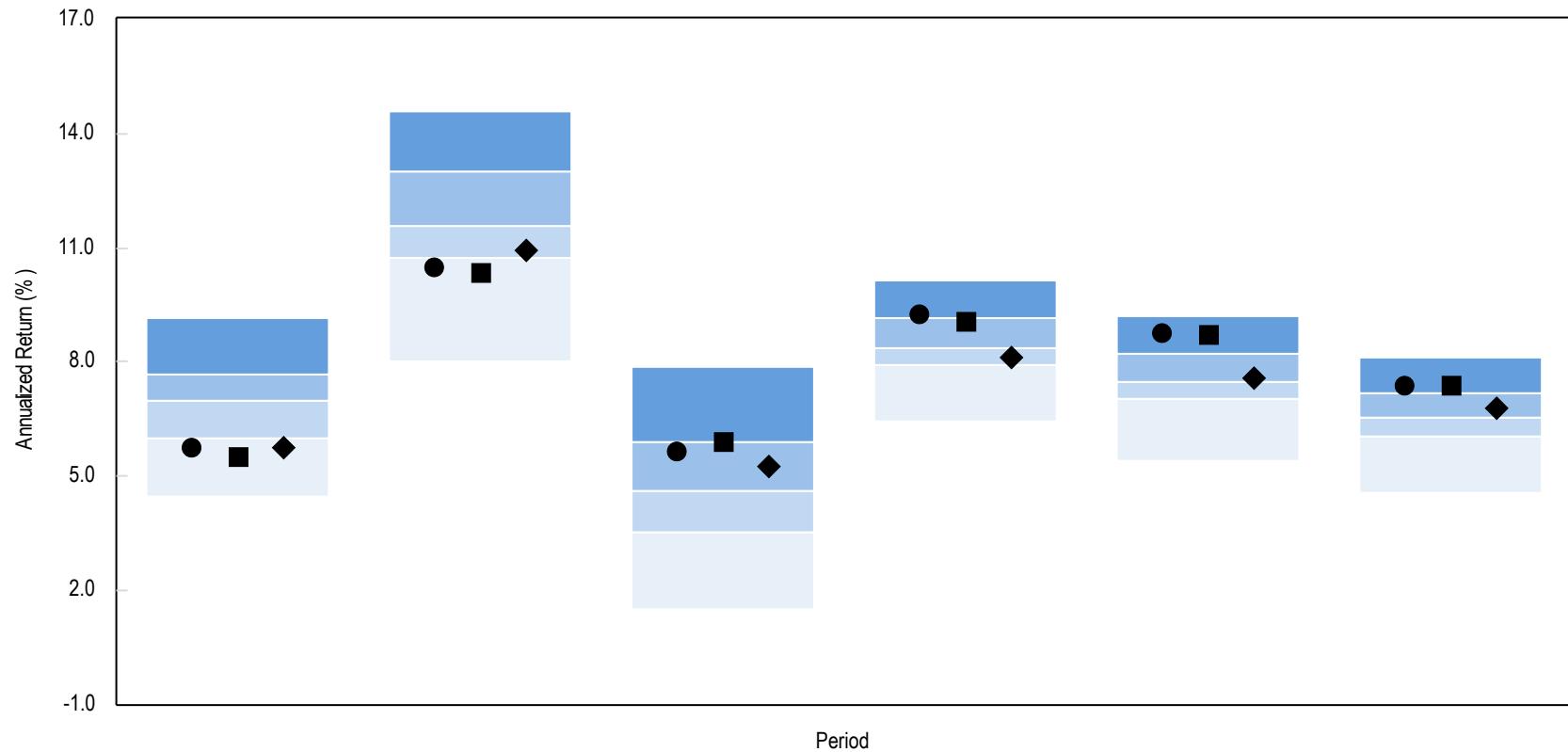
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	9.3 (21)	8.6 (11)	0.8 (10)	0.4 (17)	2.8 (19)
Policy Index	8.1 (64)	8.4 (10)	0.7 (19)	-	0.0
Total Fund ex Overlay	9.1 (32)	8.3 (9)	0.9 (10)	0.3 (26)	2.9 (23)
Policy Index	8.1 (64)	8.4 (10)	0.7 (19)	-	0.0

Total Fund
Peer Universe Comparison

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

InvMetrics Public DB > \$1B Gross Return Comparison



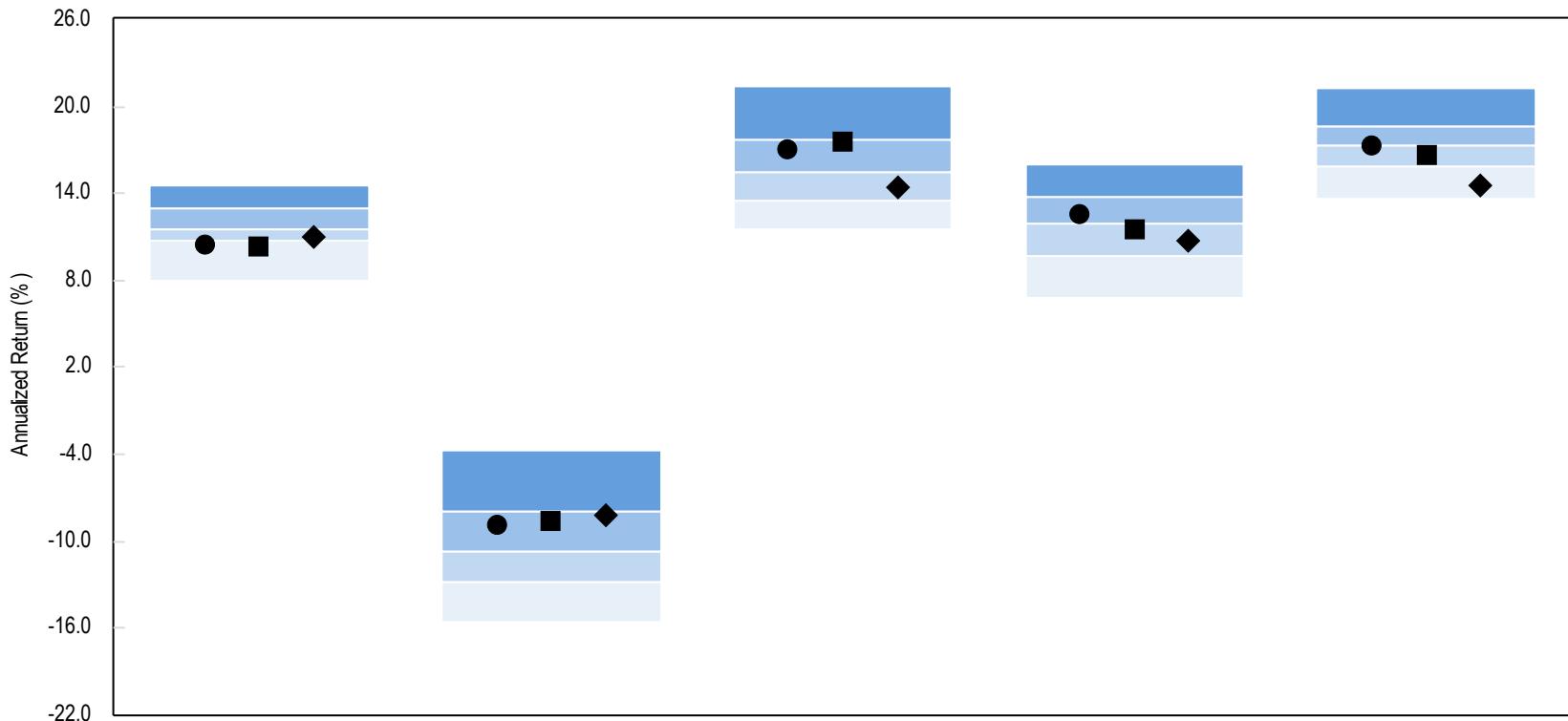
● Total Fund	5.8 (79)
■ Total Fund ex Overlay	5.5 (83)
◆ Policy Index	5.8 (79)

5th Percentile	9.1	14.6	7.9	10.1	9.2	8.1
1st Quartile	7.7	13.0	5.9	9.1	8.2	7.2
Median	7.0	11.6	4.6	8.4	7.5	6.6
3rd Quartile	6.0	10.7	3.5	7.9	7.1	6.0
95th Percentile	4.5	8.0	1.5	6.5	5.4	4.6
Population	77	72	64	62	62	58

Total Fund
Peer Universe Comparison

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

InvMetrics Public DB > \$1B Gross Return Comparison

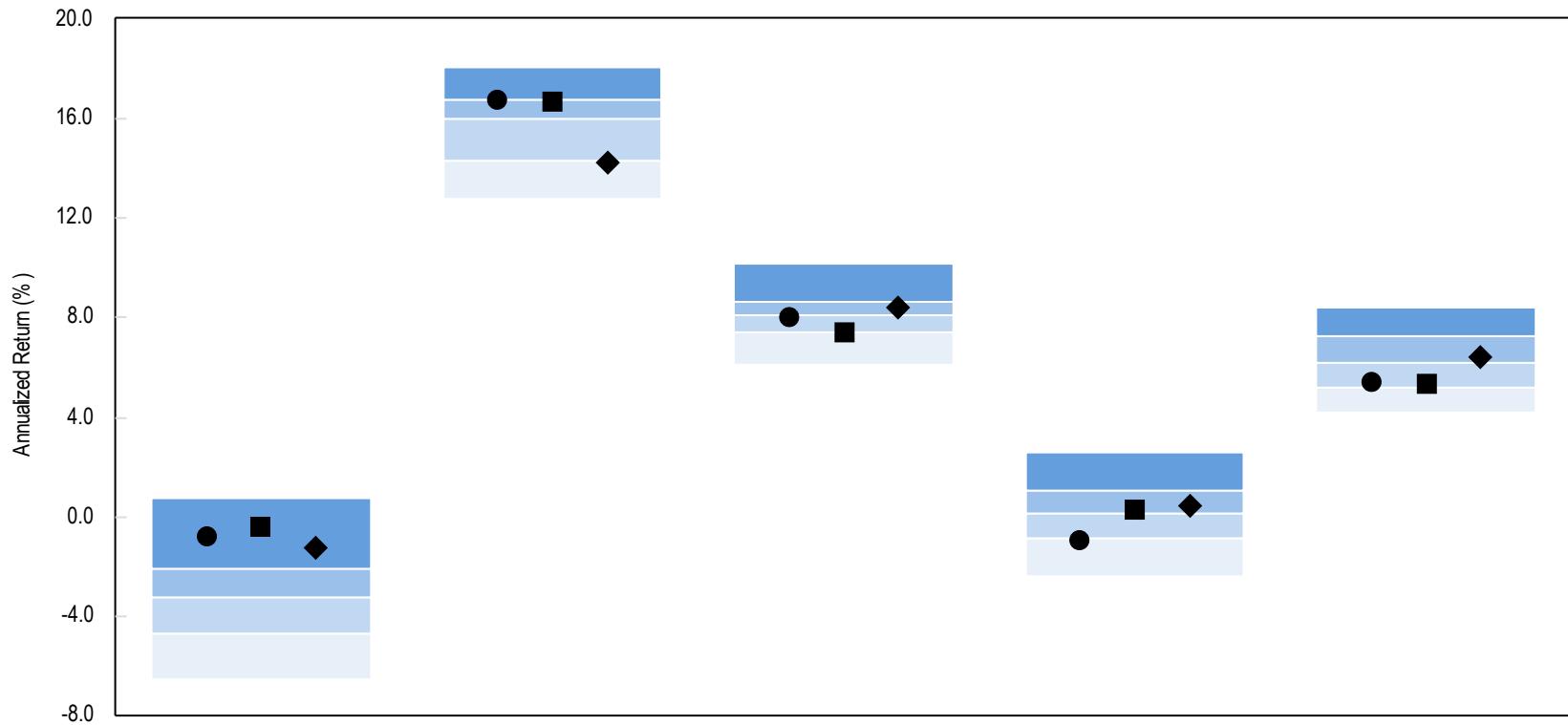


	Period				
	2023	2022	2021	2020	2019
● Total Fund	10.5 (81)	-8.9 (32)	17.1 (34)	12.6 (39)	17.3 (50)
■ Total Fund ex Overlay	10.4 (83)	-8.5 (29)	17.6 (26)	11.5 (55)	16.6 (62)
◆ Policy Index	10.9 (71)	-8.1 (26)	14.4 (63)	10.8 (64)	14.5 (91)
5th Percentile	14.6	-3.7	21.4	16.0	21.2
1st Quartile	13.0	-7.9	17.7	13.7	18.7
Median	11.6	-10.7	15.5	11.9	17.3
3rd Quartile	10.7	-12.8	13.5	9.6	15.9
95th Percentile	8.0	-15.6	11.5	6.7	13.6
Population	72	122	158	170	133

Total Fund
Peer Universe Comparison

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

InvMetrics Public DB > \$1B Gross Return Comparison



Policy Index and Benchmark History

Sacramento County Employees' Retirement System
Period Ending: December 31, 2023

Total Plan Policy Index	As of:										
	4/1/22	7/1/19	7/1/17	4/1/17	1/1/14	1/1/12	1/1/08	2/1/06	9/1/04	1/1/00	7/1/86
91-day UST Bill +5% (AR)				10.0%	10.0%	10.0%	5.0%	5.0%	5.0%		
Bloomberg Aggregate	12.0%	10.0%	10.0%	10.0%	15.0%	20.0%	20.0%	25.0%	25.0%	30.0%	
Bloomberg US Treasury	4.0%	5.0%	5.0%	5.0%							
ICE BofA ML High Yield II	1.0%	1.0%	1.0%	1.0%	1.0%						
Bloomberg Commodity			2.0%	2.0%			5.0%				
Cambridge Associates Private Energy 1 Qtr Lag	2.1%	2.5%	2.5%								
Cambridge Associates Private Infrastructure 1 Qtr Lag	4.2%	3.2%	3.2%								
FTSE BIG										23.0%	
FTSE WGBI ex US Unhedged	0.0%	2.4%	2.4%	2.4%	2.4%						
CPI-U +5% (PRA)				7.0%	15.0%	15.0%					
Credit Suisse Leveraged Loans	1.0%	1.0%	1.0%	1.0%	1.0%						
Credit Suisse Leveraged Loans +2% 1 Qtr Lag	5.0%	4.0%	4.0%	4.0%							
JPM GBI EM Diversified	0.0%	0.6%	0.6%	0.6%	0.6%						
HFRI FoF Composite Index + 1%	0.0%	3.0%	3.0%								
HFRI FoF Conservative Index	7.0%	7.0%	7.0%								
MSCI ACWI ex US	16.0%	20.0%	20.0%	20.0%	22.5%	22.5%	20.0%				
MSCI ACWI IMI	4.0%										
MSCI EAFE							15.0%	15.0%	15.0%	15.0%	
MSCI Emerging Markets							5.0%	5.0%	5.0%		
NAREIT						3.0%	3.0%				
NFI-ODCE	5.9%	4.6%	4.6%								
NFI-ODCE net +1% 1Q Lag	3.2%	2.5%	2.5%								
NCREIF				7.0%			12.0%	12.0%	15.0%	10.0%	15.0%
NCREIF Farmland 1 Qtr Lag	0.7%	0.7%	0.7%								
NCREIF Timberland Index Lagged		0.7%	0.7%								
Russell 1000						30.0%	30.0%	35.0%			
Russell 1000 +3% 1QL (PE)					10.0%	10.0%					
Russell 2000							5.0%	5.0%	5.0%		
Russell 3000	20.0%	20.0%	21.0%	21.0%	22.5%	22.5%	30.0%			47.0%	
S&P 500 +2% 1QL (PE)							5.0%				
Cambridge Associates All PE 1 Qtr Lag	11.0%	9.0%	9.0%	9.0%							
Bloomberg Roll Select Commodity Total Return	0.2%	0.2%									
Bloomberg U.S. Floating Rate Note < 5 Yr	0.2%	0.2%									
S&P Global LargeMidCap Commodity and Resources	0.2%	0.2%									
S&P Global Infrastructure Index - Net of Tax on Dividend	0.5%	0.5%									
Bloomberg U.S. Government Inflation-Linked 1-10 Yrs	0.6%	0.6%									
FTSE EPRA Nareit Developed Liquid Index	0.3%	0.3%									
ICE LIBOR Spot/Next Overnight USD	1.0%	1.0%									
	100.0%	100.0%	100.0%	90.0%	90.0%	90.0%	95.0%	95.0%	95.0%	100.0%	100.0%

Policy Index and Benchmark History

Sacramento County Employees' Retirement System Period Ending: December 31, 2023

Growth Benchmark	As of:			
	4/1/22	7/1/19	7/1/17	4/1/17
91 Day T-Bill +5%			5.08%	
ICE BofA ML High Yield II	1.73%	1.73%	1.70%	1.70%
Credit Suisse Leveraged Loans	1.73%	1.73%	1.70%	1.70%
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag	8.62%	6.90%	6.78%	6.78%
HFRI FoF Composite Index + 1%		5.17%	5.08%	
MSCI ACWI ex US	27.58%	34.48%	33.90%	33.90%
MSCI ACWI IMI	6.89%			
Russell 3000	34.48%	34.48%	35.59%	35.59%
Cambridge Associates All PE 1 Qtr Lag	18.97%	15.52%	15.25%	15.25%
	100.0%	100.0%	100.0%	94.9%
Global Public Equity Benchmark	As of:			
	4/1/22	7/1/11		
MSCI ACWI		100.0%		
MSCI ACWI IMI	100.0%			
	100.0%	100.0%		
Domestic Equity Benchmark	As of:			
	1/1/08	9/1/04	1/1/00	7/1/86
Russell 1000		85.71%	87.5%	
Russell 2000		14.29%	12.5%	
Russell 3000	100.0%		100.0%	
	100.0%	100.0%	100.0%	100.0%
Large Cap Active Benchmark	As of:			
	2/1/19	9/1/08		
Russell 1000 Value		100.0%		
Russell 1000	100.0%			
	100.0%	100.0%		
International Equity Benchmark	As of:			
	1/1/08	1/1/00	7/1/86	
MSCI ACWI ex US	100.0%			
MSCI EAFE		75.0%	100.0%	
MSCI Emerging Markets		25.0%		
	100.0%	100.0%	100.0%	
Private Equity Benchmark	As of:			
	4/1/17	1/1/12	1/1/08	
Russell 1000 +3% 1QL		100.0%		
S&P 500 +2% 1QL			100.0%	
Cambridge Associates All PE 1 Qtr Lag	100.0%			
	100.0%	100.0%	100.0%	

Public Credit Benchmark	As of:			
	4/1/17			
ICE BofA ML High Yield II		50.0%		
Credit Suisse Leveraged Loans		50.0%		
	100.0%			
Private Credit Benchmark	As of:			
	4/1/17			
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag		100.0%		
	100.0%			
Growth Oriented Absolute Return Benchmark	As of:			
	7/1/17	4/1/17		
91-day UST Bill +5%			100.0%	
HFRI FoF Composite Index + 1%		100.0%		
	100.0%	100.0%		
Diversifying Benchmark	As of:			
	4/1/22	7/1/17	4/1/17	
91 Day T-Bill +5%			28.00%	
Bloomberg US Aggregate		52.17%	40.00%	40.00%
Bloomberg US Treasury		17.39%	20.00%	20.00%
FTSE WGBI ex US Unhedged			9.60%	9.60%
HFRI FoF Conservative Index		30.43%	28.00%	
JPM GBI EM Diversified			2.40%	2.40%
	100.0%	100.0%	100.0%	
Diversifying Absolute Return Benchmark	As of:			
	7/1/17	4/1/17		
91-day UST Bill +5%			100.0%	
HFRI FoF Conservative Index		100.0%		
	100.0%	100.0%		
Real Return Benchmark	As of:			
	4/1/22	4/1/19	4/1/17	
Real Estate Benchmark		50.00%	43.75%	43.75%
Private Real Assets Benchmark		38.89%	43.75%	43.75%
Bloomberg Commodity				12.50%
Liquid Real Return Custom Benchmark		11.11%	12.50%	
	100.0%	100.0%	100.0%	
Real Estate Benchmark	As of:			
	4/1/22	7/1/17	7/1/2011	
NCREIF			100.0%	
NFI-ODCE		60.0%	65.0%	
NFI-ODCE net +1% 1Q Lag		40.0%	35.0%	
	100.0%	100.0%	100.0%	

Policy Index and Benchmark History

Sacramento County Employees' Retirement System Period Ending: December 31, 2023

RE-Value Added Benchmark	As of: 7/1/16 10/1/08		
NCREIF +2% 1Q Lag		100.0%	
NFI-ODCE net +1% 1Q Lag	100.0%		
	100.0%	100.0%	
Private Real Assets Benchmark	As of: 4/1/22 7/1/17 4/1/17		
CPI-U Headline +5%		100.0%	
Cambridge Associates Private Energy 1 Qtr Lag	30.0%	35.0%	
Cambridge Associates Private Infrastructure 1 Qtr Lag	60.0%	45.0%	
NCREIF Farmland 1 Qtr Lag	10.0%	10.0%	
NCREIF Timberland Index Lagged		10.0%	
	100.0%	100.0%	100.0%
Liquid Real Return Custom Benchmark	As of: 7/1/19		
Bloomberg Roll Select Commodity Total Return	10.0%		
Bloomberg U.S. Floating Rate Note < 5 Yr	10.0%		
S&P Global LargeMidCap Commodity and Resources	10.0%		
S&P Global Infrastructure Index - Net of Tax on Dividend	25.0%		
Bloomberg U.S. Government Inflation-Linked 1-10 Yrs	30.0%		
FTSE EPRA Nareit Developed Liquid Index	15.0%		
	100.0%		
Cash Benchmark	As of: 4/1/22 7/1/92		
91 Day T-Bills		100.0%	
NFI-ODCE net +1% 1Q Lag	100.0%		
	100.0%	100.0%	
AllianceBernstein Benchmark	As of: 1/1/01 1/1/98 5/1/89		
Russell 1000	100.0%		
Russell 3000		100.0%	
Wilshire 2500			100.0%
	100.0%	100.0%	100.0%
Eagle Capital Benchmark	As of: 2/1/19 9/1/08		
Russell 1000 Value		100.0%	
Russell 1000	100.0%		
	100.0%	100.0%	

Lazard Benchmark	As of: 4/1/22 7/1/12		
MSCI ACWI ex USA		100.0%	
MSCI World ex US		100.0%	
	100.0%	100.0%	
Brigade Benchmark	As of: 12/1/13		
ICE BofA ML High Yield II		50.0%	
Credit Suisse Leveraged Loans		50.0%	
		100.0%	
Brookfield Real Return Custom	As of: 12/1/2019		
FTSE Global Core Infrastructure 50/50 Index		30.0%	
FTSE EPRA Nareit Developed Index		20.0%	
ICE BofA 7% Constrained REIT Preferred Securities Index		10.0%	
ICE BofA USD Real Asset High Yield Custom Index		16.0%	
ICE BofA USD Real Asset Corporate Custom Index		24.0%	
		100.0%	
SSgA Real Asset Benchmark	As of: 3/2/2018 10/1/15 2/1/08		
Bloomberg US Govt Inflation-Linked 1-10 Yrs		10.0%	
Bloomberg US TIPS		10.0%	20.0%
Bloomberg 1-10 Yr US TIPS		30.0%	
Bloomberg Roll Select Commodity TR		10.0%	20.0%
Bloomberg USD Floating Rate Note <5yr		10.0%	
DJ US Select REIT			30.0%
FTSE EPRA/NAREIT Developed Liquid		15.0%	10.0%
MSCI World Natural Resources		20.0%	25.0%
S&P Global Large Mid Cap Commodity Resources		10.0%	
S&P Global Infrastructure		25.0%	20.0%
S&P GS Commodities			25.0%
S&P MLP			10.0%
	100.0%	100.0%	100.0%
Cash Benchmark	As of: 4/1/22 7/1/92		
91 Day T-Bills		100.0%	
Secured Overnight Financing Rate		100.0%	
	100.0%	100.0%	

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: Portfolio Return [Risk free Rate + Portfolio Beta x (Market Return - Risk free Rate)].

Benchmark R squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book to Market: The ratio of book value per share to market price per share. Growth managers typically have low book to market ratios while value managers typically have high book to market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price to Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price to earnings ratios whereas value managers hold stocks with low price to earnings ratios.

R Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard Deviation.

Sortino Ratio: Measures the risk adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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