



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: JUNE 30, 2023

Investment Performance Review for

Sacramento County Employees' Retirement System



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

3RD QUARTER 2023
Investment Landscape

Verus business update

Since our last Investment Landscape webinar:

- Verus hired four employees:
 - **Dan Hougard, FSA**, Associate Director | Actuarial Services (Chicago)
 - **Chibueze Odoh**, Public Markets Analyst (Seattle)
 - **Madison Martin**, Performance Analyst (Seattle)
 - **Palmer Pederson**, Performance Analyst (Seattle)
- In addition, we've partnered with Rainier Scholars for a summer internship position. Rainier Scholars is a program that offers a pathway to college graduation for underrepresented communities.
 - **Moses Dagmawi**, Summer Intern (Seattle)

Recent Verus research

Visit: verusinvestments.com/research

Annual research

2023 REAL ASSETS OUTLOOK

In our Outlook last year, we said, “We believe inflation will likely begin falling later in 2022.” And though that turned out to be true, we came to that conclusion because we believed the Fed would choke off the pressures of inflation. Coming into 2023, it appeared as though inflation would continue to retreat lower, but unexpected price increases have complicated the picture. There are now banking instability issues, geopolitics, a softening economy, and a dozen other headline issues weighing on investors’ minds.

We believe the Fed will keep policy tight until inflation returns to their target level. We expect rates to stay higher for longer, which could present challenges and opportunities across private markets which have broadly failed to adjust equity values for the new higher-rate environment.

The Verus 2023 Real Assets Outlook includes insights around the following trends:

- Dislocations in Commercial Real Estate
- Elevated valuations in Infrastructure
- Declining interest in Natural Resources

Topics of interest

PRIVATE REAL ESTATE IN TAFT-HARTLEY PORTFOLIOS

Taft-Hartley pension funds in the United States often make allocations to private real estate with the dual objectives of generating robust returns and supporting union workers by investing in “labor-friendly” real estate strategies. There is occasionally a misconception that investing in labor-friendly real estate strategies involves sacrificing performance.

In this Topic of Interest whitepaper, we examine core real estate manager performance over time using the North American Building Trades Report Card to identify whether a performance difference does in fact exist. We conclude, based on the data, that labor-friendly private real estate performance has been competitive with the broader private real estate universe and that significant return was not sacrificed when investing in labor-friendly strategies during the period examined.

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2nd quarter summary

THE ECONOMIC CLIMATE

- Real GDP increased at a 2.0% rate in Q1 (1.8% growth year-over-year). The slowdown from the prior quarter reflected weaker inventory buildups and slower business investment. An upturn in consumer spending was the greatest support to economic growth, as consumption has ticked along at a steady rate. **p. 9**
- The unemployment rate remained very tight at 3.6% in June. The workforce appears to be experiencing a healthy, and possibly low pain, rebalancing of resources. Many workers are returning to the workforce while fewer job openings are being posted. Both of these effects reduce the mismatch between *workers available* and *available jobs*. **p. 12**

PORTFOLIO IMPACTS

- The U.S. consumer has shown resiliency. Household budgets have been strained by high inflation and a jump in interest rates; however, the boom in wealth over the past decade, fueled by a substantial bull market in stocks and in residential real estate, may provide a cushion in the next downturn. It remains unclear whether the U.S. will face recession in the near-term. **p. 13**
- The Cboe VIX implied volatility index fell to a surprisingly low level, despite broad expectations of recession, regional bank risks, and other not-yet-known consequences of liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter. **p. 30**

THE INVESTMENT CLIMATE

- The Fed implemented an additional rate hike to a new range of 5.00–5.25%, but longer-term U.S. interest rates remain anchored. This has resulted in the most deeply inverted U.S. yield curve since the early 1980s at -1.06% (defined as 10-year UST yield minus 2-year UST yield). **p. 19**
- Inflation fell further in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI at 4.8%. Weakening energy prices have had a big impact on overall inflation levels, though prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story. **p. 10**

ASSET ALLOCATION ISSUES

- Global equities persisted in their upward trajectory during Q2 (MSCI ACWI +6.2%). International developed markets underperformed domestic equities (S&P 500 +8.7%, MSCI EAFE +3.0%), as did emerging markets (MSCI EM +0.9%). U.S. equities rallied for a third consecutive quarter. A surge in AI-focused hype helped drive an expansion in the valuations of large tech firms. **p. 24**
- Growth stocks (+12.8%) outpaced value (+4.1%) once again, bringing the year-to-date performance differential to +23.9%. Sector-specific drivers, including product launches and upward adjustments to company guidance among Information Technology (+18.6%) mega-caps, drove growth stocks higher. Over recent years, certain style factors have exhibited some of the wildest swings in history. **p. 26**

Equity & credit markets performed strongly during Q2

A variety of risks hang overhead, though markets appear to be expecting a “soft landing”

What drove the market in Q2?

“U.S. inflation cooled in June for the 12th straight month”

HEADLINE CONSUMER PRICE INFLATION (YEAR-OVER-YEAR)

Jan	Feb	Mar	Apr	May	Jun
6.4%	6.0%	5.0%	4.9%	4.1%	3.0%

Article Source: CNN, July 12th, 2023

“Top U.S. banks raise dividends after sailing through Fed stress tests”

KBW REGIONAL BANKING INDEX (MONTHLY RETURN)

Jan	Feb	Mar	Apr	May	June
2.9%	0.5%	-20.6%	-3.6%	-8.7%	7.1%

Article Source: Reuters, June 30th, 2023

“This classic recession indicator just hit its lowest level since 1981”

10-YEAR U.S. TREASURY YIELD MINUS 2-YEAR U.S. TREASURY YIELD

Jan	Feb	Mar	Apr	May	Jun
-0.68%	-0.79%	-0.64%	-0.56%	-0.56%	-0.89%

Article Source: CNBC, July 7th, 2023

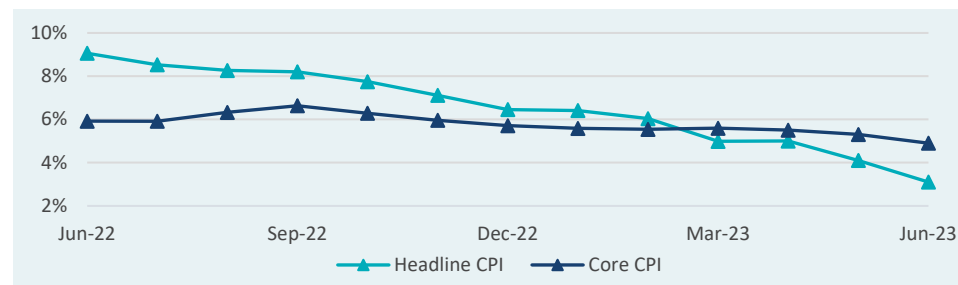
“Fed pauses interest rate hikes, signals two more increases likely...”

FED FUNDS TARGET RATE – UPPER BOUND

Q1 22	Q2 22	Q3 22	Q4 22	Q1 23	Q2 23
0.50%	1.75%	3.25%	4.50%	5.00%	5.25%

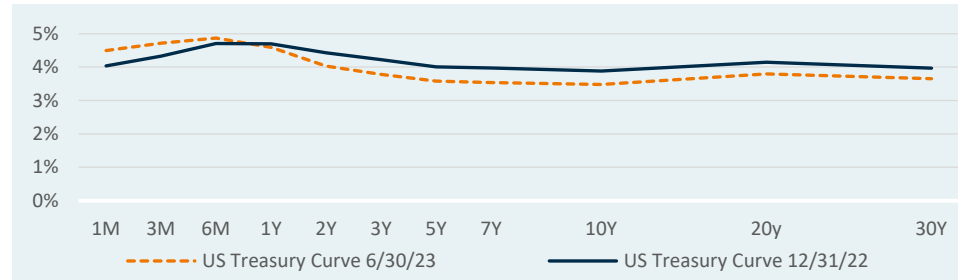
Article Source: USA Today, June 14th, 2023

U.S. HEADLINE VS. CORE INFLATION (YEAR-OVER-YEAR)



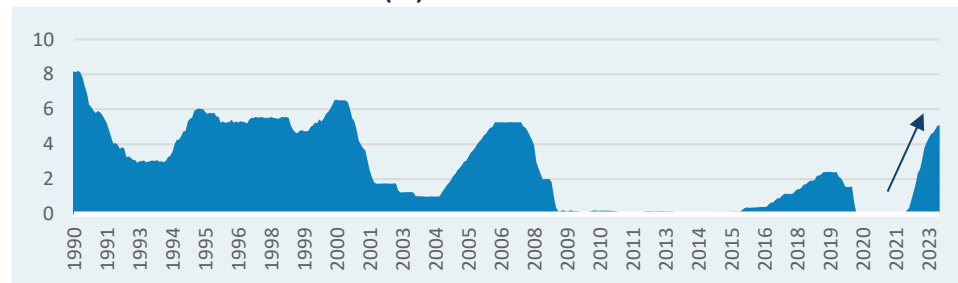
Source: FRED, as of 6/30/23

DEEP U.S. YIELD CURVE INVERSION



Source: Bloomberg, as of 6/30/23

EFFECTIVE FED FUNDS RATE (%)



Source: FRED, as of 6/30/23

Economic environment

U.S. economics summary

- Real GDP increased at a 2.0% rate in the first quarter of 2023 (1.8% growth year-over-year). The slowdown reflected weaker inventory buildups and slower business investment. Despite loftier inflation and higher interest rates, many economic signals are positive and/or improving.
- Inflation fell further in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI at 4.8%. Weaker energy prices have had a large impact on overall inflation levels, though prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story.
- The U.S. consumer has shown resiliency, with spending moving along at a moderate pace—at 2.1% year-over-year in May. These consumption patterns will be worth watching, as spending is the largest driver of economic growth.
- The Fed released its annual banking stress test results, which was applicable to the “too big to fail” class of banks. Results helped ease banking concerns as all 23 banks passed.
- The unemployment rate remained very tight at 3.6% in June. The workforce appears to be experiencing a healthy, and possibly low pain, rebalancing of resources. Many workers are returning to the workforce at the same time that fewer job openings are posted. Both of these effects reduce the mismatch between the total number of workers available relative to available jobs.
- Consumer sentiment improved slightly during the second quarter by most measures but remains pessimistic. The University of Michigan Consumer Sentiment survey showed that the outlook has improved due to factors such as the debt ceiling resolution and falling inflation.

	Most Recent	12 Months Prior
Real GDP (YoY)	1.8% 3/31/23	3.7% 3/31/22
Inflation (CPI YoY, Core)	4.8% 6/30/23	8.9% 6/30/22
Expected Inflation (5yr-5yr forward)	2.3% 6/30/23	2.1% 6/30/22
Fed Funds Target Range	5.00–5.25% 6/30/23	1.50–1.75% 6/30/22
10-Year Rate	3.81% 6/30/23	2.98% 6/30/22
U-3 Unemployment	3.6% 6/30/23	3.6% 6/30/22
U-6 Unemployment	6.9% 6/30/23	6.7% 6/30/22

GDP growth

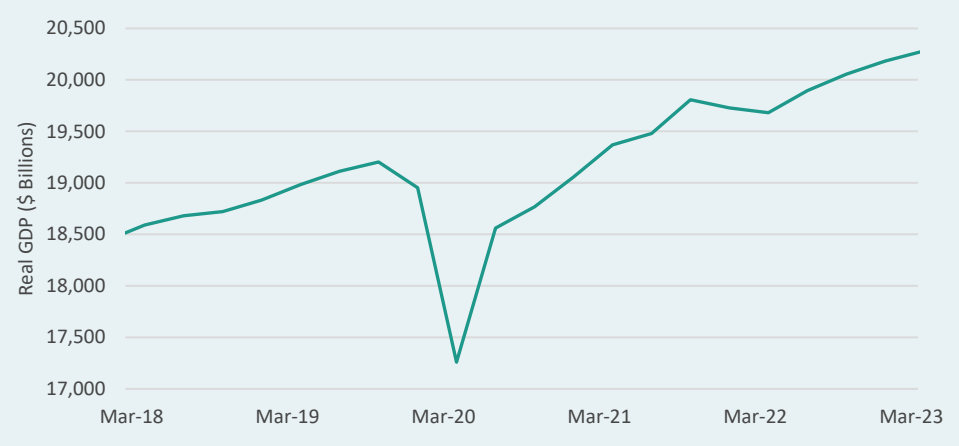
Real GDP increased at a 2.0% rate in the first quarter of 2023 (1.8% growth year-over-year). The slowdown from the prior quarter reflected weaker inventory buildups and slower business investment. An upturn in consumer spending was the greatest support to economic growth, as consumption has ticked along at a steady rate despite higher costs of borrowing. Second quarter GDP growth is expected to be 2.3%, according to the Atlanta Fed GDPNow forecast, as of July 10th.

Growth varied across industries, with service-producing industries producing 2.6% growth, government-related growing 2.7%, and goods-producing industry growth falling by -0.7%.

The economy has increasingly shown signs of resilience, casting doubt on whether a recession is imminent. Markets seem to be interpreting this resilience as a negative development, due to implications for even tighter monetary policy and a more aggressive Federal Reserve in the fight against inflation. This *bad news is good news* dynamic was illustrated on July 6th when ADP’s National Employment Report indicated that 497,000 private sector jobs were added in June—double the expected number. This strong report sent bond yields higher and equity markets lower.

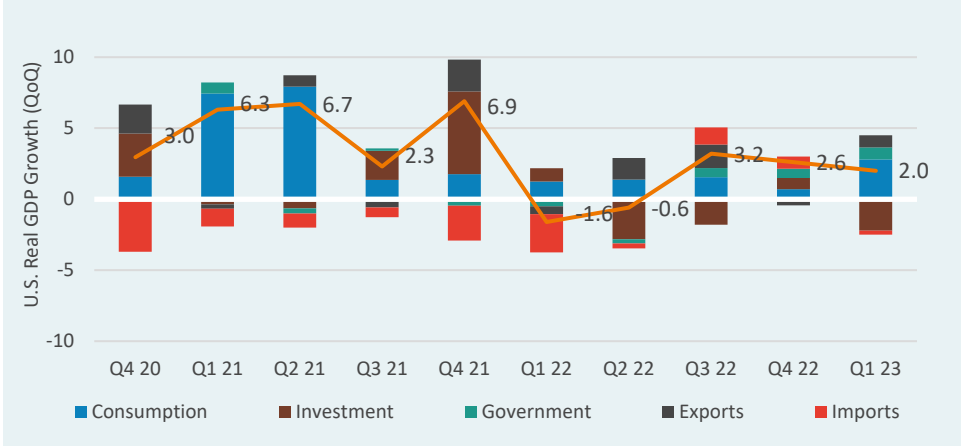
The U.S. economy continues to show resilience despite aggressive monetary tightening & low consumer confidence

U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 3/31/23

U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 3/31/23

Inflation

Inflation has continued to move lower in the U.S., with June CPI coming in at a surprisingly low 3% year-over-year and Core CPI (ex-food & energy) at 4.8%. Weaker energy prices have had a significant impact on overall inflation levels, as well as *base effects* as larger price moves of 2022 begin to fall out of the official twelve-month inflation calculation. In recent months, prices appear to also be softening across many other types of goods and services, suggesting milder inflation is not solely an energy story. Inflation concerns are now centered on core inflation (ex-food & energy) which remains stubbornly high and has shown fewer signs of abating.

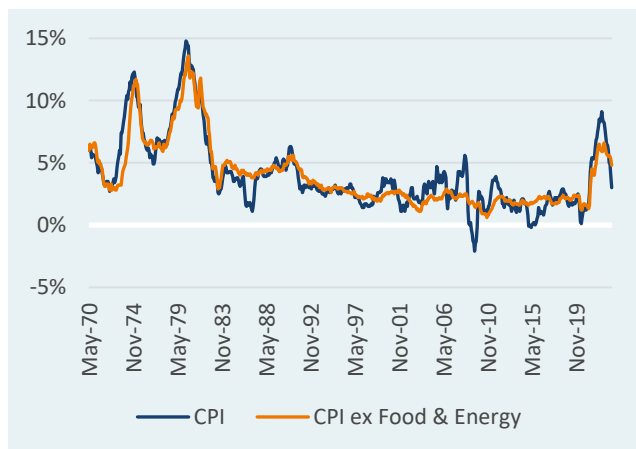
rising faster than wages which contributed to an environment where real household incomes were falling (wages not keeping up with goods and services prices). Recently this trend has reversed. This may lead to an environment in which households are benefiting from inflation as wages rise faster than inflation in the prices of goods and services.

In past editions of this document, we predicted that inflation (CPI) was very likely to fall to around 4% in Q2 for technical reasons related to the twelve-month window with which inflation is calculated. These effects have played out as expected.

U.S. inflation continues to fall, though persistent monthly core inflation (ex-food & energy) is a concern

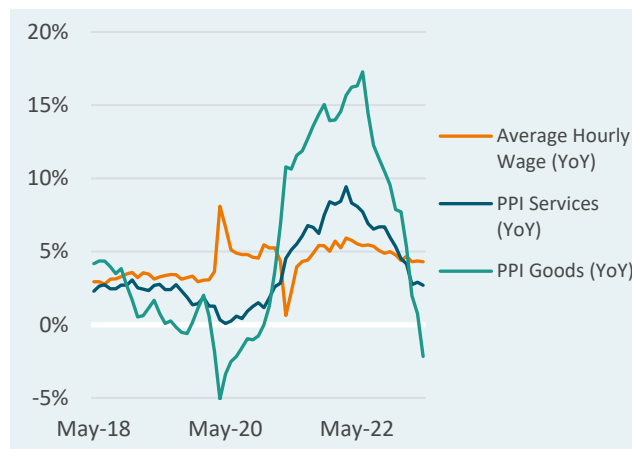
Earlier in the U.S. inflationary cycle business input costs were

U.S. CPI (YOY)



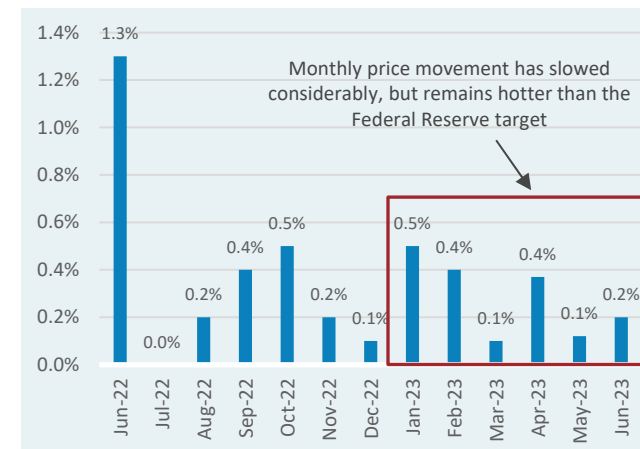
Source: BLS, as of 6/30/23

HIGHER PRICES MAY NOW BENEFIT CONSUMERS



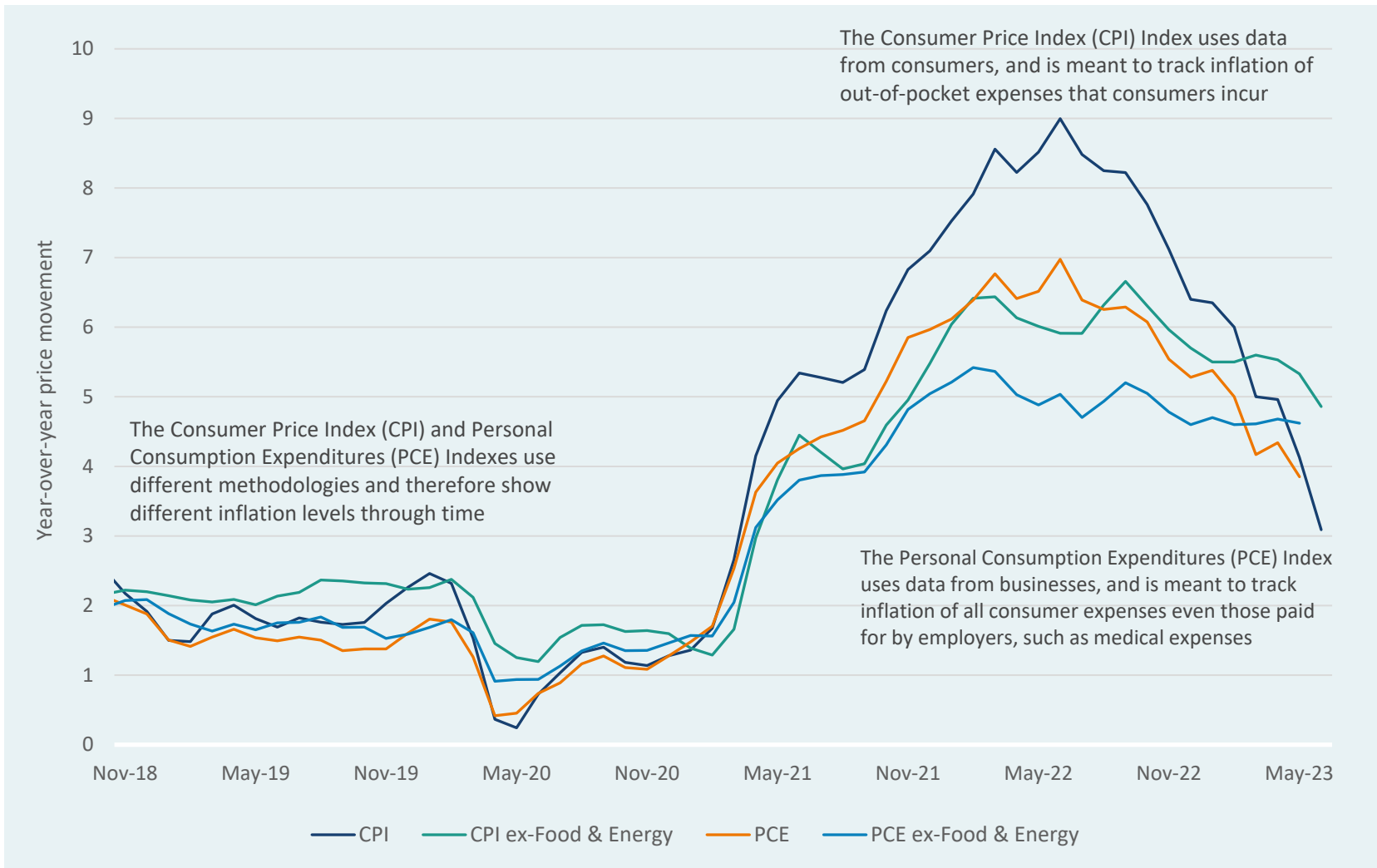
Source: FRED, BLS, as of 5/31/23

MONTHLY PRICE MOVEMENT



Source: BLS, as of 6/30/23

How are inflation conditions evolving?



U.S. inflation continues to fall, though persistent monthly core inflation (ex-food & energy) is a concern

Source: FRED, Verus, PCE data as of 5/31/23, CPI data as of 6/30/23

Labor market

The unemployment rate remained very tight at 3.6% in June, despite far higher interest rates, liquidity withdrawal from the Federal Reserve, and concerns of a possible recession.

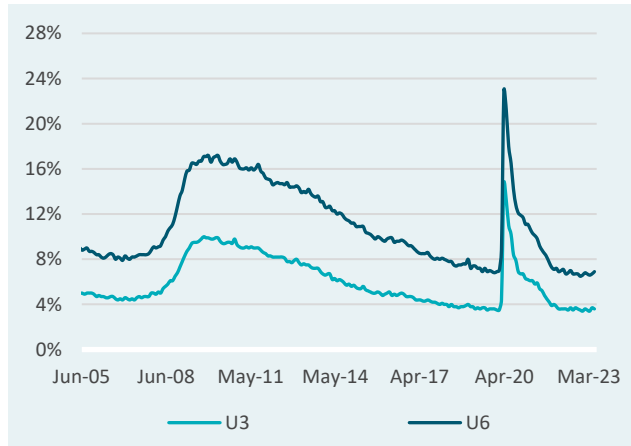
Labor participation rates further recovered over the quarter as many workers who had left the labor force during the pandemic are once again seeking employment. This recovery has been highly concentrated in the core age cohort (25-54 years). In fact, the labor participation rate of this age group has surpassed the pre-pandemic level. Workers aged 55 and older have overall not been returning to the workforce. Participation of these workers has actually declined slightly

over the past year.

Overall, the workforce appears to be experiencing a healthy, and possibly relatively low pain, rebalancing of resources. Many workers are returning to the workforce at the same time that fewer job openings are posted. Both of those effects reduce the mismatch between the number of *workers available* and the *available jobs*. These unique dynamics could allow for a reduction in labor market tightness without a major cycle of layoffs, while potentially also helping ease inflation pressure if a looser labor market helps dampen wage growth.

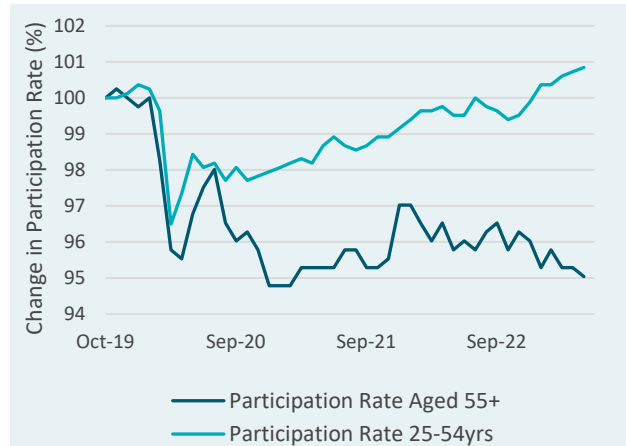
Many workers who left the labor force during the pandemic are returning to the job market, helping to rebalance labor conditions

U.S. UNEMPLOYMENT



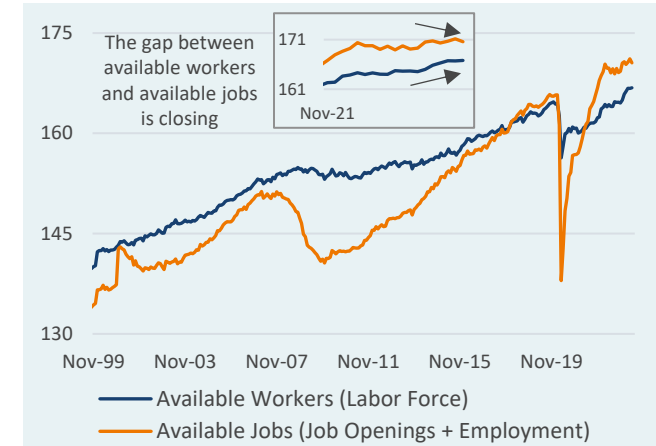
Source: FRED, as of 6/30/23

LABOR FORCE PARTICIPATION RATE



Source: FRED, as of 6/30/23

WORKERS AVAILABLE VS. AVAILABLE JOBS



Source: BLS, as of 5/31/23

The consumer

The U.S. consumer has shown resiliency, with real (inflation-adjusted) personal consumption expenditures moving along at a moderate pace—at 2.1% year-over-year in May. These consumption patterns will be worth watching, as spending is the largest driver of economic growth and is likely the greatest determinant of whether recession occurs in the near-term.

Personal savings rates remain depressed, but this does not seem to be resulting in stronger spending behavior. We suspect lower savings rates are at least partly a product of

high inflation and falling real (inflation-adjusted) incomes.

Household budgets have come under strain due to high inflation in recent years and a sharp increase in interest rates which impacted borrowing costs. However, it is important to contrast this with the fact that Americans have experienced a boom in wealth and prosperity over the past decade, fueled by substantial bull markets in stocks and in residential real estate, among other assets. This wealth may serve as somewhat of a unique buffer against economic weakness.

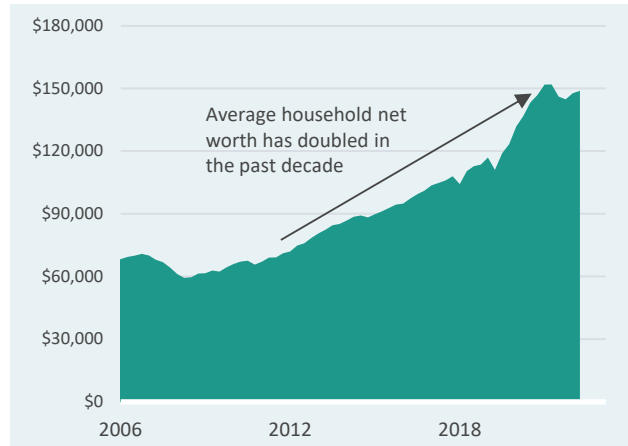
The vast wealth created over the past decade may serve as a unique buffer against economic weakness

REAL PERSONAL SPENDING



Source: FRED, as of 5/31/23

AVERAGE HOUSEHOLD NET WORTH



Source: FRED, as of 1/31/23

PERSONAL SAVINGS RATE



Source: FRED, as of 5/31/23

Sentiment

Consumer sentiment improved slightly during the second quarter by most measures but remains pessimistic. The University of Michigan Consumer Sentiment survey showed that the outlook has brightened due to factors such as the debt ceiling resolution and falling inflation.

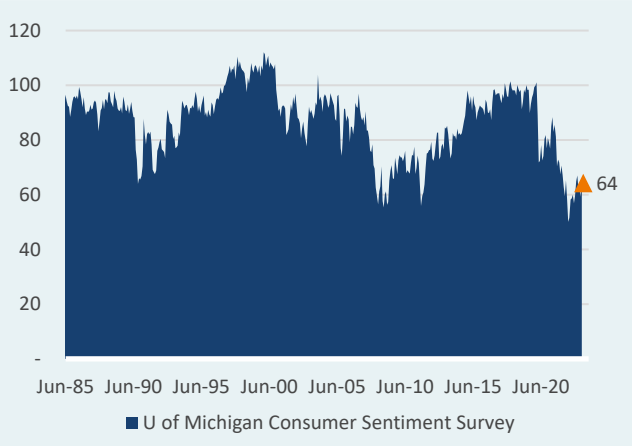
Consumer confidence as indicated by the Conference Board improved materially, although confidence readings reflect levels typically associated with recession within the next year. According to the Conference Board survey, responses suggested a more positive outlook for family finances, better

labor market conditions, and further declines in inflation. Across age cohorts, Americans younger than age 35 expressed the largest gains in optimism.

The NFIB Small Business Optimism index improved slightly but remains at very depressed levels. Difficulties in hiring qualified employees and high inflation were the greatest small business concerns in June. Fewer business owners reported plans to increase prices, perhaps an indication of easing inflation pressure.

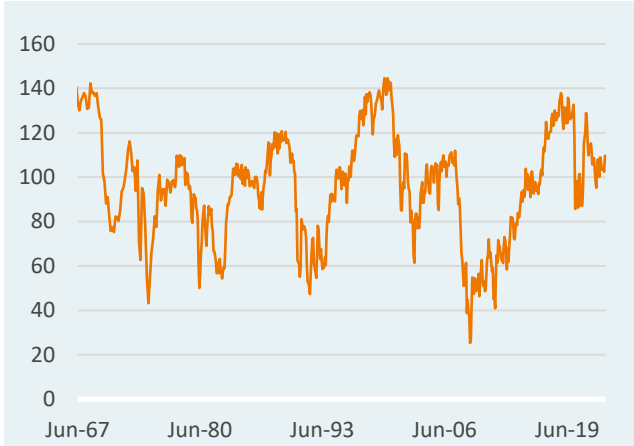
Sentiment improved during Q2 but remains poor by most measures

CONSUMER SENTIMENT



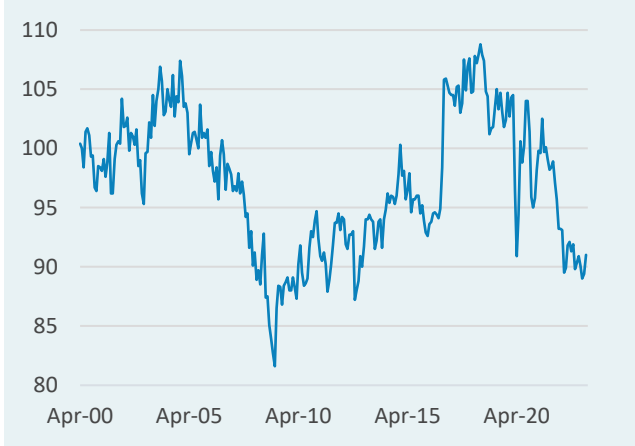
Source: University of Michigan, as of 6/30/23

CONFERENCE BOARD CONSUMER CONFIDENCE



Source: Conference Board, as of 6/30/23

NFIB SMALL BUSINESS SENTIMENT



Source: NFIB, as of 6/30/23

Housing

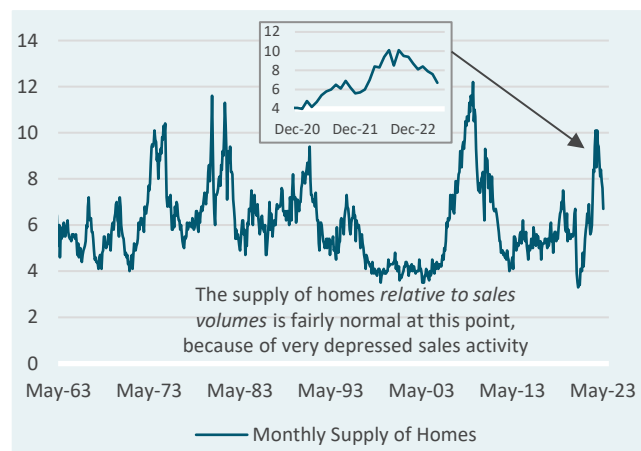
The U.S. housing market continues to face difficult conditions. High mortgage rates and extremely poor affordability have led to the slowest existing home sales activity since the depths of the bear market following the 2008-2009 Housing Crisis. However, conditions are currently very different from that time, as there are few signs of distressed sales. Many sellers are simply refusing to list their homes rather than selling at lower prices—effectively reducing available inventory. Additionally, many potential sellers with very low mortgage interest rates are choosing not to list their homes due to the high financial costs of giving up their low mortgage rate. These dynamics

have contributed to very low housing supply, effectively providing an ongoing support to higher home values.

Together, very low home inventories and weak sales activity have resulted in a fairly normal supply of homes *relative to demand*. It remains to be seen whether the market will experience a cooling and leveling off in the near-term, or whether price depreciation will need to occur to rebalance the market and incentivize potential buyers to make a purchase.

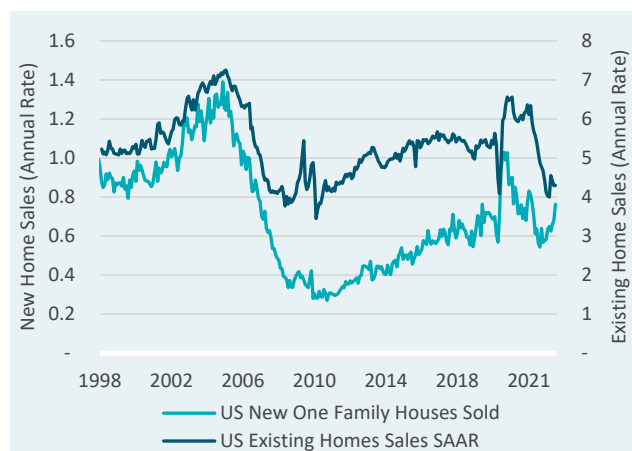
Home sales have slowed to a crawl as affordability is poor, and potential sellers don't want to lose their low interest rates

HOUSING SUPPLY



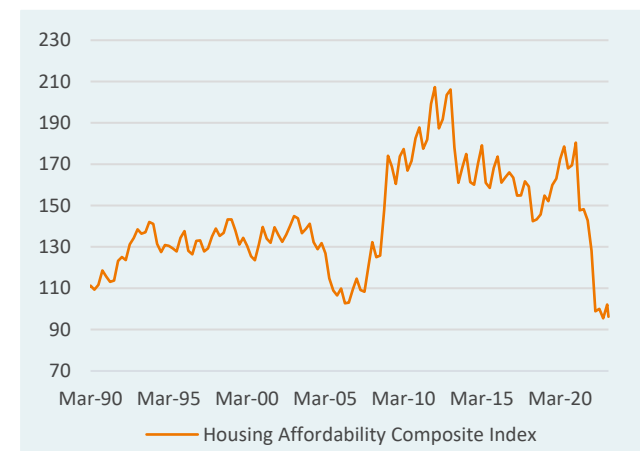
Source: FRED, as of 5/31/23

HOME SALES: NEW & EXISTING (MILLIONS)



Source: FRED, as of 5/31/23

HOUSING AFFORDABILITY



Source: FRED, as of 4/30/23

International economics summary

- Developed-economy growth has slowed materially. Many countries faced heavy risks, including energy crises, inflation uncertainty, contracting government spending, and higher interest rates. However, many areas have fared better than initially feared, helping to boost the performance of international equities. The IMF forecasts a pronounced slowing of growth in developed economies from 2.7% in 2022 to 1.3% in 2023, and a relatively unchanged emerging market growth rate from 4.0% to 3.9%.
- Unlike the Federal Reserve’s recent pause, many central banks have opted for more rate hikes amid backdrops of relative economic strength and persistent inflation. In June, the Bank of England voted 7-2 for a +50bps increase while the European Central Bank and Bank of Canada hiked +25bps. The ECB also raised core inflation projections to 5.4% through year-end and

lowered GDP growth to 0.9% for the year.

- On June 16th, the Bank of Japan announced that they would keep their low-rate policy unchanged. The dovish stance, including expectations for cooling inflation, was negative for the yen. Following the announcement, the yen weakened through month-end to finish -2.5% lower against the dollar.
- Inflation fell further across developed countries and has dropped surprisingly quickly in the emerging markets. China now faces a 0% inflation rate and risks of deflation, while inflation in Brazil has fallen from over 11% in late 2022 to below 4% in May. Further declines in prices could create new market risks as deflation has serious economic implications, especially in heavily debt-burdened nations.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	1.8% 3/31/23	3.0% 6/30/23	3.6% 6/30/23
Eurozone	1.0% 3/31/23	5.5% 6/30/23	6.5% 5/31/23
Japan	1.3% 3/31/23	3.2% 5/31/23	2.6% 5/31/23
BRICS Nations	4.9% 3/31/23	4.2% 3/31/23	4.8% 12/31/22
Brazil	4.0% 3/31/23	3.9% 5/31/23	8.3% 5/31/23
Russia	(1.8%) 3/31/23	2.5% 5/31/23	3.2% 5/31/23
India	6.1% 3/31/23	4.8% 6/30/23	7.7% 5/31/23
China	4.5% 3/31/23	0.0% 6/30/23	5.2% 5/31/23

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.

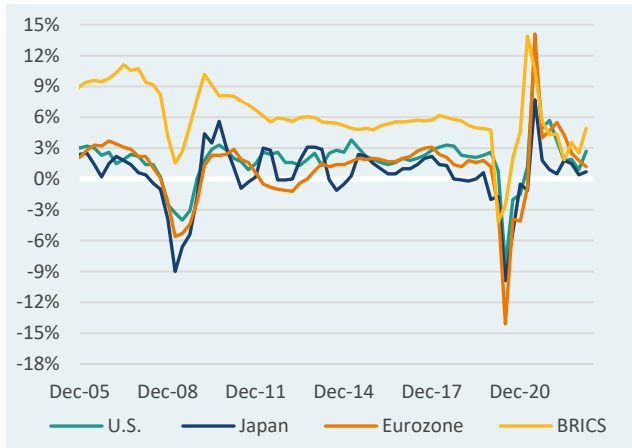
International economics

Developed economies have suffered a material slowdown in growth, though not as dramatic as economists had feared at the beginning of the year. All twenty countries of the Eurozone have now entered a technical recession, on the back of a significant contraction in government spending as well as central bank rate hikes. Meanwhile, as many developed economies cope with stagnating growth, emerging economies have fared better overall, despite the more moderate growth rate of China. The IMF forecasts a pronounced slowing of growth in developed economies from 2.7% in 2022 to 1.3% in 2023, and a relatively unchanged rate of growth of emerging

markets from 4.0% to 3.9%.

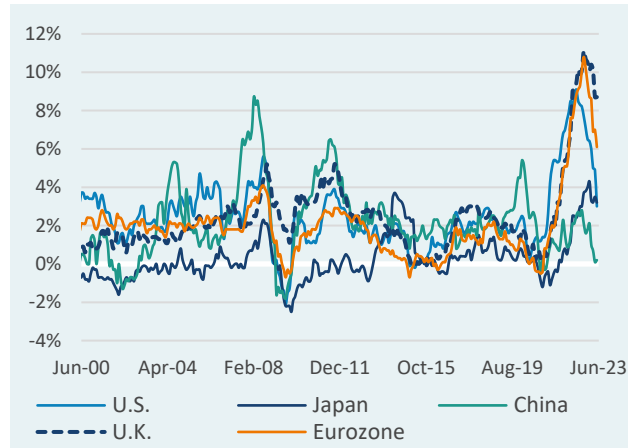
Inflation has subsided in many developed countries and dropped surprisingly quickly across emerging markets. China now faces a 0% inflation rate and risks of deflation, while inflation in Brazil has fallen from over 11% in late 2022 to below 4% in May. Further declines in prices could create new market risks as deflation has serious economic implications, especially in heavily debt-burdened nations. Deflation creates an environment where debt loads are *growing* on an inflation-adjusted basis.

REAL GDP GROWTH (YOY)



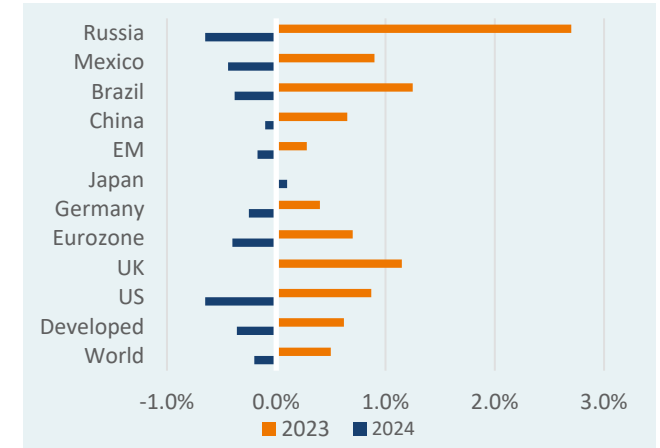
Source: Bloomberg, as of 3/31/23

INFLATION (CPI YOY)



Source: Bloomberg, as of 6/30/23 – or most recent release

GROWTH FORECASTS: CHANGES OVER PAST 6M



Source: Bloomberg median of economist estimates, as of 6/22/23

Fixed income rates & credit

Fixed income environment

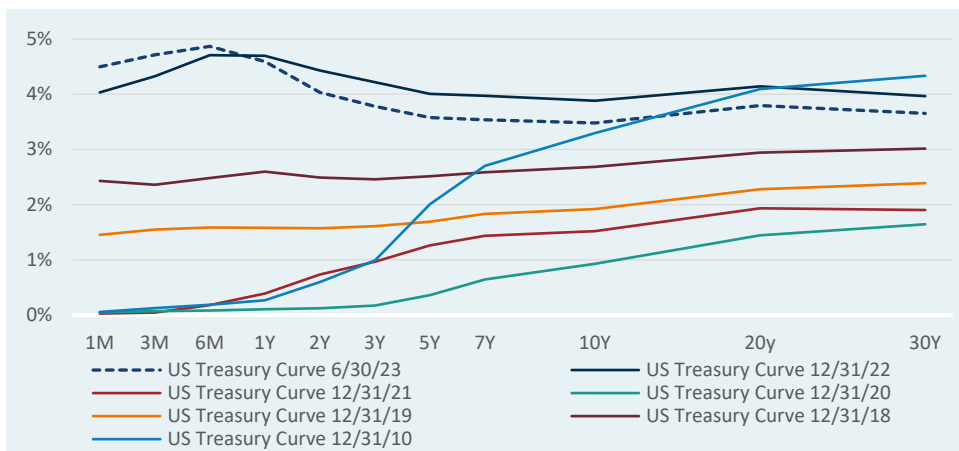
- The 10-year U.S. Treasury yield increased during the quarter from 3.48% to 3.81%, reversing the decline experienced during Q1. Despite an additional rise in short-term interest rates, longer-term interest rates remain anchored. This has resulted in the most deeply inverted yield curve since the early 1980s at -1.06% (10-year Treasury yield minus 2-year Treasury yield).
- The Federal Reserve opted to keep interest rates stable in June, but signaled two more rate hikes were ahead in 2023. Some referred to this messaging as a “hawkish pause”. Despite cooling inflation, the Fed appears concerned about strong ongoing labor market conditions and persistent monthly price rises. Markets are pricing in a high likelihood of a +25bps July hike.
- Historically, equities and bonds have experienced negative correlation (moved in opposite directions through time). In 2022, both equities and bonds suffered losses as the Fed continued tightening monetary policy. Following the failure of SVB, the asset classes seems to have resumed negative correlation behavior.
- During the second quarter, higher quality credit and U.S. Treasuries saw mild losses. Riskier credit performed very well as credit spreads have stayed surprisingly tight. Longer duration investment grade corporate bonds disappointed, returning -0.3%.
- Despite concerns related to the future path of Federal Reserve rate hikes, interest rate volatility declined during the quarter as indicated by the ICE BofA “MOVE” Index, which measures the volatility priced into U.S. Treasury bonds. While inflation has moderated in recent quarters, the market may need to price in additional rate hikes should it remain above the Federal Reserve's target of roughly 2%, which could contribute to further volatility.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	(0.8%)	(0.9%)
Core Plus Fixed Income (Bloomberg U.S. Universal)	(0.6%)	0.0%
U.S. Treasuries (Bloomberg U.S. Treasury)	(1.4%)	(2.1%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	1.7%	9.1%
Bank Loans (S&P/LSTA Leveraged Loan)	3.1%	10.7%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	2.5%	11.4%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	2.2%	7.4%
Mortgage-Backed Securities (Bloomberg MBS)	(0.6%)	(1.5%)

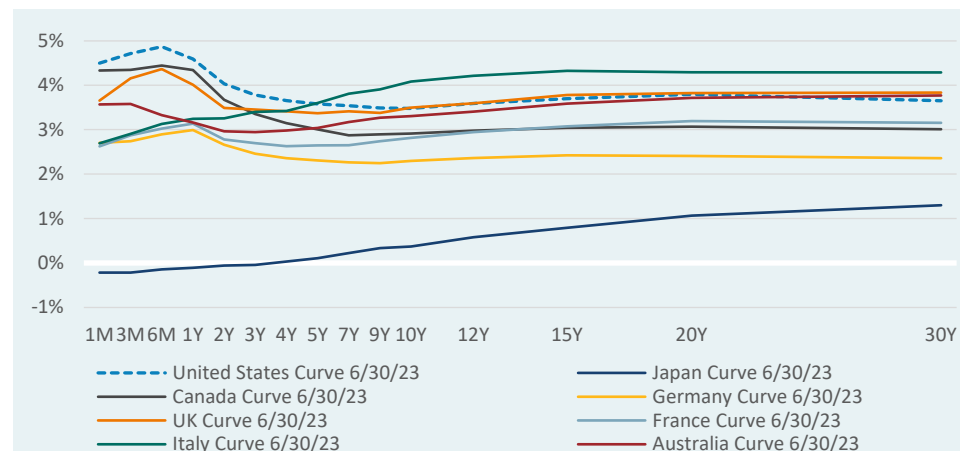
Source: Bloomberg, as of 6/30/23

Yield environment

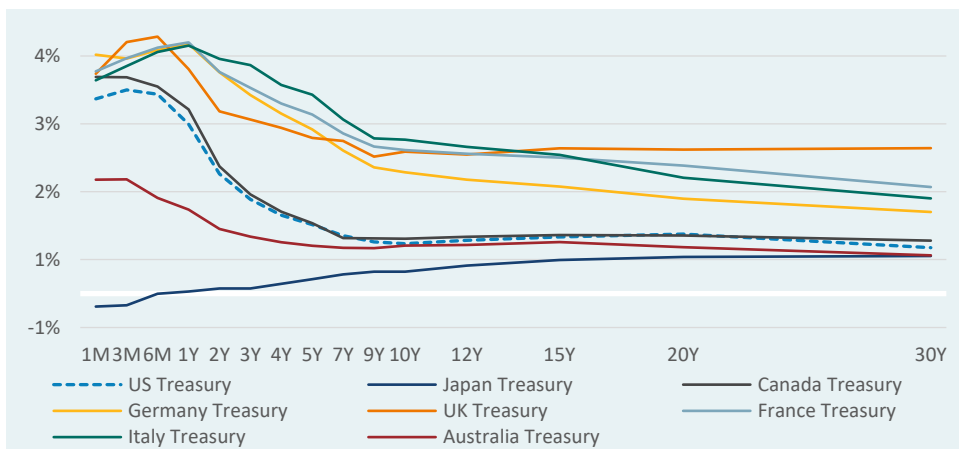
U.S. YIELD CURVE



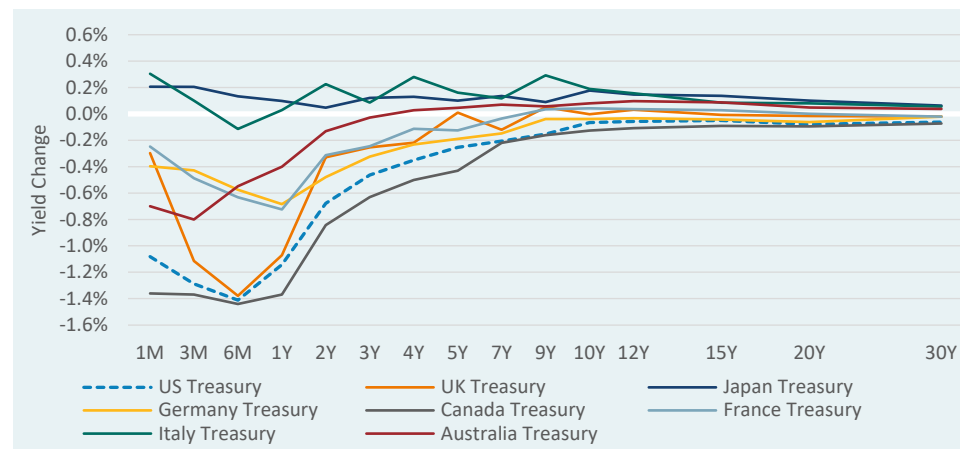
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/23

Credit environment

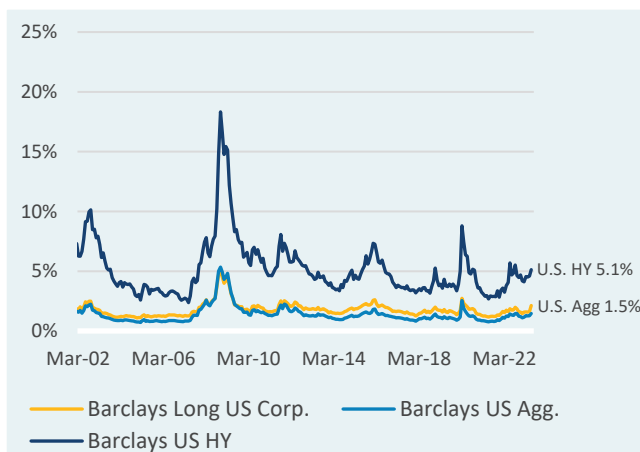
During the second quarter, fixed income markets delivered mixed results with lower-quality credits such as bank loans and high yield bonds outperforming higher-quality credits. Bank loans posted strong returns for the period, delivering 3.1%, followed by high-yield bonds which returned 1.7%. Longer duration investment grade corporate bonds disappointed, returning -0.3%.

Within high-yield bonds, lower quality CCC-rated bonds continued their strong run, outperforming BB- and B-rated bonds. CCC-rated bonds returned 4.7% during the period compared to 1.8% and 0.8% for B-rated and BB-rated bonds, respectively. Bank loans delivered strong returns during the period as investors favored shorter-duration assets given the expectation of interest rate rises. Lower-quality bank loans also

outperformed higher-quality loans, with CCC-rated loans rising 3.3% compared to 2.5% for BB-rated loans.

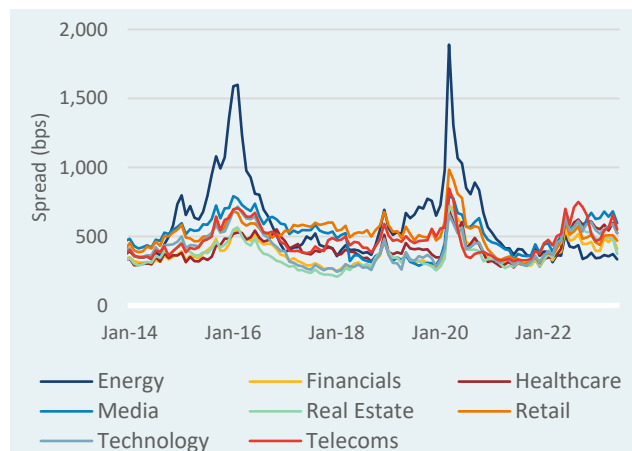
Credit spreads widened during the quarter on fears of an economic slowdown, the effects of higher interest rates, and as heightened credit stress weighed on prices. Lower-quality high-yield bond spreads rose by more than 0.6% during the period to 5.1%, while investment grade spreads increased by roughly 0.2% to 1.5%. Broadly, spreads remain close to their long-term historical averages, which suggests that investors maintain a fairly positive credit outlook. However, if the U.S. economy were to show real signs of weakening, credit spreads would likely move wider.

SPREADS



Source: Barclays, Bloomberg, as of 6/30/23

HIGH YIELD SECTOR SPREADS



Source: Bank of America, as of 6/30/23

CREDIT SPREAD (OAS)

Market	6/30/23	6/30/22
Long U.S. Corp	2.1%	1.9%
U.S. Inv Grade Corp	1.3%	1.6%
U.S. High Yield	5.1%	5.7%
U.S. Bank Loans*	5.4%	5.9%

Source: Barclays, Credit Suisse, Bloomberg, as of 6/30/23

*Discount margin (4-year life)

Default & issuance

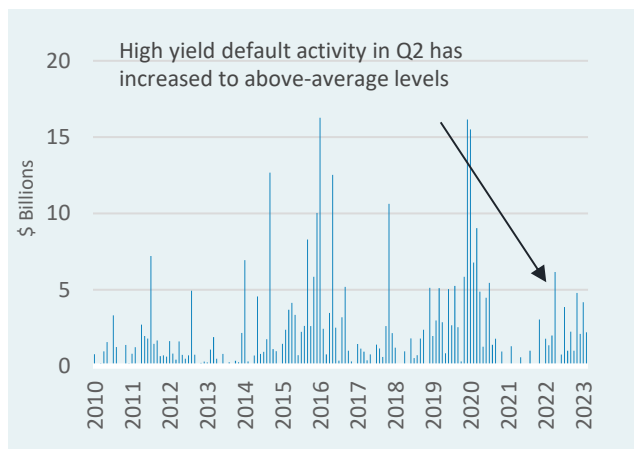
Default activity, while remaining below the long-term trend, increased during the second quarter. Twelve companies defaulted, which were concentrated in the Technology, Industrial, Retail, and Financial-related sectors. A total of \$32.2 billion was affected by default or distressed exchanges during Q2, up from \$20.8 billion in the prior quarter. Notable company defaults included Diebold (Technology), WeWork (Financials), Westco (Industrial) and Bed, Bath & Beyond (Retail).

Past twelve-month default rates for both high-yield bonds and bank loans increased as the cost of borrowing jumped. At the end of the quarter, the trailing one-year default rate of high-yield bonds rose to 2.4%, up from 1.9% in the prior quarter. While defaults have increased, they remain

below the long-term annual average of roughly 3.2% for high-yield bonds. High-yield default recovery rates fell, ending the period at 33.0%, down -11.5% from the previous quarter.

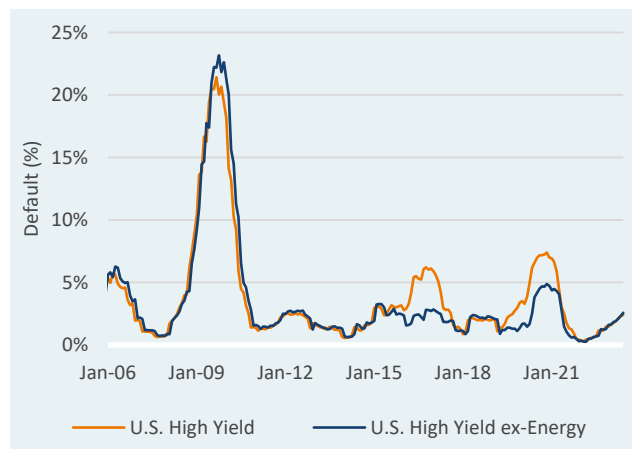
The pace of investment-grade credit issuance slowed, with \$333 billion of issuance compared to \$412 billion in the first quarter. Conditions were different in levered credit, which saw high-yield bond issuance accelerate to \$56 billion—up from \$40.2 billion in Q1. In contrast to prior years, the 2023 level of investment-grade issuance is on track to match 2022, while high-yield issuance is significantly ahead of the pace set during that same period.

U.S. HY MONTHLY DEFAULTS (PAR WEIGHTED)



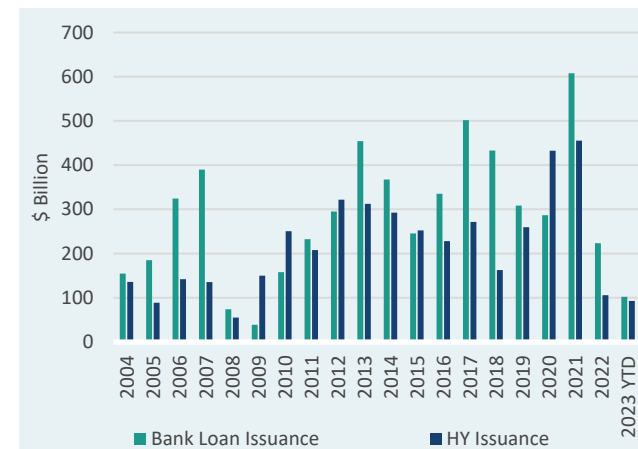
Source: BofA Merrill Lynch, as of 6/30/23

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



Source: BofA Merrill Lynch, as of 6/30/23 – par weighted

DEVELOPED MARKET ISSUANCE (\$ BILLIONS)



Source: BofA Merrill Lynch, all developed markets, as of 6/30/23

Equity

Equity environment

- Global equities persisted in their upward trajectory during Q2 (MSCI ACWI +6.2%). Domestic equities (S&P 500 +8.7%) outperformed both international developed (MSCI EAFE +3.0%) and emerging markets (MSCI EM +0.9%).
- U.S. equities rallied for a third consecutive quarter as mega-cap technology stocks remained top performers. A surge in AI-focused hype helped drive an expansion in the valuations of large tech firms including Nvidia and Apple – which became the first company to exceed \$3 trillion in market cap.
- The effects of currency movements on portfolio performance was mixed during Q2. Varying central bank approaches to inflation have contributed to much uncertainty around the path of the U.S. dollar and therefore heightened volatility for investors with unhedged currency exposure. During the past year, currency movement led to a -2.5% loss for investors with unhedged exposure to international developed equity (MSCI EAFE unhedged +18.8%, MSCI EAFE hedged +21.3%).
- Growth stocks (+12.8%) again outpaced value (+4.1%), bringing the year-to-date performance differential to +23.9%. Over recent years, style factors (ex: small vs large, value vs growth) have exhibited some of the wildest swings in history.
- The Cboe VIX implied volatility index moved to surprisingly low levels, despite broad expectations of recession, ongoing risks of regional bank contagion, and other not-yet-known consequences of central bank liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	8.7%		19.6%	
U.S. Small Cap (Russell 2000)	5.2%		12.3%	
U.S. Equity (Russell 3000)	8.4%		19.0%	
U.S. Large Value (Russell 1000 Value)	4.1%		11.5%	
US Large Growth (Russell 1000 Growth)	12.8%		27.1%	
Global Equity (MSCI ACWI)	6.2%	6.2%	16.5%	17.5%
International Large (MSCI EAFE)	3.0%	5.0%	18.8%	21.3%
Eurozone (EURO STOXX 50)	4.1%	4.5%	36.3%	34.7%
U.K. (FTSE 100)	2.4%	0.0%	14.0%	10.9%
Japan (TOPIX)	4.2%	16.0%	19.4%	31.2%
Emerging Markets (MSCI Emerging Markets)	0.9%	1.6%	1.8%	3.4%

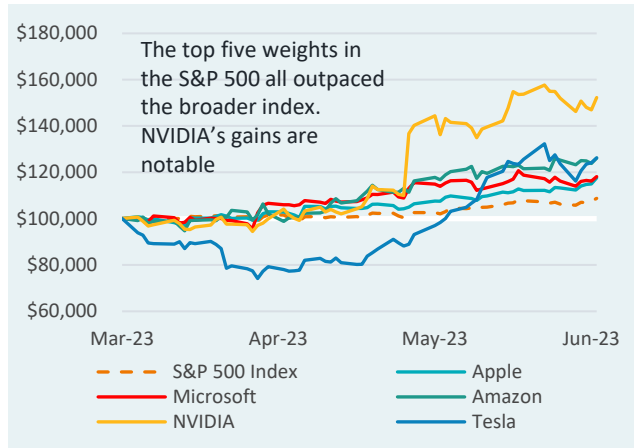
Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 6/30/23

Domestic equity

U.S. equities rallied (S&P 500 Index +8.7%) for a third consecutive quarter as mega-cap technology stocks remained top performers. A surge in AI-focused hype helped drive an expansion in the valuations of tech firms such as Apple, which became the first company to exceed \$3 trillion in market cap, and Nvidia, which became the fifth trillion-dollar company in the S&P 500 following its recent ascent. This trend was apparent from the strong overall outperformance of the Information Technology sector. Breadth improved near quarter-end as investors digested a pause in Fed rate hikes and expectations for a U.S. recession eased, providing a tailwind for sectors excluded from the tech rally.

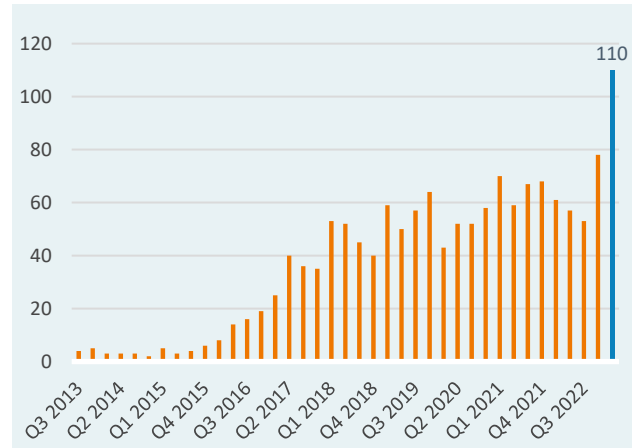
The Financial sector (+5.3%) saw some reprieve in the second quarter and recovered slightly from steep March declines which resulted from the collapse of three mid-sized banks. In its annual stress test, the Federal Reserve found the 23 largest U.S. banks capable of weathering a severe recession while proceeding with their respective lending businesses. Despite the results, the industry faces mounting headwinds including a deeply-inverted yield curve and the prospect of further Fed tightening.

GROWTH OF \$100,000 QUARTER TO DATE



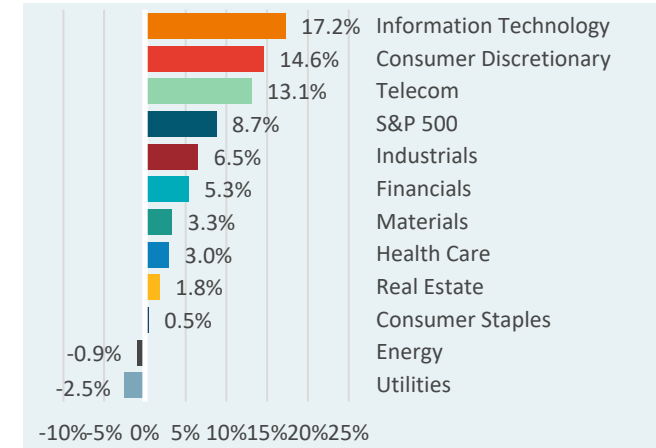
Source: Bloomberg, as of 6/30/23

OF S&P COMPANIES CITING "AI" ON EARNINGS CALLS



Source: FactSet, as of 6/30/23

Q2 2023 SECTOR PERFORMANCE



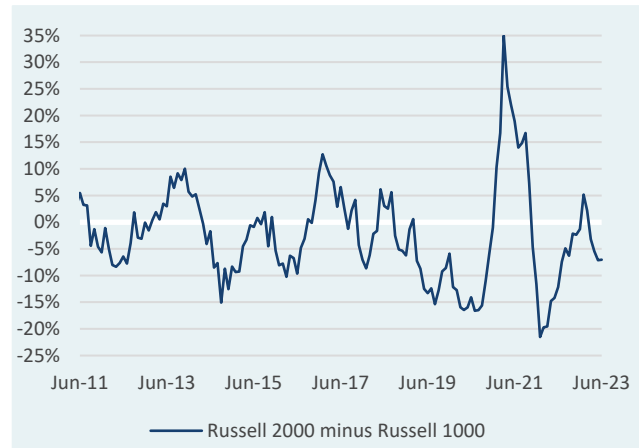
Source: Morningstar, as of 6/30/23

Domestic equity size & style

Growth stocks (+12.8%) continued to outpace value (+4.1%), bringing the year-to-date performance difference to +23.9%. Sector-specific drivers, including product launches and upward adjustments to company guidance among Information Technology (+18.6%) heavyweights, drove growth index performance. Sector behavior has persistently contributed to style factor disparity. This was evident in Q2 alongside large gains in Information Technology (+17.2%) and notable underperformance from Energy and Utilities (-0.9% and -2.5%, respectively).

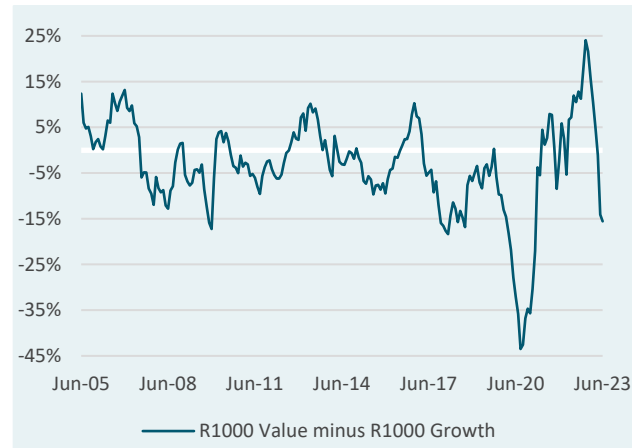
Over recent years, style factors (ex: small vs large, value vs growth) have exhibited some of the wildest swings in history. We maintain our view that factor timing should rarely be pursued for most investors. There are occasions when market mispricing offers a compelling case to tilt into a style factor, though these occasions come along perhaps every few decades rather than every few years. We believe that style investing is most appropriately pursued in a strategic manner based on each individual investor's market beliefs and long-term goals.

SMALL CAP VS LARGE CAP (YOY)



Source: FTSE, as of 6/30/23

VALUE VS GROWTH (YOY)



Source: FTSE, as of 6/30/23

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	11.5%	19.4%	27.1%
Mid Cap	10.5%	14.9%	23.1%
Small Cap	6.0%	12.3%	18.5%

Source: Bloomberg, as of 6/30/23

International developed equity

International developed equities lagged the domestic market but outpaced emerging market equities for a third straight quarter. The MSCI EAFE Index rose +3.0% in unhedged currency terms as both Asian and European equities notched gains. International developed markets have performed very well over the past year despite recession, aggressive central bank interest rate hikes, and a severe energy crisis in Europe, up +18.8% (MSCI EAFE) relative to the global opportunity set at +16.5% (MSCI ACWI). Some of this behavior may relate to Europe's energy crisis turning out less severe than originally feared. We expect that relatively cheap valuations of many

markets may act as somewhat of a floor in the case of near-term equity stress, given that the gap in pricing between U.S. and non-U.S. stocks is at one of the widest levels in history.

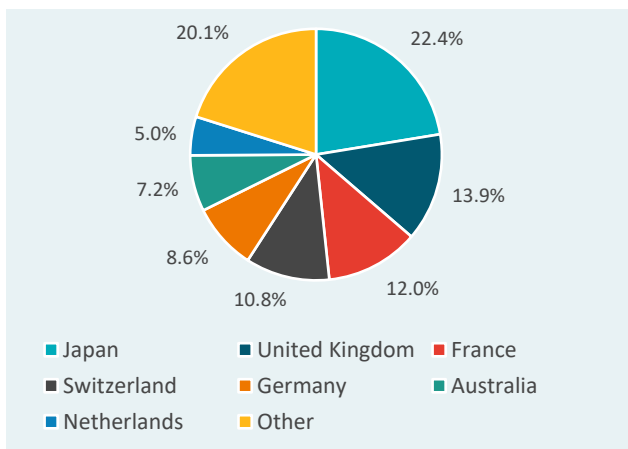
Japanese equities (MSCI Japan +6.4%) saw broad gains after the Bank of Japan held interest rates in negative territory and economic data showed resilience in the face of weakening global demand. Additional factors, including stronger-than-expected earnings from automakers and tech conglomerates, helped boost the Nikkei Index to 33-year highs.

INTERNATIONAL DEVELOPED EQUITY



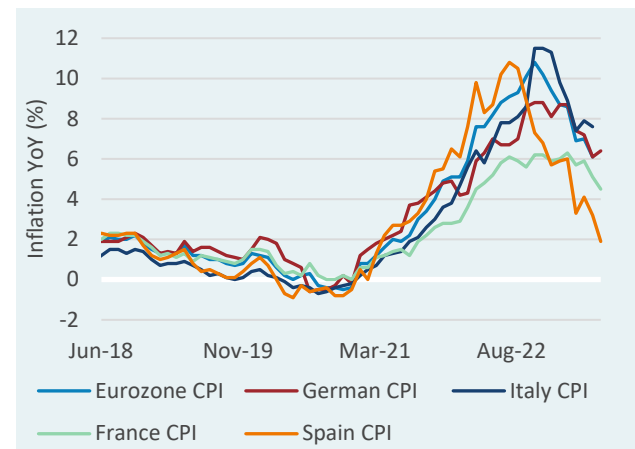
Source: MSCI, as of 6/30/23

MSCI EAFE INDEX COUNTRY DECOMPOSITION



Source: MSCI, as of 6/30/23

EUROZONE INFLATION



Source: Bloomberg, as of 6/30/23 or latest release

Emerging market equity

Emerging market equities lagged other global markets again in the second quarter. The MSCI EM Index finished up +0.9%, while the MSCI EAFE Index rose +3.0% and the S&P 500 gained +8.7%.

There were substantial performance differences across the emerging markets complex in Q2, ranging from Brazil's performance of +20.7% to China's -9.7%. We believe skilled active management is a preferred way to navigate risks and potentially bolster performance in this asset class.

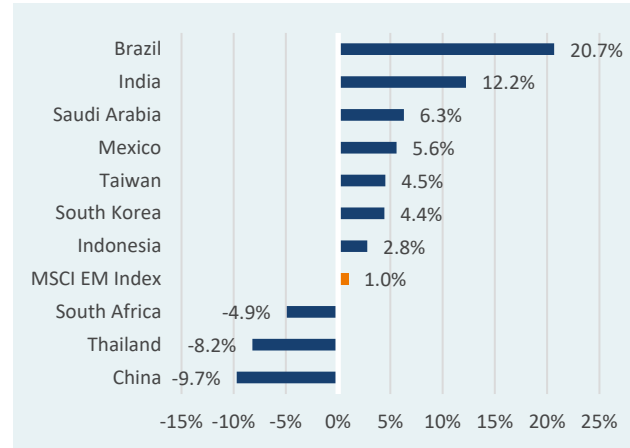
Over the past year, China's reopening provided a significant boost to equities, though not large enough to recover from previous significant losses driven by a mix of the three-year "zero-covid" policy, government crackdowns on large technology names, and knock-on effects from property market stress. Negative China sentiment has been building recently due to developments such as increasing geopolitical tensions with the U.S. (which eased on the margin following Secretary of State Blinken's visit to China), credit issues amongst property and local government financing vehicles, and a very high youth unemployment rate.

EMERGING MARKET EQUITY



Source: MSCI, as of 6/30/23

Q2 2023 MSCI COUNTRY RETURNS (USD)



Source: Bloomberg, MSCI, as of 6/30/23

MSCI CHINA INDEX



Source: MSCI, as of 6/30/23

Equity valuations

Equity valuation disparities continued to be wide. U.S. equities are priced at a 50% valuation premium (Price/Earnings) over international developed, at 21.0 and 14.2, respectively. Although domestic markets arguably face more attractive conditions on a relative basis, high valuations have historically acted as a material headwind to medium- and longer-term performance.

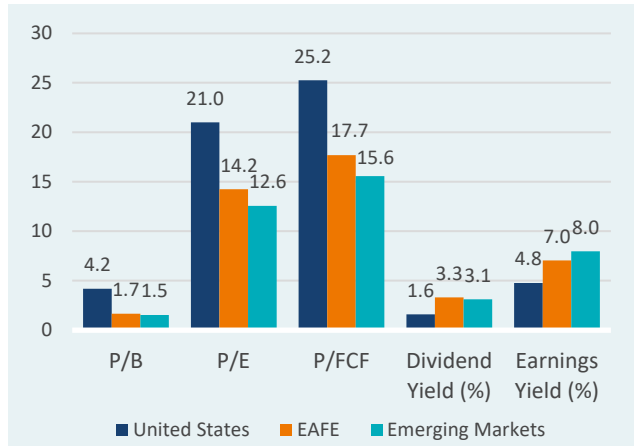
Emerging market equities are now priced near their longer-term average, though valuations differ considerably from country-to-country. For example, Taiwan is cheap by historical standards, with prices likely reflecting a discount for risks

related to China and slowing semiconductor demand. India is richly priced relative to history, perhaps in recognition of the country's high growth and greater potential as Chinese growth has moderated.

Quickly rising interest rates should theoretically result in a sharp fall in equity valuations, in order to maintain the "equity risk premium" of stock returns over bond returns. This effect has not yet occurred, which means the yield of equity is now only slightly more than the yield of high-quality bonds. Many investors may find bonds relatively attractive (and stocks relative less unattractive) in the current environment.

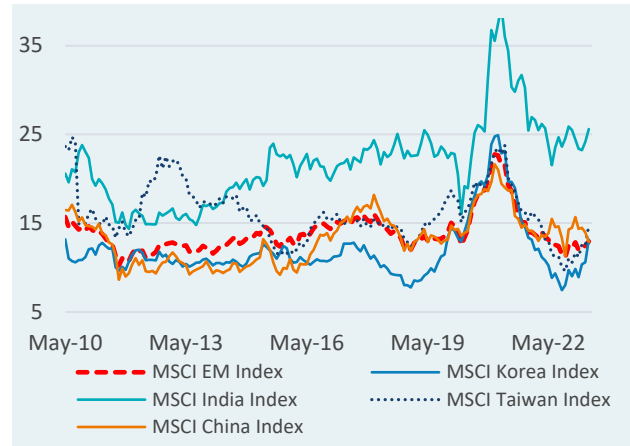
High-quality bonds are yielding nearly as much as equities, increasing the relative attractiveness of bonds

MSCI VALUATION METRICS (3-MONTH AVG)



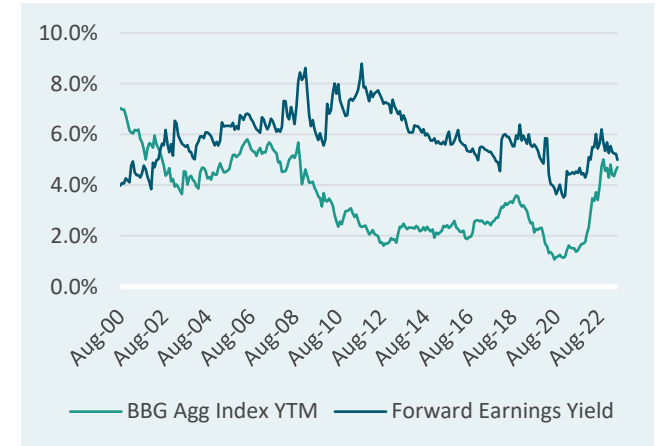
Source: Bloomberg, as of 6/30/23

P/E EMERGING MARKETS



Source: MSCI, Bloomberg, as of 5/31/23

U.S. VALUATIONS: BONDS VS. STOCKS



Source: Bloomberg, Standard & Poor's, as of 6/30/23

Market volatility

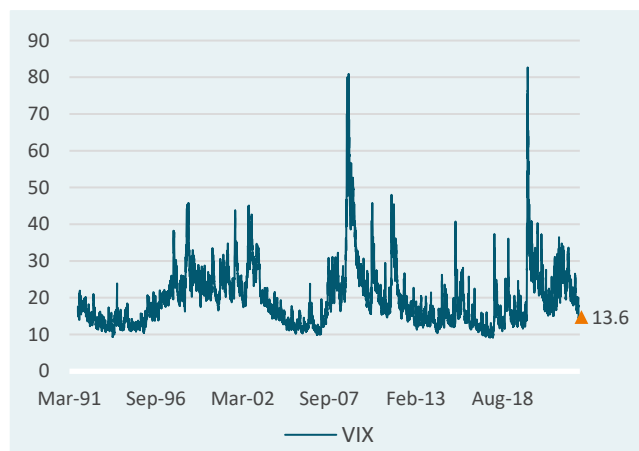
The Cboe VIX implied volatility index has moved to surprisingly low levels, despite broad expectations of recession, ongoing risk of regional bank contagion, and other not-yet-known consequences of central bank liquidity withdrawal from the financial system. The index fell from 18.7% to 13.6% during the second quarter.

The realized volatility of global equity markets has been elevated. Emerging market volatility in recent years has been lower than developed market volatility—an uncommon occurrence historically speaking. This trend has now reversed

as realized risk in emerging markets surpassed most developed economy public markets.

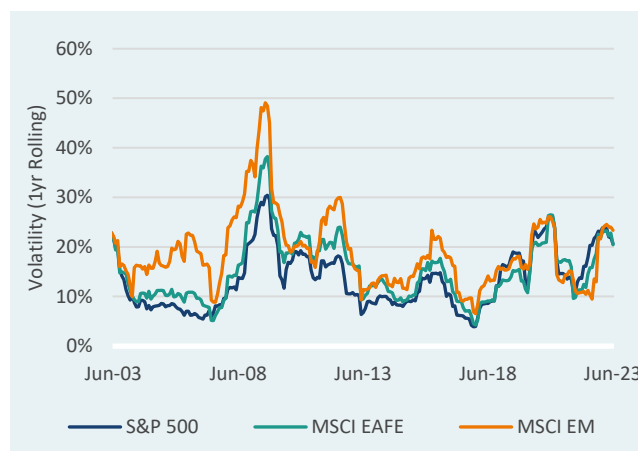
The first half of 2023 has been a truly unique environment for fixed income. Federal Reserve tightening, mass withdrawal of liquidity from the financial system, and a deeply inverted yield curve have led to elevated uncertainty and market volatility. These conditions are captured by the ICE BofA “MOVE” Index, which measures the volatility priced into U.S. Treasury bonds.

U.S. IMPLIED VOLATILITY (VIX)



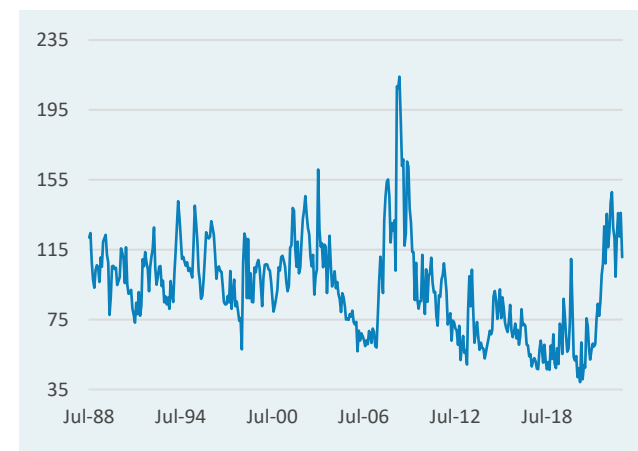
Source: Cboe, as of 6/30/23

REALIZED VOLATILITY



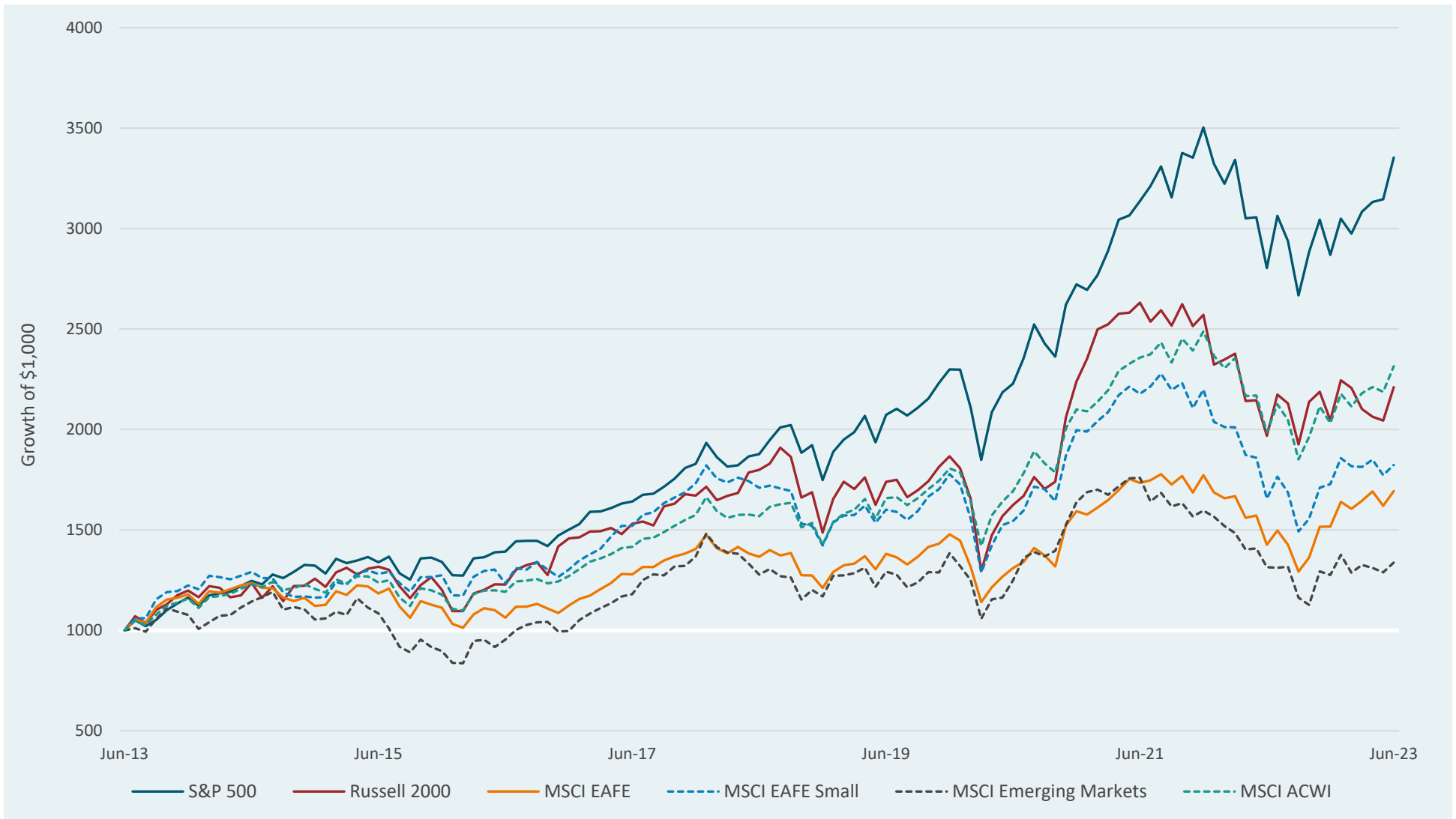
Source: S&P, MSCI, as of 6/30/23

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



Source: Bloomberg, as of 6/30/23

Long-term equity performance



Source: MPI, as of 6/30/23

Other assets

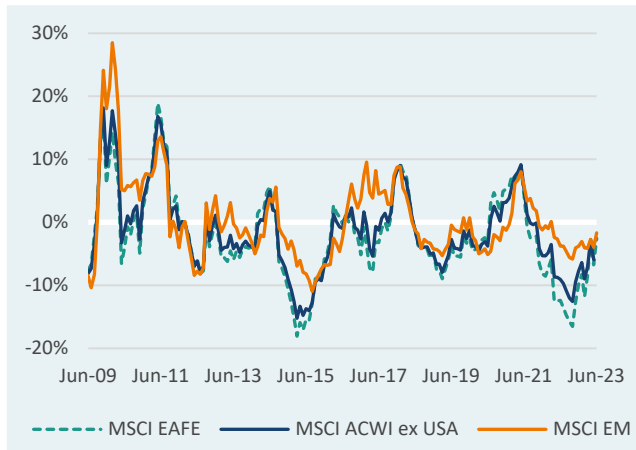
Currency

The effects of currency volatility on portfolio performance was mixed in Q2. Overall, the value of the U.S. dollar was unchanged on a trade-weighted basis. Varying central bank approaches to fighting inflation has contributed to much uncertainty around the path of the U.S. dollar and therefore the volatility generated by currency movement for investors with unhedged currency exposure (what we refer to as “embedded currency”). During the past full year, currency movement led to a -2.5% loss for investors with unhedged exposure to international developed equity (MSCI EAFE unhedged +18.8%, MSCI EAFE hedged +21.3%).

portfolio risk while also increasing long-term expected returns. The MSCI Currency Factor Mix Index—a representation of a passive investment in the currency market—has shown a positive one-year rolling return over most periods with very low volatility. This contrasts to the unhedged currency exposure that most investors own, which has demonstrated high volatility and frequent losses.

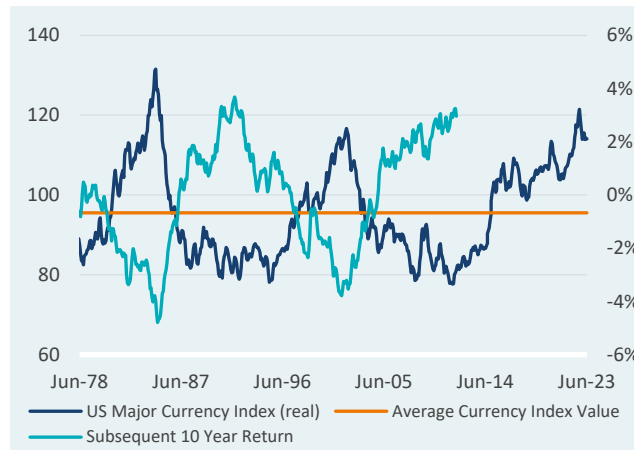
A thoughtful currency program may allow investors to reduce their total

EFFECT OF CURRENCY (1-YEAR ROLLING)



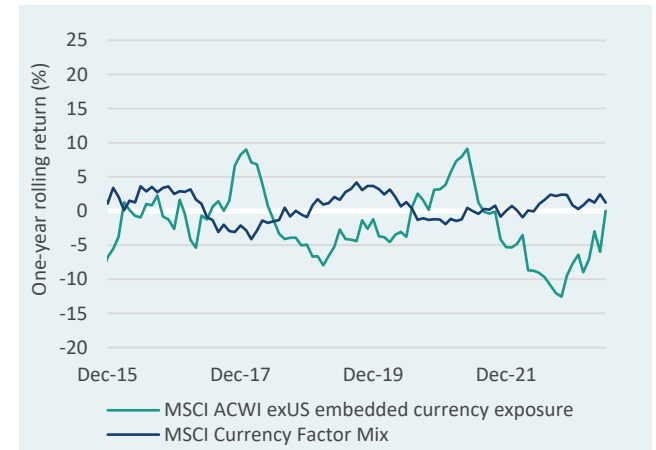
Source: MSCI, as of 6/30/23

BLOOMBERG DOLLAR SPOT INDEX



Source: Federal Reserve, as of 6/30/23

EMBEDDED CURRENCY VS CURRENCY FACTORS



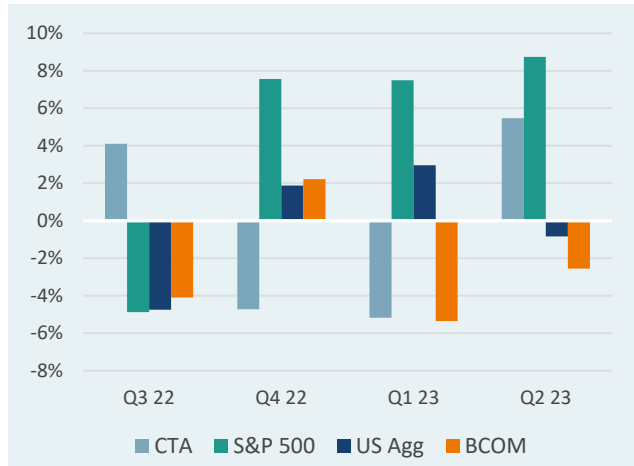
Source: Bloomberg, MSCI, as of 6/30/23

CTAs pivot, merger arbitrage gets hit

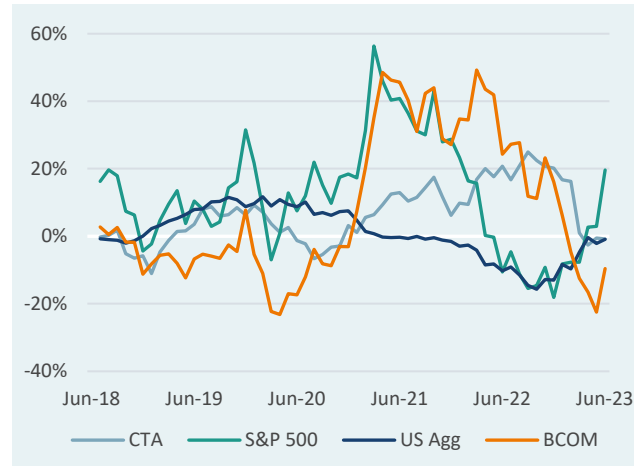
Commodity Trading Advisor (CTA) strategies, as proxied by the SocGen CTA Index, rebounded in Q2 after their worst two consecutive quarters (4Q22 through 1Q23) on record going back to the year 2000. When looking at major asset class returns for each of the last four quarters, it becomes clear that trend following strategies flipped to investing long in the equity markets after two strong quarters in a row for stocks. Trailing twelve-month returns as of the end of the quarter show fixed income at a performance inflection point and commodities bottoming out after a difficult year. Any gains in the near term for CTA strategies will likely depend on whether equity markets continue upward.

An interesting opportunity in merger arbitrage is unfolding, as an aggressive antitrust stance from the Federal Trade Commission and Chairperson Lina Kahn has pushed merger spreads to wide levels while equity markets have enjoyed a period of strong returns over the past year. Average deal spreads have increased to reflect this additional regulatory risk. Prior to this current period, the HFRI Merger Arbitrage index had only posted a negative 12-month return during COVID-19 (2020), the Global Financial Crisis (2008-2009), and the Tech Bubble (2001-2002). Each of those periods involved a recession.

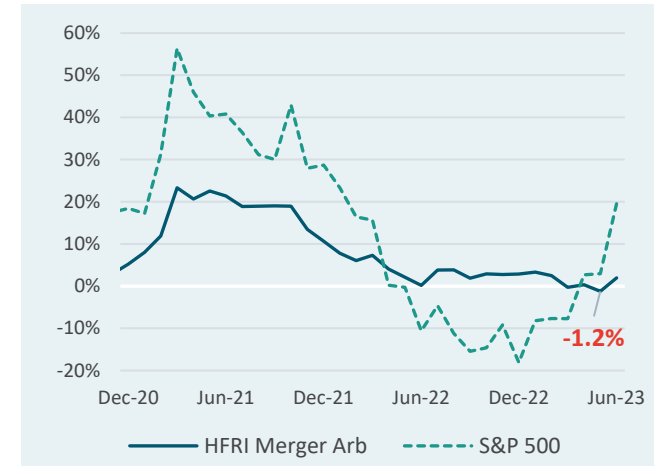
QUARTERLY RETURNS – PAST 4 QUARTERS



CTA 1-YEAR RETURNS, LAST 5 YEARS



MERGER ARB 1-YEAR RETURNS, LAST 3 YEARS



Source: HFR, MPI, Morningstar. SocGen, Data as of 6/30/23

Appendix

Periodic table of returns

	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	29.0	15.1	15.7
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	16.7	11.9	12.6
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	13.6	8.1	9.2
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	11.7	6.7	8.8
60/40 Global Portfolio	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	8.8	4.7	8.3
Small Cap Equity	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	8.1	4.6	8.3
Large 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	5.1	4.4	7.3
Emerging Markets Equity	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	4.9	4.2	5.5
Small Cap Value	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	2.5	4.2	5.4
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	2.3	3.5	3.4
Cash	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	2.3	3.3	3.0
US Bonds	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	2.1	1.5	1.5
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	-1.8	0.9	0.9
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	-7.8	0.8	-1.0

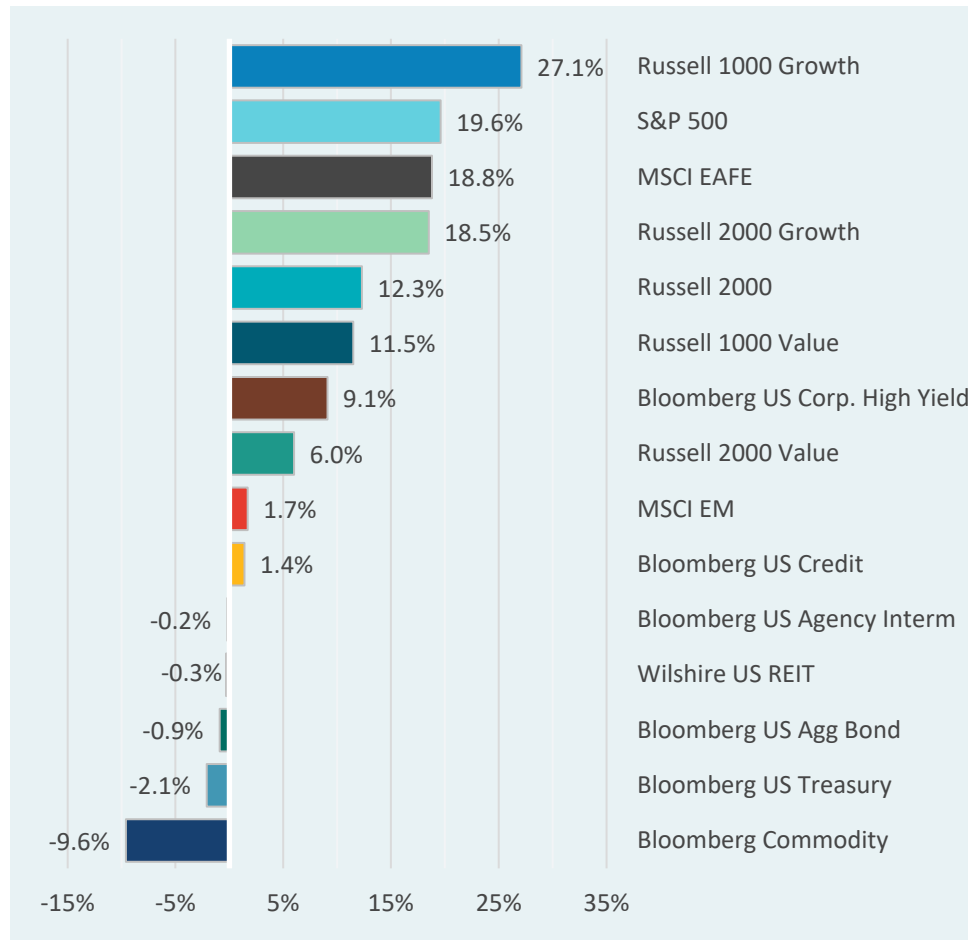
BEST
↑
↓
WORST

 Large Cap Equity	 Small Cap Growth	 Commodities
 Large Cap Value	 International Equity	 Real Estate
 Large Cap Growth	 Emerging Markets Equity	 Hedge Funds of Funds
 Small Cap Equity	 US Bonds	 60% MSCI ACWI/40% Bloomberg Global Bond
 Small Cap Value	 Cash	

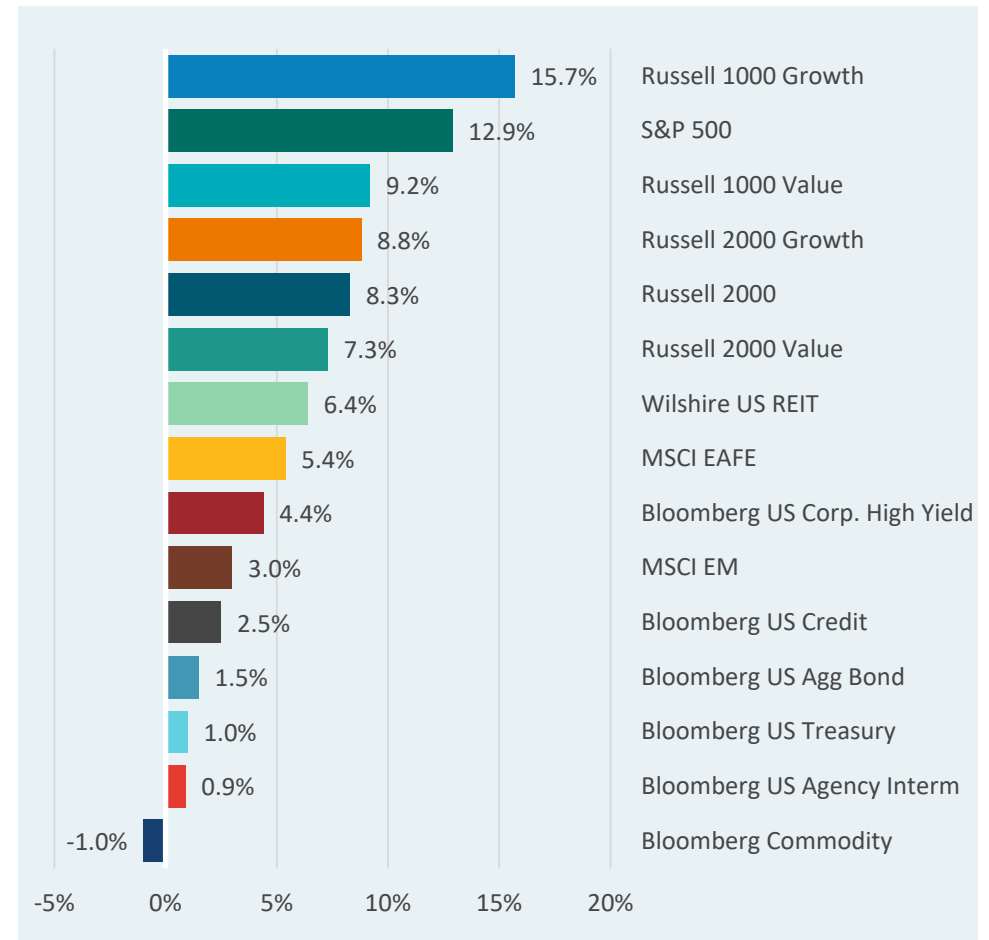
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 3/31/22.

Major asset class returns

ONE YEAR ENDING JUNE



TEN YEARS ENDING JUNE



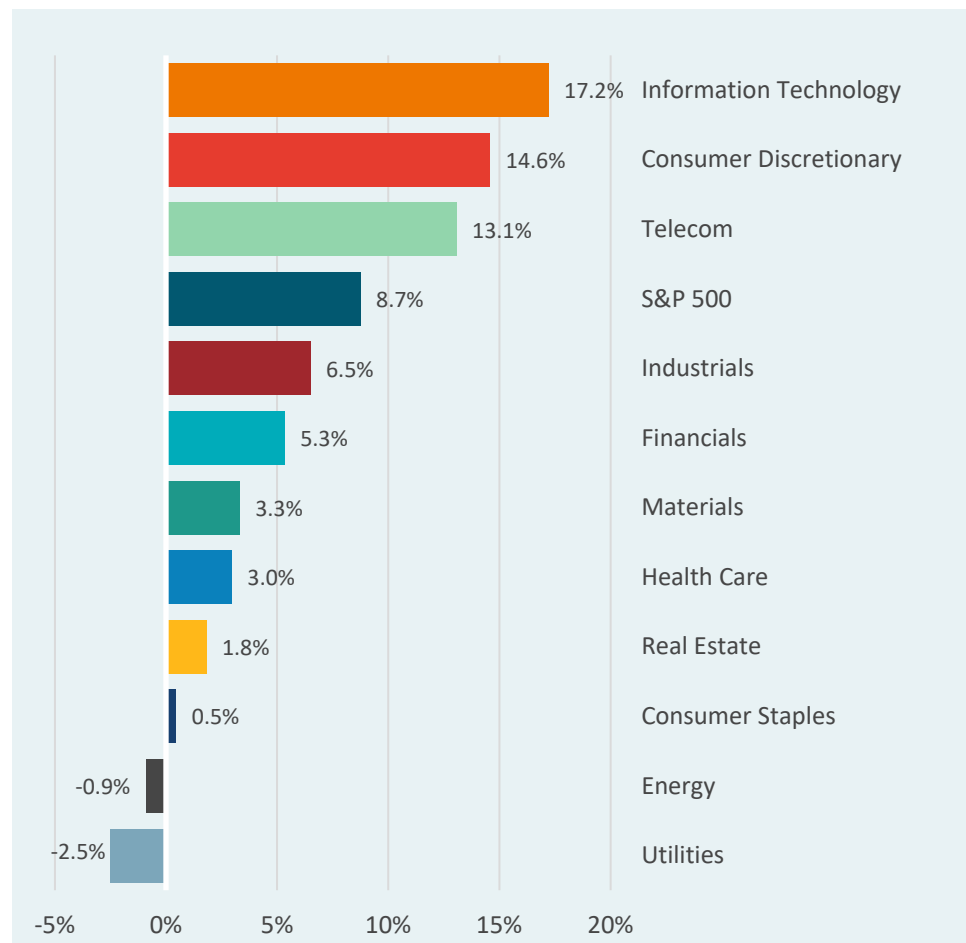
*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 6/30/23

Source: Morningstar, as of 6/30/23

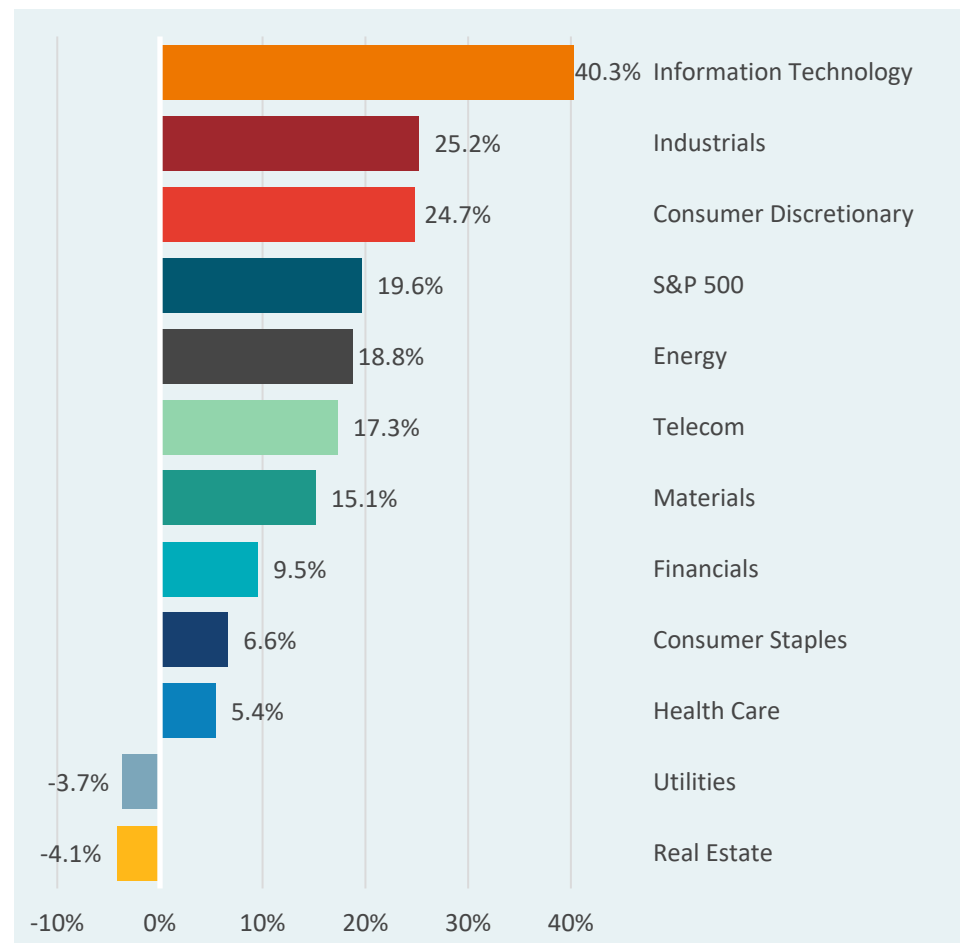
S&P 500 sector returns

QTD



Source: Morningstar, as of 6/30/23

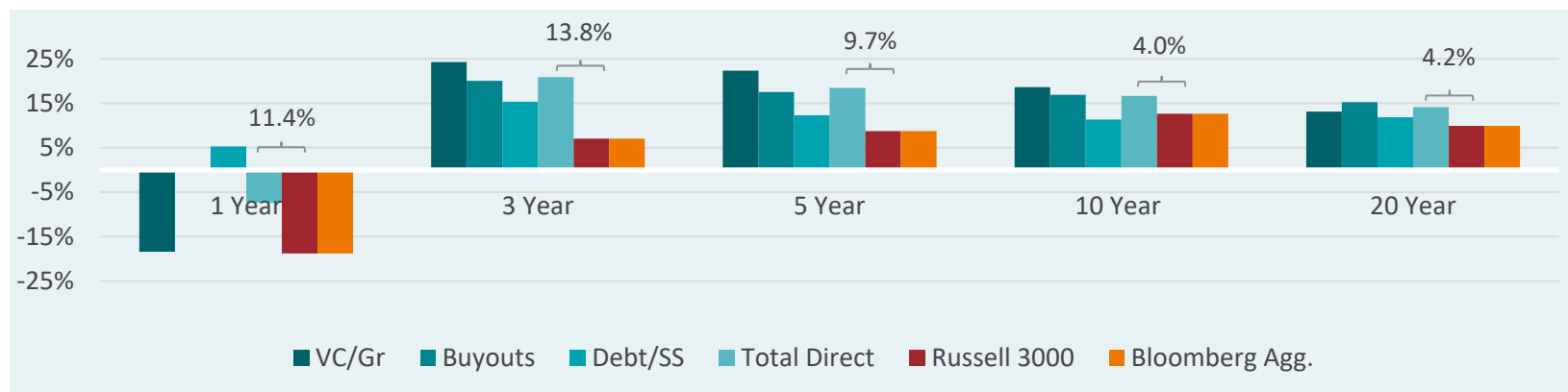
ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/23

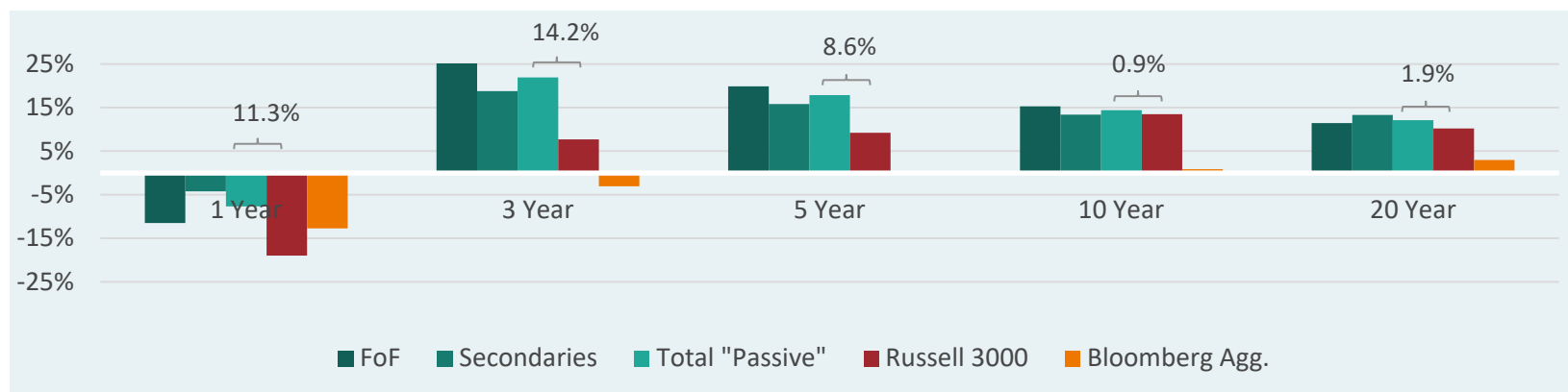
Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



Direct P.E Fund Investments outperformed comparable public equities across all time periods.

“PASSIVE” STRATEGIES

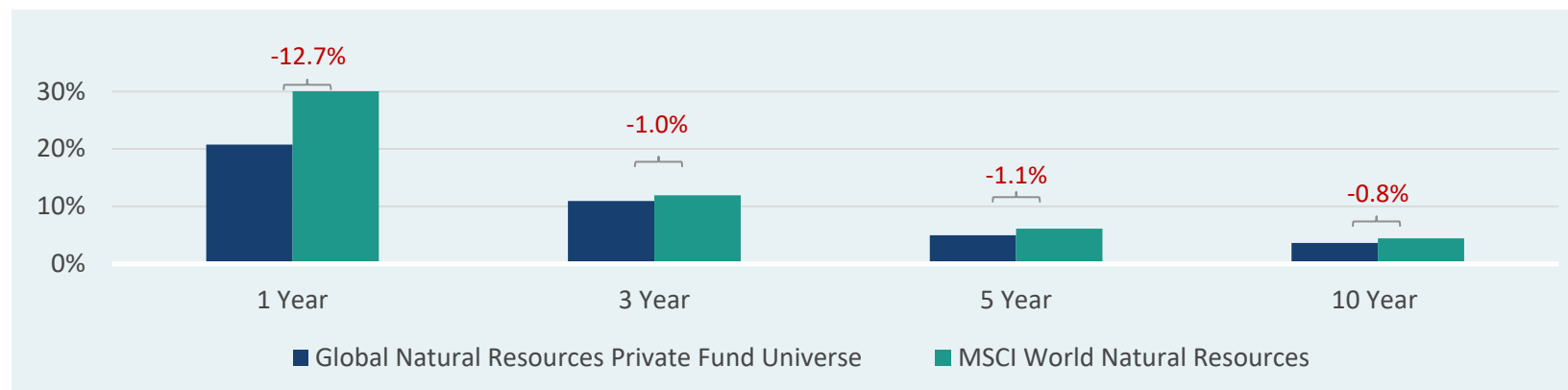


“Passive” strategies outperformed comparable public equities across all time periods.

Sources: Refinitiv PME: U.S. Private Equity Funds sub asset classes as of December 31, 2022. Public Market Equivalent returns resulted from “Total Passive” and Total Direct’s identical cash flows invested into and distributed from respective traditional asset comparable.

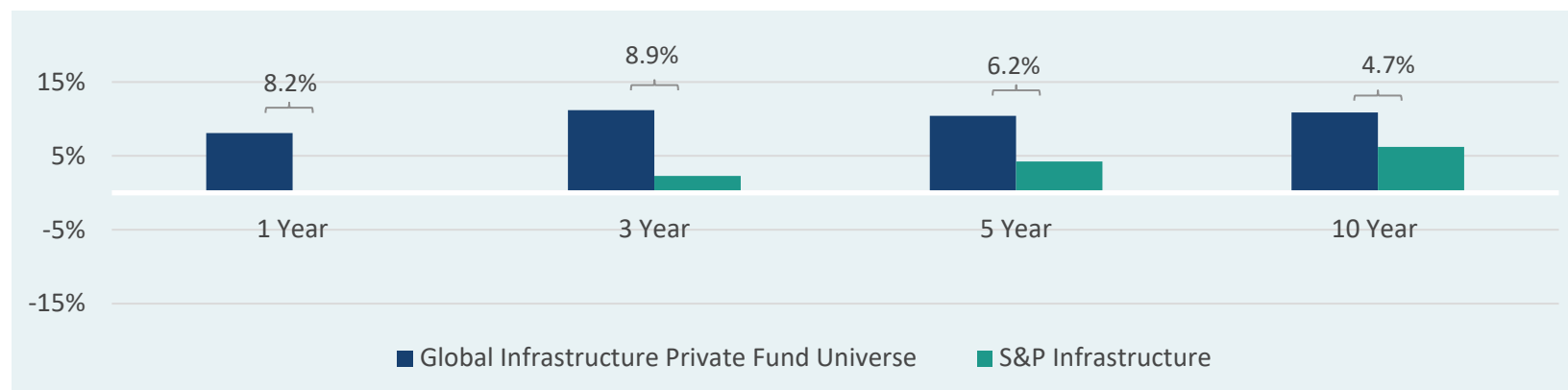
Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



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

GLOBAL INFRASTRUCTURE FUNDS

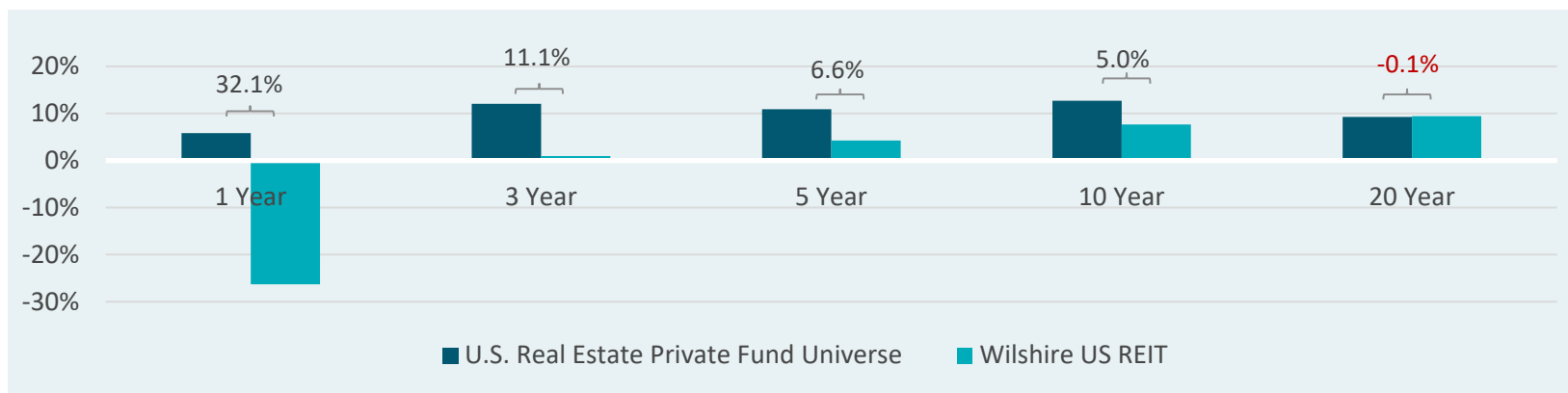


Infra. funds outperformed the S&P Infra. across all periods.

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 December 31, 2022. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

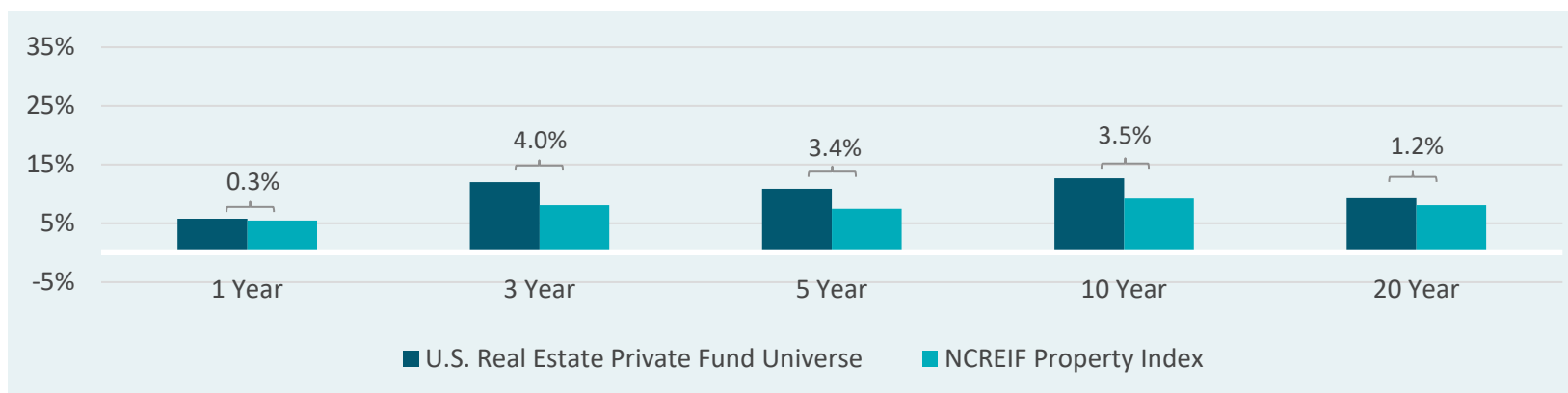
Private vs. liquid and core real estate performance

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



U.S. Private R.E. funds outperformed the Wilshire U.S. REIT Index across all time periods, aside the 20-year

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 December 31, 2022. 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	6.6	8.7	16.9	19.6	14.6	12.3	12.9
S&P 500 Equal Weighted	7.7	4.0	7.0	13.8	15.8	10.2	11.5
DJ Industrial Average	4.7	4.0	4.9	14.2	12.3	9.6	11.3
Russell Top 200	6.2	9.9	19.4	20.9	14.6	13.2	13.5
Russell 1000	6.8	8.6	16.7	19.4	14.1	11.9	12.6
Russell 2000	8.1	5.2	8.1	12.3	10.8	4.2	8.3
Russell 3000	6.8	8.4	16.2	19.0	13.9	11.4	12.3
Russell Mid Cap	8.3	4.8	9.0	14.9	12.5	8.5	10.3
Style Index							
Russell 1000 Growth	6.8	12.8	29.0	27.1	13.7	15.1	15.7
Russell 1000 Value	6.6	4.1	5.1	11.5	14.3	8.1	9.2
Russell 2000 Growth	8.3	7.1	13.6	18.5	6.1	4.2	8.8
Russell 2000 Value	7.9	3.2	2.5	6.0	15.4	3.5	7.3

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	5.8	6.2	13.9	16.5	11.0	8.1	8.8
MSCI ACWI ex US	4.5	2.4	9.5	12.7	7.2	3.5	4.7
MSCI EAFE	4.6	3.0	11.7	18.8	8.9	4.4	5.4
MSCI EM	3.8	0.9	4.9	1.7	2.3	0.9	3.0
MSCI EAFE Small Cap	2.9	0.6	5.5	10.2	5.7	1.3	6.2
Style Index							
MSCI EAFE Growth	3.5	2.8	14.2	20.2	6.3	5.4	6.4
MSCI EAFE Value	5.6	3.2	9.3	17.4	11.3	2.9	4.1
Regional Index							
MSCI UK	3.9	2.2	8.4	13.2	12.6	2.8	3.9
MSCI Japan	4.1	6.4	13.0	18.1	5.7	3.1	5.2
MSCI Euro	6.4	3.8	19.9	32.7	11.7	5.2	6.2
MSCI EM Asia	2.7	(0.8)	4.0	(0.9)	1.2	1.2	4.7
MSCI EM Latin American	12.0	14.0	18.5	29.8	16.4	4.8	1.1

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	(0.3)	(1.4)	1.9	(1.4)	(0.1)	2.5	2.1
Bloomberg US Treasury Bills	0.4	1.2	2.3	3.6	1.2	1.5	1.0
Bloomberg US Agg Bond	(0.4)	(0.8)	2.1	(0.9)	(4.0)	0.8	1.5
Bloomberg US Universal	(0.2)	(0.6)	2.3	(0.0)	(3.4)	1.0	1.8
Duration							
Bloomberg US Treasury 1-3 Yr	(0.5)	(0.6)	1.0	0.1	(1.1)	0.9	0.8
Bloomberg US Treasury Long	(0.0)	(2.3)	3.7	(6.8)	(12.1)	(0.9)	1.8
Bloomberg US Treasury	(0.8)	(1.4)	1.6	(2.1)	(4.8)	0.4	1.0
Issuer							
Bloomberg US MBS	(0.4)	(0.6)	1.9	(1.5)	(3.7)	0.0	1.1
Bloomberg US Corp. High Yield	1.7	1.7	5.4	9.1	3.1	3.4	4.4
Bloomberg US Agency Interm	(0.5)	(0.4)	1.5	(0.2)	(2.0)	0.7	0.9
Bloomberg US Credit	0.3	(0.3)	3.1	1.4	(3.4)	1.7	2.5

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	4.0	(2.6)	(7.8)	(9.6)	17.8	4.7	(1.0)
Wilshire US REIT	5.4	3.3	6.7	(0.3)	8.6	4.4	6.4
CS Leveraged Loans	2.2	3.1	6.3	10.1	6.2	4.0	4.1
S&P Global Infrastructure	3.0	(0.1)	3.8	4.2	10.6	5.3	6.7
Alerian MLP	4.5	6.2	9.8	31.5	31.2	5.9	0.8
Regional Index							
JPM EMBI Global Div	2.2	2.2	4.1	7.4	(3.1)	0.6	2.8
JPM GBI-EM Global Div	3.3	2.5	7.8	11.4	(1.4)	0.3	(0.6)
Hedge Funds							
HFRI Composite	2.2	2.2	3.5	5.1	8.2	5.0	4.7
HFRI FOF Composite	1.2	1.5	2.3	3.7	5.0	3.3	3.4
Currency (Spot)							
Euro	2.3	0.4	2.2	4.4	(1.0)	(1.4)	(1.7)
Pound Sterling	2.6	2.8	5.7	4.7	1.0	(0.8)	(1.8)
Yen	(3.3)	(7.9)	(8.7)	(6.0)	(9.3)	(5.2)	(3.7)

Source: Morningstar, HFRI, as of 6/30/23.

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.lanqerresearch.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 Federal 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 $(\text{Good-Poor} + 100)/2$ to the present and future sales series and $(\text{High/Very High-Low/Very Low} + 100)/2$ 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.

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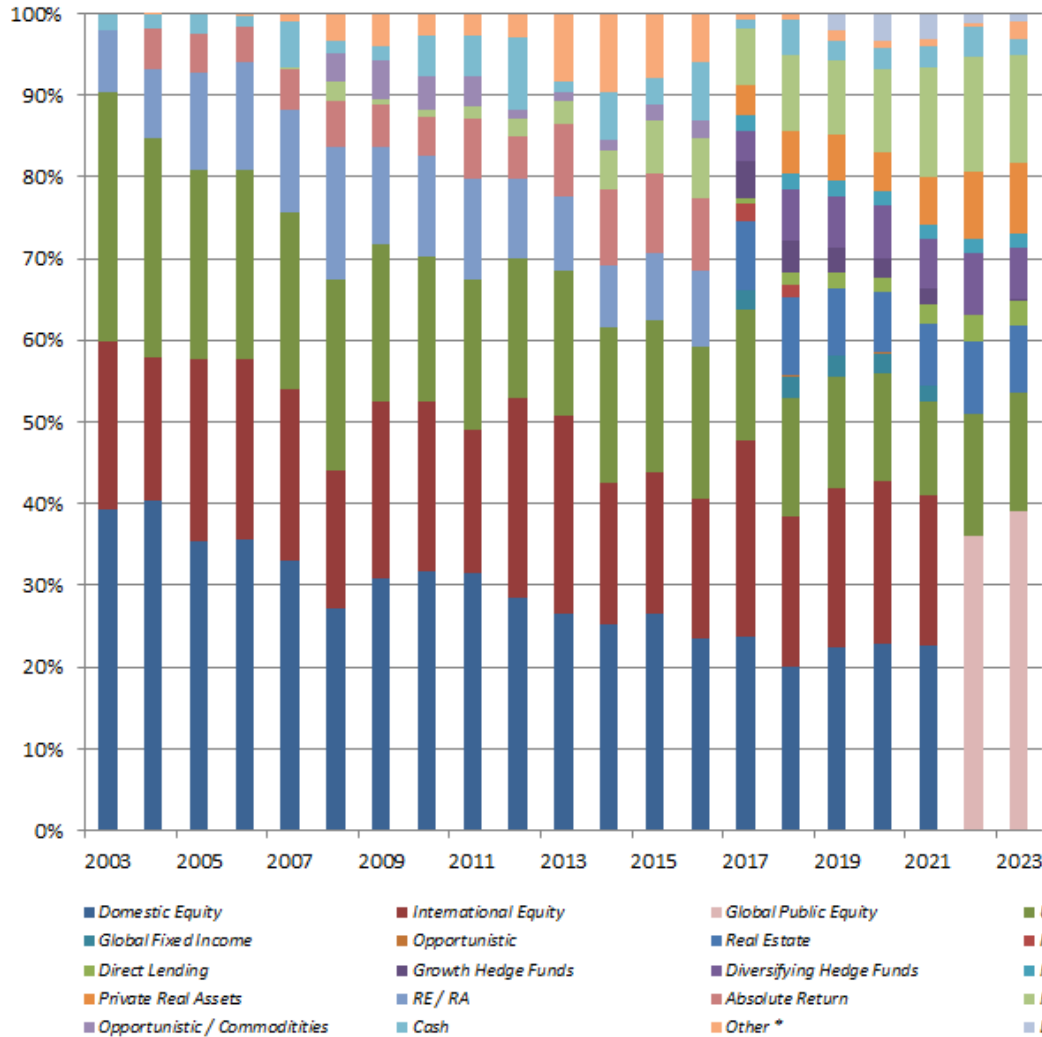
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Total Fund
Actual Yearly and Quarterly Asset Allocation

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023



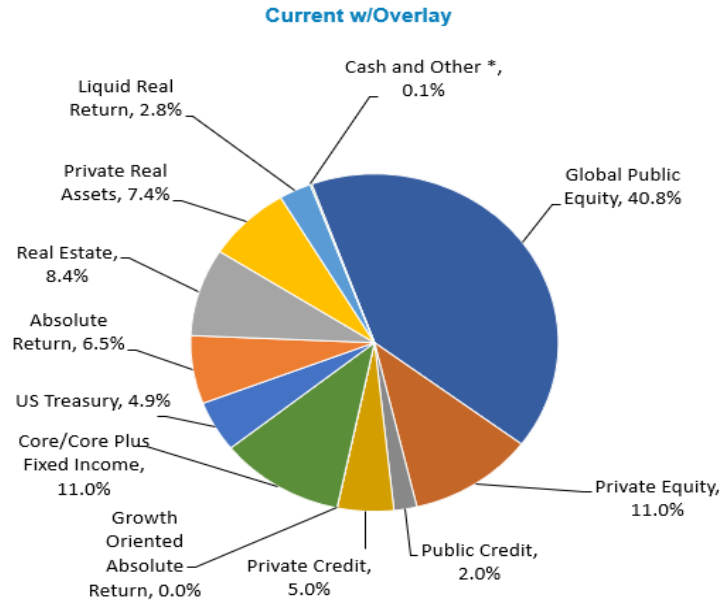
	2003	2004	2005	2006	2007	2008	2009
US Equity	39.2	40.4	35.4	35.5	33.1	27.2	30.9
International Equity	20.6	17.5	22.3	22.0	20.9	16.8	21.5
US Fixed Income	30.6	26.9	23.1	23.3	21.7	23.5	19.3
Real Estate / Real Assets	7.5	8.5	11.9	13.1	12.4	16.1	11.9
Absolute Return	-	4.9	4.8	4.4	5.1	5.6	5.3
Private Equity	-	-	-	-	0.1	2.5	0.5
Opportunistic / Commodities	-	-	-	-	-	3.5	4.8
Cash	2.1	1.8	2.4	1.2	5.8	1.4	1.7
Other *	-	0.1	-	0.4	0.9	3.4	4.1

	2010	2011	2012	2013	2014	2015	2016
US Equity	31.7	31.4	28.4	26.5	25.2	26.4	23.4
International Equity	20.7	17.6	24.5	24.3	17.5	17.3	17.2
US Fixed Income	17.8	18.4	17.1	17.7	18.9	18.7	18.5
Real Estate / Real Assets	12.2	12.4	9.9	9.0	7.6	8.3	9.3
Absolute Return	4.9	7.3	5.2	8.8	9.4	9.7	8.8
Private Equity	0.9	1.6	2.2	3.0	4.6	6.3	7.4
Opportunistic / Commodities	4.1	3.7	1.1	1.0	1.4	2.1	2.2
Cash	5.0	4.9	8.8	1.2	5.9	3.2	7.1
Other *	2.6	2.7	2.9	8.4	9.6	7.9	6.0

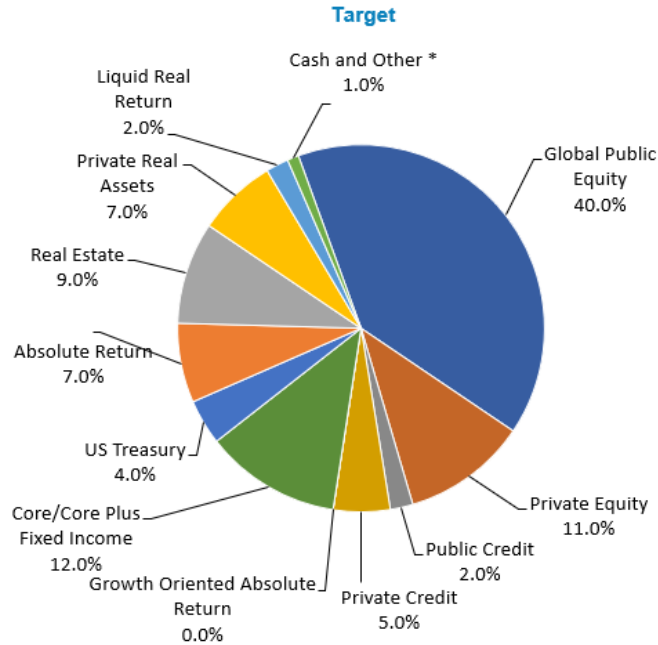
	2017	2018	2019	2020	2021	2022	2023
Domestic Equity	23.8	20.0	22.4	22.8	22.6	-	-
International Equity	23.9	18.3	19.6	19.9	18.4	-	-
Global Public Equity	-	-	-	-	-	36.2	39.2
US Fixed Income	16.0	14.6	13.6	13.2	11.4	14.8	14.4
Global Fixed Income	2.4	2.6	2.5	2.5	2.1	-	-
Public Credit	1.8	1.9	1.8	1.7	1.7	1.7	1.7
Real Estate / Real Assets	-	-	-	-	-	-	-
Real Estate	8.4	9.7	8.3	7.3	7.6	9.0	8.2
Real Assets	2.1	1.4	-	-	-	-	-
Private Real Assets	3.7	5.2	5.7	4.9	5.8	8.2	8.5
Liquid Real Return	-	-	2.0	3.3	3.2	1.2	1.0
Absolute Return	-	-	-	-	-	-	-
Growth Hedge Funds	4.6	3.9	3.0	2.3	2.0	0.1	0.1
Diversifying Hedge Funds	3.8	6.2	6.4	6.4	6.0	7.5	6.4
Private Equity	6.9	9.3	9.0	10.1	13.4	14.2	13.3
Direct Lending	0.5	1.5	2.0	1.9	2.3	3.2	3.2
Opportunistic / Commodities	-	-	-	-	-	-	-
Opportunistic	0.1	0.1	0.1	0.0	0.0	-	-
Cash	1.1	4.3	2.4	2.5	2.6	3.7	2.0
Other *	0.8	0.9	1.4	1.0	0.8	0.4	2.1

Total Fund Asset Allocation Analysis

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023



ASSET ALLOCATION	MARKET VALUE W/OVERLAY	W/ OVERLAY	W/O OVERLAY
Global Public Equity	5,049,005,099	40.8%	39.2%
Private Equity	1,364,604,531	11.0%	13.3%
Public Credit	249,049,911	2.0%	1.7%
Private Credit	613,802,956	5.0%	3.2%
Growth Oriented Absolute Return	42,769	0.0%	0.1%
Core/Core Plus Fixed Income	1,361,780,196	11.0%	11.0%
US Treasury	602,535,792	4.9%	3.3%
Absolute Return	806,995,716	6.5%	6.4%
Real Estate	1,040,020,294	8.4%	8.2%
Private Real Assets	914,424,319	7.4%	8.5%
Liquid Real Return	351,690,727	2.8%	1.0%
Cash and Other *	15,785,998	0.1%	4.1%
TOTAL	12,369,738,306	100.0%	100.0%



ASSET ALLOCATION	ACTUAL	TARGET	DIFF
Global Public Equity	40.8%	40.0%	0.8%
Private Equity	11.0%	11.0%	0.0%
Public Credit	2.0%	2.0%	0.0%
Private Credit	5.0%	5.0%	0.0%
Growth Oriented Absolute Return	0.0%	0.0%	0.0%
Core/Core Plus Fixed Income	11.0%	12.0%	-1.0%
US Treasury	4.9%	4.0%	0.9%
Absolute Return	6.5%	7.0%	-0.5%
Real Estate	8.4%	9.0%	-0.6%
Private Real Assets	7.4%	7.0%	0.4%
Liquid Real Return	2.8%	2.0%	0.8%
Cash and Other *	0.1%	1.0%	-0.9%

* Other includes closing accounts (Heitman and SSgA Overlay)

SCERS

Quarter ending June 30th, 2023

- The Total Plan returned 2.8% gross in the second quarter of 2023 and ranked in the second quartile among other public funds greater than \$1 billion. The Plan outperformed its policy index by 20 bps over this time period. Longer-term, the three-year return of 9.6% ranks just outside the top quartile of large public plan peer group which returned 8.6%. The five-year return of 7.8% ranks in the top quartile of the large public plan peer group.
- Second quarter results (net) were enhanced by the following factors:
 1. The Growth Asset category returned 4.6% for the quarter, led by global public equity which was up 5.8%. Within global public equity, domestic equity outperformed returning 8.6%. Active management in both domestic and global equity slightly detracted from relative results.
- Second quarter results (net) were hindered by the following factors:
 1. Core/Core Plus Fixed Income was down -0.7% vs. a benchmark return of -0.8%. Brandywine was the primary detractor, returning -2.1%.
 2. U.S. Treasury allocation was down -1.4% as yields moved higher during the quarter on a resilient economy which may challenge the Federal Reserve's fight against inflation, forcing them to keep interest rates higher for longer.
 3. The Real Return category returned 0.3% vs. a benchmark return of -0.9%. The decline was led by core real estate, which returned -2.4%. However, the real estate category returned -1.1% vs. a benchmark return of -2.9% and was primarily responsible for the relative outperformance.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Total Fund - Gross	12,369,738,306	100.0	2.8 (39)	6.5 (56)	6.3 (77)	9.6 (26)	7.8 (16)	8.0 (26)	8.3	Jul-86
Total Fund - Net			2.7	6.4	6.1	9.4	7.5	7.8	8.1	Jul-86
<i>Policy Index</i>			<i>2.6 (54)</i>	<i>6.4 (59)</i>	<i>6.6 (74)</i>	<i>8.5 (52)</i>	<i>6.7 (58)</i>	<i>7.3 (59)</i>	<i>8.3</i>	<i>Jul-86</i>
InvMetrics Public DB > \$1B Median			2.7	6.6	7.8	8.6	6.7	7.5	-	
Total Fund ex Overlay - Gross	12,269,912,646	99.2	2.7 (41)	6.3 (63)	5.9 (85)	9.8 (22)	7.6 (21)	8.0 (28)	8.2	Jul-86
Total Fund ex Overlay - Net			2.6	6.2	5.7	9.6	7.4	7.8	8.0	Jul-86
<i>Policy Index</i>			<i>2.6 (54)</i>	<i>6.4 (59)</i>	<i>6.6 (74)</i>	<i>8.5 (52)</i>	<i>6.7 (58)</i>	<i>7.3 (59)</i>	<i>8.3</i>	<i>Jul-86</i>
Growth Asset Category - Gross	7,102,782,675	57.4	4.7	9.9	10.0	13.1	9.8	-	10.7	Apr-17
Growth Asset Category - Net			4.6	9.8	9.8	12.9	9.5	-	10.4	Apr-17
<i>Growth Custom</i>			<i>4.8</i>	<i>10.5</i>	<i>11.4</i>	<i>12.4</i>	<i>8.8</i>	<i>-</i>	<i>9.5</i>	
Global Public Equity - Gross	4,847,493,060	39.2	6.0	14.1	17.3	10.8	8.1	9.3	8.9	Jul-11
Global Public Equity - Net			5.8	13.9	16.9	10.4	7.7	8.9	8.5	Jul-11
<i>MSCI ACWI IMI</i>			<i>6.1</i>	<i>13.6</i>	<i>16.7</i>	<i>11.0</i>	<i>8.1</i>	<i>8.8</i>	<i>8.0</i>	
Domestic Equity - Gross	2,460,983,309	19.9	8.7 (20)	16.9 (11)	20.4 (8)	14.2 (39)	11.4 (35)	12.2 (50)	10.4	Jul-86
Domestic Equity - Net			8.6	16.8	20.0	13.9	11.1	11.9	10.1	Jul-86
<i>Russell 3000 Index</i>			<i>8.4 (28)</i>	<i>16.2 (28)</i>	<i>19.0 (39)</i>	<i>13.9 (56)</i>	<i>11.4 (35)</i>	<i>12.3 (40)</i>	<i>10.3</i>	<i>Jul-86</i>
InvMetrics All DB US Equity Median			8.0	15.3	18.7	14.0	11.1	12.2	-	
Large Cap - Gross	2,239,813,021	18.1	9.0	17.7	21.0	14.8	11.9	12.6	7.4	Apr-98
Large Cap - Net			9.0	17.6	20.7	14.5	11.7	12.4	7.2	Apr-98
<i>Russell 1000 Index</i>			<i>8.6</i>	<i>16.7</i>	<i>19.4</i>	<i>14.1</i>	<i>11.9</i>	<i>12.6</i>	<i>7.8</i>	
Large Cap - Index	1,231,834,576	10.0	8.6	16.6	19.4	14.1	11.9	12.6	11.7	Oct-08
Large Cap - Index			8.5	16.6	19.4	14.1	11.9	12.6	11.7	Oct-08
<i>Russell 1000 Index</i>			<i>8.6</i>	<i>16.7</i>	<i>19.4</i>	<i>14.1</i>	<i>11.9</i>	<i>12.6</i>	<i>11.7</i>	
AB - Gross	1,231,834,576	10.0	8.6 (70)	16.7 (68)	19.4 (57)	14.1 (63)	11.9 (62)	12.6 (63)	10.3	May-89
AB - Net			8.5	16.6	19.4	14.1	11.9	12.6	10.3	May-89
<i>Russell 1000 Index</i>			<i>8.6 (66)</i>	<i>16.7 (65)</i>	<i>19.4 (60)</i>	<i>14.1 (73)</i>	<i>11.9 (65)</i>	<i>12.6 (61)</i>	<i>10.5</i>	<i>May-89</i>
eV US Passive Large Cap Equity Median			8.7	16.9	19.5	14.3	12.2	12.8	-	
Large Cap - Enhanced - Gross	338,684,674	2.7	8.7	16.3	19.5	15.6	-	-	11.1	Aug-18
Large Cap - Enhanced - Net			8.6	16.2	19.2	15.4	-	-	10.8	Aug-18
<i>Russell 1000 Index</i>			<i>8.6</i>	<i>16.7</i>	<i>19.4</i>	<i>14.1</i>	<i>-</i>	<i>-</i>	<i>11.4</i>	
AQR US Enhanced Equity - Gross	338,684,674	2.7	8.7 (33)	16.3 (47)	19.5 (35)	15.6 (23)	-	-	11.1	Aug-18
AQR US Enhanced Equity - Net			8.6	16.2	19.2	15.4	-	-	10.8	Aug-18
<i>Russell 1000 Index</i>			<i>8.6 (40)</i>	<i>16.7 (38)</i>	<i>19.4 (47)</i>	<i>14.1 (67)</i>	<i>-</i>	<i>-</i>	<i>11.4</i>	<i>Aug-18</i>
eV US Enh Equity Median			8.3	16.1	19.1	14.4	11.8	12.7	-	

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 rating.

**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: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Large Cap (130/30) - Gross	337,621,554	2.7	8.2	15.7	21.2	15.2	12.3	13.3	12.4	Oct-08
Large Cap (130/30) - Net			8.1	15.5	20.5	14.7	11.8	12.6	11.8	Oct-08
<i>Russell 1000 Index</i>			8.6	16.7	19.4	14.1	11.9	12.6	11.7	
JP Morgan 130/30 - Gross	178,740,784	1.4	10.2 (7)	18.8 (11)	25.5 (1)	16.8 (53)	14.4 (24)	14.3 (30)	12.8	Aug-08
JP Morgan 130/30 - Net			10.1	18.4	24.5	16.1	13.7	13.6	12.1	Aug-08
<i>Russell 1000 Index</i>			8.6 (22)	16.7 (20)	19.4 (37)	14.1 (67)	11.9 (43)	12.6 (70)	10.9	Aug-08
<i>eV Extended US Equity Median</i>			5.7	12.0	16.4	17.0	11.4	13.3	-	
DE Shaw Broad Mkt Core Alpha Ext - Gross	158,880,770	1.3	6.0 (47)	12.5 (45)	16.7 (48)	13.5 (76)	-	-	12.0	Feb-19
DE Shaw Broad Mkt Core Alpha Ext - Net			5.9	12.3	16.3	13.1	-	-	11.6	Feb-19
<i>Russell 1000 Index</i>			8.6 (22)	16.7 (20)	19.4 (37)	14.1 (67)	-	-	13.5	Feb-19
<i>eV Extended US Equity Median</i>			5.7	12.0	16.4	17.0	11.4	13.3	-	
Large Cap Active - Gross	331,672,216	2.7	12.1	25.7	29.1	16.2	11.6	11.9	11.3	Oct-08
Large Cap Active - Net			12.0	25.2	28.2	15.4	10.7	11.1	10.6	Oct-08
<i>Russell 1000</i>			8.6	16.7	19.4	14.1	12.0	11.2	10.3	
Eagle Capital - Gross	331,651,933	2.7	12.1 (2)	25.7 (1)	29.1 (2)	16.2 (12)	11.6 (49)	12.9 (33)	13.7	Mar-12
Eagle Capital - Net			12.0	25.2	28.2	15.4	10.8	12.1	12.9	Mar-12
<i>Russell 1000 Index</i>			8.6 (30)	16.7 (24)	19.4 (33)	14.1 (49)	11.9 (44)	12.6 (43)	13.0	Mar-12
<i>eV US Large Cap Core Equity Median</i>			7.5	13.5	17.6	14.0	11.6	12.4	-	
Small Cap - Gross	221,170,288	1.8	5.1	9.6	13.9	8.3	6.6	9.9	11.4	Jan-91
Small Cap - Net			4.9	9.0	13.0	7.6	5.9	9.2	10.7	Jan-91
<i>Russell 2000 Index</i>			5.2	8.1	12.3	10.8	4.2	8.3	10.0	
Small Cap - Growth - Gross	98,255,099	0.8	6.2	9.9	11.9	0.7	7.1	11.0	11.0	Oct-08
Small Cap - Growth - Net			6.2	9.1	10.9	-0.1	6.4	10.3	10.3	Oct-08
<i>Russell 2000 Growth Index</i>			7.1	13.6	18.5	6.1	4.2	8.8	9.5	
Weatherbie - Gross	98,255,099	0.8	6.2 (46)	9.9 (78)	11.9 (88)	0.7 (95)	7.0 (72)	12.5 (26)	12.1	Jan-03
Weatherbie - Net			6.2	9.1	10.9	-0.1	6.2	11.8	11.3	Jan-03
<i>Russell 2000 Growth Index</i>			7.1 (30)	13.6 (46)	18.5 (38)	6.1 (72)	4.2 (93)	8.8 (96)	9.9	Jan-03
<i>eV US Small Cap Growth Equity Median</i>			5.9	13.4	17.3	8.9	8.6	11.4	-	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Small Cap - Value - Gross	122,915,189	1.0	4.2	9.3	15.6	16.7	4.8	8.1	8.5	Oct-08
Small Cap - Value - Net			3.9	8.8	14.7	16.0	4.2	7.3	7.7	Oct-08
<i>Russell 2000 Value Index</i>			3.2	2.5	6.0	15.4	3.5	7.3	7.5	
Snyder Capital Management - Gross	122,915,189	1.0	4.2 (49)	9.3 (28)	15.6 (34)	-	-	-	6.2	Feb-21
Snyder Capital Management - Net			3.9	8.8	14.7	-	-	-	5.4	Feb-21
<i>Russell 2000 Value Index - Net</i>			3.2 (66)	2.5 (85)	6.0 (92)	-	-	-	2.8	Feb-21
<i>eV US Small Cap Value Equity Median</i>			4.1	6.4	12.4	18.2	6.5	9.2	-	
International Equity - Gross	2,088,411,167	16.9	3.1 (45)	11.7 (37)	15.2 (47)	7.4 (73)	4.7 (51)	5.9 (57)	6.3	Jan-88
International Equity - Net			2.9	11.4	14.7	6.9	4.0	5.4	5.9	Jan-88
<i>MSCI AC World ex USA Index</i>			2.7 (66)	9.9 (79)	13.3 (74)	7.7 (64)	4.0 (71)	5.2 (79)	5.8	Jan-88
<i>InvMetrics All DB Global ex-US Equity Median</i>			3.0	11.1	15.1	8.4	4.7	6.1	-	
International - Developed - Gross	1,507,935,627	12.2	3.1 (36)	13.4 (20)	19.1 (17)	8.9 (39)	5.5 (30)	6.8 (23)	4.9	Apr-98
International - Developed - Net			2.9	13.0	18.5	8.3	4.8	6.2	4.4	Apr-98
<i>MSCI World ex U.S.</i>			3.3 (23)	11.8 (42)	18.1 (30)	9.9 (22)	5.1 (38)	5.9 (65)	4.9	Apr-98
<i>InvMetrics All DB Developed Market ex-US Equity Median</i>			2.8	11.5	16.6	7.4	5.0	6.4	-	
Large Cap - Gross	1,310,048,788	10.6	3.4 (50)	13.7 (26)	19.5 (46)	9.6 (51)	6.0 (36)	6.9 (35)	5.4	Jan-05
Large Cap - Net			3.1	13.4	18.9	9.0	5.3	6.3	4.8	Jan-05
<i>MSCI World ex U.S.</i>			3.3 (54)	11.8 (63)	18.1 (59)	9.9 (46)	5.1 (56)	5.9 (65)	5.3	Jan-05
<i>eV EAFE Large Cap Equity Median</i>			3.4	12.5	19.1	9.6	5.2	6.3	-	
Lazard - Gross	328,660,581	2.7	3.9 (22)	13.7 (23)	18.0 (31)	8.9 (42)	4.7 (52)	6.5 (50)	7.7	Jul-12
Lazard - Net			3.7	13.4	17.3	8.5	4.3	6.2	7.3	Jul-12
<i>MSCI World ex US Gross</i>			3.3 (37)	11.8 (42)	18.1 (29)	8.9 (43)	4.7 (52)	5.6 (77)	6.3	Jul-12
<i>eV All ACWI ex-US Equity Median</i>			2.8	11.0	15.7	8.1	4.8	6.5	-	
Walter Scott & Partners Limited - Gross	500,513,121	4.0	3.4 (28)	17.1 (1)	22.6 (6)	7.4 (35)	7.8 (14)	-	9.6	Apr-17
Walter Scott & Partners Limited - Net			2.9	16.4	21.7	6.5	6.6	-	8.6	Apr-17
<i>MSCI World ex U.S Growth</i>			3.1 (31)	14.1 (23)	19.8 (32)	6.6 (41)	5.8 (58)	-	7.4	Apr-17
<i>eV EAFE Large Cap Growth Median</i>			2.5	12.6	18.8	6.2	6.2	7.3	-	
LSV - Gross	480,875,086	3.9	3.1 (65)	10.4 (66)	17.4 (60)	13.5 (38)	5.0 (56)	6.6 (21)	5.0	Jan-05
LSV - Net			3.0	10.2	16.9	13.1	4.6	6.2	4.5	Jan-05
<i>MSCI World ex U.S. Value</i>			3.5 (44)	9.5 (81)	16.4 (64)	12.9 (44)	3.9 (68)	4.9 (77)	4.5	Jan-05
<i>eV EAFE Large Cap Value Median</i>			3.3	11.9	19.1	12.5	5.2	5.8	-	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Small Cap - Gross	197,886,839	1.6	1.3 (22)	7.3 (44)	13.0 (39)	3.4 (82)	1.5 (63)	5.4 (89)	7.3	Oct-08
Small Cap - Net			1.2	7.2	12.5	2.7	0.8	4.7	6.5	Oct-08
<i>MSCI World ex U.S. Small Cap Index</i>			<i>0.7 (45)</i>	<i>5.9 (72)</i>	<i>10.6 (61)</i>	<i>6.9 (54)</i>	<i>2.3 (50)</i>	<i>6.4 (68)</i>	<i>7.2</i>	<i>Oct-08</i>
<i>eV EAFE Small Cap Equity Median</i>			<i>0.5</i>	<i>6.8</i>	<i>11.7</i>	<i>7.4</i>	<i>2.3</i>	<i>7.1</i>	<i>-</i>	
William Blair Dev Small Cap - Gross	98,330,136	0.8	1.7 (53)	9.0 (48)	16.4 (24)	2.6 (86)	2.3 (77)	5.9 (82)	7.8	Oct-08
William Blair Dev Small Cap - Net			1.5	8.5	15.4	1.7	1.3	5.0	6.8	Oct-08
<i>MSCI World ex U.S. Small Cap Index</i>			<i>0.7 (76)</i>	<i>5.9 (84)</i>	<i>10.6 (72)</i>	<i>6.9 (51)</i>	<i>2.3 (77)</i>	<i>6.4 (72)</i>	<i>7.2</i>	<i>Oct-08</i>
<i>eV ACWI ex-US Small Cap Equity Median</i>			<i>1.7</i>	<i>8.5</i>	<i>12.7</i>	<i>7.1</i>	<i>3.5</i>	<i>7.2</i>	<i>-</i>	
Acadian Asset Management - Gross*	99,556,704	0.8	-	-	-	-	-	-	-0.4	Apr-23
Acadian Asset Management - Net*			-	-	-	-	-	-	-0.4	Apr-23
<i>MSCI AC World ex USA Small Value</i>			<i>2.5 (33)</i>	<i>6.6 (75)</i>	<i>12.0 (59)</i>	<i>11.6 (26)</i>	<i>3.2 (57)</i>	<i>5.9 (80)</i>	<i>6.8</i>	<i>Jun-94</i>
<i>eV ACWI ex-US Small Cap Equity Median</i>			<i>1.6</i>	<i>8.5</i>	<i>12.3</i>	<i>6.0</i>	<i>2.7</i>	<i>6.6</i>	<i>-</i>	
International - Emerging - Gross	580,471,427	4.7	3.0	9.8	5.5	2.9	2.4	3.2	5.5	Feb-00
International - Emerging - Net			2.9	9.6	5.2	2.6	2.1	2.9	5.1	Feb-00
<i>MSCI Emerging Markets Index</i>			<i>1.0</i>	<i>5.1</i>	<i>2.2</i>	<i>2.7</i>	<i>1.3</i>	<i>3.3</i>	<i>5.9</i>	
Arga Emg - Gross	192,524,590	1.6	4.5 (23)	-	-	-	-	-	2.3	Feb-23
Arga Emg - Net			4.3	-	-	-	-	-	2.0	Feb-23
<i>MSCI Emerging Markets Index</i>			<i>1.0 (69)</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-2.6</i>	<i>Feb-23</i>
<i>eV Emg Mkts Equity Median</i>			<i>2.2</i>	<i>7.3</i>	<i>6.7</i>	<i>4.5</i>	<i>2.8</i>	<i>4.4</i>	<i>-</i>	
Baillie Gifford Emg All Cap - Gross	206,886,393	1.7	3.5 (33)	11.1 (19)	8.9 (39)	1.8 (78)	2.7 (52)	-	7.5	Apr-16
Baillie Gifford Emg All Cap - Net			3.5	11.1	8.9	1.8	2.7	-	7.5	Apr-16
<i>MSCI Emerging Markets Index</i>			<i>1.0 (69)</i>	<i>5.1 (79)</i>	<i>2.2 (78)</i>	<i>2.7 (69)</i>	<i>1.3 (74)</i>	<i>-</i>	<i>5.3</i>	<i>Apr-16</i>
<i>eV Emg Mkts Equity Median</i>			<i>2.2</i>	<i>7.3</i>	<i>6.7</i>	<i>4.5</i>	<i>2.8</i>	<i>4.4</i>	<i>-</i>	
Interim IShares EM Core ETF - Gross	72,629	0.0	1.3 (65)	12.5 (15)	-	-	-	-	25.8	Nov-22
Interim IShares EM Core ETF - Net			1.3	12.4	-	-	-	-	25.7	Nov-22
<i>MSCI Emerging Markets Index</i>			<i>1.0 (69)</i>	<i>5.1 (79)</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>19.1</i>	<i>Nov-22</i>
<i>eV Emg Mkts Equity Median</i>			<i>2.2</i>	<i>7.3</i>	<i>6.7</i>	<i>4.5</i>	<i>2.8</i>	<i>4.4</i>	<i>-</i>	
Oaktree Emg - Gross	180,987,815	1.5	1.1 (69)	-	-	-	-	-	-4.4	Feb-23
Oaktree Emg - Net			0.9	-	-	-	-	-	-4.7	Feb-23
<i>MSCI Emerging Markets Index</i>			<i>1.0 (69)</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-2.6</i>	<i>Feb-23</i>
<i>eV Emg Mkts Equity Median</i>			<i>2.2</i>	<i>7.3</i>	<i>6.7</i>	<i>4.5</i>	<i>2.8</i>	<i>4.4</i>	<i>-</i>	

See Policy Index and Benchmark History
*Acadian funded 4/27/23.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Global/Unconstrained Equity - Gross	298,098,584	2.4	4.9	9.0	2.9	-	-	-	-5.2	Apr-22
Global/Unconstrained Equity - Net			4.9	9.0	2.9	-	-	-	-5.2	Apr-22
MSCI AC World IMI			6.1 (33)	13.6 (38)	16.7 (50)	-	-	-	-1.3	Apr-22
InvMetrics All DB Global Equity Median			5.1	12.7	16.7	10.9	4.2	6.7	-	
Artisan Partners Global Opp - Gross	127,384,615	1.0	5.9	15.5	-	-	-	-	9.0	Sep-22
Artisan Partners Global Opp - Net			5.9	15.5	-	-	-	-	9.0	Sep-22
MSCI ACWI IMI			6.1	13.6	-	-	-	-	12.9	
Nikko Asset Management - Gross	124,320,000	1.0	5.6	8.9	-	-	-	-	9.2	Sep-22
Nikko Asset Management - Net			5.6	8.9	-	-	-	-	9.2	Sep-22
MSCI ACWI IMI			6.1	13.6	-	-	-	-	12.9	
Third Point Offshore Fund - Gross*	46,393,969	0.4	1.3	-2.6	-4.4	7.6	3.9	6.0	7.6	May-12
Third Point Offshore Fund - Net			1.3	-2.6	-4.4	7.6	3.9	6.0	7.6	May-12
MSCI ACWI IMI			6.1	13.6	16.7	11.5	8.2	9.2	9.3	
Private Equity - Gross** ***	1,645,184,865	13.3	1.5 (46)	1.0 (74)	-4.8 (78)	23.4 (35)	19.7 (8)	17.2 (39)	7.1	Mar-08
Private Equity - Net***			1.5	1.0	-4.8	23.4	19.7	17.2	7.3	Mar-08
Cambridge Associates All PE 1 Qtr Lag			1.9 (42)	2.8 (45)	-4.0 (72)	22.0 (42)	14.9 (62)	15.2 (50)	11.5	Jan-08
Russell 3000 +3% 1Q Lag			7.9 (2)	16.5 (1)	-5.6 (80)	21.6 (48)	13.5 (69)	14.8 (52)	12.0	Mar-08
InvMetrics All DB Private Equity Median			0.8	2.4	-0.2	21.2	16.4	15.1	-	
Abbott VI - Gross	26,798,681	0.2	1.5	-2.2	-13.8	17.8	13.1	14.4	6.8	Aug-08
Abbott VI - Net			1.5	-2.2	-13.8	17.8	13.1	14.4	-	Aug-08
Cambridge Associates All PE 1 Qtr Lag			1.9	2.8	-4.0	22.0	14.9	15.2	12.5	
Accel-KKR V - Gross	30,665,654	0.2	1.4	4.4	6.2	28.8	27.2	-	23.5	Feb-17
Accel-KKR V - Net			1.4	4.4	6.2	28.8	27.2	-	23.5	Feb-17
Cambridge Associates All PE 1 Qtr Lag			1.9	2.8	-4.0	22.0	14.9	-	16.0	
Accel-KKR VI - Gross	17,357,315	0.1	0.0	0.0	0.0	-	-	-	-24.6	Mar-21
Accel-KKR VI - Net			0.0	0.0	0.0	-	-	-	-24.6	Mar-21
Cambridge Associates All PE 1 Qtr Lag			1.9	2.8	-4.0	-	-	-	19.4	
Accel-KKR Growth Partners II - Gross	9,895,081	0.1	0.7	4.5	0.2	43.5	35.5	-	17.8	Mar-15
Accel-KKR Growth Partners II - Net			0.7	4.5	0.2	43.5	35.5	-	17.8	Mar-15
Cambridge Associates All PE 1 Qtr Lag			1.9	2.8	-4.0	22.0	14.9	-	13.7	

See Policy Index and Benchmark History

* 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 Athyrum 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.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Accel-KKR Growth Partners III - Gross	30,002,764	0.2	1.0	4.4	1.0	16.1	-	-	3.8	Aug-19
Accel-KKR Growth Partners III - Net			1.0	4.4	1.0	16.1	-	-	3.8	Aug-19
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	16.3	
Accel-KKR Growth Partners IV - Gross	8,556,335	0.1	0.5	1.3	-30.6	-	-	-	-30.6	Jul-22
Accel-KKR Growth Partners IV - Net			0.5	1.3	-30.6	-	-	-	-30.6	Jul-22
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	-4.0	
Atalaya Special Opp V - Gross*	675,985	0.0	-19.6	-16.7	-11.0	1.3	2.8	-	3.8	Aug-13
Atalaya Special Opp V - Net			-19.6	-16.7	-11.0	1.3	2.8	-	3.8	Aug-13
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.1	
Atalaya Special Opp VI - Gross	1,803,390	0.0	-0.2	1.8	2.5	15.1	13.8	-	11.4	May-16
Atalaya Special Opp VI - Net			-0.2	1.8	2.5	15.1	13.8	-	11.4	May-16
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	16.3	
Canvas Ventures III - Gross	13,332,010	0.1	-1.1	-7.9	0.8	-	-	-	2.2	Dec-20
Canvas Ventures III - Net			-1.1	-7.9	0.8	-	-	-	2.2	Dec-20
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	21.8	
Cortec Group Fund VII - Gross	25,299,189	0.2	-0.5	14.3	20.8	34.2	-	-	27.0	Jan-20
Cortec Group Fund VII - Net			-0.5	14.3	20.8	34.2	-	-	27.0	Jan-20
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	17.0	
Cortec Group Fund VIII - Gross**	2,996,957	0.0	-	-	-	-	-	-	0.0	Apr-23
Cortec Group Fund VIII - Net			-	-	-	-	-	-	0.0	Apr-23
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	-	-	-	-	-	1.9	
CRV Select Fund I - Gross	17,019,837	0.1	-0.6	-13.2	-11.5	-	-	-	-1.2	Jun-21
CRV Select Fund I - Net			-0.6	-13.2	-11.5	-	-	-	-1.2	Jun-21
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	13.7	
CRV Select Fund II - Gross	4,467,124	0.0	-0.6	-13.6	-10.7	-	-	-	-14.6	Apr-22
CRV Select Fund II - Net			-0.6	-13.6	-10.7	-	-	-	-14.6	Apr-22
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	-3.8	
CRV XVIII LP - Gross	17,558,466	0.1	0.1	-6.8	-6.8	-	-	-	3.7	Mar-21
CRV XVIII LP - Net			0.1	-6.8	-6.8	-	-	-	3.7	Mar-21
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	19.4	
CRV XIX LP - Gross	4,074,536	0.0	-6.2	-11.5	-23.5	-	-	-	-23.5	Jul-22
CRV XIX LP - Net			-6.2	-11.5	-23.5	-	-	-	-23.5	Jul-22
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	-4.0	

See Policy Index and Benchmark History

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

**Cortec Group Fund VIII initial capital call 4/6/23.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Davidson Kempner LT Dist Opp IV - Gross	22,622,892	0.2	2.6	7.6	29.1	28.6	18.4	-	17.6	Apr-18
Davidson Kempner LT Dist Opp IV - Net			2.6	7.6	29.1	28.6	18.4	-	17.6	Apr-18
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.7	
Davidson Kempner LT Dist Opp V - Gross	31,657,798	0.3	1.6	4.6	0.7	15.7	-	-	15.3	Jun-20
Davidson Kempner LT Dist Opp V - Net			1.6	4.6	0.7	15.7	-	-	15.3	Jun-20
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	17.7	
Dyal Capital Partners II - Gross	37,243,532	0.3	8.7	6.4	24.2	30.7	13.4	-	4.3	Jan-15
Dyal Capital Partners II - Net			8.7	6.4	24.2	30.7	13.4	-	4.3	Jan-15
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.1	
Dyal Capital Partners III - Gross	29,231,923	0.2	11.7	12.7	27.4	34.7	26.2	-	24.9	Jan-17
Dyal Capital Partners III - Net			11.7	12.7	27.4	34.7	26.2	-	24.9	Jan-17
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.4	
Garrison Investment Group - Gross	2,070,632	0.0	-0.3	-3.0	101.9	50.4	26.0	12.2	11.1	Jun-12
Garrison Investment Group - Net			-0.3	-3.0	101.9	50.4	26.0	12.2	11.1	Jun-12
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	15.6	
Golden Capital Co Invest - Gross	7,151,738	0.1	-0.2	-3.9	-	-	-	-	-3.9	Nov-22
Golden Capital Co Invest - Net			-0.2	-3.9	-	-	-	-	-3.9	Nov-22
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-	-	-	-	1.1	
Gridiron Capital Fund IV - Gross	51,616,179	0.4	0.6	4.3	33.1	34.9	-	-	33.8	Jun-20
Gridiron Capital Fund IV - Net			0.6	4.3	33.1	34.9	-	-	33.8	Jun-20
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	17.7	
Gridiron Capital Fund V - Gross	3,625,930	0.0	-16.6	-	-	-	-	-	-16.6	Feb-23
Gridiron Capital Fund V - Net			-16.6	-	-	-	-	-	-16.6	Feb-23
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	-	-	-	-	-	2.8	
Harbourvest VIII - Gross	4,528,937	0.0	-5.5	-9.0	-17.8	15.9	9.8	12.5	9.8	Jan-08
Harbourvest VIII - Net			-5.5	-9.0	-17.8	15.9	9.8	12.5	-	Jan-08
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	11.5	
Harbourvest Intl VI - Gross	14,793,025	0.1	0.0	3.1	-7.7	13.5	10.0	12.8	-2.6	Apr-09
Harbourvest Intl VI - Net			0.0	3.1	-7.7	13.5	10.0	12.8	-	Apr-09
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	16.3	
H.I.G. Bayside Loan III - Gross	3,932,635	0.0	-1.5	-1.0	-0.3	2.7	0.1	4.5	3.3	Feb-13
H.I.G. Bayside Loan III - Net			-1.5	-1.0	-0.3	2.7	0.1	4.5	3.3	Feb-13
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	16.0	

See Policy Index and Benchmark History

Total Fund Performance Summary

Sacramento County Employees' Retirement System Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
H.I.G. Capital V - Gross	10,485,443	0.1	-0.1	7.8	10.5	27.7	22.5	-	14.6	Aug-13
H.I.G. Capital V - Net			-0.1	7.8	10.5	27.7	22.5	-	14.6	Aug-13
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.1	
H.I.G. Europe Capital II - Gross*	10,280,861	0.1	3.5	12.0	-0.1	21.0	11.3	-	-15.9	Feb-14
H.I.G. Europe Capital II - Net*			3.5	12.0	-0.1	21.0	11.3	-	-15.9	Feb-14
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.5	
Khosla IV - Gross	14,759,984	0.1	-0.7	-8.8	-27.4	21.4	23.2	21.3	18.5	Aug-11
Khosla IV - Net			-0.7	-8.8	-27.4	21.4	23.2	21.3	18.5	Aug-11
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	14.8	
Khosla V - Gross	38,959,616	0.3	3.4	-3.4	-15.9	34.5	24.1	-	17.3	Dec-14
Khosla V - Net			3.4	-3.4	-15.9	34.5	24.1	-	17.3	Dec-14
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	13.7	
Khosla VI - Gross	59,563,386	0.5	-2.1	-1.2	10.9	24.4	-	-	12.8	Sep-18
Khosla VI - Net			-2.1	-1.2	10.9	24.4	-	-	12.8	Sep-18
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	15.4	
Khosla VII - Gross	15,617,408	0.1	1.4	5.9	6.3	-	-	-	-0.3	Feb-21
Khosla VII - Net			1.4	5.9	6.3	-	-	-	-0.3	Feb-21
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	18.7	
Linden Capital III - Gross	34,406,269	0.3	-1.3	-14.5	-22.6	23.5	23.9	-	19.0	Jul-16
Linden Capital III - Net			-1.3	-14.5	-22.6	23.5	23.9	-	19.0	Jul-16
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.5	
Linden Capital Partners IV - Gross	48,279,982	0.4	2.5	5.6	20.3	28.4	-	-	15.8	Oct-18
Linden Capital Partners IV - Net			2.5	5.6	20.3	28.4	-	-	15.8	Oct-18
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	14.7	
Linden Capital Partners V - Gross	10,646,400	0.1	4.6	4.8	-	-	-	-	1.5	Aug-22
Linden Capital Partners V - Net			4.6	4.8	-	-	-	-	1.5	Aug-22
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-	-	-	-	-4.0	
Marlin Equity IV - Gross	10,630,008	0.1	1.9	3.9	-6.3	6.7	10.0	-	5.5	Dec-13
Marlin Equity IV - Net			1.9	3.9	-6.3	6.7	10.0	-	5.5	Dec-13
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.2	
Marlin Equity V - Gross	31,588,032	0.3	3.3	6.1	7.9	25.8	22.6	-	19.8	Mar-18
Marlin Equity V - Net			3.3	6.1	7.9	25.8	22.6	-	19.8	Mar-18
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.5	

See Policy Index and Benchmark History

* Unable to calculate since inception returns due to system limitations when HIG Capital II experienced 2 quarters of negative fund values in 2016.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Marlin Heritage - Gross	4,076,296	0.0	-3.8	-15.8	-33.3	-0.6	11.2	-	15.8	Aug-14
Marlin Heritage - Net			-3.8	-15.8	-33.3	-0.6	11.2	-	15.8	Aug-14
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.1	
Marlin Heritage II - Gross	13,717,659	0.1	-1.6	-3.3	-1.4	18.4	12.0	-	7.4	Nov-17
Marlin Heritage II - Net			-1.6	-3.3	-1.4	18.4	12.0	-	7.4	Nov-17
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.4	
Marlin Heritage III - Gross	3,664,093	0.0	159.1	-56.2	-	-	-	-	-56.2	Jan-23
Marlin Heritage III - Net			159.1	-56.2	-	-	-	-	-56.2	Jan-23
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-	-	-	-	2.8	
Marlin Heritage Europe - Gross	21,291,361	0.2	2.3	14.6	-11.2	29.9	28.0	-	22.9	Sep-17
Marlin Heritage Europe - Net			2.3	14.6	-11.2	29.9	28.0	-	22.9	Sep-17
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.7	
New Enterprise 14 - Gross	35,337,009	0.3	-2.5	-8.5	-33.2	12.8	11.1	15.1	12.7	Jun-12
New Enterprise 14 - Net			-2.5	-8.5	-33.2	12.8	11.1	15.1	12.7	Jun-12
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	15.6	
New Enterprise 15 - Gross	29,627,219	0.2	2.1	-6.1	-27.2	0.2	3.6	-	8.6	May-15
New Enterprise 15 - Net			2.1	-6.1	-27.2	0.2	3.6	-	8.6	May-15
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.3	
New Enterprise 16 - Gross	37,813,974	0.3	-0.4	-3.0	-17.2	10.7	9.3	-	6.3	Jun-17
New Enterprise 16 - Net			-0.4	-3.0	-17.2	10.7	9.3	-	6.3	Jun-17
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.7	
New Enterprise 17 - Gross	20,490,460	0.2	1.3	-4.5	-19.2	14.9	-	-	9.7	Aug-19
New Enterprise 17 - Net			1.3	-4.5	-19.2	14.9	-	-	9.7	Aug-19
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	16.3	
Oaktree Power Opp Fund VI - Gross	11,638,842	0.1	1.4	5.5	-4.6	-	-	-	-4.3	Jun-22
Oaktree Power Opp Fund VI - Net			1.4	5.5	-4.6	-	-	-	-4.3	Jun-22
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	-4.4	
OrbiMed Private Investments VIII - Gross	8,804,531	0.1	0.5	-0.1	4.2	-	-	-	-0.7	Jan-21
OrbiMed Private Investments VIII - Net			0.5	-0.1	4.2	-	-	-	-0.7	Jan-21
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	18.0	
Orbimed Private Investments IX - Gross	800,465	0.0	-12.7	-36.0	-	-	-	-	-36.0	Dec-22
Orbimed Private Investments IX - Net			-12.7	-36.0	-	-	-	-	-36.0	Dec-22
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-	-	-	-	1.1	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Private Equity X - Gross	12,796,639	0.1	3.0	-0.9	-7.0	12.8	8.2	10.0	0.7	Jul-08
Private Equity X - Net			3.0	-0.9	-7.0	12.8	8.2	10.0	-	Jul-08
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	12.8	
RCP Multi-Fund Feeder - Gross	81,756,568	0.7	0.5	6.5	14.8	24.6	-	-	11.3	Dec-18
RCP Multi-Fund Feeder - Net			0.5	6.5	14.8	24.6	-	-	11.3	Dec-18
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	15.3	
RRJ Capital Master Fund II - Gross	5,205,275	0.0	-12.5	-22.3	-42.5	9.7	-0.6	6.2	6.1	Jun-13
RRJ Capital Master Fund II - Net			-12.5	-22.3	-42.5	9.7	-0.6	6.2	6.1	Jun-13
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	15.5	
RRJ Capital Master Fund III - Gross	9,979,809	0.1	5.1	12.1	3.1	-9.9	-2.5	-	-8.8	Jan-16
RRJ Capital Master Fund III - Net			5.1	12.1	3.1	-9.9	-2.5	-	-8.8	Jan-16
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.8	
Shamrock Capital II - Gross	13,245,667	0.1	2.9	4.1	11.8	-	-	-	-76.7	Aug-20
Shamrock Capital II - Net			2.9	4.1	11.8	-	-	-	-76.7	Aug-20
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	22.7	
Shamrock Capital III - Gross	168,030	0.0	-97.8	-100.0	-	-	-	-	-100.0	Jan-23
Shamrock Capital III - Net			-97.8	-100.0	-	-	-	-	-100.0	Jan-23
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-	-	-	-	2.8	
Shamrock Capital Growth Fund V - Gross	8,646,169	0.1	-0.9	-3.0	-13.9	-	-	-	-35.5	Aug-21
Shamrock Capital Growth Fund V - Net			-0.9	-3.0	-13.9	-	-	-	-35.5	Aug-21
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	9.3	
Sixth Street Opp Partners V - Gross	7,786,283	0.1	1.3	-2.8	-10.5	-	-	-	-10.5	Jul-22
Sixth Street Opp Partners V - Net			1.3	-2.8	-10.5	-	-	-	-10.5	Jul-22
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	-4.0	
Spectrum Equity VII - Gross	37,848,891	0.3	6.3	-1.9	-25.1	18.0	32.5	-	18.7	Jan-15
Spectrum Equity VII - Net			6.3	-1.9	-25.1	18.0	32.5	-	18.7	Jan-15
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.1	
Spectrum Equity Fund VIII - Gross	24,274,506	0.2	4.5	-1.0	-17.0	40.6	-14.4	-	-14.4	Jul-18
Spectrum Equity Fund VIII - Net			4.5	-1.0	-17.0	40.6	-14.4	-	-14.4	Jul-18
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.9	
Spectrum Equity Fund IX - Gross	20,161,342	0.2	-1.2	-4.2	-9.2	-	-	-	-11.0	Oct-20
Spectrum Equity Fund IX - Net			-1.2	-4.2	-9.2	-	-	-	-11.0	Oct-20
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	20.4	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Strategic Value Spl Fund V - Gross	16,609,656	0.1	4.1	8.2	3.2	-	-	-	7.3	Sep-21
Strategic Value Spl Fund V - Net			4.1	8.2	3.2	-	-	-	7.3	Sep-21
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	9.8	
Summit EUR Growth Equity II - Gross	41,049,071	0.3	18.4	12.6	16.3	54.4	98.5	-	73.3	Feb-18
Summit EUR Growth Equity II - Net			18.4	12.6	16.3	54.4	98.5	-	73.3	Feb-18
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.3	
Summit EUR Growth Equity III - Gross	14,573,154	0.1	14.1	3.2	-9.4	-	-	-	-12.5	Feb-21
Summit EUR Growth Equity III - Net			14.1	3.2	-9.4	-	-	-	-12.5	Feb-21
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	18.7	
Summit Ventures III - Gross	3,667,195	0.0	19.5	15.4	2.6	19.1	15.1	16.0	13.8	Jul-12
Summit Ventures III - Net			19.5	15.4	2.6	19.1	15.1	16.0	13.8	Jul-12
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	15.4	
Summit Ventures IV - Gross	52,794,382	0.4	-0.6	-1.3	-6.5	41.5	37.6	-	35.6	Jun-16
Summit Ventures IV - Net			-0.6	-1.3	-6.5	41.5	37.6	-	35.6	Jun-16
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	16.5	
Summit Ventures V - Gross	10,000,897	0.1	-1.2	1.1	-5.4	-	-	-	-5.0	Jun-21
Summit Ventures V - Net			-1.2	1.1	-5.4	-	-	-	-5.0	Jun-21
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	13.7	
Thoma Bravo XI - Gross	31,661,841	0.3	11.8	18.9	-1.6	15.7	27.9	-	21.7	Jul-14
Thoma Bravo XI - Net			11.8	18.9	-1.6	15.7	27.9	-	21.7	Jul-14
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.1	
Thoma Bravo XII - Gross	31,436,478	0.3	2.1	5.8	8.0	18.5	17.5	-	11.2	Jun-16
Thoma Bravo XII - Net			2.1	5.8	8.0	18.5	17.5	-	11.2	Jun-16
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	16.5	
Thoma Bravo XIII - Gross	67,698,034	0.5	3.1	7.5	1.2	35.8	-	-	26.0	Mar-19
Thoma Bravo XIII - Net			3.1	7.5	1.2	35.8	-	-	26.0	Mar-19
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	15.4	
Threshold Ventures III - Gross	25,892,066	0.2	-8.4	-8.8	-17.4	22.5	-	-	13.9	Nov-19
Threshold Ventures III - Net			-8.4	-8.8	-17.4	22.5	-	-	13.9	Nov-19
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	16.3	
Threshold Ventures IV - Gross	3,363,062	0.0	-6.5	-19.9	-89.6	-	-	-	-89.6	Jul-22
Threshold Ventures IV - Net			-6.5	-19.9	-89.6	-	-	-	-89.6	Jul-22
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	-	-	-	-4.0	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
TPG Opp Partners III - Gross	7,294,719	0.1	0.0	-4.3	-13.6	7.5	5.8	-	-7.1	Apr-14
TPG Opp Partners III - Net			0.0	-4.3	-13.6	7.5	5.8	-	-7.1	Apr-14
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.0	
Trinity Ventures XI - Gross	43,964,503	0.4	-3.2	-7.8	-24.6	10.3	11.7	6.9	6.8	May-13
Trinity Ventures XI - Net			-3.2	-7.8	-24.6	10.3	11.7	6.9	6.8	May-13
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	15.5	
Trinity Ventures XII - Gross	46,926,418	0.4	-12.2	-22.5	-36.8	19.1	21.6	-	17.7	May-16
Trinity Ventures XII - Net			-12.2	-22.5	-36.8	19.1	21.6	-	17.7	May-16
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	16.3	
TSG7 A LP - Gross	19,104,068	0.2	6.3	6.3	-21.7	29.6	21.3	-	-181.9	Apr-16
TSG7 A LP - Net			6.3	6.3	-21.7	29.6	21.3	-	-181.9	Apr-16
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	15.3	
TSG7 B LP - Gross	4,389,120	0.0	-0.5	-2.8	-11.8	21.6	11.9	-	-4.0	Feb-16
TSG7 B LP - Net			-0.5	-2.8	-11.8	21.6	11.9	-	-4.0	Feb-16
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.8	
TSG8 LP - Gross	34,746,544	0.3	1.0	6.4	1.2	8.3	-	-	-66.3	Feb-19
TSG8 LP - Net			1.0	6.4	1.2	8.3	-	-	-66.3	Feb-19
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	15.1	
TSG9 LP - Gross	1,037,193	0.0	-34.9	-	-	-	-	-	-34.9	Feb-23
TSG9 LP - Net			-34.9	-	-	-	-	-	-34.9	Feb-23
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	-	-	-	-	-	2.8	
TSSP Opportunities Partners IV - Gross	31,392,834	0.3	3.9	3.0	2.6	15.8	-	-	11.5	Feb-19
TSSP Opportunities Partners IV - Net			3.9	3.0	2.6	15.8	-	-	11.5	Feb-19
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	15.1	
Waterland V - Gross	1,046,993	0.0	-4.8	-10.1	6.6	25.5	22.5	43.3	22.8	Sep-11
Waterland V - Net			-4.8	-10.1	6.6	25.5	22.5	43.3	22.8	Sep-11
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	15.0	
Waterland VI - Gross	22,195,007	0.2	4.4	20.1	-6.3	27.7	24.0	-	7.6	Aug-15
Waterland VI - Net			4.4	20.1	-6.3	27.7	24.0	-	7.6	Aug-15
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	-	14.0	
Wayzata Opportunities III - Gross	3,955,351	0.0	3.8	15.5	44.5	16.5	4.2	0.6	-0.6	Mar-13
Wayzata Opportunities III - Net			3.8	15.5	44.5	16.5	4.2	0.6	-0.6	Mar-13
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	14.9	15.2	16.0	

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Total Fund Performance Summary

Sacramento County Employees' Retirement System Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Wynnchurch Capital Partners V - Gross	17,059,256	0.1	1.6	2.1	14.0	-4.6	-	-	-4.4	May-20
Wynnchurch Capital Partners V - Net			1.6	2.1	14.0	-4.6	-	-	-4.4	May-20
<i>Cambridge Associates All PE 1 Qtr Lag</i>			1.9	2.8	-4.0	22.0	-	-	17.2	
Public Credit - Gross	211,528,465	1.7	3.1	5.9	3.1	7.3	3.5	-	4.0	Dec-13
Public Credit - Net			3.1	5.9	3.1	7.3	3.5	-	4.0	Dec-13
<i>Brigade Custom</i>			2.4	5.9	9.6	4.7	3.6	-	4.0	
Brigade Capital - Gross	211,528,465	1.7	3.1 (5)	5.9 (11)	3.1 (98)	7.3 (4)	3.5 (34)	-	4.0	Dec-13
Brigade Capital - Net			3.1	5.9	3.1	7.3	3.5	-	4.0	Dec-13
<i>Brigade Custom</i>			2.4 (11)	5.9 (11)	9.6 (16)	4.7 (18)	3.6 (26)	-	4.0	Dec-13
<i>eV US High Yield Fixed Inc Median</i>			1.5	4.8	8.3	3.1	3.2	4.1	-	
Private Credit - Gross **	389,838,364	3.2	3.5	5.3	6.3	12.0	8.3	8.3	7.6	Nov-11
Private Credit - Net **			3.5	5.3	6.3	12.0	8.3	8.3	7.6	Nov-11
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	5.6	5.9	6.3	
Ares Capital Europe Fund V - Gross	31,464,423	0.3	4.9	7.2	10.2	-	-	-	12.8	Aug-21
Ares Capital Europe Fund V - Net			4.9	7.2	10.2	-	-	-	12.8	Aug-21
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	-	-	-	4.6	
Athyrium Opp II - Gross	6,513,666	0.1	11.2	14.3	5.8	8.4	8.2	-	7.1	Jul-15
Athyrium Opp II - Net			11.2	14.3	5.8	8.4	8.2	-	7.1	Jul-15
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	5.6	-	5.9	
Athyrium Opp III - Gross	7,181,814	0.1	1.3	0.1	-12.6	-3.0	-0.1	-	-1.8	Jun-17
Athyrium Opp III - Net			1.3	0.1	-12.6	-3.0	-0.1	-	-1.8	Jun-17
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	5.6	-	5.8	
Benefit St Pr Sr Secure Opp - Gross	26,609,655	0.2	3.6	5.0	5.3	10.3	5.7	-	5.8	Feb-18
Benefit St Pr Sr Secure Opp - Net			3.6	5.0	5.3	10.3	5.7	-	5.8	Feb-18
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	5.6	-	5.7	
Benefit St Pr Sr Secure Opp II - Gross	34,473,394	0.3	3.1	5.6	9.0	11.1	-	-	8.5	Jan-20
Benefit St Pr Sr Secure Opp II - Net			3.1	5.6	9.0	11.1	-	-	8.5	Jan-20
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	-	-	5.5	
IFM US Infrastructure DB FD LP - Gross	38,280,997	0.3	4.1	6.7	8.6	-	-	-	8.1	Apr-21
IFM US Infrastructure DB FD LP - Net			4.1	6.7	8.6	-	-	-	8.1	Apr-21
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	-	-	-	5.3	
MCP Private Capital IV - Gross	24,137,838	0.2	4.8	14.6	12.9	3.5	-	-	3.3	May-20
MCP Private Capital IV - Net			4.8	14.6	12.9	3.5	-	-	3.3	May-20
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	-	-	5.1	

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**Private Credit 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: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
OrbiMed Royalty & Credit Opp III - Gross	17,127,994	0.1	3.1	5.3	14.4	25.4	-	-	16.9	Oct-19
OrbiMed Royalty & Credit Opp III - Net			3.1	5.3	14.4	25.4	-	-	16.9	Oct-19
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	-	-	5.5	
Orbimed Royalty & Credit Opp IV - Gross	8,361,359	0.1	5.0	5.0	-	-	-	-	7.1	Oct-22
Orbimed Royalty & Credit Opp IV - Net			5.0	5.0	-	-	-	-	7.1	Oct-22
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	-	-	-	-	8.4	
Shamrock Capital Debt Fund I - Gross	5,728,096	0.0	0.6	1.8	4.8	-	-	-	-48.9	Aug-21
Shamrock Capital Debt Fund I - Net			0.6	1.8	4.8	-	-	-	-48.9	Aug-21
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	-	-	-	4.6	
Silver Point Specialty Credit Fund II - Gross	30,643,774	0.2	3.3	6.3	6.9	-	-	-	13.4	Aug-20
Silver Point Specialty Credit Fund II - Net			3.3	6.3	6.9	-	-	-	13.4	Aug-20
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	-	-	-	9.2	
Silver Point Specialty Credit Fund III - Gross	6,020,854	0.0	-3.6	-	-	-	-	-	-3.6	Apr-23
Silver Point Specialty Credit Fund III - Net			-3.6	-	-	-	-	-	-3.6	Apr-23
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	-	-	-	-	-	3.6	
Summit Credit - Gross	328,258	0.0	3.1	30.9	31.0	16.9	8.7	8.9	8.1	Nov-11
Summit Credit - Net			3.1	30.9	31.0	16.9	8.7	8.9	8.1	Nov-11
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	5.6	5.9	6.3	
Summit Credit II - Gross	11,454,978	0.1	6.5	2.6	-0.1	6.6	4.9	-	5.6	Dec-14
Summit Credit II - Net			6.5	2.6	-0.1	6.6	4.9	-	5.6	Dec-14
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	5.6	-	5.8	
Summit Credit III - Gross	16,998,727	0.1	4.6	0.9	10.2	18.0	-	-	14.8	Nov-18
Summit Credit III - Net			4.6	0.9	10.2	18.0	-	-	14.8	Nov-18
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	-	-	5.5	
Summit Credit IV - Gross	13,744,052	0.1	4.0	9.9	14.9	-	-	-	10.1	Dec-21
Summit Credit IV - Net			4.0	9.9	14.9	-	-	-	10.1	Dec-21
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	-	-	-	4.2	
TCP Direct Lending VIII - Gross	110,768,484	0.9	2.3	3.0	3.1	12.5	7.8	-	7.2	Mar-18
TCP Direct Lending VIII - Net			2.3	3.0	3.1	12.5	7.8	-	7.2	Mar-18
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			3.6	6.6	4.2	10.5	5.6	-	5.8	

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Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Growth Oriented Absolute Return - Gross**	8,737,921	0.1	0.4	1.0	1.0	6.5	3.3	4.4	4.6	Sep-04
Growth Oriented Absolute Return - Net**			0.4	1.0	1.0	6.5	3.3	4.4	4.6	Sep-04
<i>HFRI FoF Composite Index + 1%</i>			1.7	2.7	4.6	6.1	4.3	4.9	5.8	
Grosvenor SCARF Growth - Gross	8,737,921	0.1	0.4 (93)	0.5 (92)	0.6 (92)	3.3 (88)	1.5 (91)	3.4 (89)	4.4	Dec-11
Grosvenor SCARF Growth - Net			0.4	0.5	0.6	3.3	1.5	3.4	4.4	Dec-11
<i>HFRI FoF Composite Index + 1%</i>			1.7 (86)	2.7 (71)	4.6 (78)	6.1 (41)	4.3 (40)	4.9 (68)	4.9	Dec-11
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			2.1	3.0	6.4	5.3	3.8	5.7	-	
Diversifying Asset Category - Gross	2,734,138,475	22.1	-0.2	2.6	0.6	-0.2	2.0	-	2.0	Apr-17
Diversifying Asset Category - Net			-0.2	2.6	0.6	-0.3	1.9	-	1.9	Apr-17
<i>Diversifying Custom</i>			-0.4	2.0	0.4	-1.3	1.5	-	1.6	
Core/Core Plus Fixed Income - Gross	1,362,105,650	11.0	-0.6	3.3	0.1	-2.7	1.7	2.2	2.4	Jul-11
Core/Core Plus Fixed Income - Net			-0.7	3.2	0.0	-2.9	1.5	2.0	2.2	Jul-11
<i>Blmbg. U.S. Aggregate Index</i>			-0.8	2.1	-0.9	-4.0	0.8	1.5	1.8	
Prudential - Gross	337,786,899	2.7	0.8 (1)	3.3 (3)	0.7 (12)	-2.8 (23)	1.5 (31)	-	2.4	Aug-14
Prudential - Net			0.8	3.2	0.5	-3.0	1.3	-	2.2	Aug-14
<i>Blmbg. U.S. Aggregate Index</i>			-0.8 (83)	2.1 (83)	-0.9 (84)	-4.0 (93)	0.8 (96)	-	1.2	Aug-14
<i>eV US Core Fixed Inc Median</i>			-0.6	2.5	-0.2	-3.3	1.3	2.0	-	
TCW MetWest Fixed - Gross	339,003,363	2.7	-1.0 (88)	2.8 (16)	-0.5 (69)	-3.1 (31)	1.6 (25)	2.2 (28)	4.8	Jan-02
TCW MetWest Fixed - Net			-1.0	2.7	-0.7	-3.2	1.4	2.0	4.6	Jan-02
<i>Blmbg. U.S. Aggregate Index</i>			-0.8 (83)	2.1 (83)	-0.9 (84)	-4.0 (93)	0.8 (96)	1.5 (97)	3.4	Jan-02
<i>eV US Core Fixed Inc Median</i>			-0.6	2.5	-0.2	-3.3	1.3	2.0	-	
Brandywine US FI - Gross	336,949,952	2.7	-2.0 (99)	3.2 (22)	-1.8 (98)	-	-	-	-2.1	Jun-22
Brandywine US FI - Net			-2.1	3.0	-2.0	-	-	-	-2.2	Jun-22
<i>Blmbg. U.S. Aggregate Index</i>			-0.8 (86)	2.1 (89)	-0.9 (90)	-	-	-	-2.3	Jun-22
<i>eV US Core Plus Fixed Inc Median</i>			-0.5	2.6	0.1	-2.9	1.2	2.0	-	
Reams Core Plus FI - Gross	348,365,436	2.8	-0.5 (50)	3.9 (5)	2.3 (11)	-	-	-	0.7	Jun-22
Reams Core Plus FI - Net			-0.5	3.8	2.1	-	-	-	0.6	Jun-22
<i>Blmbg. U.S. Aggregate Index</i>			-0.8 (86)	2.1 (89)	-0.9 (90)	-	-	-	-2.3	Jun-22
<i>eV US Core Plus Fixed Inc Median</i>			-0.5	2.8	0.5	-2.5	1.7	2.5	-	

See Policy Index and Benchmark History

**Composite reflects net returns from Cliffwater up to March 2017.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
U.S. Treasury - Gross	413,756,399	3.3	-1.4	1.8	-2.1	-4.6	0.5	-	0.7	Mar-18
U.S. Treasury - Net			-1.4	1.8	-2.2	-4.7	0.5	-	0.6	Mar-18
<i>Blmbg. U.S. Treasury Index</i>			-1.4	1.6	-2.1	-4.8	0.4	-	0.6	
Neuberger Berman - Gross*	413,756,399	3.3	-1.4 (81)	1.8 (57)	-2.1 (84)	-4.6 (83)	0.5 (86)	1.5 (30)	5.6	Jul-88
Neuberger Berman - Net			-1.4	1.8	-2.2	-4.7	0.5	1.5	5.5	Jul-88
<i>Blmbg. U.S. Government</i>			-1.4 (80)	1.6 (82)	-2.1 (82)	-4.7 (84)	0.5 (89)	1.0 (92)	5.0	Jul-88
<i>eV US Government Fixed Inc Median</i>			-1.0	1.9	-1.8	-3.7	0.8	1.4	-	
Absolute Return - Gross**	797,295,256	6.4	1.0	2.1	2.5	5.7	3.2	2.5	2.7	Dec-11
Absolute Return - Net**			1.0	2.1	2.5	5.7	3.2	2.5	2.7	Dec-11
<i>HFRI FoF Conservative Index</i>			0.9	1.8	3.5	6.0	3.9	4.4	4.5	
Aristeia Partners LP - Gross	51,087,954	0.4	1.3 (42)	4.0 (61)	5.5 (56)	-	-	-	5.2	Jan-21
Aristeia Partners LP - Net			1.3	4.0	5.5	-	-	-	5.2	Jan-21
<i>HFRI FoF Conservative Index</i>			0.9 (54)	1.8 (83)	3.5 (69)	-	-	-	3.7	Jan-21
<i>eV Alt Relative Value - Multi-Market Arbitrage Median</i>			1.0	4.3	6.4	2.9	1.4	1.0	-	
BlackRock Event Driven Equity Fund - Gross	53,783,339	0.4	-0.6 (92)	0.1 (87)	2.2 (91)	2.6 (91)	-	-	2.5	Mar-20
BlackRock Event Driven Equity Fund - Net			-0.6	0.1	2.2	2.6	-	-	2.5	Mar-20
<i>HFRI FoF Conservative Index</i>			0.9 (72)	1.8 (82)	3.5 (88)	6.0 (73)	-	-	4.9	Mar-20
<i>eV Alt All Event Driven Median</i>			1.8	3.7	5.6	8.5	4.4	7.4	-	
Davidson Kempner Instl Partners LP - Gross	59,643,697	0.5	1.0 (68)	2.2 (71)	4.4 (49)	6.0 (59)	-	-	4.5	May-19
Davidson Kempner Instl Partners LP - Net			1.0	2.2	4.4	6.0	-	-	4.5	May-19
<i>HFRI FoF Conservative Index</i>			0.9 (69)	1.8 (73)	3.5 (57)	6.0 (59)	-	-	4.3	May-19
<i>eV Alt All Multi-Strategy Median</i>			2.4	3.3	4.3	7.7	5.4	4.3	-	
Elliott Associates - Gross***	79,542,434	0.6	0.0 (85)	2.0 (81)	2.2 (91)	9.2 (48)	7.8 (24)	7.7 (28)	7.9	May-12
Elliott Associates - Net*			0.0	2.0	2.2	9.2	7.8	7.7	7.9	May-12
<i>HFRI FoF Conservative Index</i>			0.9 (72)	1.8 (82)	3.5 (88)	6.0 (73)	3.9 (63)	4.4 (100)	4.6	Jan-11
<i>eV Alt All Event Driven Median</i>			1.8	3.7	5.6	8.5	4.4	7.4	-	
Graham Global Inv II - Gross	49,756,078	0.4	7.0 (10)	0.0 (50)	-2.9 (60)	15.2 (24)	8.8 (18)	-	5.9	Mar-17
Graham Global Inv II - Net			7.0	0.0	-2.9	15.2	8.8	-	5.9	Mar-17
<i>HFRI FoF Conservative Index</i>			0.9 (54)	1.8 (47)	3.5 (36)	6.0 (63)	3.9 (66)	-	4.0	Mar-17
<i>eV Alt All Managed Futures Median</i>			1.4	0.0	0.8	8.7	5.5	1.6	-	
Grosvenor SCARF Diversifying - Gross	228,477,884	1.8	2.2 (46)	3.0 (47)	4.4 (79)	5.5 (48)	4.0 (43)	2.3 (100)	2.6	Dec-11
Grosvenor SCARF Diversifying - Net			2.2	3.0	4.4	5.5	4.0	2.3	2.6	Dec-11
<i>HFRI FoF Conservative Index</i>			0.9 (93)	1.8 (79)	3.5 (84)	6.0 (41)	3.9 (45)	4.4 (74)	4.5	Dec-11
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			2.1	3.0	6.4	5.3	3.8	5.7	-	

See Policy Index and Benchmark History

*Account converted to U.S. Treasury from Core Fixed Income in February 2018. Reflects linked historical returns up to February 2018.

**Composite reflects net returns from Cliffwater up to March 2017.

***Elliott Associates market value as of 3/31/23.

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Laurion Capital - Gross	59,424,760	0.5	-0.9 (82)	2.7 (42)	2.3 (39)	5.9 (64)	8.8 (13)	-	7.7	Mar-14
Laurion Capital - Net			-0.9	2.7	2.3	5.9	8.8	-	7.7	Mar-14
<i>HFRI FoF Conservative Index</i>			0.9 (43)	1.8 (50)	3.5 (32)	6.0 (63)	3.9 (100)	-	4.4	Mar-14
<i>eV Alt Relative Value - Equity Relative Value Median</i>			0.4	1.7	0.2	7.3	5.9	-	-	
LMR Fund LTD - Gross	54,421,280	0.4	0.2 (75)	0.9 (79)	6.2 (36)	12.0 (23)	-	-	5.3	Nov-19
LMR Fund LTD - Net			0.2	0.9	6.2	12.0	-	-	5.3	Nov-19
<i>HFRI FoF Conservative Index</i>			0.9 (69)	1.8 (73)	3.5 (57)	6.0 (59)	-	-	4.7	Nov-19
<i>eV Alt All Multi-Strategy Median</i>			2.4	3.3	4.3	7.7	5.4	4.3	-	
MW Global Opportunities Fund - Gross	57,408,748	0.5	1.5 (57)	4.1 (62)	8.4 (59)	5.4 (69)	-	-	5.9	Jan-19
MW Global Opportunities Fund - Net			1.5	4.1	8.4	5.4	-	-	5.9	Jan-19
<i>HFRI FoF Conservative Index</i>			0.9 (65)	1.8 (78)	3.5 (74)	6.0 (66)	-	-	4.9	Jan-19
<i>eV Alt Fundamental - Long/Short Equity Median</i>			2.5	6.7	10.4	10.6	8.3	9.4	-	
PSquared Event Driven Opp Fund - Gross	52,529,222	0.4	-2.4 (97)	-3.6 (99)	-2.0 (100)	-	-	-	1.8	Aug-20
PSquared Event Driven Opp Fund - Net			-2.4	-3.6	-2.0	-	-	-	1.8	Aug-20
<i>HFRI FoF Conservative Index</i>			0.9 (72)	1.8 (82)	3.5 (88)	6.0 (73)	3.9 (63)	4.4 (100)	4.6	Jan-11
<i>eV Alt All Event Driven Median</i>			1.8	3.7	5.6	8.5	4.4	7.4	-	
Sculptor Domestic II - Gross	1,223,787	0.0	0.0 (77)	4.8 (32)	5.3 (45)	3.0 (78)	4.7 (57)	5.4 (33)	6.4	Jan-12
Sculptor Domestic II - Net			0.0	4.8	5.3	3.0	4.7	5.4	6.4	Jan-12
<i>HFRI FoF Conservative Index</i>			0.9 (69)	1.8 (73)	3.5 (57)	6.0 (59)	3.9 (65)	4.4 (47)	4.5	Jan-12
<i>eV Alt All Multi-Strategy Median</i>			2.4	3.3	4.3	7.7	5.4	4.3	-	
Tudor BVI Global Fund - Gross	49,996,075	0.4	-0.2	0.0	-	-	-	-	0.0	Jan-23
Tudor BVI Global Fund - Net			-0.2	0.0	-	-	-	-	0.0	Jan-23
<i>HFRI FOF: Conservative Index</i>			0.9	1.8	-	-	-	-	1.8	

See Policy Index and Benchmark History

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Dedicated Cash Allocation - Gross	160,981,170	1.3	1.3	2.4	3.9	1.4	-	-	1.4	Jul-19
Dedicated Cash Allocation - Net			1.3	2.4	3.9	1.4	-	-	1.4	Jul-19
Secured Overnight Financing Rate			1.3	2.4	3.9	1.4	-	-	1.5	
Real Return Asset Category - Gross	2,187,434,878	17.7	0.4	0.2	-0.2	11.6	7.3	-	9.0	Apr-17
Real Return Asset Category - Net			0.3	0.1	-0.3	11.5	7.2	-	8.8	Apr-17
Real Return Custom			-0.9	-0.9	-0.8	11.0	6.6	-	6.9	
Real Estate - Gross	1,013,222,331	8.2	-1.1 (73)	-3.2 (56)	-8.2 (72)	9.9 (62)	7.3 (58)	9.9 (24)	10.4 (-)	Jul-11
Real Estate - Net			-1.1	-3.3	-8.3	9.7	7.1	9.4	9.8	Jul-11
Real Estate Custom			-2.9 (97)	-5.9 (87)	-7.2 (65)	8.4 (71)	7.0 (60)	8.5 (82)	9.0 (-)	Jul-11
InvMetrics All DB Real Estate Private Median			-0.4	-3.1	-2.4	11.5	8.3	9.3	-	
Core RE - Limited Partnership - Gross	729,654,739	5.9	-2.3	-5.8	-11.0	10.6	8.8	10.4	6.2	Oct-08
Core RE - Limited Partnership - Net			-2.4	-5.9	-11.2	10.4	8.5	10.0	5.7	Oct-08
NFI-ODCE			-2.7	-5.8	-10.0	8.0	6.5	8.7	5.8	
Brookfield Premier RE Partners - Gross*	121,122,724	1.0	0.0	-3.8	-8.5	9.5	-	-	8.3	Oct-18
Brookfield Premier RE Partners - Net*			0.0	-3.8	-8.5	9.5	-	-	8.3	Oct-18
NFI-ODCE			-2.7	-5.8	-10.0	8.0	-	-	6.4	
Clarion Lion Properties - Gross	117,027,693	0.9	-6.0	-10.7	-14.8	7.4	-	-	6.5	Oct-18
Clarion Lion Properties - Net			-6.2	-11.1	-15.6	6.6	-	-	5.7	Oct-18
NFI-ODCE			-2.7	-5.8	-10.0	8.0	-	-	6.4	
Metlife Core Property - Gross	81,855,133	0.7	-4.4	-7.2	-9.9	9.5	7.9	-	10.0	Jan-14
Metlife Core Property - Net			-4.5	-7.4	-10.3	8.9	7.4	-	9.5	Jan-14
NFI-ODCE			-2.7	-5.8	-10.0	8.0	6.5	-	8.5	
Principal US Property - Gross	59,186,484	0.5	-1.9	-5.0	-10.6	7.2	6.0	-	7.1	Nov-15
Principal US Property - Net			-1.9	-5.0	-10.6	7.2	6.0	-	7.1	Nov-15
NFI-ODCE			-2.7	-5.8	-10.0	8.0	6.5	-	7.2	
Prologis Targeted Euro Logistics - Gross	62,324,344	0.5	-0.7	-2.0	-19.9	6.4	7.2	-	9.3	Nov-15
Prologis Targeted Euro Logistics - Net			-0.7	-2.0	-19.9	6.4	7.2	-	9.3	Nov-15
NFI-ODCE			-2.7	-5.8	-10.0	8.0	6.5	-	7.2	
Prologis Targeted US Logistics - Gross	127,854,309	1.0	-3.4	-4.0	-8.9	21.2	17.1	-	17.3	Aug-15
Prologis Targeted US Logistics - Net			-3.4	-4.0	-8.9	21.2	17.1	-	17.3	Aug-15
NFI-ODCE			-2.7	-5.8	-10.0	8.0	6.5	-	7.5	
Townsend Real Estate - Gross*	160,284,053	1.3	0.0	-6.1	-8.5	11.1	8.6	-	9.2	Apr-16
Townsend Real Estate - Net*			0.0	-6.1	-8.5	11.1	8.6	-	9.2	Apr-16
NFI-ODCE			-2.7	-5.8	-10.0	8.0	6.5	-	7.0	

See Policy Index and Benchmark History
*Market value as of 3/31/23.

Total Fund Performance Summary

Sacramento County Employees' Retirement System Period Ending: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Non-Core RE - Opportunistic - Gross* **	177,119,515	1.4	1.8	3.2	-1.0	8.4	2.0	-	14.9	Mar-14
Non-Core RE - Opportunistic - Net* **			1.8	3.2	-1.0	8.4	2.0	-	14.5	Mar-14
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	9.3	
Carlyle China Realty - Gross	7,916,174	0.1	-5.0	-6.8	-8.3	-0.9	-1.4	-	-2.6	Jul-17
Carlyle China Realty - Net			-5.0	-6.8	-8.3	-0.9	-1.4	-	-2.6	Jul-17
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	7.7	
Carlyle China Rome Logistics - Gross	35,159,958	0.3	-4.7	-6.5	-7.9	-0.4	-3.0	-	-2.2	Jul-17
Carlyle China Rome Logistics - Net			-4.7	-6.5	-7.9	-0.4	-3.0	-	-2.2	Jul-17
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	7.7	
CIM Opportunity VIII - Gross	24,707,376	0.2	-4.3	-14.4	-16.5	-12.3	-7.2	-	-2.0	Mar-15
CIM Opportunity VIII - Net			-4.3	-14.4	-16.5	-12.3	-7.2	-	-2.6	Mar-15
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	9.0	
Kohlberg Kravis Roberts - Gross	1,586,869	0.0	1.5	-10.4	-10.3	-10.6	-24.3	-	-0.3	Mar-14
Kohlberg Kravis Roberts - Net			1.5	-10.4	-10.3	-10.6	-24.3	-	-0.4	Mar-14
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	9.3	
Lasalle China Logistics Venture LP - Gross	5,756,635	0.0	-0.4	3.4	-6.5	-	-	-	-27.0	Oct-21
Lasalle China Logistics Venture LP - Net			-0.4	3.4	-6.5	-	-	-	-27.0	Oct-21
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	-	-	-	10.7	
NREP Nordic Strat II - Gross	18,620,062	0.2	9.8	26.7	5.0	30.2	20.0	-	20.1	Jul-16
NREP Nordic Strat II - Net			9.8	26.7	5.0	30.2	20.0	-	20.1	Jul-16
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	7.8	
NREP Nordic Strat III - Gross	38,277,945	0.3	7.8	18.6	10.9	19.9	-	-	8.2	Aug-18
NREP Nordic Strat III - Net			7.8	18.6	10.9	19.9	-	-	8.2	Aug-18
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	-	-	7.7	
NREP Nordic Strat IV - Gross	21,260,822	0.2	4.6	11.9	3.4	-	-	-	15.8	Aug-20
NREP Nordic Strat IV - Net			4.6	11.9	3.4	-	-	-	15.8	Aug-20
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	-	-	-	8.7	
NREP Nordic Strat V - Gross	5,006,695	0.0	7.2	-19.3	-	-	-	-	-19.3	Nov-22
NREP Nordic Strat V - Net			7.2	-19.3	-	-	-	-	-19.3	Nov-22
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-	-	-	-	-7.3	
Sculptor Real Estate Fund III - Gross	5,253,857	0.0	11.6	19.5	87.2	41.9	29.0	-	17.9	Oct-14
Sculptor Real Estate Fund III - Net			11.6	19.5	87.2	41.9	29.0	-	15.3	Oct-14
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	8.9	

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: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Sculptor Real Estate Fund IV - Gross	13,573,122	0.1	1.9	3.8	5.5	5.2	-	-	5.2	Jul-20
Sculptor Real Estate Fund IV - Net			1.9	3.8	5.5	5.2	-	-	5.2	Jul-20
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	-	-	8.5	
Non-Core RE - Value Added - Gross * **	106,448,076	0.9	3.4	6.7	1.9	5.7	7.5	9.8	1.0	Oct-08
Non-Core RE - Value Added - Net * **			3.4	6.7	1.9	5.7	7.5	9.4	0.1	Oct-08
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	9.6	7.8	
Asana Partners Fund II - Gross	30,614,267	0.2	1.8	6.6	-0.4	13.3	-	-	-174.4	May-19
Asana Partners Fund II - Net			1.8	6.6	-0.4	13.3	-	-	-174.4	May-19
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	-	-	7.6	
Asana Partners Fund III - Gross	9,814,995	0.1	-2.4	4.7	-17.7	-	-	-	-15.4	May-22
Asana Partners Fund III - Net			-2.4	4.7	-17.7	-	-	-	-15.4	May-22
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	-	-	-	3.5	
ECE Euro Prime Shopping II - Gross	34,926,123	0.3	10.1	15.0	6.3	1.2	1.5	-	8.2	Aug-15
ECE Euro Prime Shopping II - Net			10.1	15.0	6.3	1.2	1.5	-	7.6	Aug-15
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	8.8	
European RE Debt II - Gross	450,254	0.0	13.9	-55.9	-51.0	-47.0	-32.0	-	-15.5	Dec-13
European RE Debt II - Net			13.9	-55.9	-51.0	-47.0	-32.0	-	-15.5	Dec-13
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	9.7	
Hammes II - Gross	3,138,484	0.0	1.2	3.6	4.3	146.2	121.6	-	74.2	Aug-15
Hammes II - Net			1.2	3.6	4.3	146.2	121.6	-	72.1	Aug-15
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	7.6	-	8.8	
Hammes III - Gross	19,797,882	0.2	1.1	1.9	6.8	19.7	-	-	-3.0	Nov-18
Hammes III - Net			1.1	1.9	6.8	19.7	-	-	-3.0	Nov-18
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	8.5	-	-	7.7	
Seven Seas Japan Opp Fund - Gross	7,706,071	0.1	-6.0	10.4	1.3	-	-	-	2.0	Apr-22
Seven Seas Japan Opp Fund - Net			-6.0	10.4	1.3	-	-	-	2.0	Apr-22
<i>NFI-ODCE net +1% 1Q Lag</i>			-3.1	-6.2	-2.9	-	-	-	3.4	

See Policy Index and Benchmark History

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**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: June 30, 2023

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Private Real Assets - Gross * **	1,055,864,742	8.5	1.7	3.2	9.2	16.8	10.2	13.4	7.0	Feb-13
Private Real Assets - Net * **			1.7	3.2	9.2	16.8	10.2	13.4	7.0	Feb-13
<i>Private Real Assets Custom</i>			1.6	5.3	7.3	14.9	7.6	7.3	7.3	
ACM II - Gross	14,324,545	0.1	-1.3	-18.3	-20.6	-12.2	-9.9	-	-9.2	Oct-16
ACM II - Net			-1.3	-18.3	-20.6	-12.2	-9.9	-	-9.2	Oct-16
<i>NCREIF Farmland 1 Qtr Lag</i>			2.1	5.4	9.1	7.6	6.6	-	6.6	
ArcLight Energy VI - Gross	16,396,420	0.1	-8.4	-3.8	20.7	11.9	4.1	-	4.2	Sep-15
ArcLight Energy VI - Net			-8.4	-3.8	20.7	11.9	4.1	-	4.2	Sep-15
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	12.2	
Brookfield Infra III - Gross	41,061,395	0.3	3.8	10.2	11.2	14.3	11.4	-	12.3	Jun-16
Brookfield Infra III - Net			3.8	10.2	11.2	14.3	11.4	-	12.3	Jun-16
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	11.9	
Brookfield Infra IV - Gross	38,422,665	0.3	2.5	7.3	11.5	16.3	-	-	10.4	Oct-19
Brookfield Infra IV - Net			2.5	7.3	11.5	16.3	-	-	10.4	Oct-19
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	-	-	10.7	
Brookfield Infra Debt Fund III - Gross	15,722,573	0.1	0.4	-	-	-	-	-	0.4	Apr-23
Brookfield Infra Debt Fund III - Net			0.4	-	-	-	-	-	0.4	Apr-23
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	-	-	-	-	-	2.4	
Brookfield Super Core Infra - Gross	102,042,467	0.8	2.7	3.8	-	-	-	-	4.9	Aug-22
Brookfield Super Core Infra - Net			2.7	3.8	-	-	-	-	4.9	Aug-22
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	-	-	-	-	6.6	
Carlyle Power II - Gross	45,085,278	0.4	0.6	2.0	23.1	20.6	14.4	-	7.0	Nov-15
Carlyle Power II - Net			0.6	2.0	23.1	20.6	14.4	-	7.0	Nov-15
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	11.6	
Digital Colony Partners II - Gross	34,582,042	0.3	0.9	4.1	6.7	-	-	-	6.4	Jun-21
Digital Colony Partners II - Net			0.9	4.1	6.7	-	-	-	6.4	Jun-21
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	-	-	-	11.7	
EnCap Energy IX - Gross	10,763,428	0.1	3.3	14.3	23.8	55.8	9.0	9.8	3.7	Feb-13
EnCap Energy IX - Net			3.3	14.3	23.8	55.8	9.0	9.8	3.7	Feb-13
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			-0.3	2.6	8.1	21.5	4.9	2.9	3.4	
EnCap Energy X - Gross	27,448,761	0.2	1.6	5.1	12.5	47.7	17.8	-	9.1	May-15
EnCap Energy X - Net			1.6	5.1	12.5	47.7	17.8	-	9.1	May-15
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			-0.3	2.6	8.1	21.5	4.9	-	3.3	

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*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.

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	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
EnCap Flatrock Midstream III - Gross	13,606,651	0.1	-6.4	4.7	21.3	14.8	6.9	-	7.8	Aug-14
EnCap Flatrock Midstream III - Net			-6.4	4.7	21.3	14.8	6.9	-	7.8	Aug-14
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	11.0	
EnCap Flatrock Midstream IV - Gross	13,903,544	0.1	1.0	2.3	8.1	9.7	5.9	-	3.7	Mar-18
EnCap Flatrock Midstream IV - Net			1.0	2.3	8.1	9.7	5.9	-	3.7	Mar-18
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	10.9	
EQT Infrastructure Fund IV - Gross	36,563,290	0.3	3.6	8.0	1.9	14.0	-	-	2.4	Jul-19
EQT Infrastructure Fund IV - Net			3.6	8.0	1.9	14.0	-	-	2.4	Jul-19
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	-	-	10.8	
First Reserve - Gross	11,796,127	0.1	-4.5	-7.3	-8.2	-5.2	-0.6	-	-2.2	Jan-15
First Reserve - Net			-4.5	-7.3	-8.2	-5.2	-0.6	-	-2.2	Jan-15
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	11.2	
Harrison St Social Infra Fd - Gross	107,346,723	0.9	0.4	1.9	6.5	-	-	-	6.6	Aug-21
Harrison St Social Infra Fd - Net			0.4	1.9	6.5	-	-	-	6.6	Aug-21
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	-	-	-	11.9	
IFM Global Infrastructure US LP - Gross	160,079,973	1.3	2.6	6.7	9.6	11.8	11.2	-	11.8	May-17
IFM Global Infrastructure US LP - Net			2.6	6.7	9.6	11.8	11.2	-	11.8	May-17
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	12.0	
ISQ Global Infrastructure Fund II - Gross	51,546,383	0.4	17.5	6.6	9.8	13.9	-	-	12.7	Nov-18
ISQ Global Infrastructure Fund II - Net			17.5	6.6	9.8	13.9	-	-	12.7	Nov-18
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	-	-	10.9	
ISQ Global Infrastructure Fund III - Gross	14,613,991	0.1	1.8	18.4	23.4	-	-	-	19.6	Jan-22
ISQ Global Infrastructure Fund III - Net			1.8	18.4	23.4	-	-	-	19.6	Jan-22
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	-	-	-	10.9	
Meridiam Infra N America III - Gross	39,144,021	0.3	2.8	0.7	-2.6	26.4	-40.7	-	-56.6	Oct-17
Meridiam Infra N America III - Net			2.8	0.7	-2.6	26.4	-40.7	-	-56.6	Oct-17
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	11.0	
Meridiam Sa Infra Euro IV - Gross	5,433,798	0.0	9.8	14.1	-3.7	-	-	-	-57.7	Aug-21
Meridiam Sa Infra Euro IV - Net			9.8	14.1	-3.7	-	-	-	-57.7	Aug-21
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	-	-	-	11.9	
NGP Royalty Partners - Gross	30,064,667	0.2	-4.3	6.2	33.4	-	-	-	38.0	Sep-20
NGP Royalty Partners - Net			-4.3	6.2	33.4	-	-	-	38.0	Sep-20
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			-0.3	2.6	8.1	-	-	-	22.9	

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NGP Royalty Partners II - Gross	12,969,791	0.1	-9.1	-15.1	-	-	-	-	-15.1	Jan-23
NGP Royalty Partners II - Net			-9.1	-15.1	-	-	-	-	-15.1	Jan-23
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			-0.3	2.6	-	-	-	-	2.6	
Paine Schwartz Food Chain V - Gross	37,560,003	0.3	1.9	7.3	17.1	26.3	-	-	12.0	Feb-20
Paine Schwartz Food Chain V - Net			1.9	7.3	17.1	26.3	-	-	12.0	Feb-20
<i>NCREIF Farmland 1 Qtr Lag</i>			2.1	5.4	9.1	7.6	-	-	7.3	
Pantheon Ventures - Gross	36,732,320	0.3	1.4	2.6	-1.3	11.5	7.3	-	15.3	Aug-14
Pantheon Ventures - Net			1.4	2.6	-1.3	11.5	7.3	-	15.3	Aug-14
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	11.0	
Quantum Energy VI - Gross	41,114,503	0.3	-0.6	-19.9	2.7	28.4	16.8	-	20.4	Dec-14
Quantum Energy VI - Net			-0.6	-19.9	2.7	28.4	16.8	-	20.4	Dec-14
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			-0.3	2.6	8.1	21.5	4.9	-	1.4	
Quantum Energy VII - Gross	39,845,429	0.3	-0.2	1.2	14.2	44.4	16.4	-	12.9	Sep-17
Quantum Energy VII - Net			-0.2	1.2	14.2	44.4	16.4	-	12.9	Sep-17
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			-0.3	2.6	8.1	21.5	4.9	-	5.4	
Ridgewood Water & Strategy Infra II - Gross	3,279,147	0.0	-191.2	-106.5	-	-	-	-	-106.5	Jan-23
Ridgewood Water & Strategy Infra II - Net			-191.2	-106.5	-	-	-	-	-106.5	Jan-23
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	-	-	-	-	6.6	
Tailwater Energy Fund III - Gross	22,000,792	0.2	-1.6	3.4	11.7	10.0	-	-	3.0	Oct-18
Tailwater Energy Fund III - Net			-1.6	3.4	11.7	10.0	-	-	3.0	Oct-18
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			-0.3	2.6	8.1	21.5	-	-	4.4	
Tailwater Energy IV - Gross	23,882,396	0.2	-0.6	19.6	33.1	27.5	-	-	6.7	Nov-19
Tailwater Energy IV - Net			-0.6	19.6	33.1	27.5	-	-	6.7	Nov-19
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			-0.3	2.6	8.1	21.5	-	-	7.2	
Wastewater Opportunity - Gross	8,531,620	0.1	-0.5	9.9	6.2	9.3	8.0	-	-9.1	Jan-16
Wastewater Opportunity - Net			-0.5	9.9	6.2	9.3	8.0	-	-9.1	Jan-16
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			2.4	6.6	6.6	13.6	10.2	-	11.6	

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	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Liquid Real Return - Gross	118,347,805	1.0	0.7	3.4	2.7	7.7	-	-	4.2	Jul-19
Liquid Real Return - Net			0.6	3.2	2.4	7.4	-	-	3.9	Jul-19
<i>SSgA Real Asset</i>			-1.0	0.5	0.2	7.4	-	-	3.6	
Brookfield Liquid Real Return - Gross	108,435,945	0.9	0.9	3.4	2.7	5.6	-	-	3.0	Dec-19
Brookfield Liquid Real Return - Net			0.7	2.9	2.1	5.0	-	-	2.4	Dec-19
SSgA Passive Real Return Proxy - Gross	9,911,860	0.1	-0.9	2.6	2.4	8.3	4.6	3.4	2.4	Feb-08
SSgA Passive Real Return Proxy - Net			-1.0	2.5	2.1	8.0	4.3	3.1	2.1	Feb-08
<i>SSgA Real Asset</i>			-1.0	0.5	0.2	7.4	3.9	2.9	-	
Cash - Gross	245,548,227	2.0	1.4	2.6	4.3	2.0	2.2	1.7	3.0	Aug-92
Cash - Net			1.4	2.6	4.3	2.0	2.2	1.7	-	Aug-92
<i>Secured Overnight Financing Rate</i>			1.3	2.4	3.9	1.4	1.6	1.0	2.4	
Cash Account - Gross	245,548,227	2.0	1.4	2.6	4.3	2.1	2.4	1.8	3.1	Jul-92
Cash Account - Net			1.4	2.6	4.3	2.1	2.4	1.8	-	Jul-92
<i>Secured Overnight Financing Rate</i>			1.3	2.4	3.9	1.4	1.6	1.0	2.5	

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AB	\$1,231,834,576	10.0
AQR US Enhanced Equity	\$338,684,674	2.7
JP Morgan 130/30	\$178,740,784	1.4
DE Shaw Broad Mkt Core Alpha Ext	\$158,880,770	1.3
Eagle Capital	\$331,651,933	2.7
Huber Capital	\$20,284	0.0
Weatherbie	\$98,255,099	0.8
Snyder Capital Management	\$122,915,189	1.0
Lazard	\$328,660,581	2.7
Walter Scott & Partners Limited	\$500,513,121	4.0
LSV	\$480,875,086	3.9
William Blair Dev Small Cap	\$98,330,136	0.8
Acadian Asset Management	\$99,556,704	0.8
Arga Emg	\$192,524,590	1.6
Baillie Gifford Emg All Cap	\$206,886,393	1.7
Interim IShares EM Core ETF	\$72,629	0.0
Oaktree Emg	\$180,987,815	1.5
CBRE Clarion	\$4,113	0.0
Artisan Partners Global Opp	\$127,384,615	1.0
Nikko Asset Management	\$124,320,000	1.0
Third Point Offshore Fund	\$46,393,969	0.4
Abbott VI	\$26,798,681	0.2
Accel-KKR V	\$30,665,654	0.2
Accel-KKR VI	\$17,357,315	0.1
Accel-KKR Growth Partners II	\$9,895,081	0.1
Accel-KKR Growth Partners III	\$30,002,764	0.2
Accel-KKR Growth Partners IV	\$8,556,335	0.1
Atalaya Special Opp VI	\$1,803,390	0.0
Atalaya Special Opp V	\$675,985	0.0
Canvas Ventures III	\$13,332,010	0.1
Cortec Group Fund VII	\$25,299,189	0.2
Cortec Group Fund VIII	\$2,996,957	0.0
CRV Select Fund I	\$17,019,837	0.1
CRV Select Fund II	\$4,467,124	0.0
CRV XVIII LP	\$17,558,466	0.1

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CRV XIX LP	\$4,074,536	0.0
Davidson Kempner LT Dist Opp IV	\$22,622,892	0.2
Davidson Kempner LT Dist Opp V	\$31,657,798	0.3
Dyal Capital Partners II	\$37,243,532	0.3
Dyal Capital Partners III	\$29,231,923	0.2
Garrison Investment Group	\$2,070,632	0.0
Golden Capital Co Invest	\$7,151,738	0.1
Gridiron Capital Fund IV	\$51,616,179	0.4
Gridiron Capital Fund V	\$3,625,930	0.0
Harbourvest VIII	\$4,528,937	0.0
Harbourvest Intl VI	\$14,793,025	0.1
H.I.G. Bayside Loan III	\$3,932,635	0.0
H.I.G. Capital V	\$10,485,443	0.1
H.I.G. Europe Capital II	\$10,280,861	0.1
Khosla IV	\$14,759,984	0.1
Khosla V	\$38,959,616	0.3
Khosla VI	\$59,563,386	0.5
Khosla VII	\$15,617,408	0.1
Linden Capital III	\$34,406,269	0.3
Linden Capital Partners IV	\$48,279,982	0.4
Linden Capital Partners V	\$10,646,400	0.1
Marlin Equity IV	\$10,630,008	0.1
Marlin Equity V	\$31,588,032	0.3
Marlin Heritage	\$4,076,296	0.0
Marlin Heritage II	\$13,717,659	0.1
Marlin Heritage III	\$3,664,093	0.0
Marlin Heritage Europe	\$21,291,361	0.2
New Enterprise 14	\$35,337,009	0.3
New Enterprise 15	\$29,627,219	0.2
New Enterprise 16	\$37,813,974	0.3
New Enterprise 17	\$20,490,460	0.2
Oaktree Power Opp Fund VI	\$11,638,842	0.1
OrbiMed Private Investments VIII	\$8,804,531	0.1
Orbimed Private Investments IX	\$800,465	0.0
Private Equity X	\$12,796,639	0.1

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RCP Multi-Fund Feeder	\$81,756,568	0.7
RRJ Capital Master Fund II	\$5,205,275	0.0
RRJ Capital Master Fund III	\$9,979,809	0.1
Shamrock Capital II	\$13,245,667	0.1
Shamrock Capital III	\$168,030	0.0
Shamrock Capital Growth Fund V	\$8,646,169	0.1
Sixth Street Opp Partners V	\$7,786,283	0.1
Spectrum Equity VII	\$37,848,891	0.3
Spectrum Equity Fund VIII	\$24,274,506	0.2
Spectrum Equity Fund IX	\$20,161,342	0.2
Strategic Value Spl Fund V	\$16,609,656	0.1
Summit EUR Growth Equity II	\$41,049,071	0.3
Summit EUR Growth Equity III	\$14,573,154	0.1
Summit Ventures III	\$3,667,195	0.0
Summit Ventures IV	\$52,794,382	0.4
Summit Ventures V	\$10,000,897	0.1
Thoma Bravo XI	\$31,661,841	0.3
Thoma Bravo XII	\$31,436,478	0.3
Thoma Bravo XIII	\$67,698,034	0.5
Threshold Ventures III	\$25,892,066	0.2
Threshold Ventures IV	\$3,363,062	0.0
TPG Opp Partners III	\$7,294,719	0.1
Trinity Ventures XI	\$43,964,503	0.4
Trinity Ventures XII	\$46,926,418	0.4
TSG7 A LP	\$19,104,068	0.2
TSG7 B LP	\$4,389,120	0.0
TSG8 LP	\$34,746,544	0.3
TSG9 LP	\$1,037,193	0.0
TSSP Opportunities Partners IV	\$31,392,834	0.3
Waterland V	\$1,046,993	0.0
Waterland VI	\$22,195,007	0.2
Wayzata Opportunities III	\$3,955,351	0.0
Wynnchurch Capital Partners V	\$17,059,256	0.1
Brigade Capital	\$211,528,465	1.7
Ares Capital Europe Fund V	\$31,464,423	0.3

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Athyrium Opp II	\$6,513,666	0.1
Athyrium Opp III	\$7,181,814	0.1
Benefit St Pr Sr Secure Opp	\$26,609,655	0.2
Benefit St Pr Sr Secure Opp II	\$34,473,394	0.3
IFM US Infrastructure DB FD LP	\$38,280,997	0.3
OrbiMed Royalty & Credit Opp III	\$17,127,994	0.1
Orbimed Royalty & Credit Opp IV	\$8,361,359	0.1
Shamrock Capital Debt Fund I	\$5,728,096	0.0
Silver Point Specialty Credit Fund II	\$30,643,774	0.2
Silver Point Specialty Credit Fund III	\$6,020,854	0.0
Summit Credit	\$328,258	0.0
Summit Credit II	\$11,454,978	0.1
Summit Credit III	\$16,998,727	0.1
Summit Credit IV	\$13,744,052	0.1
TCP Direct Lending VIII	\$110,768,484	0.9
Grosvenor SCARF Growth	\$8,737,921	0.1
Prudential	\$337,786,899	2.7
TCW MetWest Fixed	\$339,003,363	2.7
Brandywine US FI	\$336,949,952	2.7
Reams Core Plus FI	\$348,365,436	2.8
Neuberger Berman	\$413,756,399	3.3
Aristeia Partners LP	\$51,087,954	0.4
BlackRock Event Driven Equity Fund	\$53,783,339	0.4
Davidson Kempner Instl Partners LP	\$59,643,697	0.5
Elliott Associates	\$79,542,434	0.6
Graham Global Inv II	\$49,756,078	0.4
Grosvenor SCARF Diversifying	\$228,477,884	1.8
Laurion Capital	\$59,424,760	0.5
LMR Fund LTD	\$54,421,280	0.4
MW Global Opportunities Fund	\$57,408,748	0.5
PSquared Event Driven Opp Fund	\$52,529,222	0.4
Sculptor Domestic II	\$1,223,787	0.0
Tudor BVI Global Fund	\$49,996,075	0.4
Dedicated Cash Allocation	\$160,981,170	1.3
Brookfield Premier RE Partners	\$121,122,724	1.0

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Clarion Lion Properties	\$117,027,693	0.9
Metlife Core Property	\$81,855,133	0.7
Principal US Property	\$59,186,484	0.5
Prologis Targeted Euro Logistics	\$62,324,344	0.5
Prologis Targeted US Logistics	\$127,854,309	1.0
Townsend Real Estate	\$160,284,053	1.3
Carlyle China Realty	\$7,916,174	0.1
Carlyle China Rome Logistics	\$35,159,958	0.3
CIM Opportunity VIII	\$24,707,376	0.2
Kohlberg Kravis Roberts	\$1,586,869	0.0
Lasalle China Logistics Venture LP	\$5,756,635	0.0
NREP Nordic Strat II	\$18,620,062	0.2
NREP Nordic Strat III	\$38,277,945	0.3
NREP Nordic Strat IV	\$21,260,822	0.2
NREP Nordic Strat V	\$5,006,695	0.0
Sculptor Real Estate Fund III	\$5,253,857	0.0
Sculptor Real Estate Fund IV	\$13,573,122	0.1
Asana Partners Fund II	\$30,614,267	0.2
Asana Partners Fund III	\$9,814,995	0.1
ECE Euro Prime Shopping II	\$34,926,123	0.3
European RE Debt II	\$450,254	0.0
Hammes II	\$3,138,484	0.0
Hammes III	\$19,797,882	0.2
Seven Seas Japan Opp Fund	\$7,706,071	0.1
ACM II	\$14,324,545	0.1
ArcLight Energy VI	\$16,396,420	0.1
Brookfield Infra III	\$41,061,395	0.3
Brookfield Infra IV	\$38,422,665	0.3
Brookfield Infra Debt Fund III	\$15,722,573	0.1
Brookfield Super Core Infra	\$102,042,467	0.8
Carlyle Power II	\$45,085,278	0.4
Digital Colony Partners II	\$34,582,042	0.3
EnCap Energy IX	\$10,763,428	0.1
EnCap Energy X	\$27,448,761	0.2
EnCap Flatrock Midstream III	\$13,606,651	0.1

Total Fund
 Manager Allocation Analysis

Sacramento County Employees' Retirement System
 Period Ending: June 30, 2023

EnCap Flatrock Midstream IV	\$13,903,544	0.1
EQT Infrastructure Fund IV	\$36,563,290	0.3
First Reserve	\$11,796,127	0.1
Harrison St Social Infra Fd	\$107,346,723	0.9
IFM Global Infrastructure US LP	\$160,079,973	1.3
ISQ Global Infrastructure Fund II	\$51,546,383	0.4
ISQ Global Infrastructure Fund III	\$14,613,991	0.1
Meridiam Infra N America III	\$39,144,021	0.3
Meridiam Sa Infra Euro IV	\$5,433,798	0.0
NGP Royalty Partners	\$30,064,667	0.2
NGP Royalty Partners II	\$12,969,791	0.1
Paine Schwartz Food Chain V	\$37,560,003	0.3
Pantheon Ventures	\$36,732,320	0.3
Quantum Energy VI	\$41,114,503	0.3
Quantum Energy VII	\$39,845,429	0.3
Ridgewood Water & Strategy Infra II	\$3,279,147	0.0
Tailwater Energy IV	\$23,882,396	0.2
Tailwater Energy Fund III	\$22,000,792	0.2
Wastewater Opportunity	\$8,531,620	0.1
Brookfield Liquid Real Return	\$108,435,945	0.9
SSgA Barclays 1-10 Yrs TIPS Index	\$2,958,948	0.0
SSgA Real Asset	\$6,952,912	0.1
Cash Account	\$245,548,227	2.0
Heitman Adv JMB V	\$8,390	0.0
SSgA Overlay	\$99,825,660	0.8
Total Fund	\$12,369,738,306	100.0

Total Fund
Risk vs. Return (Gross of Fees)

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	9.6 (26)	8.4 (20)	1.0 (16)	0.3 (26)	3.1 (38)
<i>Policy Index</i>	8.5 (52)	8.2 (14)	0.9 (25)	-	0.0
Total Fund ex Overlay	9.8 (22)	8.0 (13)	1.0 (12)	0.3 (26)	3.2 (40)
<i>Policy Index</i>	8.5 (52)	8.2 (14)	0.9 (25)	-	0.0

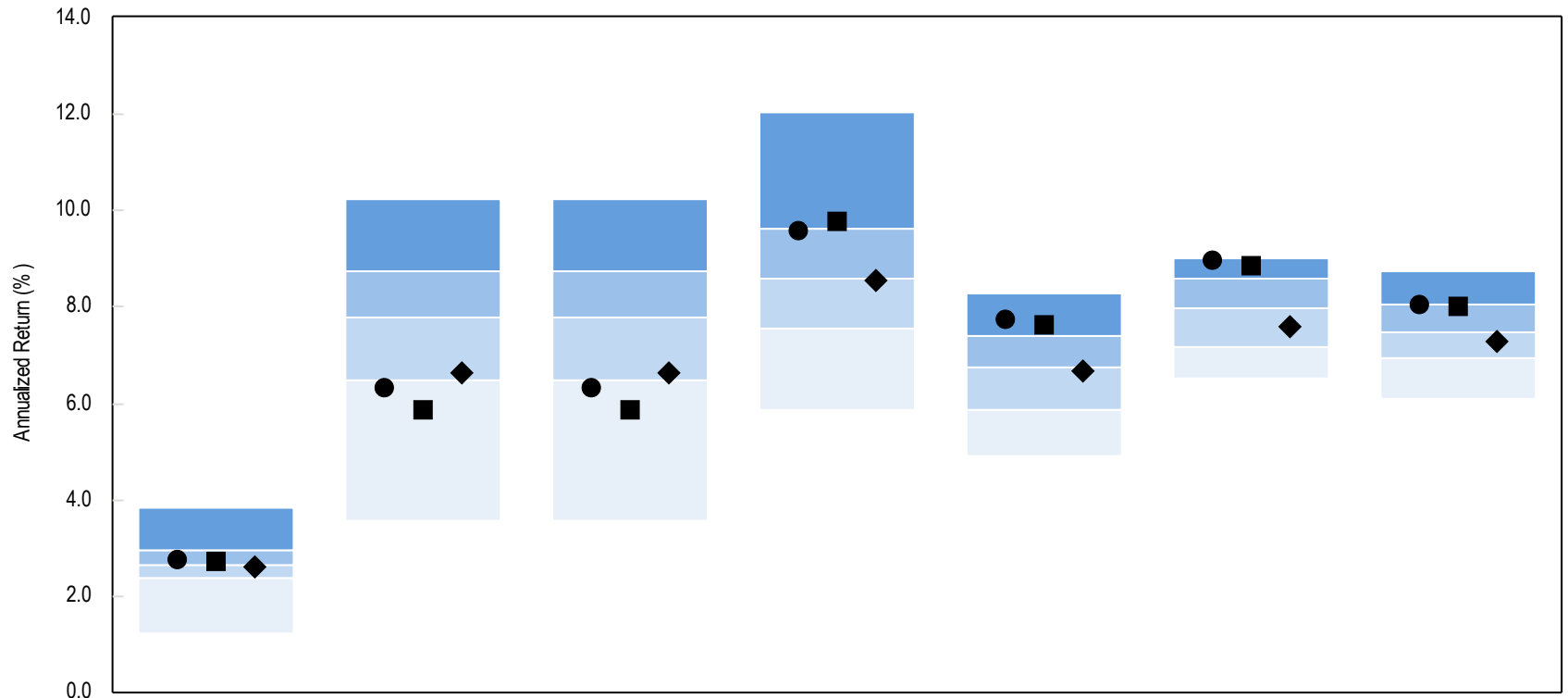
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	7.8 (16)	8.6 (10)	0.7 (11)	0.4 (13)	2.8 (20)
<i>Policy Index</i>	6.7 (58)	8.3 (6)	0.6 (25)	-	0.0
Total Fund ex Overlay	7.6 (21)	8.3 (6)	0.7 (10)	0.3 (22)	2.9 (25)
<i>Policy Index</i>	6.7 (58)	8.3 (6)	0.6 (25)	-	0.0

Total Fund
Peer Universe Comparison

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

InvMetrics Public DB > \$1B Gross Return Comparison

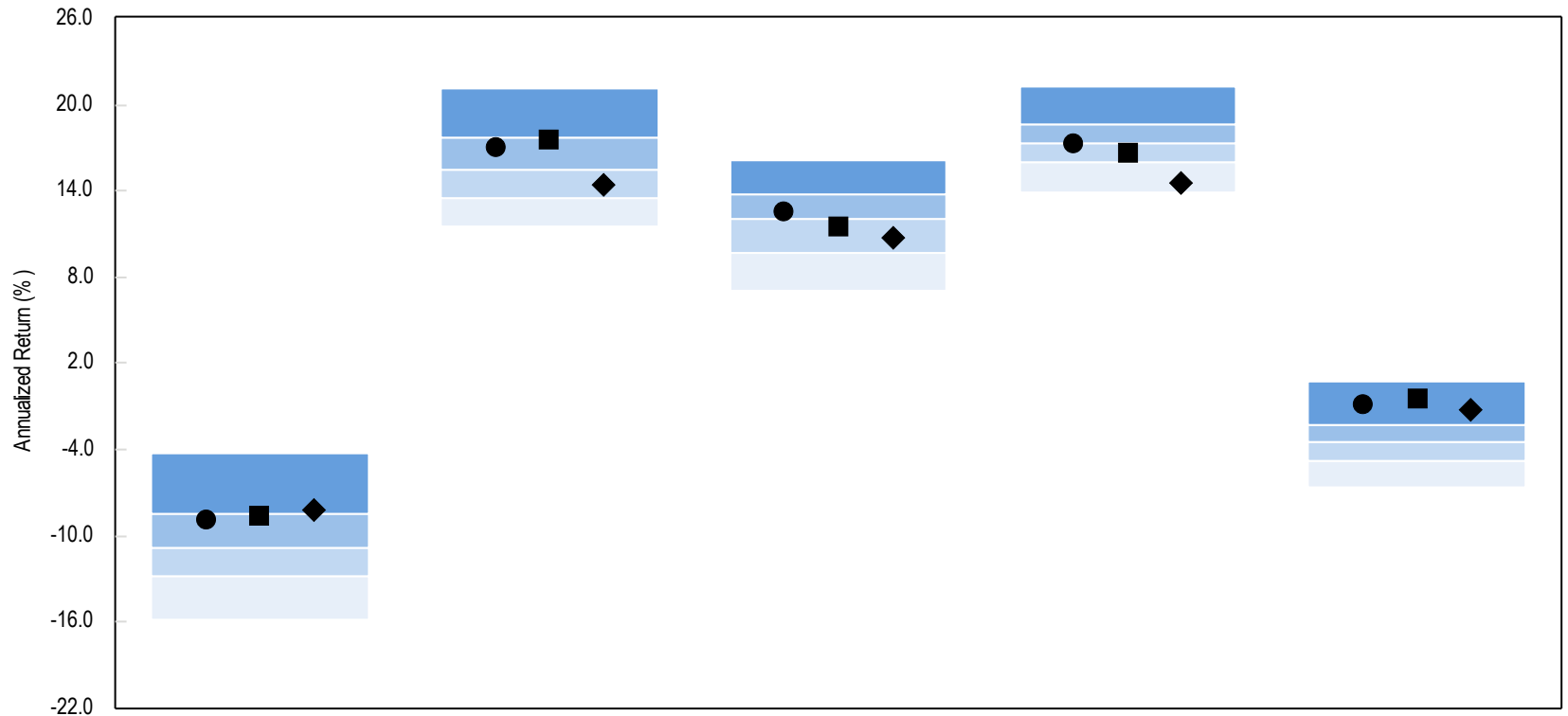


	Period						
	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Total Fund	2.8 (39)	6.3 (77)	6.3 (77)	9.6 (26)	7.8 (16)	9.0 (6)	8.0 (26)
■ Total Fund ex Overlay	2.7 (41)	5.9 (85)	5.9 (85)	9.8 (22)	7.6 (21)	8.9 (9)	8.0 (28)
◆ Policy Index	2.6 (54)	6.6 (74)	6.6 (74)	8.5 (52)	6.7 (58)	7.6 (56)	7.3 (59)
5th Percentile	3.8	10.2	10.2	12.1	8.3	9.0	8.7
1st Quartile	3.0	8.8	8.8	9.6	7.4	8.6	8.0
Median	2.7	7.8	7.8	8.6	6.7	8.0	7.5
3rd Quartile	2.4	6.5	6.5	7.6	5.9	7.2	6.9
95th Percentile	1.2	3.6	3.6	5.9	4.9	6.5	6.1
Population	45	43	43	40	40	40	37

Total Fund
Peer Universe Comparison

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

InvMetrics Public DB > \$1B Gross Return Comparison

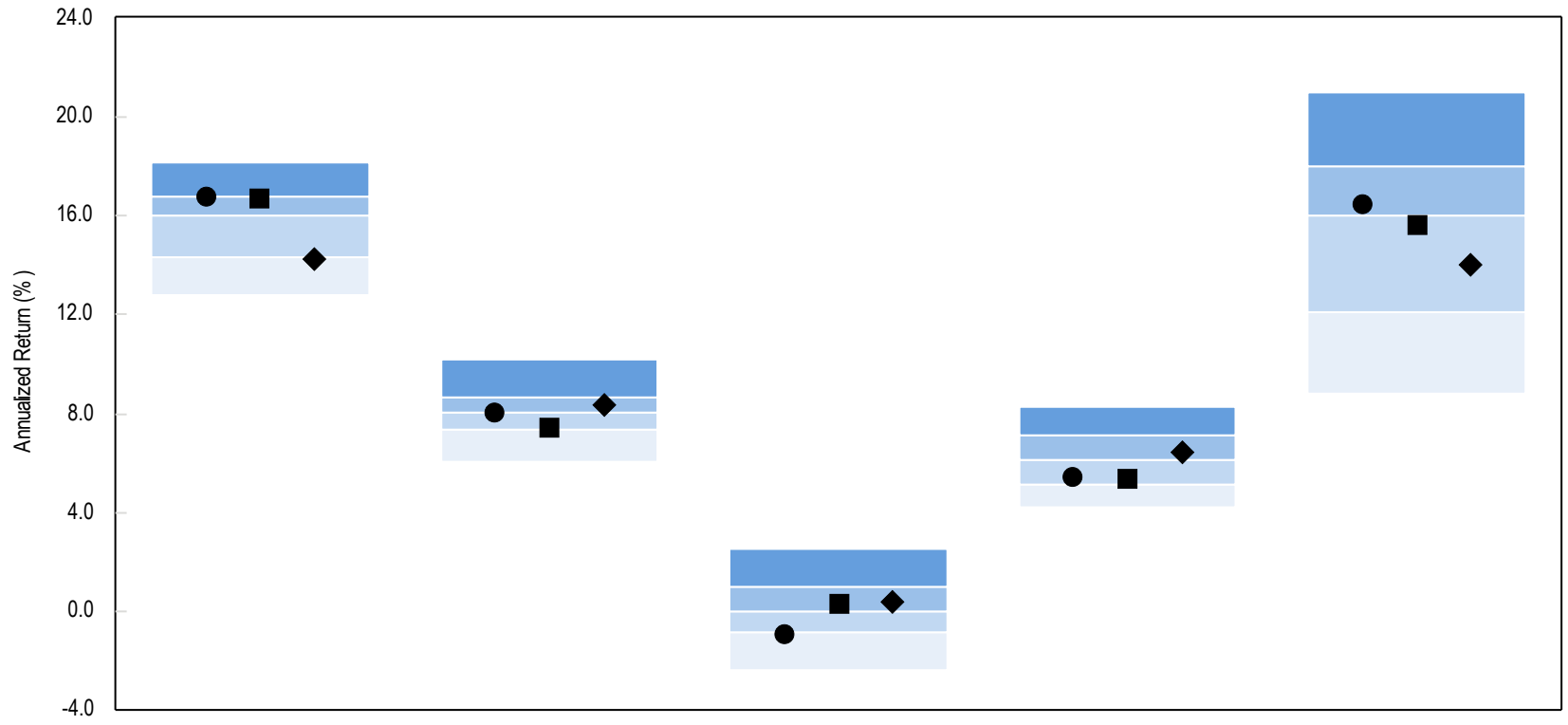


	Period				
	2022	2021	2020	2019	2018
● Total Fund	-8.9 (30)	17.1 (34)	12.6 (40)	17.3 (52)	-0.8 (10)
■ Total Fund ex Overlay	-8.5 (26)	17.6 (26)	11.5 (56)	16.6 (64)	-0.4 (7)
◆ Policy Index	-8.1 (24)	14.4 (63)	10.8 (65)	14.5 (92)	-1.3 (11)
5th Percentile	-4.2	21.1	16.1	21.3	0.7
1st Quartile	-8.5	17.7	13.7	18.7	-2.2
Median	-10.8	15.5	12.1	17.3	-3.4
3rd Quartile	-12.8	13.5	9.6	16.0	-4.8
95th Percentile	-15.8	11.5	7.0	13.9	-6.6
Population	120	153	166	129	110

Total Fund
Peer Universe Comparison

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

InvMetrics Public DB > \$1B Gross Return Comparison



Period

	2017	2016	2015	2014	2013
● Total Fund	16.8 (29)	8.0 (55)	-0.9 (80)	5.5 (65)	16.5 (44)
■ Total Fund ex Overlay	16.7 (31)	7.5 (72)	0.3 (43)	5.3 (70)	15.6 (54)
◆ Policy Index	14.2 (79)	8.4 (34)	0.4 (41)	6.4 (45)	14.0 (70)
5th Percentile	18.1	10.2	2.5	8.3	21.0
1st Quartile	16.8	8.6	1.0	7.1	18.0
Median	16.0	8.1	0.0	6.1	16.0
3rd Quartile	14.4	7.4	-0.9	5.1	12.1
95th Percentile	12.8	6.0	-2.4	4.2	8.8
Population	120	124	120	118	108

Sacramento County Employees' Retirement System
Period Ending: June 30, 2023

Policy Index and Benchmark History

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		20.0%	20.0%	20.0%	22.5%	22.5%	20.0%				
MSCI ACWI IMI	40.0%										
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	5.4%	4.6%	4.6%								
NFI-ODCE net +1% 1Q Lag	3.6%	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%	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%									
Secured Overnight Financing Rate	1.0%										
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Policy Index and Benchmark History

Sacramento County Employees' Retirement System Period Ending: June 30, 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	6.90%			
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%	100.0%

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%

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	50.00%	40.00%	40.00%
Bloomberg US Treasury	16.67%	20.00%	20.00%
FTSE WGBI ex US Unhedged		9.60%	9.60%
HFRI FoF Conservative Index	29.17%	28.00%	
JPM GBI EM Diversified		2.40%	2.40%
Secured Overnight Financing Rate	4.16%		
	100.0%	100.0%	100.0%

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: June 30, 2023

RE-Value Added Benchmark	As of:		
	7/1/16	10/1/08	
NCREIF +2% 1Q Lag	100.0%	100.0%	
	100.0%	100.0%	

Private Real Assets Benchmark	As of:		
	4/1/22	7/1/17	4/1/17
			100.0%
Cambridge Associates Private Energy 1 Qtr Lag	30.0%	35.0%	
	60.0%	45.0%	
NCREIF Farmland 1 Qtr Lag	10.0%	10.0%	
		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%	
	10.0%	
S&P Global LargeMidCap Commodity and Resources	10.0%	
	25.0%	
Bloomberg U.S. Government Inflation-Linked 1-10 Yrs	30.0%	
	15.0%	
	100.0%	

Cash Benchmark	As of:	
	4/1/22	7/1/92
91 Day T-Bills		100.0%
	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 Account 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: $\text{Portfolio Return} - [\text{Risk-free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk-free Rate})]$.

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: $\text{excess return} / \text{tracking error}$.

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: $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$.

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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