Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: MARCH 31, 2024

Investment Performance Review for

Sacramento County Employees' Retirement System

Verus
PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS
2ND QUARTER 2024
Investment Landscape

Verus business update

Since our last Investment Landscape webinar:

- Verus hired Joe Ratliffe as a Performance Analyst in our Los Angeles office
- Brent Nelson, Managing Director | Senior Consultant, received the 2023 Verus North Star Award for championing client success
- Verus will be partnering with Rainier Scholars for a 2024 Summer internship in our Seattle office
- Recent research, found at *verusinvestments.com/research:*
  - ***Market concentration & equal weighted indexing***
  - ***Ten thoughts for 2024***
  - ***What are continuation funds?***

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Recent Verus research

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Topics of interest

TEN THOUGHTS FOR 2024

Every January we write a list of 10 things we expect to be important in the coming year. Many firms do this—we do something unusual, which is mark ourselves on the success or failure of the previous year's predictions. Some years we do well in our predictions, some years less well, but we find the self-enforced humility worthwhile when taking on the task of forecasting. This year is no different. We can look back with some pleasure: in a year where many forecasts went awry, five of our ten forecasts can be counted as a success, with two more a partial success, and three misses.

Other thought leadership

WHAT ARE CONTINUATION FUNDS?

Continuation funds are an innovative financial tool that have been transforming the landscape of private equity. But this new opportunity leaves many investors wondering: What are they? Who can invest in them? What are the risks? Our video explores this concept and how Verus recommends to assess them.

MARKET CONCENTRATION & EQUAL-WEIGHTED INDEXING

Equal-weighted indexing presents an intriguing proposition to the issue of market concentration often seen in market cap-weighted indexes, such as the S&P 500. However, a closer look shows that this approach has failed to deliver on many of the qualities that investors may be seeking. This video provides a look into the equal-weighted index strategy and examines its track record from a few vital angles.

1st quarter summary

THE ECONOMIC CLIMATE

— Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures. Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell. ***p. 8***

— The U.S. job market has been incredibly resilient, with unemployment rising slightly from 3.7% to 3.8% but labor participation improving from 62.5% to 62.7%. Some economists and investors have begun to partially attribute surprisingly strong labor conditions to substantial immigration (both legal and illegal) in recent years. ***p. 14***

PORTFOLIO IMPACTS

— The 10-year U.S. Treasury yield rose 32 basis points to 4.20% during Q1 on broad acknowledgment that disinflation trends have stalled and that the Federal Reserve may not cut rates in 2024 as significantly as markets had hoped for. ***p. 21***

— Market-priced volatility (Cboe VIX Index) remained incredibly low during the quarter, ending at 13.0 in March. Historically, market volatility of this level has coincided with strong upward trending risk markets and investor enthusiasm. ***p. 33***

THE INVESTMENT CLIMATE

— Equity markets delivered another quarter of large gains—much of the performance fueled by richer valuations rather than fundamentals. Credit spreads declined further to very low levels, leading to moderate returns for higher risk credit. Many markets appear to be priced to perfection as recession fears subside. ***p. 45***

— U.S. inflation increased in Q1, following a handful of hotter-than-expected inflation and jobs reports. Headline inflation increased from 3.3% to 3.5% year-over-year in March, while core CPI (ex-food & energy) declined slightly from 3.9% to 3.8%. It now seems more likely that inflation ends this year closer to, or above, 3% rather than 2%. ***p. 10***

ASSET ALLOCATION ISSUES

— U.S. equities (S&P 500 +10.6%) once again outpaced international developed equities (MSCI EAFE +5.8%) and emerging market equities (MSCI EM +2.4%) during the quarter. The domestic market has also delivered outperformance over the past year, fueled by the artificial intelligence boom. Telecom (+49.8%) and Technology (+46.0%) saw the biggest gains across the S&P 500. ***p. 28***

— Style factor investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). Mega cap companies continue to dominate large cap index performance and affect style behavior. ***p. 29***

Equity markets delivered another large rally in Q1, while credit showed mildly positive returns

Stubborn inflation and fewer Fed interest rate cuts seem likely for 2024

What drove the market in Q1?

"U.S. Consumer Prices Heat Up in March; Seen Delaying Fed Rate Cut"

FED FUNDS FUTURES IMPLIED RATES: END OF 2024

Jan 15th	Jan 31st	Feb 15th	Feb 29th	Mar 15th	Mar 31st
3.76%	3.86%	4.37%	4.48%	4.61%	4.66%

Article Source: Reuters, April 10th, 2024

"Resilient U.S. Boosts IMF Forecast for Global Economic Growth"

IMF WORLD ECONOMIC OUTLOOK 2024 GLOBAL GDP FORECAST

Jan 23	April 23	July 23	Oct 23	Jan 24	April 24
3.1%	3.0%	3.0%	2.9%	3.1%	3.2%

Article Source: U.S. News & World Report, January 30th, 2024

"A Persistently Strong Labor Market Delivers Economic Stability"

NONFARM PAYROLL GROWTH

Oct	Nov	Dec	Jan	Feb	Mar
165k	182k	290k	256k	270k	303k

Article Source: Forbes, January 27th, 2024

"Earnings, Big Tech Gave Investors Reasons to Buy U.S. Stocks"

S&P 500 YEAR-OVER-YEAR EARNINGS GROWTH (DECLINE)

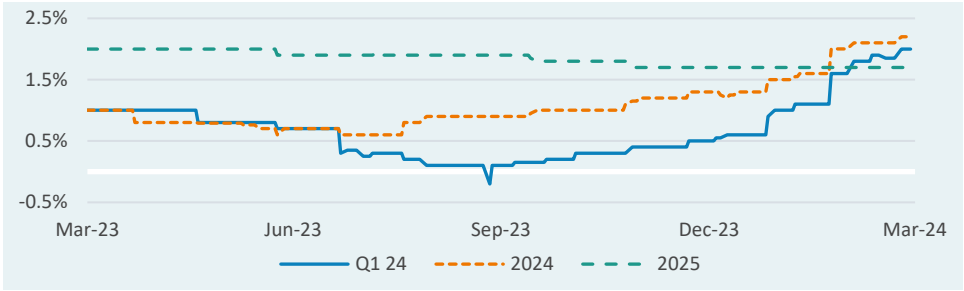
Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
2.3%	-4.7%	-1.7%	-4.2%	4.9%	4.2%

Article Source: Bloomberg, March 2nd, 2024

CPI COMPONENT: SHELTER (YEAR-OVER-YEAR)

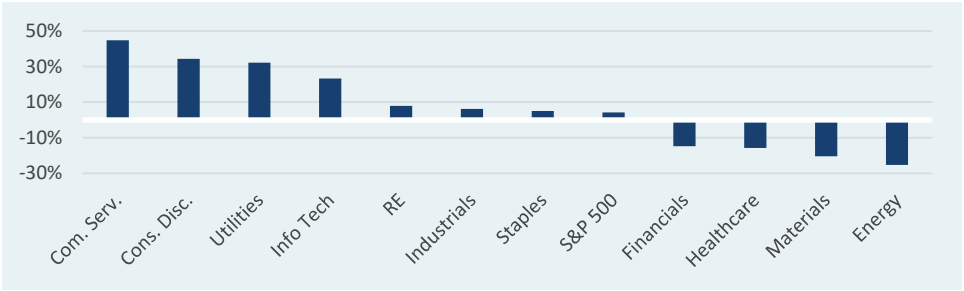
Source: BLS, as of 3/31/24

U.S. GDP FORECASTS



Source: Bloomberg, as of 3/31/24

Q4 2023 U.S. SECTOR EARNINGS GROWTH (YEAR-OVER-YEAR)



Source: FactSet, as of 3/31/24

Economic environment

U.S. economics summary

— Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures. Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell.

— U.S. inflation increased in Q1, following a handful of hotter-than-expected inflation and jobs reports. Headline inflation increased from 3.3% to 3.5% year-over-year in March, while core CPI (ex-food & energy) declined slightly from 3.9% to 3.8%. It seems more likely that inflation ends this year closer to, or above, 3% rather than 2%.

— Inflation adjusted consumer spending has remained moderate, at 2.4% YoY in February. Purchases of services have materially outpaced purchases of goods in recent years, a reversal of the historically unprecedented boom in goods purchases that occurred during the pandemic.

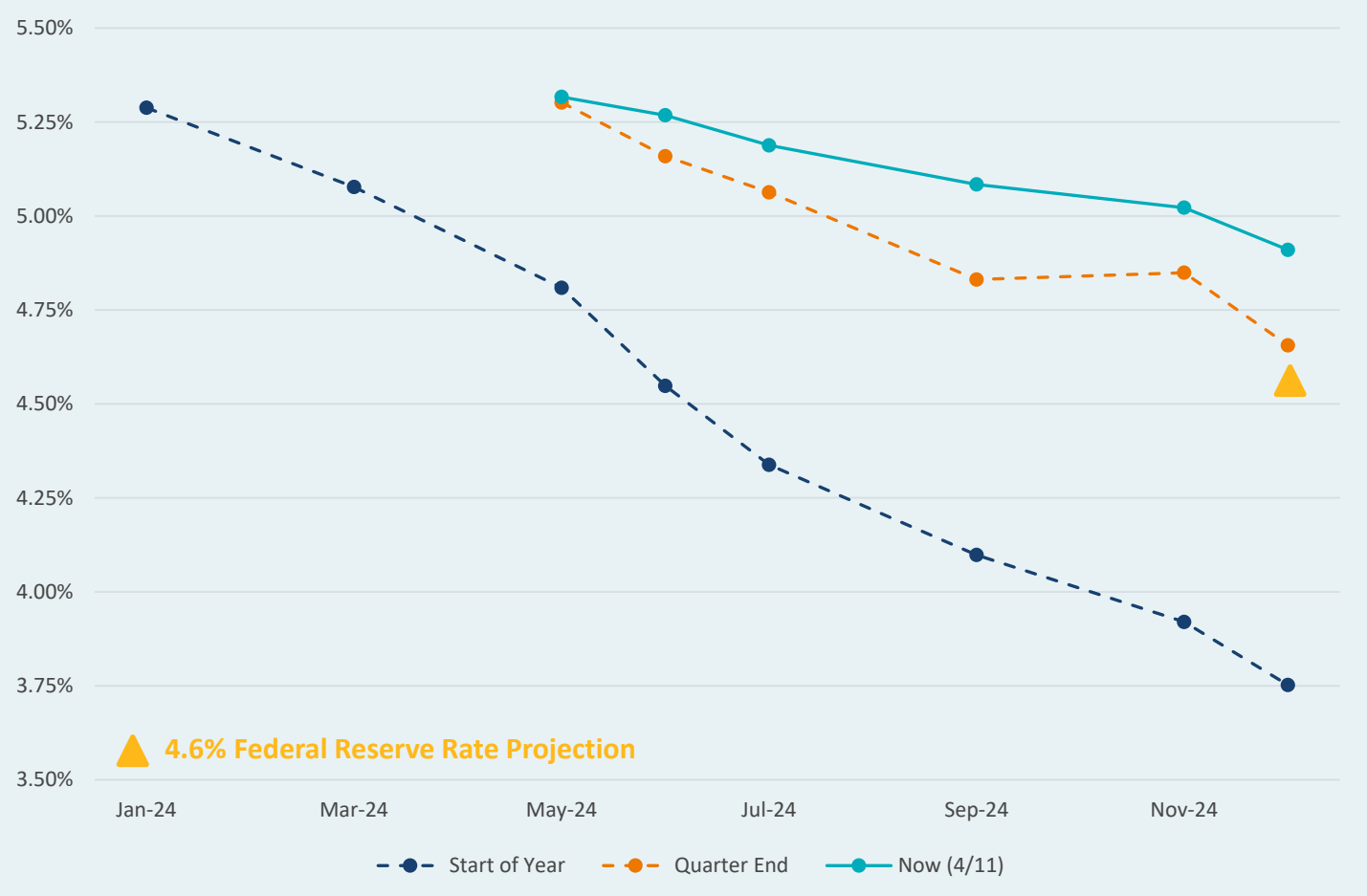
— Employment has been incredibly resilient. Unemployment was stable during Q1, while labor participation increased. Some economists and investors have partially attributed labor market gains to substantial immigration (both legal and illegal) in recent years—with millions of immigrants being of working age and seeking work. Given the level of immigration, we expect official labor data has been, and will continue to be, meaningfully impacted.

— Consumer sentiment has jumped significantly on better financial situations of households, expectations that inflation will further ease, and a steadying economy. At the same time, The NFIB Small Business Optimism index deteriorated to the weakest level since 2012. Inflation remains a top concern, and business owners indicated they could not find qualified candidates to fill job openings.

	Most Recent	12 Months Prior
Real GDP *(YoY)*	3.0% *3/31/24*	1.7% *3/31/23*
Inflation *(CPI YoY, Core)*	3.8% *3/31/24*	5.6% *3/31/23*
Expected Inflation *(5yr-5yr forward)*	2.3% *3/31/24*	2.2% *3/31/23*
Fed Funds Target Range	5.25–5.50% *3/31/24*	4.75–5.00% *3/31/23*
10-Year Rate	4.20% *3/31/24*	3.47% *3/31/23*
U-3 Unemployment	3.8% *3/31/24*	3.5% *3/31/23*
U-6 Unemployment	7.3% *3/31/24*	6.7% *3/31/23*

Federal Reserve policy

FED FUNDS FUTURES IMPLIED 2024 RATE PATH



Markets started the year pricing in six rate cuts by the end of 2024

Implied pricing now indicates expectations for just two rate cuts, a tighter path relative to the three forecasted rate cuts projected in the Federal Reserve's Summary of Economic Projections

Source: Bloomberg, as of 4/11/24

Inflation

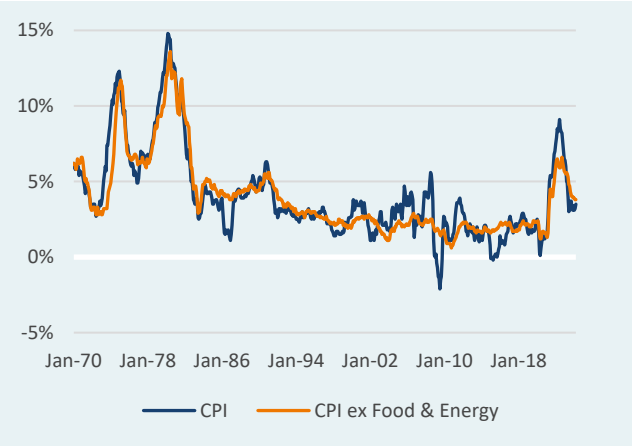
U.S. inflation increased in Q1, following a handful of hotter-than-expected inflation and jobs reports. Headline inflation increased from 3.3% to 3.5% year-over-year in March, while core CPI (ex-food & energy) declined slightly from 3.9% to 3.8%. It seems more likely that inflation ends this year closer to, or above, 3% rather than 2%. Certain goods and services have further moderated in price growth, such as Used Vehicles and Food, while other price trends remain hot such as Housing and Auto Insurance.

The outsized impact of Shelter—which makes up more than a third of the entire CPI basket—remains a major force keeping inflation elevated. While shelter prices reported by the Bureau of Labor Statistics have moved closer to real-time price gauges, March's 0.4% month-over-month increase still reflected an annualized rate of nearly 5%.

Inflation appears to be flattening out rather than continuing lower towards the Federal Reserve 2% target, which has been a catalyst for changing monetary policy expectations. Stubborn inflation combined with strong labor and other economic activity provides little incentive for the Federal Reserve to ease rates. At the beginning of the year the market expected six rate cuts in 2024. That has since fallen to two cuts.

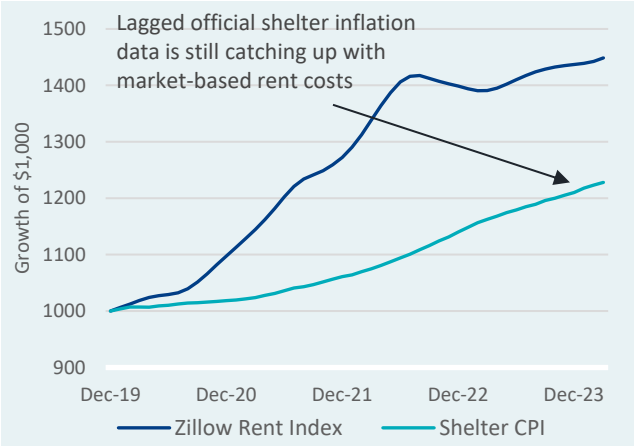
Q1 inflation remains above the Fed's target, affecting market expectations for a "higher for longer" rate environment

U.S. CPI (YOY)



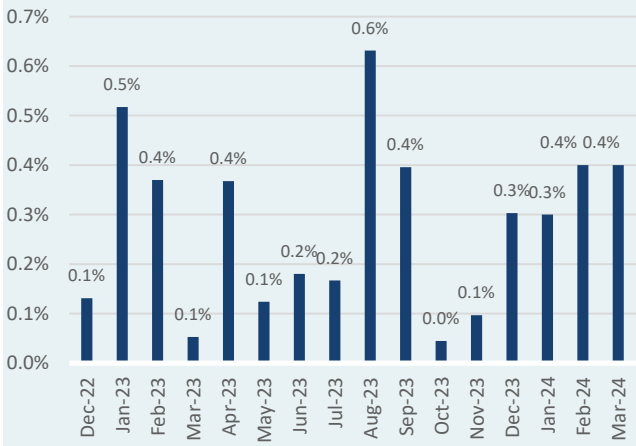
Source: BLS, as of 3/31/24

ZILLOW OBSERVED RENT VS. SHELTER CPI



Source: Zillow Observed Rent Index, FRED, of 3/31/24

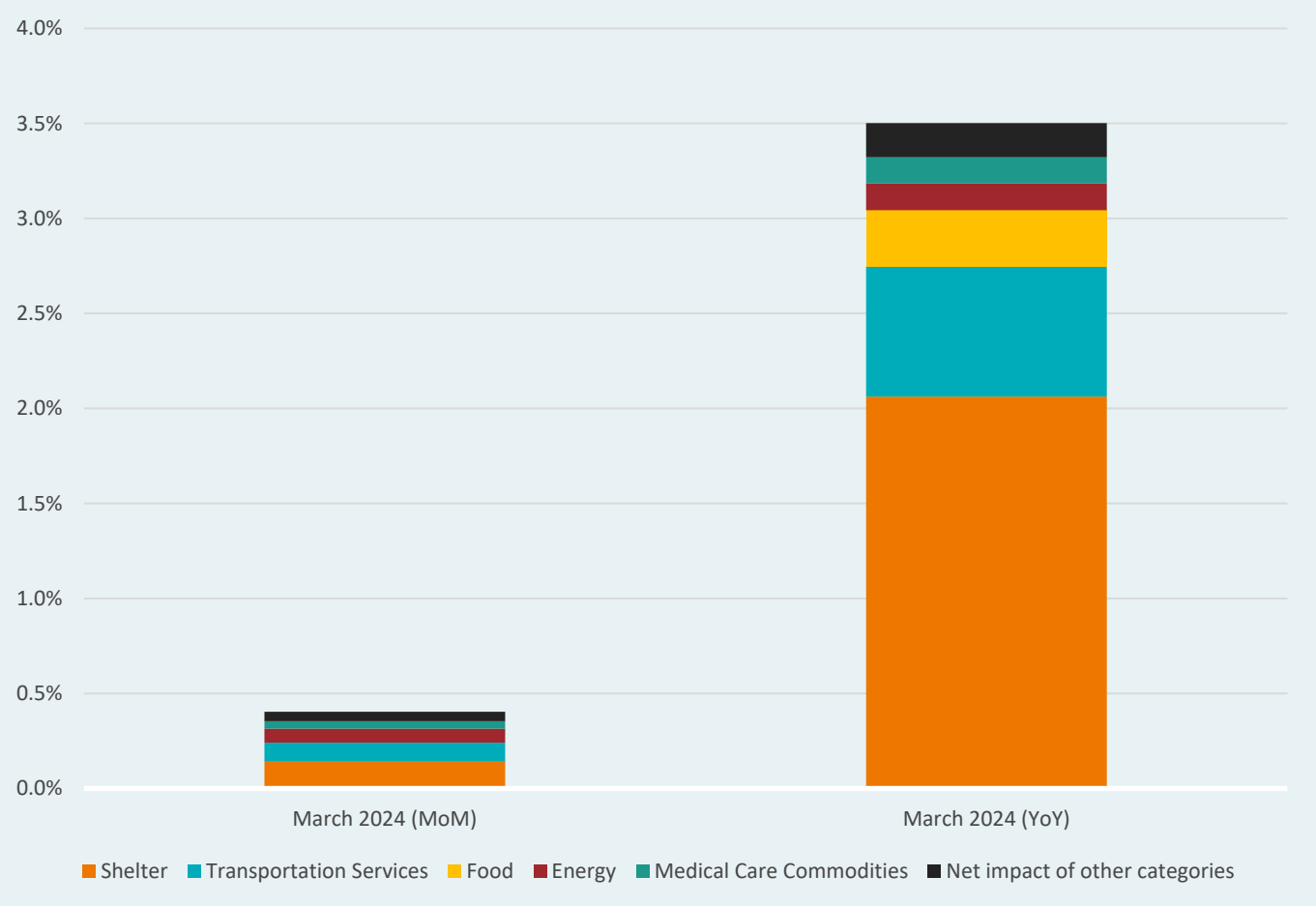
MONTHLY PRICE MOVEMENT (CPI)



Source: BLS, as of 3/31/24

Inflation: shelter's outsized impact

CONTRIBUTION TO MARCH 2024 CPI



Shelter's contribution to inflation remains outsized, making up more than two-percent of the 3.5% year-over-year headline print

Amongst services, transportation costs have materially increased from the past year, notably amongst motor vehicle insurance (+22.2%) and maintenance and repair (+8.2%)

Source: BLS, as of 3/31/24.

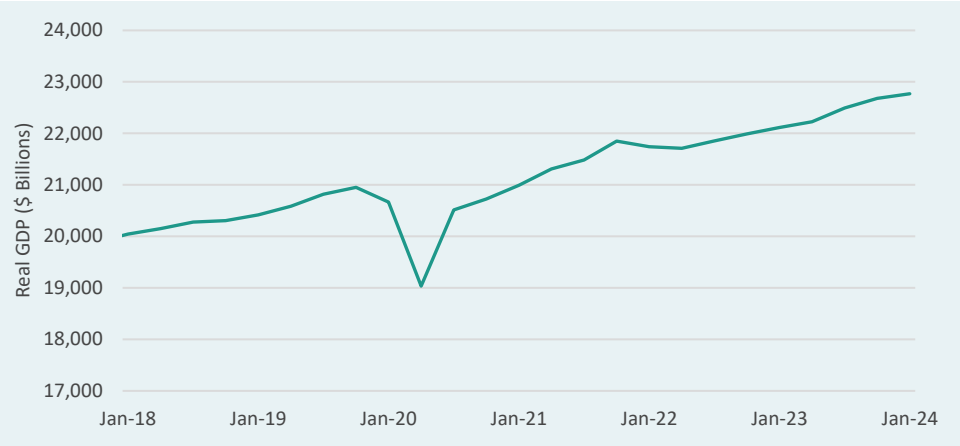
GDP growth

Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures. Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell.

Slower economic growth in the first quarter appears to have been mostly driven by weakness in exports and imports, as well as a moderation in government spending. Other aspects of the economy such as consumer spending and investment have slowed in recent quarters but growth remains moderately positive, as high inflation and weaker wage gains have not yet obviously resulted in a decline in spending. The first quarter GDP print marked the first instance of weak economic data after a seemingly months-long series of strong releases, from employment, to consumer sentiment, to spending. This was an abrupt change in direction of the data, and it will be important for investors to monitor whether it marks a true change in trend or is simply a bump in the road with further U.S. strength ahead.

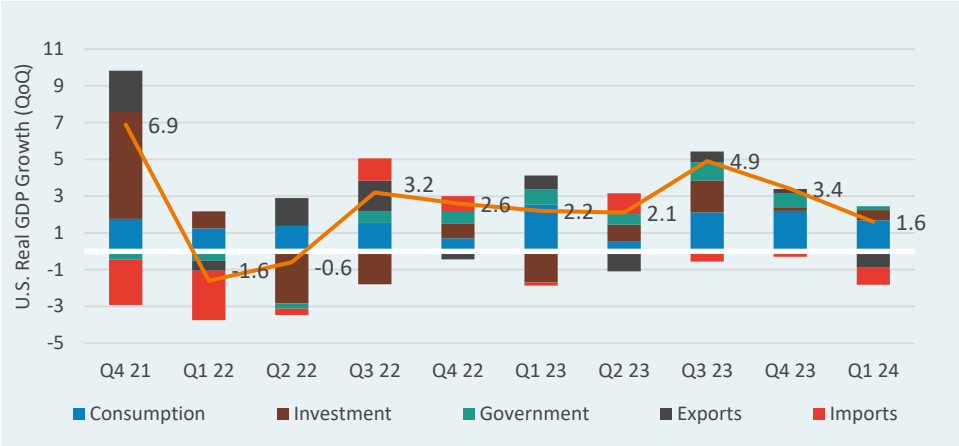
U.S. growth slowed a bit in Q1 but continues to show resilience despite aggressive monetary tightening

U.S. REAL GROSS DOMESTIC PRODUCT



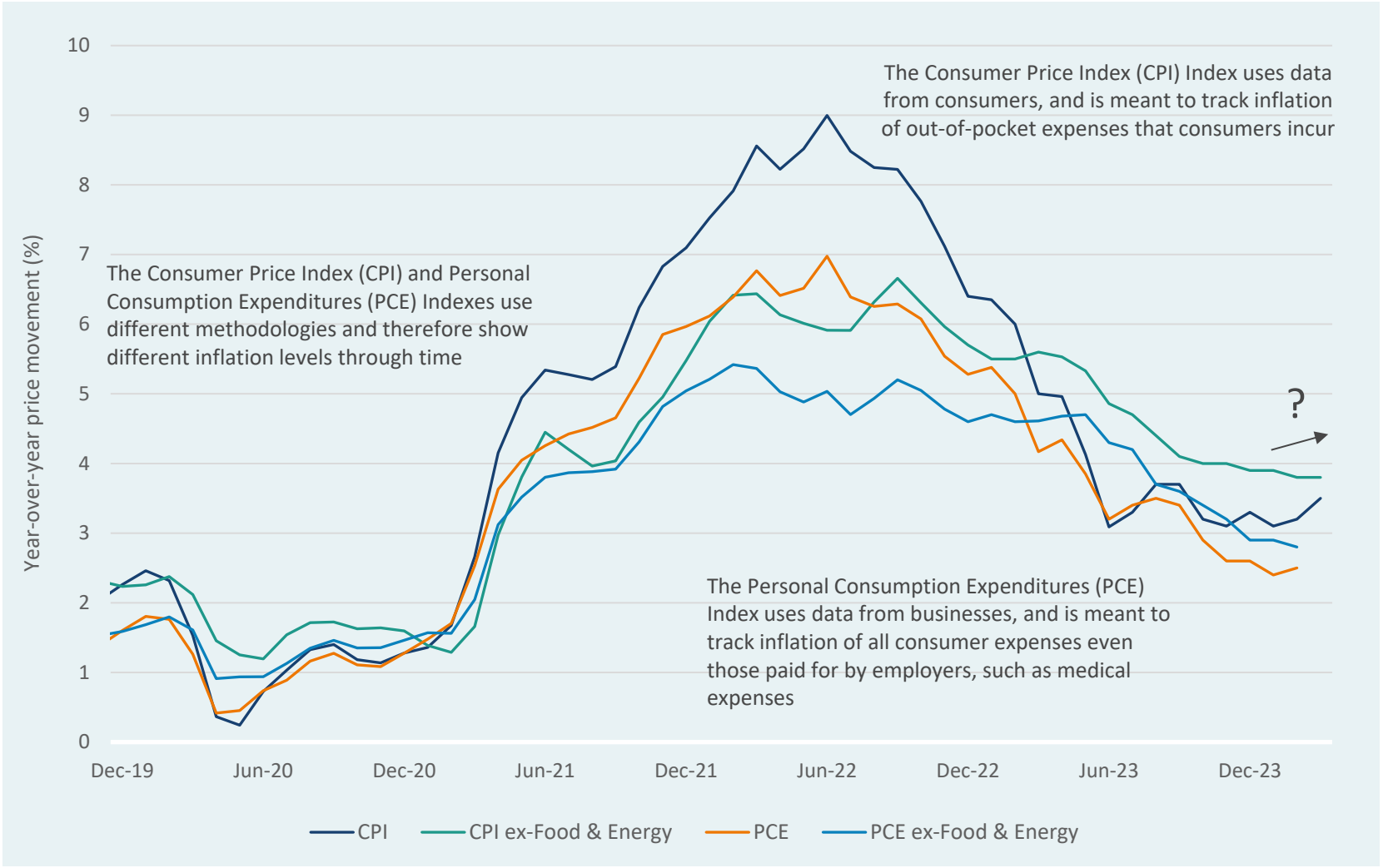
Source: FRED, as of 3/31/24

U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 3/31/24

How are inflation conditions evolving?



Recent hot inflation numbers have created concerns that inflation may be stabilizing at a higher level than what is required for interest rate cuts to occur

Source: FRED, Verus, PCE data as of 3/31/24, CPI data as of 2/29/24

Labor market

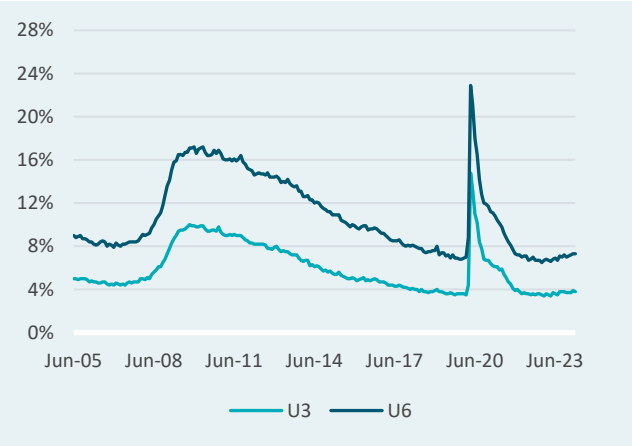
The unemployment rate was fairly stable during the quarter, rising slightly from 3.7% to 3.8%. Meanwhile, labor participation improved from 62.5% to 62.7%.

The U.S. job market has been incredibly resilient in the face of higher interest rates, and ongoing employment data releases continue to show outsized labor market gains. Some economists and investors have begun to partially attribute the record labor market gains to substantial immigration (both legal and illegal) into the country in recent years—with millions of immigrants being of working age and seeking employment. Given total immigration estimates, we would expect that official jobs data, which is based on both phone surveys and also on employer payroll figures, to be meaningfully impacted.

Rebalancing within the labor market continued. The mismatch between the number of *workers available* and the number of *available jobs* was greater than 6 million in early 2022. Nearly two-thirds of that gap has now closed, with steady improvement over the past year.

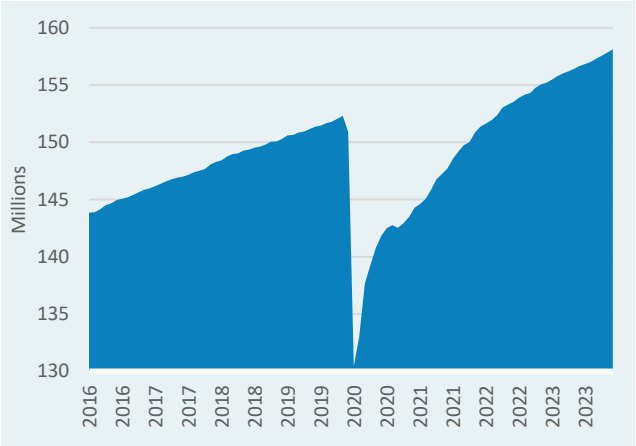
A substantial rise in different types of immigration over recent years may partially describe strong labor data

U.S. UNEMPLOYMENT



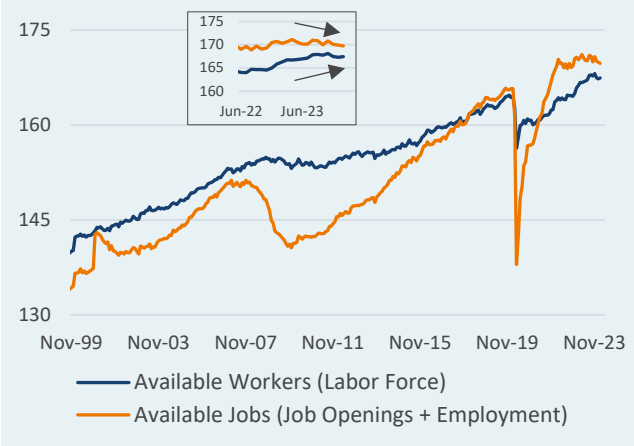
Source: FRED, as of 3/31/24

TOTAL U.S. EMPLOYMENT



Source: FRED, as of 3/31/24

WORKERS AVAILABLE VS. AVAILABLE JOBS



Source: BLS, Verus, as of 2/29/24

The consumer

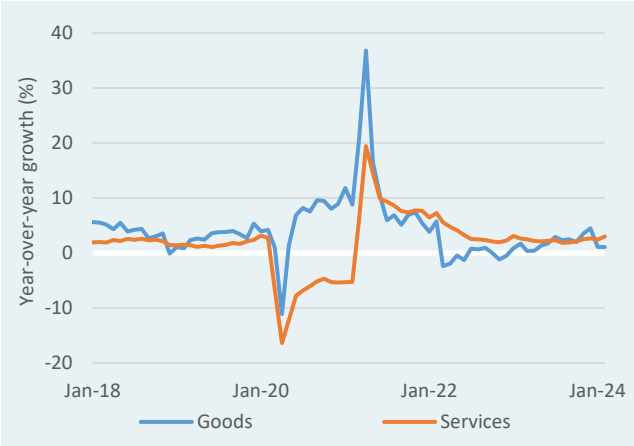
Inflation adjusted spending has remained moderate, at 2.4% year-over-year in February. Purchases of services have materially outpaced purchases of goods in recent years in terms of growth, since the historically unprecedented boom in goods purchases that occurred during the pandemic. We believe that extreme surge in goods purchases effectively *pulled forward* these purchases from future years, such as in home sales activity, home improvement projects, and recreational vehicle sales, which has led to the recent lull.

Personal savings rates had been improving through mid-2023 but have since fallen back to extremely low levels. The reason for this trend is unclear, though it coincides with a notable improvement in consumer sentiment, which suggests lower savings rates for some households might reflect an improved outlook for the economy and personal finances. However, high prices and cost of living is likely a greater contributing factor. Overall, Americans continue to spend rather freely despite higher costs of goods and services taking up a greater portion of take-home income. This includes nonessential spending such as for travel.

REAL PERSONAL SPENDING

Source: FRED, as of 2/29/24

GOODS VS. SERVICES SPENDING (REAL)



Source: FRED, as of 2/29/24

PERSONAL SAVINGS RATE

Source: FRED, as of 2/29/24

Sentiment

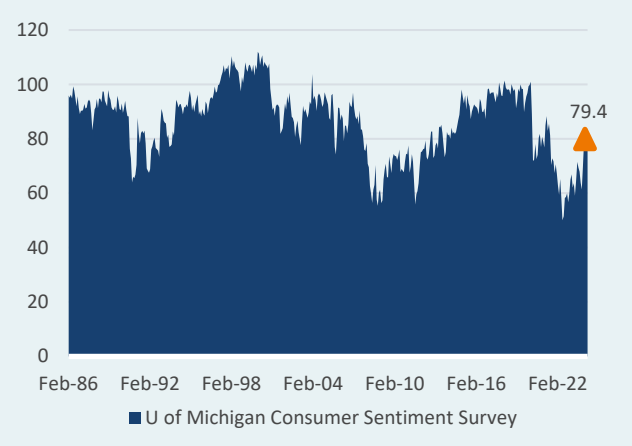
Consumer sentiment has seen significant improvement over the past year. The University of Michigan Consumer Sentiment survey bounced from 69.7 to 79.4 in Q1 on better financial positions of U.S. households, expectations that inflation will continue to ease, and impressions that the economy has achieved a "steady state".

Although the domestic annual inflation rate is now closer to the longer-term average, sentiment surveys continue to reflect discontent with high costs of living. As we have discussed in recent quarters, this effect might be termed the "lower inflation conundrum". As prices of many goods and services jumped significantly higher during and after the pandemic, the wages of the average worker did not keep up in many respects. Although price *movement* (official inflation numbers) has come down recently, high prices persist and remain a thorn in household budgets, savings levels, and the overall financial security of Americans. This is reflected in sentiment survey responses.

The NFIB Small Business Optimism index has deteriorated to the weakest level since 2012. Inflation has been reported as a top business concern, and 37% of business owners indicated they could not find qualified candidates to fill job openings, overall reflecting a poor business climate.

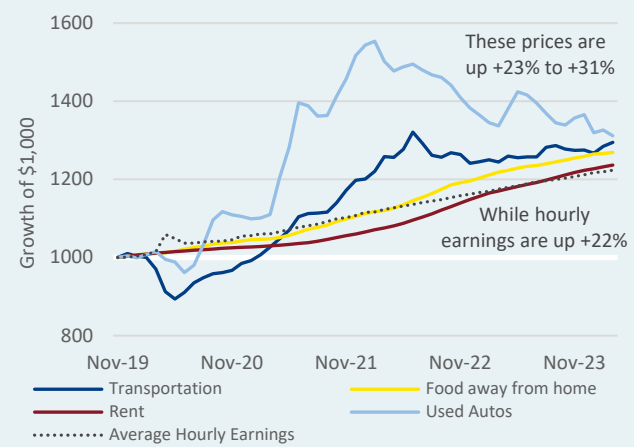
Consumer sentiment improved during Q1, while small business optimism dropped to the weakest level since 2012

CONSUMER SENTIMENT



Source: University of Michigan, as of 3/31/24

HOUSEHOLDS STILL FEELING THE SQUEEZE



Source: FRED, Verus, as of 3/31/24

NFIB SMALL BUSINESS SENTIMENT

Source: NFIB, as of 3/31/24

Housing

Domestic housing market activity picked up in Q1. Existing home sales increased 10% quarter-over-quarter, and the number of homes listed for sale rose by a similar magnitude. According to Redfin, the median home sales price was up +5.3% in March from the prior year. After an extended period of high mortgage rates and difficult affordability, it is possible that many sellers and buyers are accepting market conditions and choosing to no longer wait on the sidelines.

Housing affordability improved slightly but remains extremely poor, with the 30-year average fixed mortgage rate jumping slightly from 6.6% to 6.8%. Prospects for lower interest rates and therefore better affordability have diminished as investors expect fewer upcoming rate cuts from the Federal Reserve, though a rebound in home sales activity may suggest that the market has stabilized. Real estate markets can stay out of balance in terms of affordability for very long periods of time. A path to affordability in the current environment is not yet clear, as interest rates will most likely stay high, and homeowners are not willing to, and seemingly do not need to, adjust their selling prices downwards.

Mortgage delinquency levels of single-family homeowners remain muted, at 1.69% as of Q4. This compares to 2.34% in Q4 of 2019 prior to the onset of the pandemic. Conditions have been supported by steadily increasing home prices that have led to robust home equity balances, as well as ultra-low interest rates following COVID-19 which allowed for attractive refinancing opportunities and lower monthly payments.

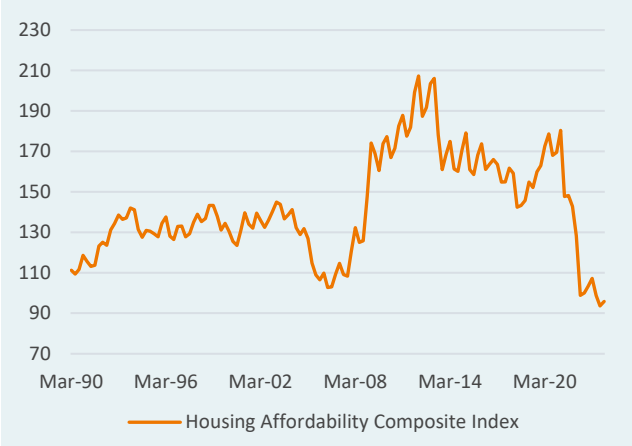
30-YEAR MORTGAGE RATE (%)

Source: Freddie Mac, as of 3/31/24

EXISTING HOME SALES

Source: FRED, as of 2/28/24

HOUSING AFFORDABILITY



Source: FRED, as of 12/31/23 – Housing affordability is calculated as the cost of a median priced single-family home at the current mortgage rate, as a percentage of the median family income

International economics summary

— The broad global narrative remains similar to last quarter, as global metrics paint a picture of slowing yet resilient economic growth. While a hotter March inflation print in the U.S. changed expectations around the policy path of the Federal Reserve, inflation in international developed economies has shown greater signs of moderation, putting central banks such as the European Central Bank and Bank of England on a path to policy easing.

— Developed economies continue to juggle economic growth and inflation. Price pressures have shown signs of easing across the Eurozone and U.K., with inflation sitting at 2.4% and 3.2%, respectively. Despite inflation moderation, conditions remain weak across the Eurozone, with GDP nearly flat on a year-over-year basis and unemployment elevated at 6.5%.

— In Japan, growth conditions also remain shaky, as the country nearly avoided a technical recession following an upward revised GDP release. While the BOJ formally ended its zero-interest rate policy, the Japanese Yen weakened further against the U.S. dollar after unclear guidance from the BOJ and expectations for higher U.S. interest rates. The Japanese economic story remains challenged despite positive performance of the equity market.

— Growth in emerging markets continues to offset slowing activity in developed economies, as year-over-year GDP growth of 8.4% and 5.3% in India and China outpace most of the globe. China remains in the headlines given that economic and technological rivalry with the U.S. persists. Despite sentiment challenges, growth has remained above the target of 5%, even in the face of a lagging property market and financial stress seen amongst local-government financing vehicles and regional banks.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	3.0% *3/31/24*	3.5% *3/31/24*	3.8% *3/31/24*
Eurozone	0.1% *12/31/23*	2.4% *3/31/24*	6.5% *2/29/24*
Japan	1.2% *12/31/23*	2.6% *3/31/24*	2.6% *2/29/24*
BRICS Nations	5.3% *12/31/23*	1.7% *3/31/24*	4.8% *12/31/22*
Brazil	2.1% *12/31/23*	3.9% *3/31/24*	7.8% *2/29/24*
Russia	4.9% *12/31/23*	7.7% *3/31/24*	2.8% *2/29/24*
India	8.4% *12/31/23*	4.9% *3/31/24*	7.6% *3/31/24*
China	5.3% *3/31/24*	0.1% *3/31/24*	5.2% *3/31/24*

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.

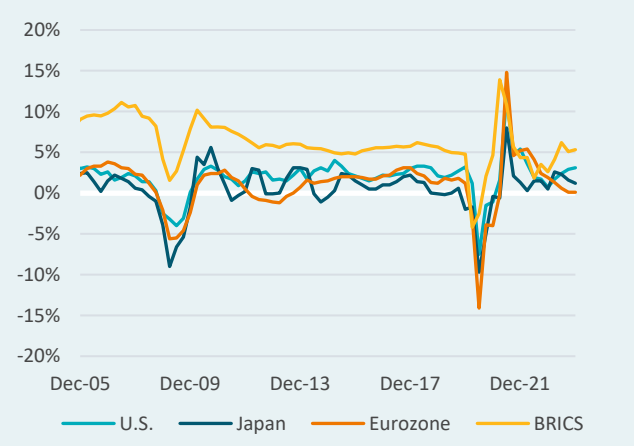
International economics

We believe the global narrative remains intact, and that many economies are set to slow in 2024 but will likely avoid recession. While hotter inflation data in the U.S. has led to changed policy expectations, inflation in international developed economies showed signs of moderation, putting central banks like the European Central Bank (ECB) and Bank of England (BOE) on a path to policy easing. The market is pricing three 25 bps interest rate cuts from the ECB and the BOE by end-of-year.

The IMF's April World Economic Outlook (WEO) communicated a much more balanced economic environment, as steady growth and disinflation has resulted in a lower likelihood of a "hard landing". The IMF sees global growth at 3.2% for 2024 and 2025, with the 2024 growth estimate revised up +0.1% from the January WEO update.

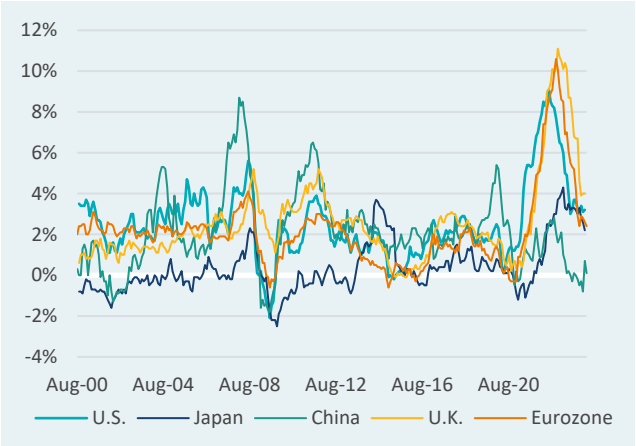
Going forward, we see material downside risks but also potential growth catalysts to the upside. Continuing and escalating conflicts in the Middle East and Eastern Europe have raised fears around energy market disruption, especially when considering that rising oil and natural gas prices were a major contributor to the recent four-decade-high bout of inflation. On the other hand, growth catalysts such as accelerated computing and artificial intelligence offer a broad range of applicability and impact that, although difficult to quantify, could act as a substantial driver of productivity and growth in the future. Additionally, if inflation pressures were to ease more quickly than expected, allowing for easier monetary policies, this may fuel growth and markets forward.

REAL GDP GROWTH (YEAR-OVER-YEAR)



Source: Bloomberg, as of 12/31/23

INFLATION (CPI YEAR-OVER-YEAR)



Source: Bloomberg, as of 3/31/24 – or most recent release

IMF APRIL 2024 GDP FORECASTS

Source: IMF April World Economic Outlook, as of 4/16/24

Fixed income rates & credit

Fixed income environment

— The 10-year U.S. Treasury yield rose 32 basis points from 3.88% to 4.20% during Q1 on broad acknowledgment that disinflation trends have stalled and that the Federal Reserve may not cut rates in 2024 as significantly as markets had hoped for. Yields across the Treasury curve increased, with shorter-term rates rising more than longer-term.

— Domestic high-quality, duration-sensitive bonds experienced slight losses during the quarter, while most credit indices saw positive returns. High yield gained +1.5% (Bbg U.S. Corporate High Yield), while bank loans rose +2.5% (S&P/LSTA Leveraged Loan). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) declined by -1.7% during the quarter as both rising interest rates and concerns about inflation detracted from performance.

— The U.S. yield curve has remained inverted since June 6th, 2022, marking the longest yield curve inversion on record. This is indicated by the 10-year minus 2-year Treasury yield—ending the quarter at -39bps, down slightly from -35bps in Q4. While the yield curve has historically been a reliable predictor of recession, economic growth remains robust.

— Although default activity remains low, volumes increased as slowing economic growth and rising borrowing costs acted as headwinds. During the period, $20.6 billion of bank loan and high yield bonds were affected by default or distressed exchanges, up from $15.8 billion in the prior quarter. Notable company defaults included Jo-Ann's (Retail), Hornblower (Travel & Leisure), and RobertShaw (Technology).

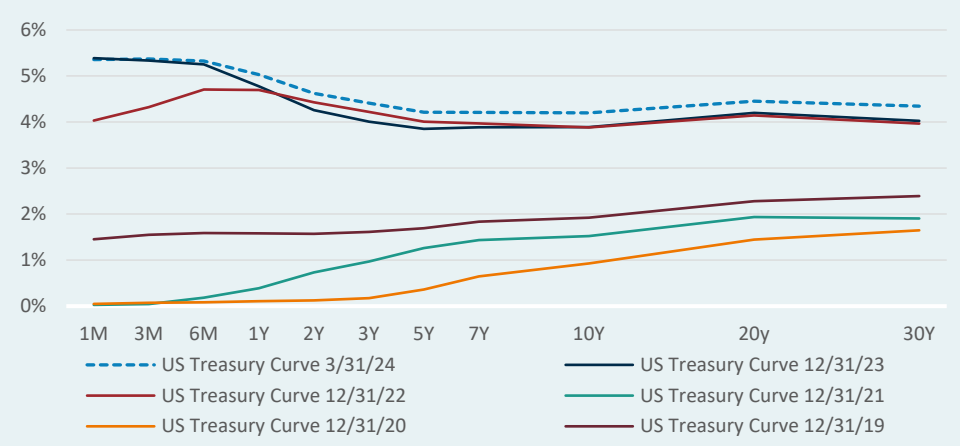
— Structured credit hedge funds, which focus on credit sectors such as CLOs, ABS (auto, credit card, etc), MBS, and CMBS, continue to deliver strong returns relative to traditional high yield and remain competitive versus leveraged loan indices.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	(0.8%)	1.7%
Core Plus Fixed Income (Bloomberg U.S. Universal)	(0.5%)	2.7%
U.S. Treasuries (Bloomberg U.S. Treasury)	(1.0%)	0.1%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	(3.8%)	(7.3%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	1.5%	11.2%
Bank Loans (S&P/LSTA Leveraged Loan)	2.5%	12.4%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	(2.1%)	4.9%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	2.0%	11.3%
Mortgage-Backed Securities (Bloomberg MBS)	(1.0%)	1.4%

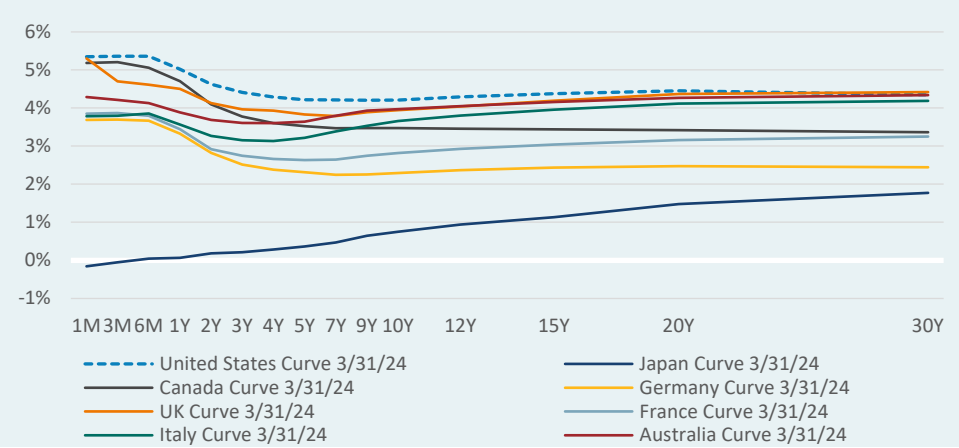
Source: Bloomberg, as of 3/31/24

Yield environment

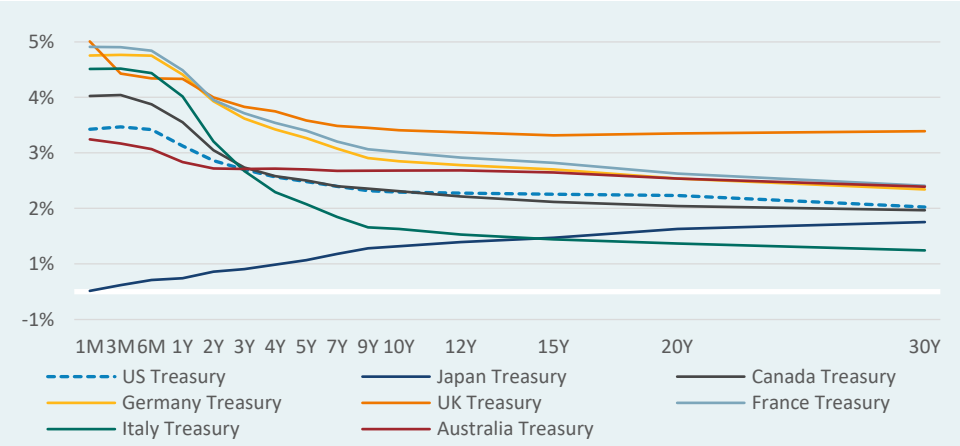
U.S. YIELD CURVE



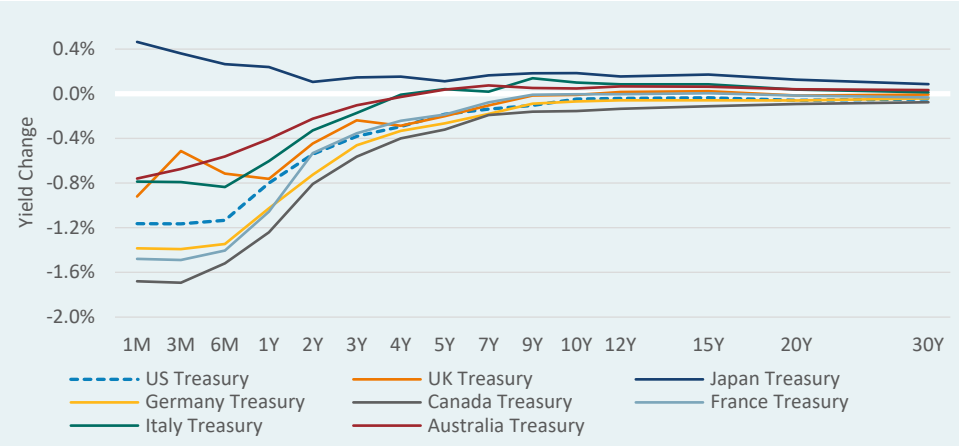
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 3/31/24

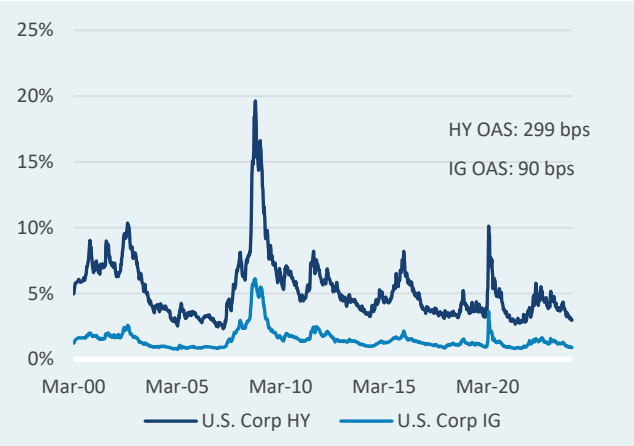
Credit environment

During the first quarter, credit markets delivered mixed returns with lower-quality credits such as high yield bonds and bank loans leading. Bank loans rose +2.5% (CS Leveraged Loans), while high yield bonds increased by +1.5% (Bbg U.S. Corporate High Yield). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) fell by -1.7% as pressure from both rising interest rates and higher expected inflation acted as a headwind to performance.

Returns across credit ratings were mixed during Q1. Higher-quality BB-rated bonds returned +1.3% compared to +1.0% for B-rated and +1.3% for and CCC-rated bonds, respectively. Lower-quality bank loans experienced strong returns with CCC-rated loans rising by +6.0%, compared to +2.5% and +1.9% for BB- and B-rated loans, respectfully,

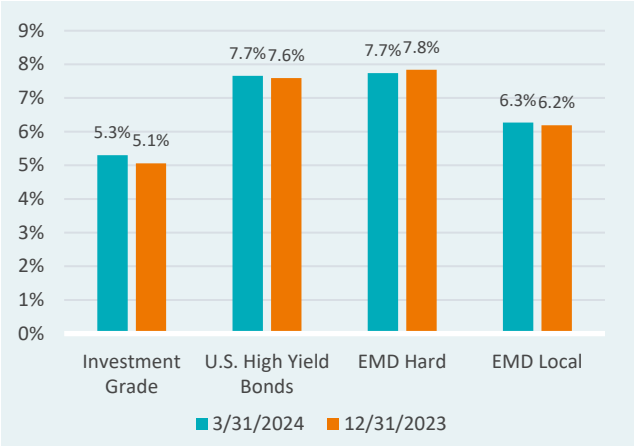
Credit spreads were slightly narrower during the quarter as stronger-than-expected economic growth eased concerns related to potential recession. Lower-quality high yield bond spreads fell by 0.2% to roughly 3.2%, while investment grade spreads decreased by roughly 0.1% to 1.2%. Broadly, spreads remain below their long-term historical averages, which suggests that investors are staying confident about the ability of those businesses to service debt. That said, slower U.S. economic growth could lead to wider credit spreads as investors might seek safety in higher quality assets.

SPREADS



Source: Barclays, Bloomberg, as of 3/31/24

YIELD TO WORST



Source: Bloomberg, J.P. Morgan as of 3/31/24

CREDIT SPREAD (OAS)

Market	3/31/24	3/31/23
Long U.S. Corp	1.1%	1.6%
U.S. Inv Grade Corp	0.9%	1.4%
U.S. High Yield	3.1%	4.6%
U.S. Bank Loans*	3.9%	3.7%

Source: Barclays, Credit Suisse, Bloomberg, as of 3/31/24
**Discount margin (4-year life)*

Default & issuance

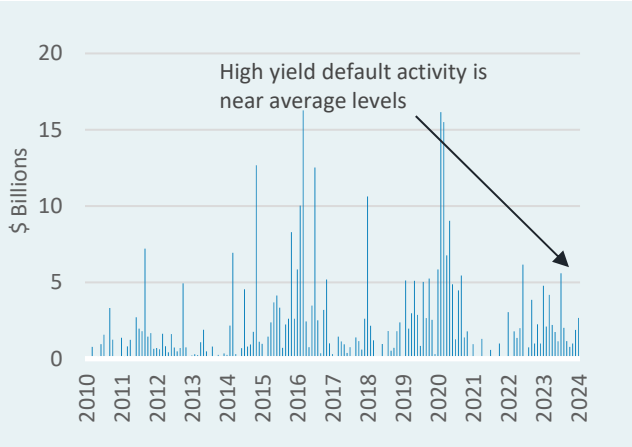
Default activity increased during the quarter as slowing economic growth and rising borrowing costs acted as headwinds. During the period, $20.6 billion of bank loan and high yield bonds were affected by default or distressed exchanges, up from $15.8 billion in the prior quarter. Notable company defaults included Jo-Ann's (Retail), Hornblower (Travel & Leisure), and RobertShaw (Technology).

Year-to-date, the combined total of defaults and exchanges tracked slightly behind last year's pace by roughly -3.0%.

High yield bond default rates increased to 2.6%, up from 1.9% a year earlier, but were still below the long-term annual average of roughly 3.4%. High-yield default recovery rates ended the quarter at 33.1%, up slightly from 32.8% at the end of 2023, but below the long-term average of roughly 40%.

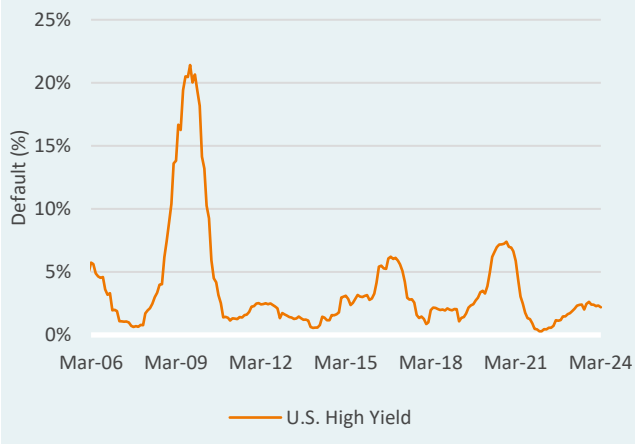
The issuance of investment grade credit increased significantly from the prior quarter, by $328.0 billion ($531.0 billion from $208.0 billion). Despite higher borrowing costs, high-yield bond issuance climbed slightly to $86.6 billion during the quarter (up from $42.0 billion in Q4). On a year-over-year basis, the volume of both investment-grade and high yield issuance increased by roughly $181.0 billion, ($636.0 billion from $436.0 billion). Low credit spreads improve the relative attractiveness of borrowing, which was likely a factor driving recent strong issuance.

U.S. HY MONTHLY DEFAULTS (PAR WEIGHTED)



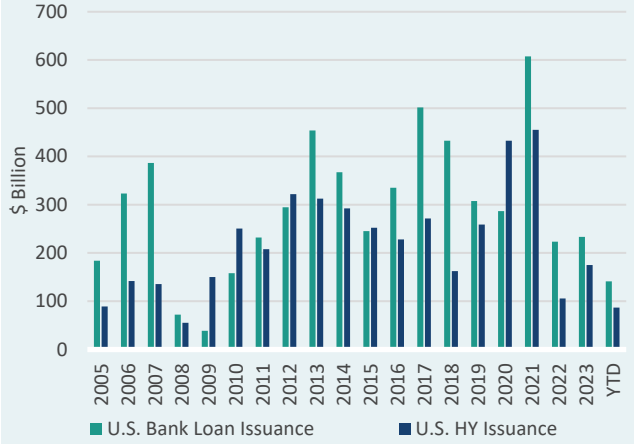
Source: BofA Merrill Lynch, as of 3/31/24

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



Source: BofA Merrill Lynch, as of 3/31/24 – par weighted

DEVELOPED MARKET ISSUANCE ($ BILLIONS)



Source: BofA Merrill Lynch, all developed markets, as of 3/31/24

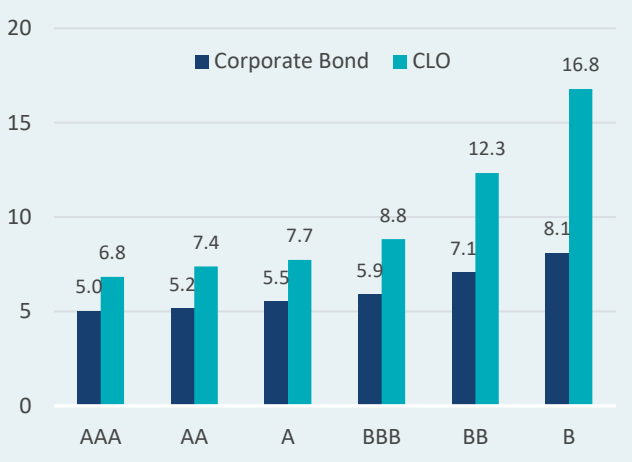
Credit hedge funds

— Structured credit hedge funds, which focus on credit sectors such as CLOs, ABS (auto, credit card, etc), MBS, and CMBS, continue to deliver strong returns relative to traditional high yield and remain competitive relative to leveraged loan performance.

— Yields in those securitized markets remain wide in contrast to equivalent rating-risk corporate yields, with CLOs offering 150-300bps of spread in the IG tranches and up to 800bps in sub-investment grade tranches. Other sectors, such as CMBS, offer significantly wider spreads, evidence of the uncertainty and stress unfolding in the commercial property market.

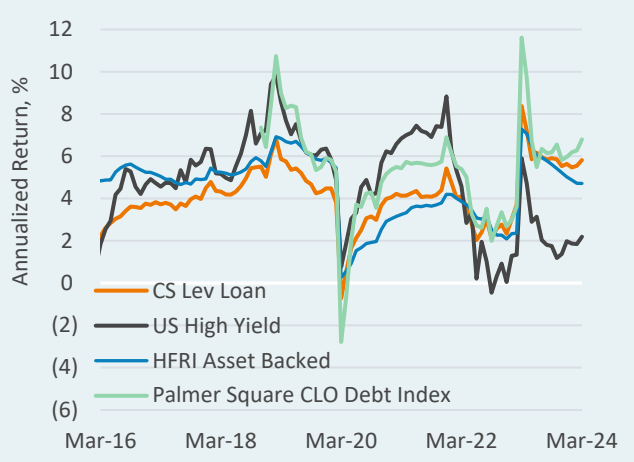
— Distressed credit hedge funds performed well after the pandemic due to the amount of dry powder these strategies typically keep on hand and the abundance of opportunities created by market stress during that period. Strategies have kept up with high yield in the last 12-18 months and have seen their opportunity set gradually improve as interest rates remain elevated.

CLO VS CORPORATE BOND YIELDS (%)



Source: Bloomberg, BofA, Federal Reserve, MPI. As of 3/31/24

3 YEAR ROLLING RETURN



Source: CS, HFR, Bloomberg, Palmer Square, MPI

1 YEAR ROLLING RETURN

Source: Bloomberg, EurekaHedge, MPI

Equity

Equity environment

— U.S. equities (S&P 500 +10.6%) continued an impressive rally during the first quarter, once again outpacing international developed equities (MSCI EAFE +5.8%) and emerging markets (MSCI EM +2.4%). The domestic market has also delivered outperformance over the past year, fueled by the artificial intelligence boom. Telecom (+49.8%) and Technology (+46.0%) saw the biggest gains during the period.

— The U.S. dollar gained in value during Q1, likely buoyed by the higher for longer interest rate narrative. A reassessment of the Federal Reserve policy path for 2024 has improved the outlook for the dollar, as currencies which offer higher interest rates, and relatively attractive prospects for continued higher interest rates, tend to better hold their value. Losses from unhedged Japanese currency exposure has been extreme (-9.3% over the quarter, -25.2% over the past year, as indicated by the TOPIX Index).

— Style investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). Style premia has also suffered over the past full year. Small cap underperformed large cap by -10.2% while value stocks underperformed growth by -18.7%.

— Market-priced volatility (Cboe VIX Index) remained incredibly low during the quarter, ending at 13.0 in March. Historically, market volatility of this level has coincided with strong upward trending risk asset prices and investor enthusiasm.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	10.6%		29.9%	
U.S. Small Cap (Russell 2000)	5.2%		19.7%	
U.S. Equity (Russell 3000)	10.0%		29.3%	
U.S. Large Value (Russell 1000 Value)	9.0%		20.3%	
US Large Growth (Russell 1000 Growth)	11.4%		39.0%	
Global Equity (MSCI ACWI)	8.2%	9.6%	23.2%	25.4%
International Large (MSCI EAFE)	5.8%	10.5%	15.3%	22.4%
Eurozone (EURO STOXX 50)	10.3%	13.1%	20.1%	23.6%
U.K. (FTSE 100)	3.0%	4.0%	10.7%	9.1%
Japan (TOPIX)	10.0%	19.3%	24.0%	49.2%
Emerging Markets (MSCI Emerging Markets)	2.4%	4.4%	8.2%	10.7%

Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 3/31/24

Domestic equity

U.S. equities notched another quarter of outperformance over international developed and emerging market shares, with the S&P 500 finishing up +10.6%. Market momentum carried forward from the end of 2023, as large cap equities advanced off a boost to corporate earnings from developments in accelerated computing and artificial intelligence. At the same time, economic indicators reflected resilience across labor and economic activity, alleviating some fears around potential recession.

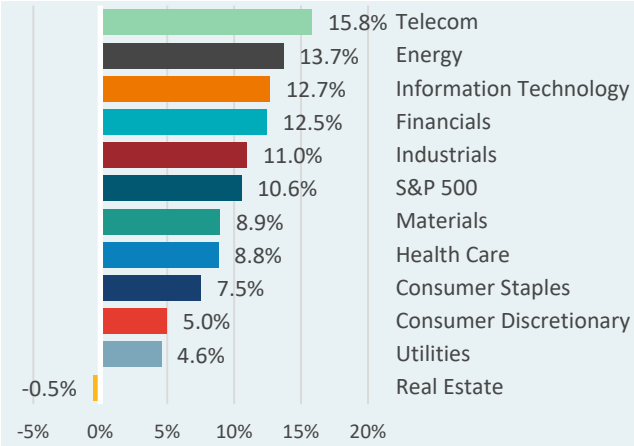
Large technology company performance has helped push the broader index higher, as the Magnificent Seven contributed around 37% of the S&P 500's total return in the first quarter, per Morningstar. A combination of Nvidia, Microsoft, Meta, and Amazon drove 47% of total returns. The Magnificent 7 stocks fueled nearly two-thirds of index performance in 2023. These figures exemplify the outsized impact large companies have had on broader domestic equity returns, both to the downside and upside.

On the other hand, these strong price gains have moved valuations towards the richer side of the historical range, and the term "priced for perfection" has become more popular amongst the news lexicon. U.S. shares have also been relatively unbothered by changing expectations for the Federal Reserve rate hiking path. The higher for longer narrative has had a large negative impact on bond markets, but apparently little impact on risk assets, so far.

S&P 500 PRICE INDEX

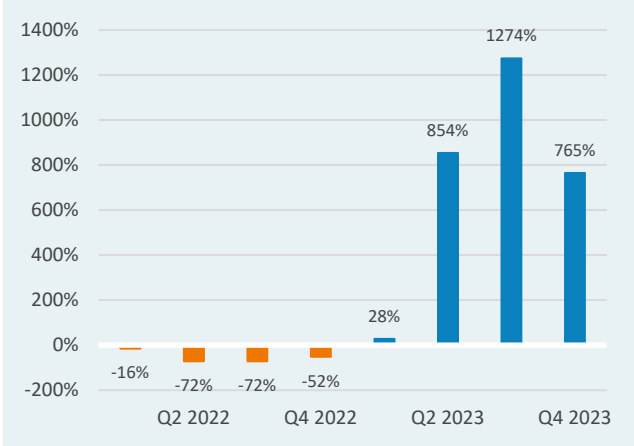
Source: Bloomberg, as of 3/31/24

Q1 2024 SECTOR PERFORMANCE



Source: Morningstar, as of 3/31/24

NVIDIA EPS GROWTH (YEAR-OVER-YEAR)



Source: Nvidia, as of 3/31/24. GAAP Diluted EPS

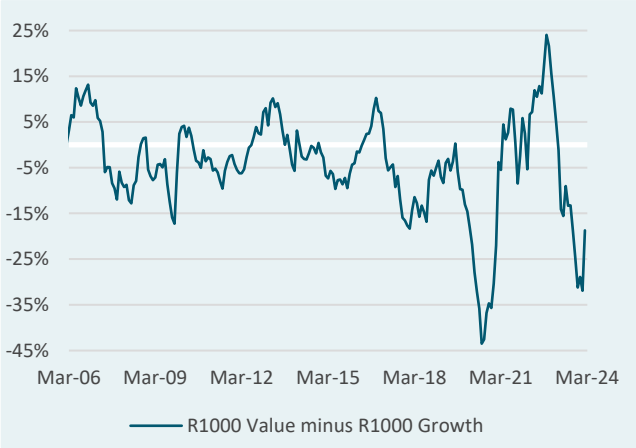
Domestic equity size & style

Small cap and value style investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). These style premia also suffered over the past full year. Small cap underperformed large cap by -10.2% while value stocks underperformed growth by -18.7%.

Mega cap companies continue to dominate large cap index performance. The "Magnificent 7" securities, including Amazon, Netflix, Google, Meta, Nvidia, Apple, and Tesla, drove the index into drawdown territory during 2022, contributed to a strong bounce back rally in 2023, then have pushed the index higher still in 2024. However, performance of this group has been a bit mixed year-to-date, with Apple and Tesla lagging the overall index materially. Index concentration has created headwinds for the performance of active managers, on average, and dominant growth stocks have pushed the overall index towards a higher multiple while depressing dividend yields.

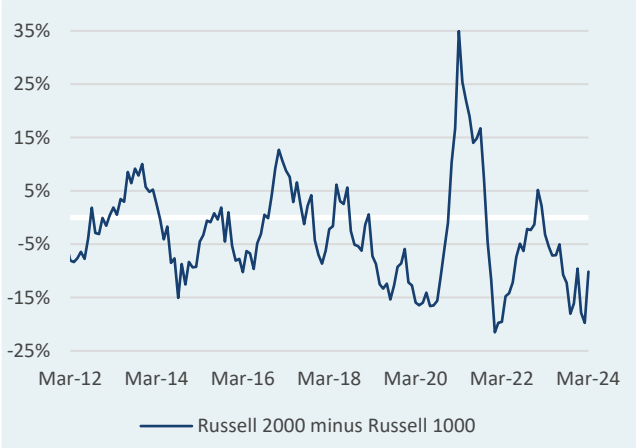
Variability in the behavior of style factors, often driven by idiosyncratic sector moves and broader macro themes, continues to provide evidence that style investing should typically be a longer-term endeavor. Short-term factor timing decisions should in most circumstances be pursued only in the rare occasion of obvious market mispricing and a foreseen catalyst for price correction.

VALUE VS. GROWTH 1-YR ROLLING



Source: FTSE, as of 3/31/24

SMALL CAP VS LARGE CAP 1-YR ROLLING



Source: FTSE, as of 3/31/24

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	20.3%	29.9%	39.0%
Mid Cap	20.4%	22.3%	26.3%
Small Cap	18.8%	19.7%	20.3%

Source: FTSE, as of 3/31/24

International developed equity

International developed shares notched a strong first quarter, although returns trailed domestic equities. The MSCI EAFE index returned +5.8% in unhedged U.S. dollar terms, materially lower than the hedged return of +10.5%. The dollar's advance was likely fueled by higher rate expectations for the Federal Reserve, along with expected policy easing decisions from the European Central Bank and Bank of Japan, both of which are positive for the U.S. dollar (i.e. led to losses for unhedged investors).

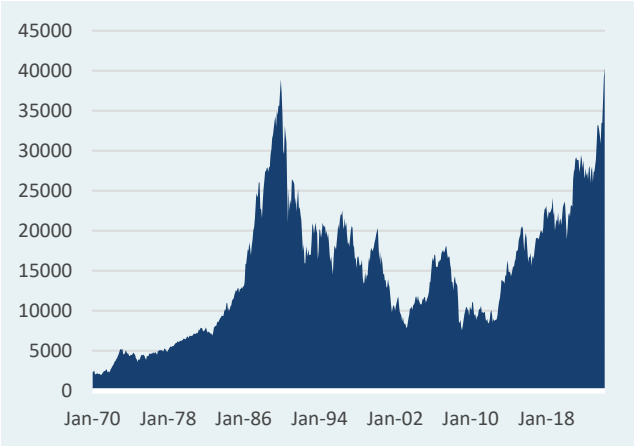
Resilient global economic growth has been a tailwind to performance amongst international developed shares. All major regional equities (Eurozone, Japan, and United Kingdom) saw positive returns over the period.

While performance has been better than expected, future growth catalysts remain uncertain. Falling Eurozone inflation boosted regional risk assets, as inflation fell from 3.1% to 2.4% in March. Easing inflation has taken some pressure off the ECB, resulting in rising expectations for rate cuts in June. In Japan, equites have carried forward positive momentum from 2023, evident by the Nikkei achieving a 34-year high in February. Easy monetary policy from the BOJ continues to provide a boost to local earnings, while poor inflation and wage growth metrics have provided little evidence for the BOJ to quickly move away from their low interest rate policy.

INTERNATIONAL DEVELOPED EQUITY

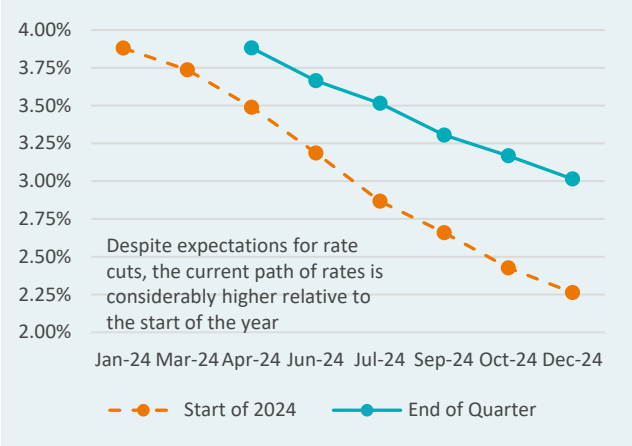
Source: MSCI, as of 3/31/24

NIKKEI 225 INDEX



Source: Bloomberg, Nikkei, as of 3/31/24

ECB RATE EXPECTATIONS



Source: Bloomberg, as of 3/31/24

Emerging market equity

Emerging markets have delivered mild gains year-to-date, rising +2.4%, and are up +8.2% over the past year. Chinese equities have continued to act as a drag the index, down -2.2% in 2024, and -17.1% over the past year.

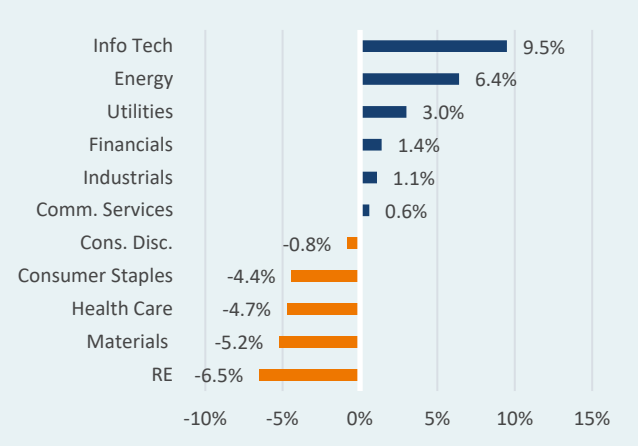
From a sector perspective, the momentum behind accelerated computing carried into emerging markets, as the information technology sector outperformed (+9.5%), driven by gains from South Korea & Taiwan. Peru, Turkey, and Columbia were the best performing countries in the first quarter, seeing gains of +15.5%, +14.1%, and +12.5% - broadly gaining off strength in oil and copper.

China remains a large question mark among emerging market country exposures, facing significant structural headwinds in the form of a declining population, imbalances in the real estate market, and a reversal in sentiment from the international community which contributed to a broad withdrawal of foreign direct investment, for example. Additionally, many U.S.-based institutional investors have centered on the possibility of top-down government restrictions on China investment that, if imposed, could result in losses to existing exposure as this could cause a way of selling activity. An invasion of Taiwan remains another risk, though we believe the chances of this are remote.

EMERGING MARKET EQUITY

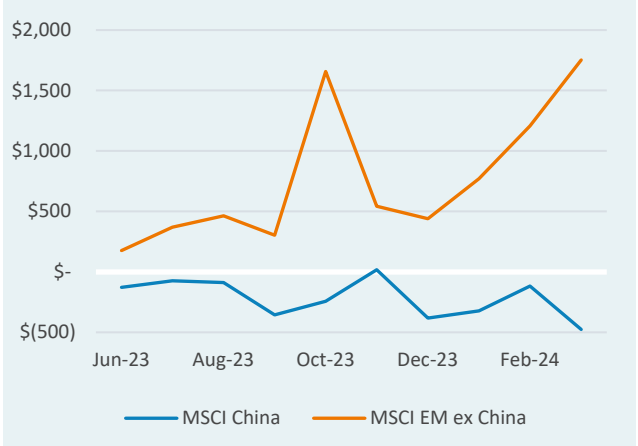
Source: MSCI, as of 3/31/24

MSCI EM Q1 2024 SECTOR RETURNS (USD)



Source: MSCI, J.P. Morgan, as of 3/31/24

ISHARES ETF MONTHLY FUND FLOWS ($M USD)



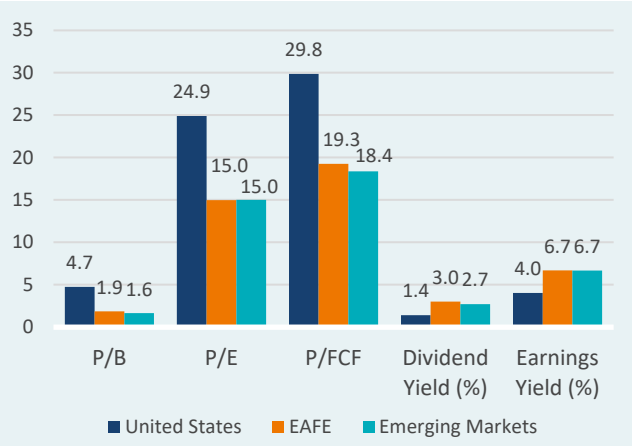
Source: BlackRock, Bloomberg, as of 3/31/24

Equity valuations

Valuations drifted upward during the quarter, as the equity rally has been driven partially by higher price multiples. Larger multiples and a greater concentration of growth stocks in the index, which tend to have lower dividend payout ratios, have led the S&P 500 to offer a nearly all-time low dividend yield of 1.4%. In an environment where investors can receive more than a 5% yield from risk-free cash, this is testament to the rising attractiveness of fixed income relative to equities.

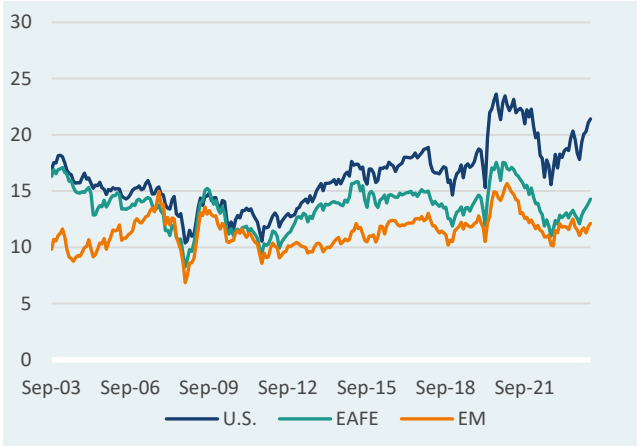
Domestic equities are priced at a 40% premium over international developed markets, and have shown little sensitivity so far to investors' repricing of the interest rate path in 2024. Future stock market returns must come from either: corporate earnings growth, expansion of stock multiples (meaning stocks become more expensive), higher dividend yields (an increase in dividend payments), or higher inflation (assuming businesses pass this on by raising prices in line with inflation). In the current environment of already high stock multiples, a very low dividend yield, and high corporate profit margins, the likelihood of seeing another decade of performance like investors have received over the past ten years seems low.

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 3/31/24

FORWARD PRICE/EARNINGS RATIO



Source: MSCI, Bloomberg, as of 3/31/24

S&P 500 HISTORICAL DIVIDEND YIELD

Source: S&P, Bloomberg, as of 3/31/24

Market volatility

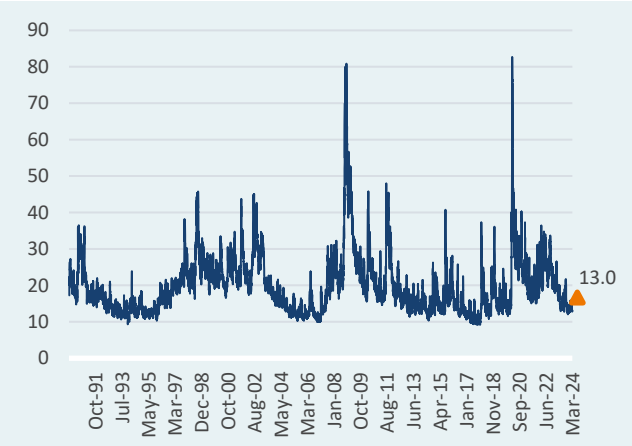
Market-priced volatility (Cboe VIX Index) remained incredibly low during the quarter, ending at 13.0 in March. Historically, market volatility of this level has coincided with strong upward trending risk markets and investor enthusiasm.

The realized past one-year volatility of global equity markets has moderated, with U.S. equity volatility at 13.6%—very close to current VIX implied volatility. The relative volatility of markets has moved back in line with historical behavior—U.S. equities showing the lowest volatility, followed closely by international developed equities, and with emerging market equities delivering greater risk.

However, many investors might be surprised to know that international developed equities have shown similar risk to U.S. equities over the long term, if currency movements are excluded. It is unhedged currency exposure that has historically caused the difference in risk.

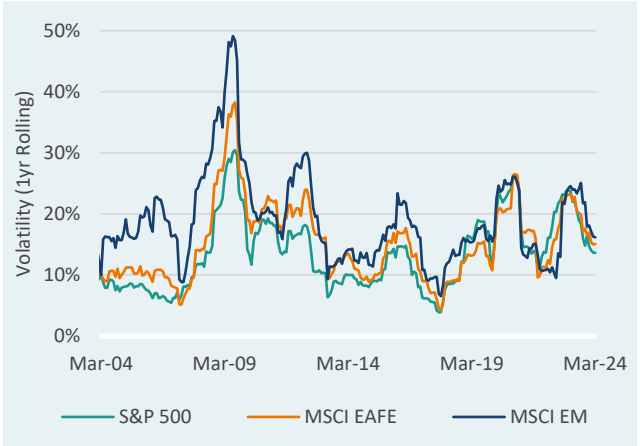
Bond market implied volatility has moderated considerably from extreme levels of 2023. This is indicated by the "MOVE" Index—which calculates the implied volatility of U.S. Treasury securities. However, notable uncertainty remains around inflation, the Federal Reserve's interest rate path and the extent of rate cuts (if any) in 2024, and economic growth.

U.S. IMPLIED VOLATILITY (VIX)



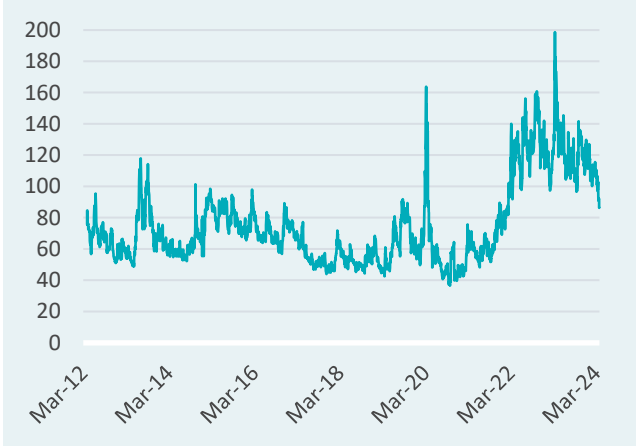
Source: Cboe, as of 3/31/24

REALIZED VOLATILITY



Source: S&P, MSCI, as of 3/31/24

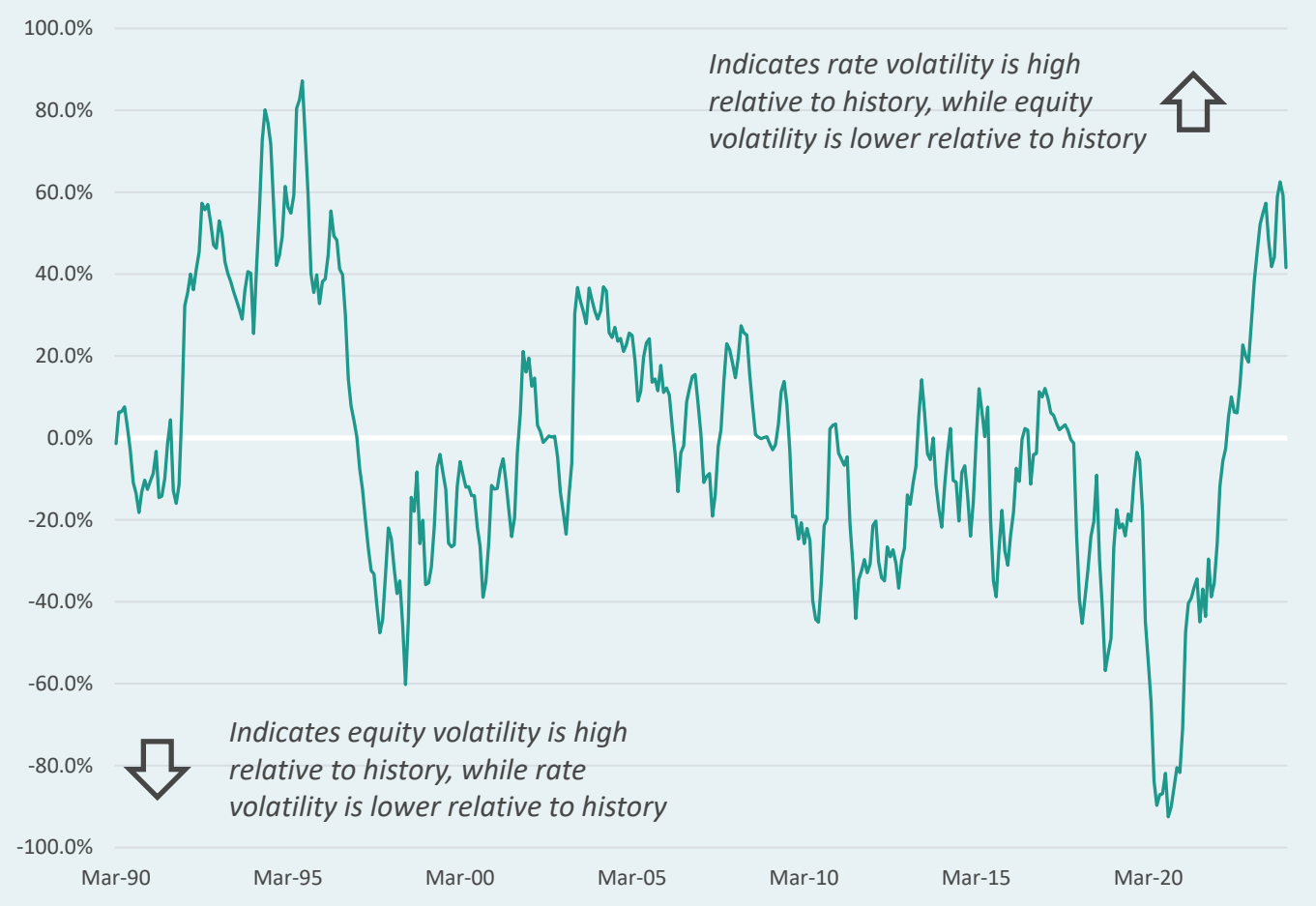
U.S. TREASURY IMPLIED VOL ("MOVE" INDEX)



Source: Bloomberg, as of 3/31/24

Implied volatility: domestic rates vs. equity

RATES VS. EQUITIES VOLATILITY: HISTORICAL PERCENTILE SPREAD

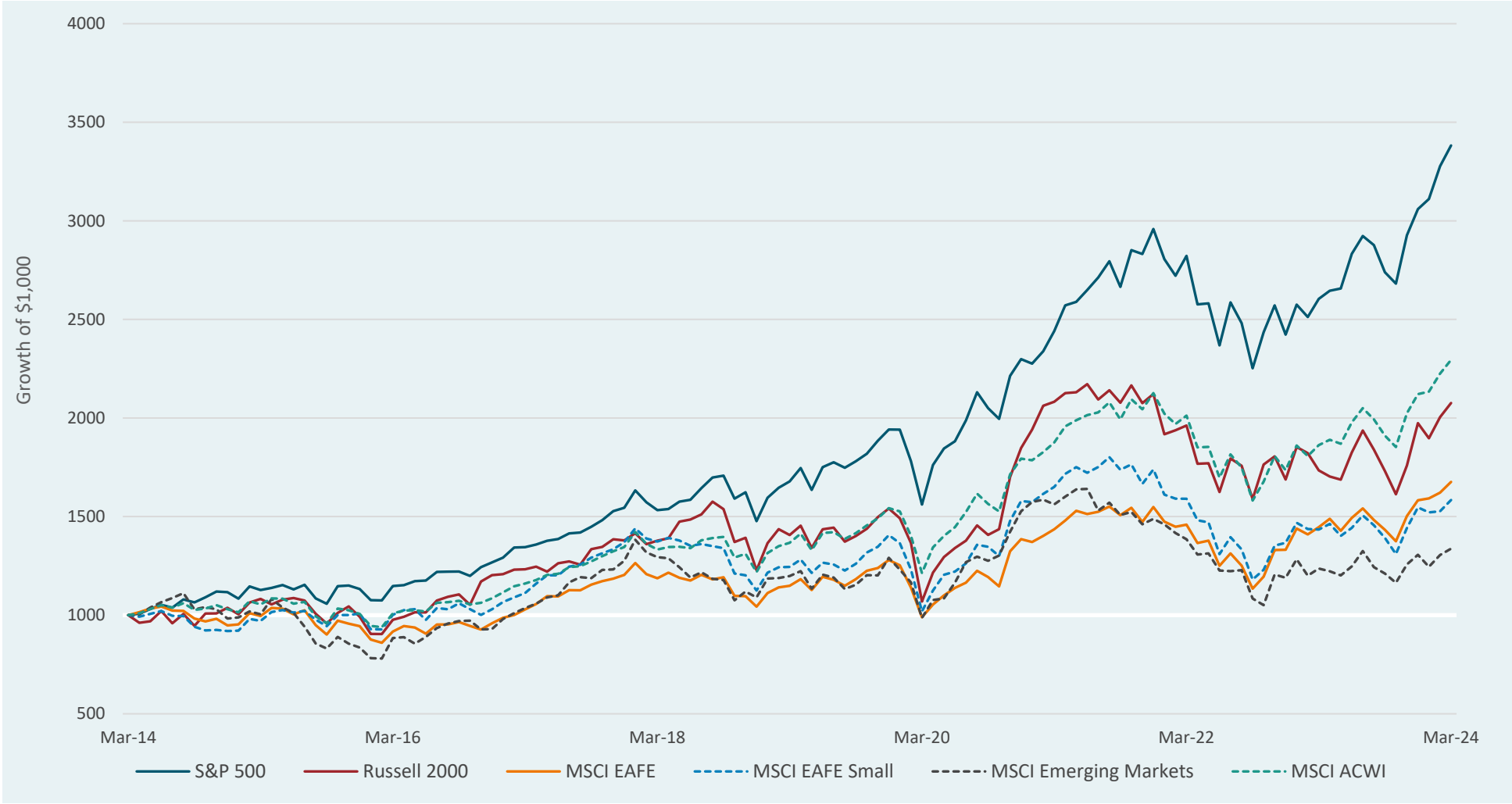


Source: ICE BofA, CBOE, as of 3/31/24

This chart looks at the relationship between rate and equity volatility by comparing historical percentiles dating back to 1990. By taking a spread between the rate and equity percentile, we get a clear picture of environments when implied volatility is relatively higher for one asset class compared to the other.

Our chart shows that we have not seen an environment like this since 1995 (which is also viewed as the Fed's only "soft landing").

Long-term equity performance



Source: MPI, as of 3/31/24

Other assets

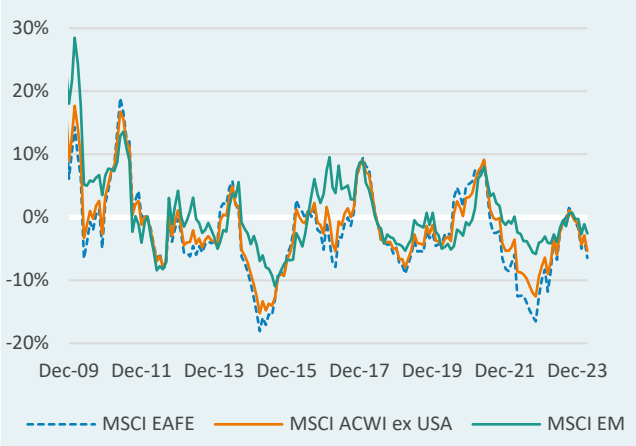
Currency

The U.S. dollar gained in value during the quarter, likely buoyed by the *higher for longer* interest rate narrative. A reassessment of the Federal Reserve policy path for 2024 has improved the outlook for the dollar, as currencies which offer higher interest rates, and relatively attractive prospects for continued higher interest rates, tend to better hold their value.

Investors without a currency hedging program in place lost -4.7% from their international developed equity exposure (MSCI EAFE) during the quarter and -7.1% over the past year. Losses from unhedged Japanese currency exposure have been extreme (-9.3% over the quarter, -25.2% over the past year, based on the TOPIX Index), while unhedged European equity exposure losses due to currency have been milder (-2.8% over the quarter, -2.5% over the past year, based on the EURO Stoxx 50 Index).

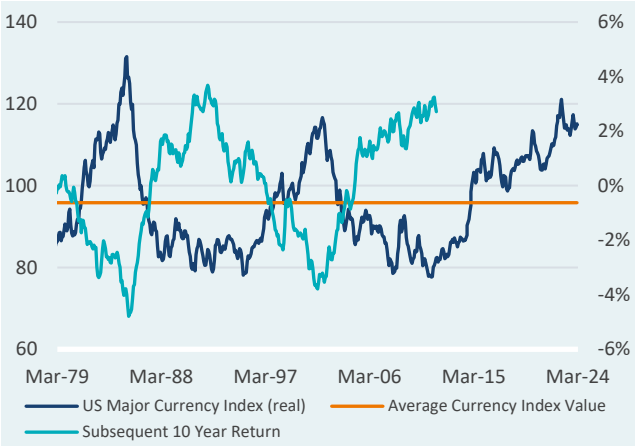
This past year marks another period of uncompensated volatility and losses caused by unhedged currency market exposure. The benefits which a more thoughtful currency approach might deliver have been on display for a number of years. This approach involves reducing the uncompensated risk of unhedged foreign currency exposure, and instead of unhedged exposure to currency markets, making a passive investment in the currency market by investing in currencies with higher interest rates, currencies that are undervalued, and currencies that are showing positive price momentum. This approach, represented by the MSCI Currency Factor Mix Index—has offered a positive one-year rolling return over most periods with far lower volatility than the unhedged currency exposure that many investors hold.

EFFECT OF CURRENCY (1-YEAR ROLLING)



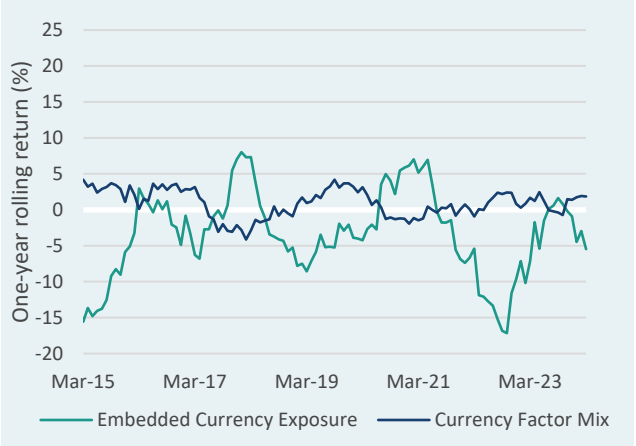
Source: MSCI, as of 3/31/24

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Bloomberg, as of 3/31/24

EMBEDDED CURRENCY VS CURRENCY FACTORS



Source: Bloomberg, MSCI, as of 3/31/24

Appendix

Periodic table of returns

BEST

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	5-Year	10-Year
Large Cap Growth	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	42.7	11.4	18.5	16.0
Large Cap Equity	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	26.5	10.3	14.8	12.7
Large Cap Value	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	1.5	18.7	9.0	10.3	9.0
Small Cap Growth	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	-4.7	18.2	7.6	8.2	7.9
International Equity	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	-7.5	16.9	5.8	8.1	7.6
Small Cap Equity	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.4	14.0	17.7	-13.0	15.4	5.2	7.4	6.9
60/40 Global Portfolio	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.0	10.3	14.8	-14.5	14.6	4.0	7.3	6.8
Hedge Funds of Funds	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	11.3	-14.5	11.5	3.9	6.4	5.3
Small Cap Value	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	-17.3	9.8	2.9	6.2	4.8
Emerging Markets Equity	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	-19.1	6.3	2.4	5.0	3.6
Commodities	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	-20.1	5.5	2.2	4.3	2.9
Cash	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	-20.4	5.0	1.3	2.2	1.5
Real Estate	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	-7.9	0.0	1.9	1.3
US Bonds	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	-29.1	-7.9	-0.8	0.4	-1.6

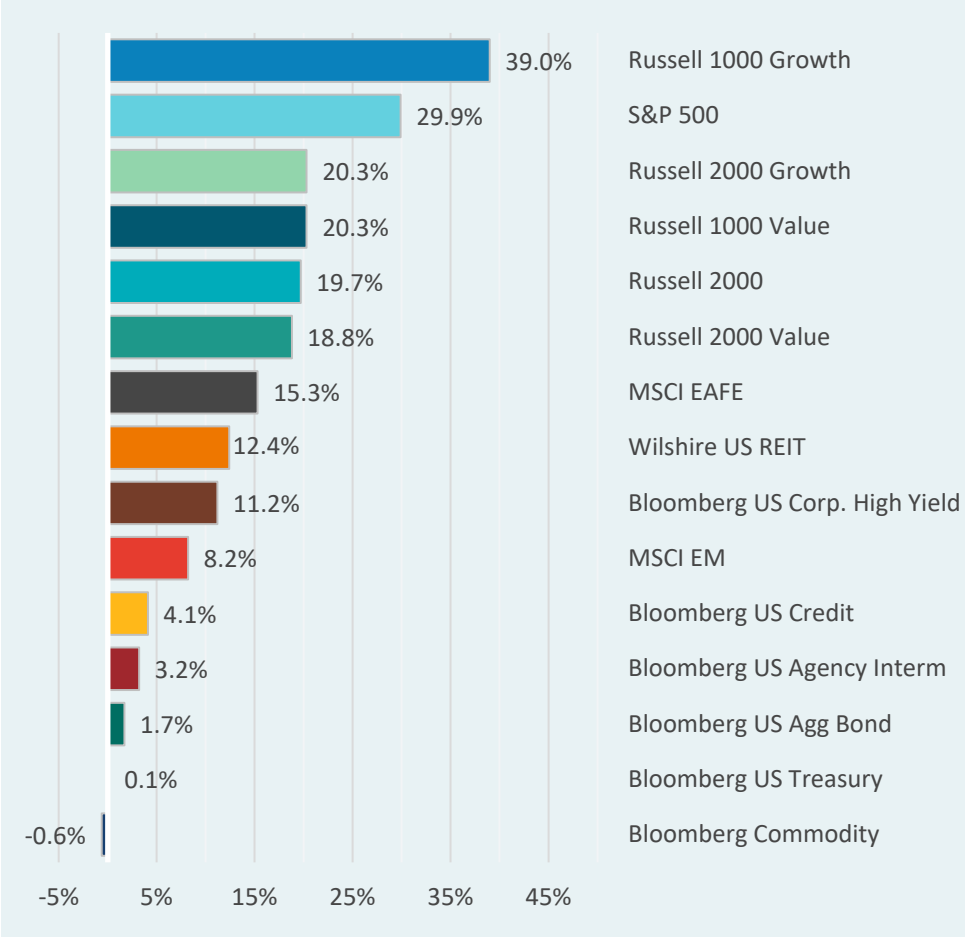
WORST

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

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 12/31/23.

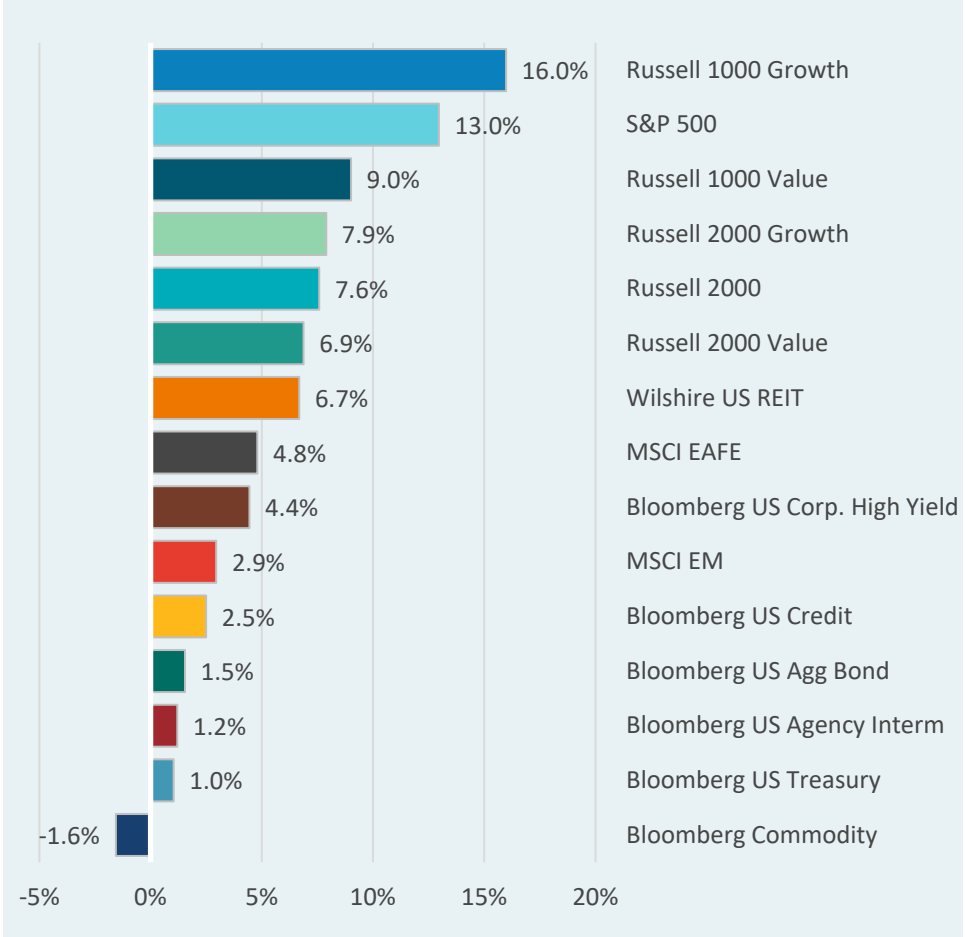
Major asset class returns

ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/24

TEN YEARS ENDING MARCH

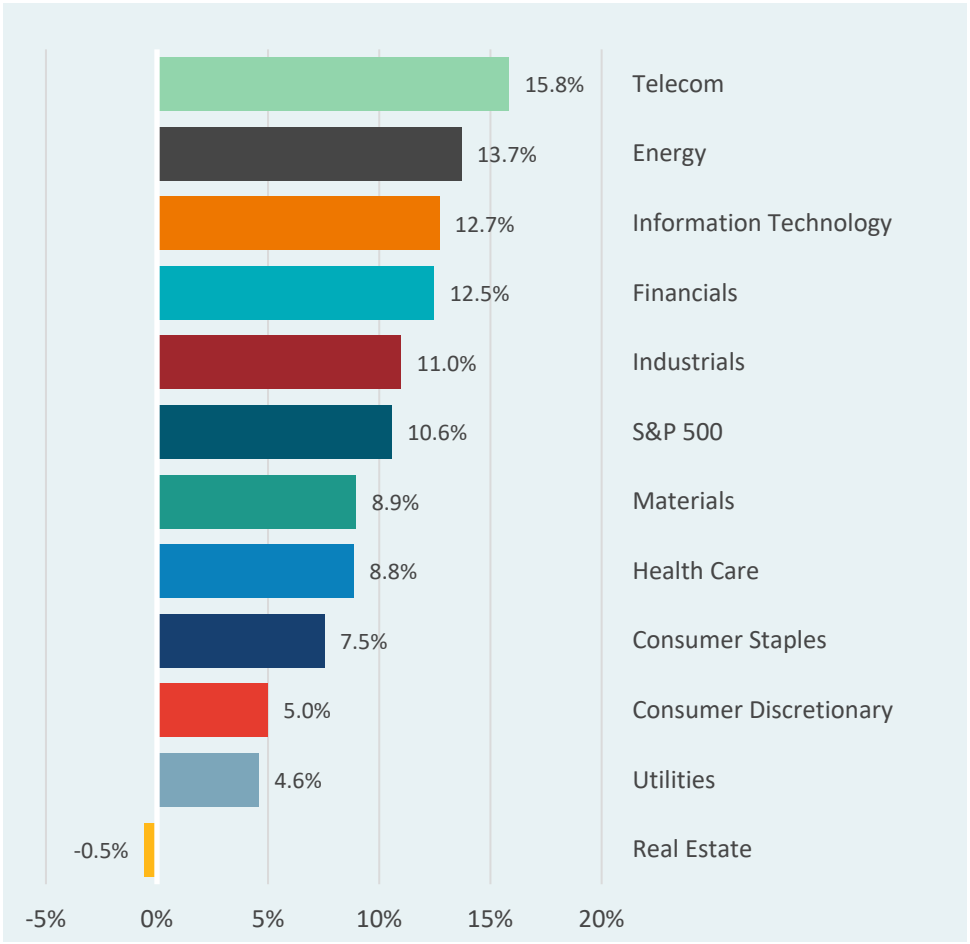


Source: Morningstar, as of 3/31/24

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

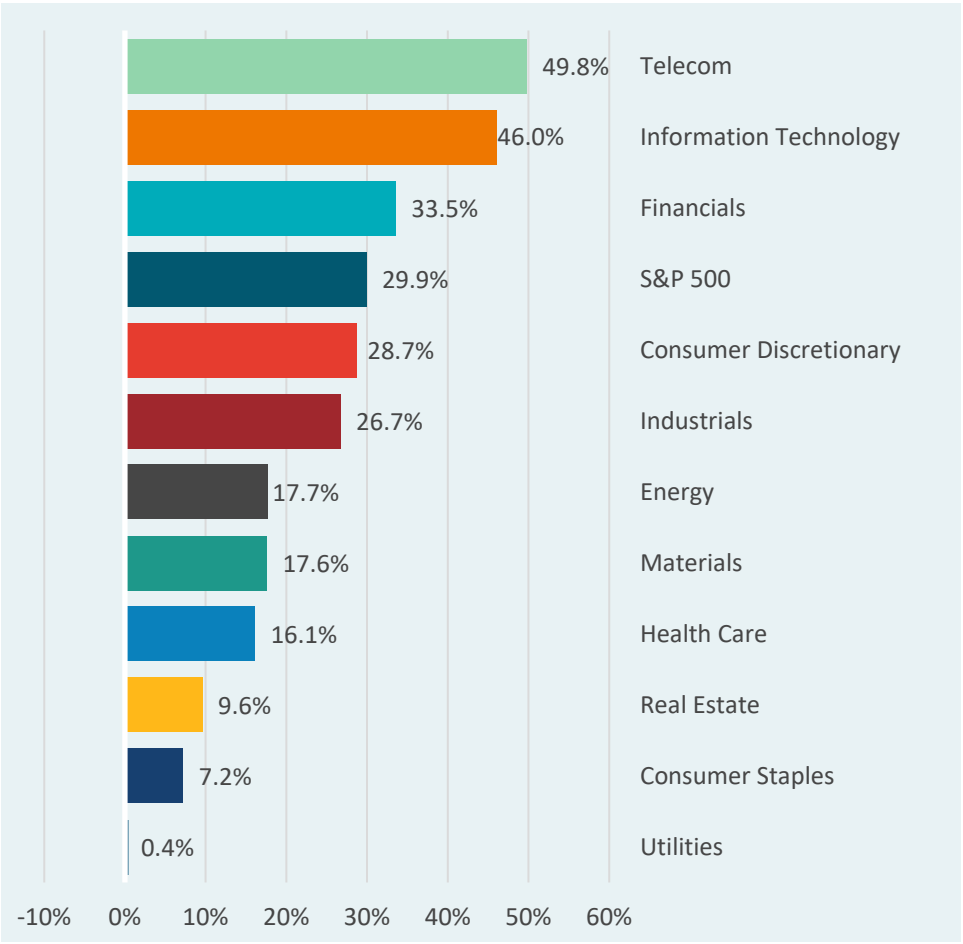
S&P 500 sector returns

QTD



Source: Morningstar, as of 3/31/24

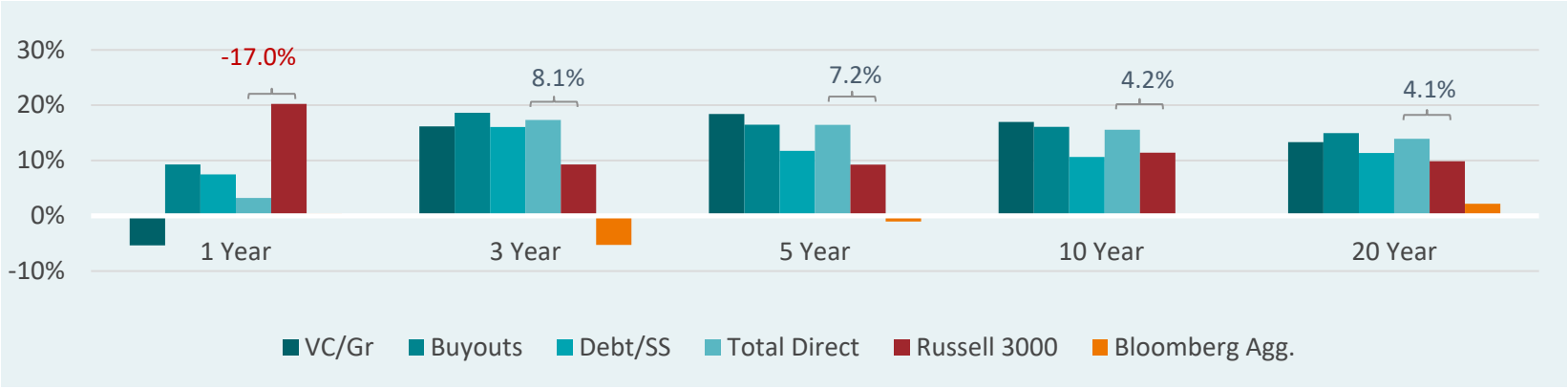
ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/24

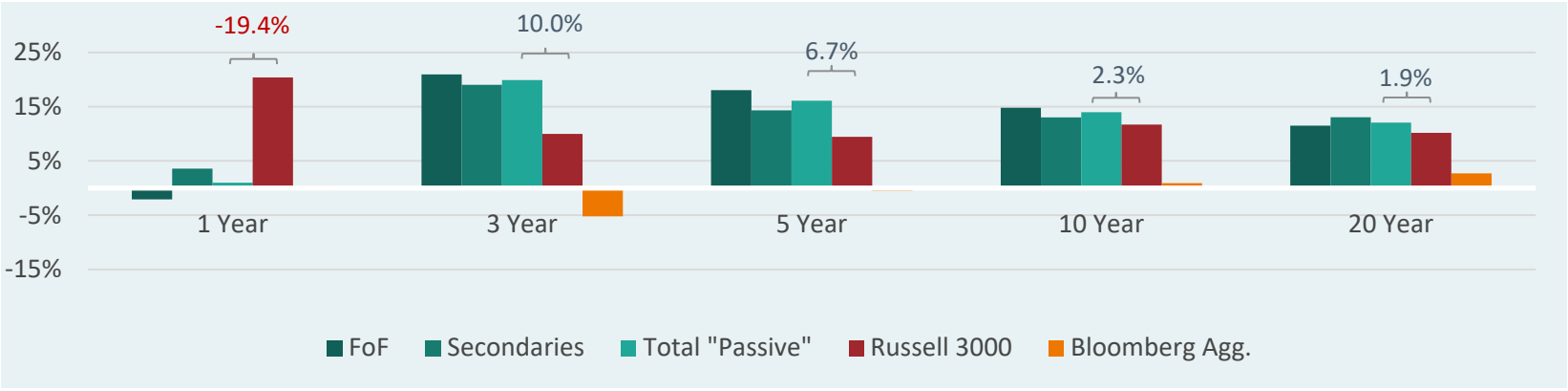
Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



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

"PASSIVE" STRATEGIES

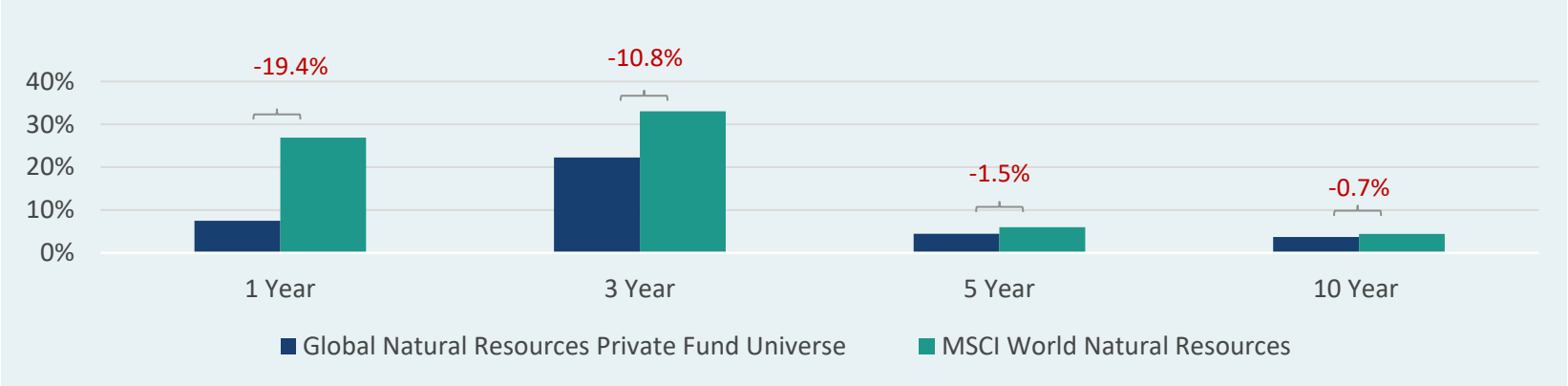


"Passive" strategies outperformed comparable public equities across all time periods, aside from the 1-year

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

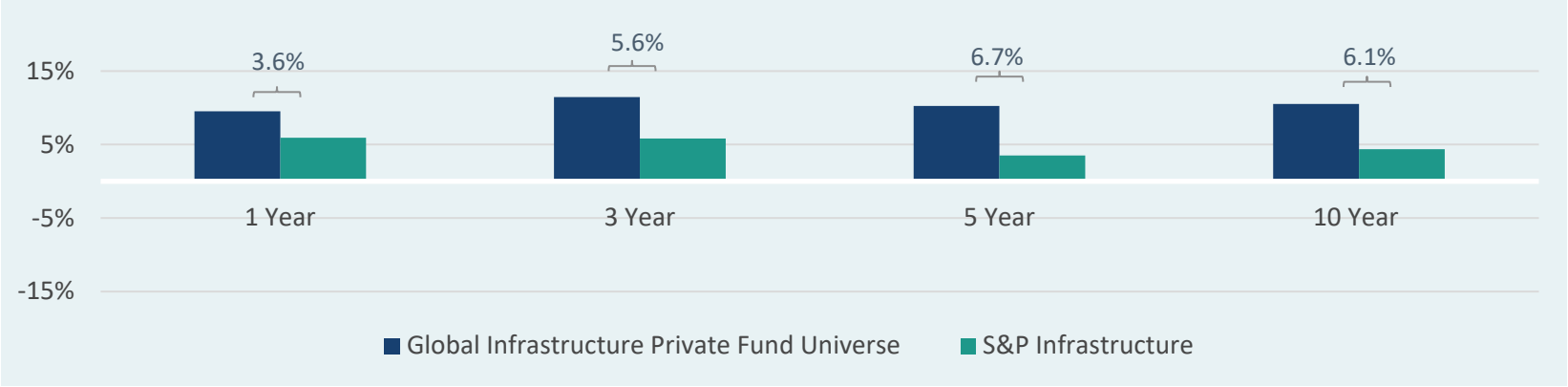
Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



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

GLOBAL INFRASTRUCTURE FUNDS

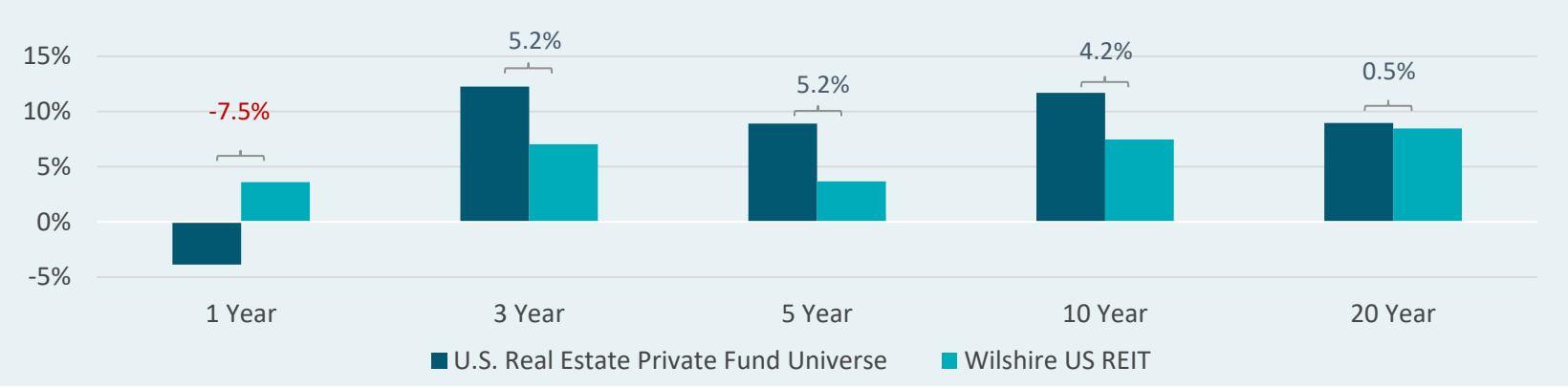


Infra. funds outperformed the S&P Infra. across all periods

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

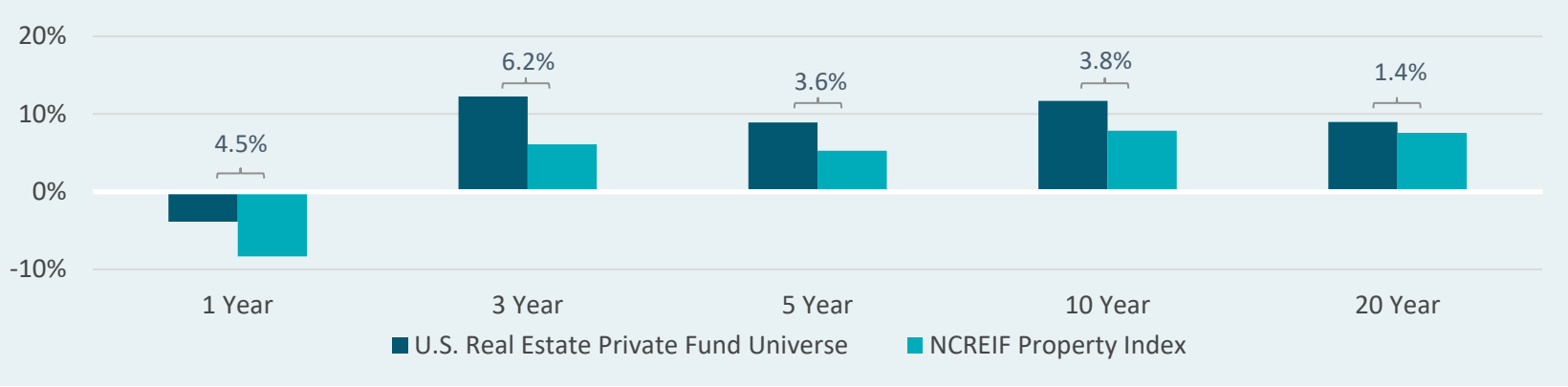
Private vs. liquid and core real estate performance

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



U.S. Private R.E. funds outperformed the Wilshire U.S. REIT Index across most time periods, aside from the 1-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 September 30, 2023. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.

Detailed index returns

DOMESTIC EQUITY	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	3.2	10.6	10.6	29.9	11.5	15.1	13.0
S&P 500 Equal Weighted	4.5	7.9	7.9	19.4	8.2	12.4	10.9
DJ Industrial Average	2.2	6.1	6.1	22.2	8.7	11.3	11.8
Russell Top 200	2.9	10.8	10.8	32.4	12.0	16.1	13.7
Russell 1000	3.2	10.3	10.3	29.9	10.5	14.8	12.7
Russell 2000	3.6	5.2	5.2	19.7	(0.1)	8.1	7.6
Russell 3000	3.2	10.0	10.0	29.3	9.8	14.3	12.3
Russell Mid Cap	4.3	8.6	8.6	22.3	6.1	11.1	9.9
Style Index							
Russell 1000 Growth	1.8	11.4	11.4	39.0	12.5	18.5	16.0
Russell 1000 Value	5.0	9.0	9.0	20.3	8.1	10.3	9.0
Russell 2000 Growth	2.8	7.6	7.6	20.3	(2.7)	7.4	7.9
Russell 2000 Value	4.4	2.9	2.9	18.8	2.2	8.2	6.9

INTERNATIONAL EQUITY	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	3.1	8.2	8.2	23.2	7.0	10.9	8.7
MSCI ACWI ex US	3.1	4.7	4.7	13.3	1.9	6.0	4.3
MSCI EAFE	3.3	5.8	5.8	15.3	4.8	7.3	4.8
MSCI EM	2.5	2.4	2.4	8.2	(5.1)	2.2	2.9
MSCI EAFE Small Cap	3.7	2.4	2.4	10.4	(1.4)	4.9	4.7
Style Index							
MSCI EAFE Growth	2.3	7.0	7.0	13.3	2.8	7.8	5.9
MSCI EAFE Value	4.4	4.5	4.5	17.3	6.6	6.4	3.5
Regional Index							
MSCI UK	4.5	3.1	3.1	10.9	7.7	5.1	2.9
MSCI Japan	3.0	11.0	11.0	25.8	3.7	7.8	6.7
MSCI Euro	4.1	8.4	8.4	17.4	6.9	9.0	4.7
MSCI EM Asia	3.0	3.4	3.4	6.3	(6.5)	2.8	4.5
MSCI EM Latin American	1.0	(4.0)	(4.0)	22.6	10.5	3.7	1.7

FIXED INCOME	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	0.8	(0.1)	(0.1)	0.5	(0.5)	2.5	2.2
Bloomberg US Treasury Bills	0.5	1.3	1.3	5.3	2.6	2.0	1.4
Bloomberg US Agg Bond	0.9	(0.8)	(0.8)	1.7	(2.5)	0.4	1.5
Bloomberg US Universal	1.0	(0.5)	(0.5)	2.7	(2.1)	0.7	1.8
Duration							
Bloomberg US Treasury 1-3 Yr	0.4	0.3	0.3	2.9	0.0	1.1	1.1
Bloomberg US Treasury Long	1.2	(3.3)	(3.3)	(6.1)	(8.0)	(2.8)	1.2
Bloomberg US Treasury	0.6	(1.0)	(1.0)	0.1	(2.7)	(0.1)	1.0
Issuer							
Bloomberg US MBS	1.1	(1.0)	(1.0)	1.4	(2.8)	(0.4)	1.1
Bloomberg US Corp. High Yield	1.2	1.5	1.5	11.2	2.2	4.2	4.4
Bloomberg US Agency Interm	0.4	0.2	0.2	3.2	(0.6)	0.8	1.2
Bloomberg US Credit	1.2	(0.4)	(0.4)	4.1	(1.9)	1.4	2.5

OTHER	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	3.3	2.2	2.2	(0.6)	9.1	6.4	(1.6)
Wilshire US REIT	1.5	(0.0)	(0.0)	12.4	4.5	4.4	6.7
CS Leveraged Loans	0.8	2.5	2.5	12.4	5.8	5.3	4.6
S&P Global Infrastructure	4.6	1.3	1.3	4.1	5.5	4.9	5.2
Alerian MLP	4.9	14.7	14.7	37.3	29.2	10.4	2.9
Regional Index							
JPM EMBI Global Div	2.1	2.0	2.0	11.3	(1.4)	0.7	3.0
JPM GBI-EM Global Div	(0.0)	(2.1)	(2.1)	4.9	(1.6)	0.1	(0.3)
Hedge Funds							
HFRI Composite	2.5	4.9	4.9	12.1	4.3	7.0	5.0
HFRI FOF Composite	1.3	3.9	3.9	9.4	2.8	5.0	3.6
Currency (Spot)							
Euro	(0.2)	(2.2)	(2.2)	(0.6)	(2.8)	(0.8)	(2.4)
Pound Sterling	(0.1)	(0.9)	(0.9)	2.2	(2.9)	(0.6)	(2.7)
Yen	(1.1)	(6.9)	(6.9)	(12.1)	(10.0)	(6.1)	(3.8)

Source: Morningstar, HFRI, as of 3/31/24

Definitions

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

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

NFIB Small Business Outlook *- Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National 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 induces for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula "(Good-Poor + 100)/2" to the present and future sales series and "(High/Very High-Low/Very Low + 100)/2" to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.*

Notices & disclosures

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SCERS

Quarter ending March 31st, 2024

- The Total Plan returned +3.8% gross in the first quarter of 2024 and ranked in the third quartile among other public funds greater than $1 billion. The Plan outperformed its policy index by 80 bps over this period. Longer-term, the three-year return of +5.6% ranks in the top quartile of the large public plan peer group. The five-year return of +8.6% also ranks just inside the top quartile of the large public plan peer group.

- First quarter results (net) were enhanced by the following factors:

    1. Within the Growth Asset category (+6.3%) which outperformed the total fund, Public Equity (+7.9%) was the main outperformer of the portfolio, with Large Cap (130/30) (+13.3%) and Large Cap Active (+13.2%) being the top performing sub-asset classes.

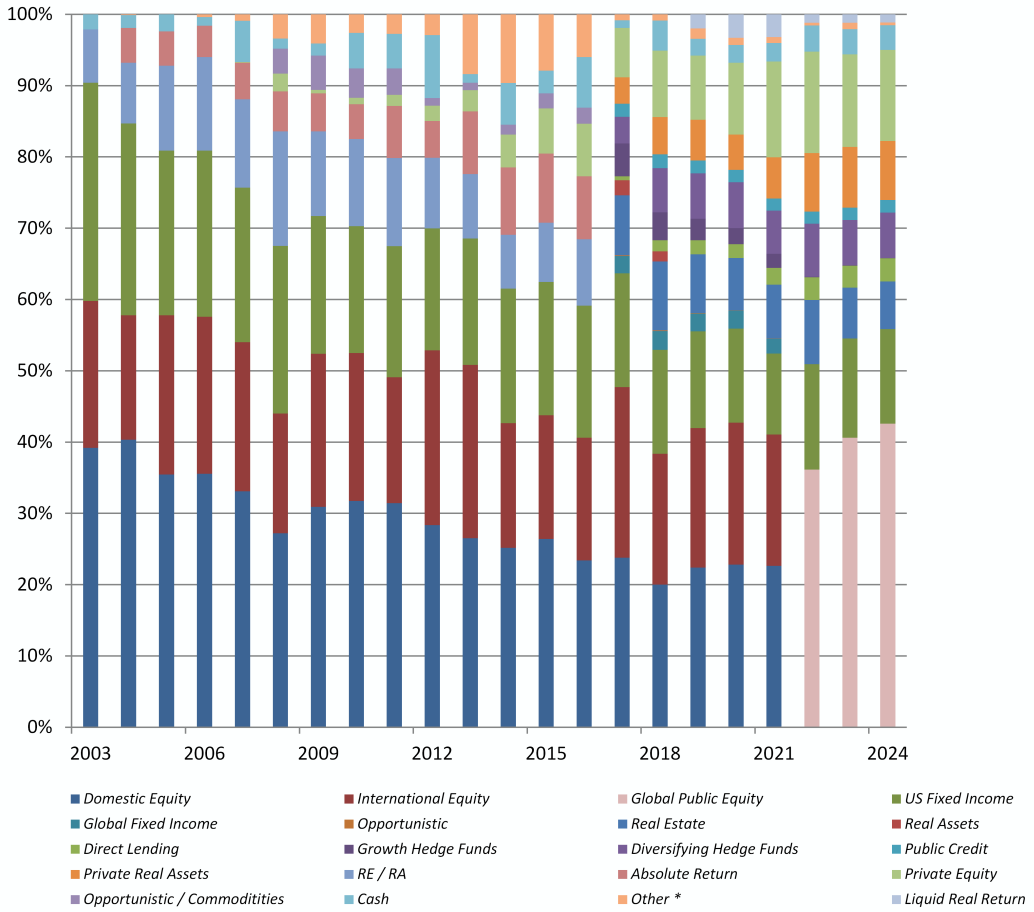
    2. Global/Unconstrained Equity, which is also within the Growth Asset Category, enhanced returns by gaining +10.4% over the quarter.

- First quarter results (net) were hindered by the following factors:

    1. Real Estate was once again the worst performing asset class, declining -2.0% over the quarter. Within Real Estate, Opportunistic Non-Core Real Estate lost -6.3%.

    2. Private Equity mildly detracted from overall portfolio performance, returning just +2.8% on the quarter.

    3. Fixed Income declined -0.8% this quarter, lagging the Fixed Income index, which retracted just -0.5%.

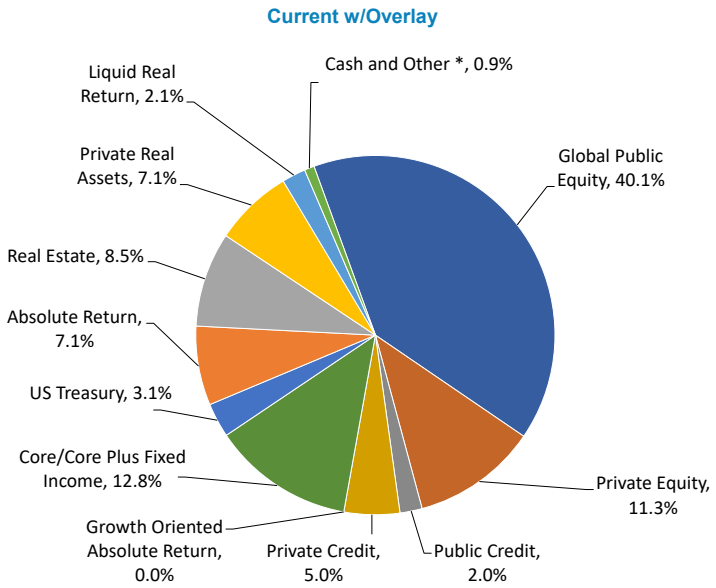


	2003	2004	2005	2006	2007	2008	2009
US Equity	39.2	40.4	35.4	35.5	33.1	27.2	30.9
International Equity	20.6	17.5	22.3	22.0	20.9	16.8	21.5
US Fixed Income	30.6	26.9	23.1	23.3	21.7	23.5	19.3
Real Estate / Real Assets	7.5	8.5	11.9	13.1	12.4	16.1	11.9
Absolute Return	-	4.9	4.8	4.4	5.1	5.6	5.3
Private Equity	-	-	-	-	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

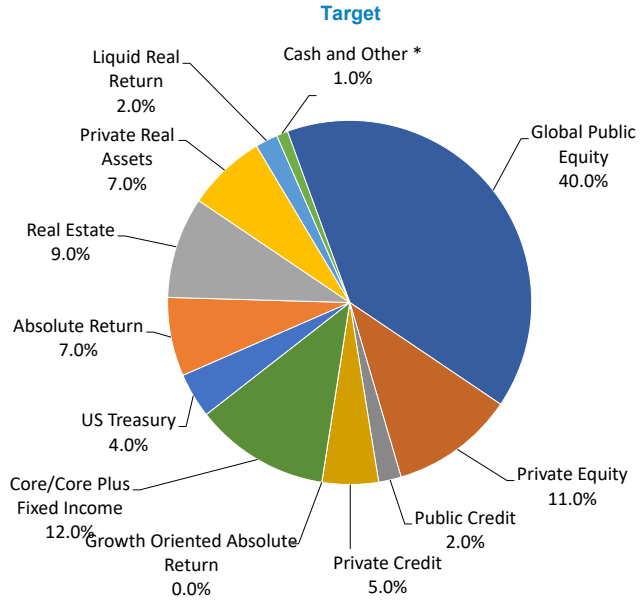
	2010	2011	2012	2013	2014	2015	2016
US Equity	31.7	31.4	28.4	26.5	25.2	26.4	23.4
International Equity	20.7	17.6	24.5	24.3	17.5	17.3	17.2
US Fixed Income	17.8	18.4	17.1	17.7	18.9	18.7	18.5
Real Estate / Real Assets	12.2	12.4	9.9	9.0	7.6	8.3	9.3
Absolute Return	4.9	7.3	5.2	8.8	9.4	9.7	8.8
Private Equity	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	2024
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	40.6	42.6
US Fixed Income	16.0	14.6	13.6	13.2	11.4	14.8	13.9	13.3
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	1.7
Real Estate / Real Assets	-	-	-	-	-	-	-	-
Real Estate	8.4	9.7	8.3	7.3	7.6	9.0	7.1	6.7
Real Assets	2.1	1.4	-	-	-	-	-	-
Private Real Assets	3.7	5.2	5.7	4.9	5.8	8.2	8.5	8.3
Liquid Real Return	-	-	2.0	3.3	3.2	1.2	1.2	1.1
Absolute Return	-	-	-	-	-			
Growth Hedge Funds	4.6	3.9	3.0	2.3	2.0	0.1	0.1	0.1
Diversifying Hedge Funds	3.8	6.2	6.4	6.4	6.0	7.5	6.3	6.4
Private Equity	6.9	9.3	9.0	10.1	13.4	14.2	13.0	12.8
Direct Lending	0.5	1.5	2.0	1.9	2.3	3.2	3.1	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	3.5	3.5
Other *	0.8	0.9	1.4	1.0	0.8	0.4	0.9	0.4

* Allocations without overlay.
* Other includes SSgA Overlay and closing accounts. Prior to Q2 2017 SSgA Real Assets is also included.



ASSET ALLOCATION	MARKET VALUE W/OVERLAY	W/ OVERLAY	W/O OVERLAY
Global Public Equity	5,312,969,613	40.1%	42.6%
Private Equity	1,494,812,284	11.3%	12.8%
Public Credit	264,772,233	2.0%	1.7%
Private Credit	646,769,602	5.0%	3.2%
Growth Oriented Absolute Return	-137,879	0.0%	0.1%
Core/Core Plus Fixed Income	1,692,116,607	12.8%	10.2%
US Treasury	409,589,782	3.1%	3.1%
Absolute Return	944,692,983	7.1%	6.4%
Real Estate	1,130,603,619	8.5%	6.7%
Private Real Assets	957,458,923	7.1%	8.3%
Liquid Real Return	283,865,094	2.1%	1.1%
Cash and Other *	117,192,585	0.9%	3.9%
TOTAL	**13,254,705,446**	**100.0%**	**100.0%**



ASSET ALLOCATION	ACTUAL	TARGET	DIFF
Global Public Equity	40.1%	40.0%	0.1%
Private Equity	11.3%	11.0%	0.3%
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	12.8%	12.0%	0.8%
US Treasury	3.1%	4.0%	-0.9%
Absolute Return	7.1%	7.0%	0.1%
Real Estate	8.5%	9.0%	-0.5%
Private Real Assets	7.1%	7.0%	0.1%
Liquid Real Return	2.1%	2.0%	0.1%
Cash and Other *	0.9%	1.0%	-0.1%

* Other includes closing accounts (SSgA Overlay)

Total Fund
Performance Summary

Sacramento County Employees' Retirement System
Period Ending: March 31, 2024

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Total Fund - Gross	**13,254,705,446**	**100.0**	**3.8 (56)**	**7.7 (80)**	**10.6 (70)**	**5.6 (20)**	**8.6 (26)**	**7.6 (31)**	**8.4**	**Jul-86**
Total Fund - Net			**3.8**	**7.6**	**10.4**	**5.4**	**8.3**	**7.3**	**8.2**	**Jul-86**
Policy Index			*3.0 (84)*	*7.4 (83)*	*10.2 (80)*	*4.9 (38)*	*7.5 (61)*	*6.8 (56)*	*8.3*	*Jul-86*
InvMetrics Public DB > $1B Median			*4.0*	*9.1*	*11.9*	*4.7*	*7.8*	*7.1*	*-*	
Total Fund ex Overlay - Gross	**13,204,926,250**	**99.6**	**3.9 (55)**	**7.8 (73)**	**10.7 (69)**	**5.8 (14)**	**8.5 (28)**	**7.6 (30)**	**8.3**	**Jul-86**
Total Fund ex Overlay - Net			**3.9**	**7.7**	**10.5**	**5.6**	**8.3**	**7.4**	**8.1**	**Jul-86**
Policy Index			*3.0 (84)*	*7.4 (83)*	*10.2 (80)*	*4.9 (38)*	*7.5 (61)*	*6.8 (56)*	*8.3*	*Jul-86*
Growth Asset Category - Gross	**8,006,990,683**	**60.4**	**6.3**	**12.3**	**17.6**	**7.2**	**11.5**	**-**	**11.3**	**Apr-17**
Growth Asset Category - Net			**6.3**	**12.1**	**17.3**	**6.9**	**11.2**	**-**	**11.0**	**Apr-17**
Growth Custom			*5.6*	*12.2*	*17.5*	*6.8*	*10.6*	*-*	*10.1*	
Global Public Equity - Gross	**5,646,139,728**	**42.6**	**8.0 (45)**	**15.6 (55)**	**22.5 (17)**	**5.9**	**10.8**	**9.1**	**9.6**	**Jul-11**
Global Public Equity - Net			**7.9**	**15.3**	**22.0**	**5.5**	**10.4**	**8.7**	**9.2**	**Jul-11**
MSCI AC World IMI Index (Net)			*7.7*	*15.6*	*22.5*	*6.3*	*10.6*	*8.4*	*8.6*	
Domestic Equity - Gross	**2,964,934,046**	**22.4**	**10.9 (7)**	**20.7 (18)**	**31.1 (16)**	**10.1 (32)**	**14.7 (28)**	**12.4 (30)**	**10.7**	**Jul-86**
Domestic Equity - Net			**10.8**	**20.5**	**30.8**	**9.8**	**14.4**	**12.1**	**10.5**	**Jul-86**
Russell 3000 Index			*10.0 (38)*	*19.3 (46)*	*29.3 (41)*	*9.8 (50)*	*14.3 (47)*	*12.3 (35)*	*10.6*	*Jul-86*
InvMetrics All DB US Equity Median			*9.8*	*19.3*	*29.1*	*9.7*	*14.3*	*12.1*	*-*	
Large Cap - Gross	**2,721,694,292**	**20.5**	**11.3**	**21.7**	**32.7**	**11.3**	**15.3**	**12.8**	**8.0**	**Apr-98**
Large Cap - Net			**11.3**	**21.5**	**32.4**	**11.0**	**15.1**	**12.6**	**7.8**	**Apr-98**
Russell 1000 Index			*10.3*	*19.6*	*29.9*	*10.5*	*14.8*	*12.7*	*8.3*	
Large Cap - Index	**1,473,130,811**	**11.1**	**10.3**	**19.6**	**29.8**	**10.5**	**14.8**	**12.7**	**12.4**	**Oct-08**
Large Cap - Index			**10.3**	**19.6**	**29.8**	**10.5**	**14.7**	**12.6**	**12.4**	**Oct-08**
Russell 1000 Index			*10.3*	*19.6*	*29.9*	*10.5*	*14.8*	*12.7*	*12.4*	
AB - Gross	1,473,130,811	11.1	10.3 (64)	19.6 (38)	29.8 (53)	10.5 (65)	14.8 (59)	12.7 (64)	10.7	May-89
AB - Net			10.3	19.6	29.8	10.5	14.7	12.6	10.7	May-89
Russell 1000 Index			*10.3 (60)*	*19.6 (38)*	*29.9 (47)*	*10.5 (72)*	*14.8 (63)*	*12.7 (63)*	*10.8*	*May-89*
eV US Passive Large Cap Equity Median			*10.4*	*19.4*	*29.8*	*11.0*	*15.0*	*12.9*	*-*	
Large Cap - Enhanced - Gross	**415,116,175**	**3.1**	**11.2**	**22.8**	**33.4**	**12.3**	**15.5**	**-**	**13.6**	**Aug-18**
Large Cap - Enhanced - Net			**11.1**	**22.6**	**33.1**	**12.0**	**15.2**	**-**	**13.3**	**Aug-18**
Russell 1000 Index			*10.3*	*19.6*	*29.9*	*10.5*	*14.8*	*-*	*13.3*	
AQR US Enhanced Equity - Gross	415,116,175	3.1	11.2 (31)	22.8 (13)	33.4 (13)	12.3 (22)	15.5 (21)	-	13.6	Aug-18
AQR US Enhanced Equity - Net			11.1	22.6	33.1	12.0	15.2	-	13.3	Aug-18
Russell 1000 Index			*10.3 (68)*	*19.6 (64)*	*29.9 (60)*	*10.5 (62)*	*14.8 (55)*	*-*	*13.3*	*Aug-18*
eV US Enh Equity Median			*10.7*	*20.0*	*30.3*	*10.9*	*14.8*	*12.8*	*-*	

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.

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Large Cap (130/30) - Gross	**415,934,932**	**3.1**	**13.3**	**23.5**	**33.6**	**12.7**	**16.4**	**13.5**	**13.3**	**Oct-08**
Large Cap (130/30) - Net			**13.3**	**23.2**	**33.1**	**12.2**	**15.8**	**12.8**	**12.7**	**Oct-08**
Russell 1000 Index			*10.3*	*19.6*	*29.9*	*10.5*	*14.8*	*12.7*	*12.4*	
JP Morgan 130/30 - Gross	223,934,005	1.7	14.1 (16)	25.7 (42)	38.5 (13)	14.7 (50)	18.8 (28)	14.7 (31)	13.8	Aug-08
JP Morgan 130/30 - Net			14.1	25.3	37.9	14.1	18.1	14.0	13.1	Aug-08
Russell 1000 Index			*10.3 (60)*	*19.6 (61)*	*29.9 (54)*	*10.5 (78)*	*14.8 (62)*	*12.7 (70)*	*11.6*	*Aug-08*
eV Extended US Equity Median			*11.9*	*21.9*	*30.9*	*14.7*	*16.1*	*13.7*	-	
DE Shaw Broad Mkt Core Alpha Ext - Gross	192,000,927	1.4	12.4 (42)	21.1 (57)	28.4 (59)	10.5 (78)	13.8 (69)	-	14.4	Feb-19
DE Shaw Broad Mkt Core Alpha Ext - Net			12.4	20.8	28.0	10.2	13.4	-	14.0	Feb-19
Russell 1000 Index			*10.3 (60)*	*19.6 (61)*	*29.9 (54)*	*10.5 (78)*	*14.8 (62)*	-	*15.4*	*Feb-19*
eV Extended US Equity Median			*11.9*	*21.9*	*30.9*	*14.7*	*16.1*	*13.7*	-	
Large Cap Active - Gross	**417,512,373**	**3.1**	**13.4**	**26.5**	**41.9**	**11.7**	**16.1**	**12.6**	**12.4**	**Oct-08**
Large Cap Active - Net			**13.2**	**25.9**	**40.9**	**10.9**	**15.2**	**11.8**	**11.7**	**Oct-08**
Russell 1000			*10.3*	*19.6*	*29.9*	*10.5*	*14.8*	*11.3*	*11.0*	
Eagle Capital - Gross	417,492,109	3.1	13.4 (11)	26.5 (6)	41.9 (2)	11.7 (37)	16.1 (17)	13.6 (17)	15.0	Mar-12
Eagle Capital - Net			13.2	25.9	40.9	10.9	15.2	12.7	14.2	Mar-12
Russell 1000 Index			*10.3 (53)*	*19.6 (51)*	*29.9 (45)*	*10.5 (57)*	*14.8 (46)*	*12.7 (42)*	*13.8*	*Mar-12*
eV US Large Cap Core Equity Median			*10.5*	*19.7*	*28.6*	*10.9*	*14.5*	*12.5*	-	
Small Cap - Gross	**243,239,754**	**1.8**	**6.2**	**10.4**	**16.0**	**-0.6**	**8.3**	**8.8**	**11.5**	**Jan-91**
Small Cap - Net			**6.1**	**10.0**	**15.4**	**-1.4**	**7.6**	**8.1**	**10.7**	**Jan-91**
Russell 2000 Index			*5.2*	*13.8*	*19.7*	*-0.1*	*8.1*	*7.6*	*10.2*	
Small Cap - Growth - Gross	**105,046,662**	**0.8**	**4.1**	**7.1**	**13.8**	**-7.8**	**6.4**	**9.5**	**10.9**	**Oct-08**
Small Cap - Growth - Net			**4.0**	**6.9**	**13.5**	**-8.4**	**5.7**	**8.9**	**10.3**	**Oct-08**
Russell 2000 Growth Index			*7.6*	*12.4*	*20.3*	*-2.7*	*7.4*	*7.9*	*9.9*	
Weatherbie - Gross	105,046,662	0.8	4.1 (84)	7.1 (79)	13.8 (74)	-7.8 (90)	6.4 (95)	11.1 (34)	12.0	Jan-03
Weatherbie - Net			4.0	6.9	13.5	-8.4	5.7	10.4	11.2	Jan-03
Russell 2000 Growth Index			*7.6 (48)*	*12.4 (48)*	*20.3 (42)*	*-2.7 (64)*	*7.4 (89)*	*7.9 (94)*	*10.2*	*Jan-03*
eV US Small Cap Growth Equity Median			*7.3*	*12.0*	*18.0*	*-0.2*	*10.2*	*10.4*	-	

See Policy Index and Benchmark History

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Small Cap - Value - Gross	**138,193,092**	**1.0**	**8.0**	**13.1**	**17.8**	**6.8**	**8.7**	**7.2**	**9.0**	**Oct-08**
Small Cap - Value - Net			**7.8**	**12.4**	**16.8**	**6.0**	**8.0**	**6.5**	**8.2**	**Oct-08**
Russell 2000 Value Index			*2.9*	*15.1*	*18.8*	*2.2*	*8.2*	*6.9*	*8.1*	
Snyder Capital Management - Gross	138,193,092	1.0	8.0 (18)	13.1 (76)	17.8 (70)	6.8 (42)	-	-	8.9	Feb-21
Snyder Capital Management - Net			7.8	12.4	16.8	6.0	-	-	8.1	Feb-21
Russell 2000 Value Index - Net			*2.9 (88)*	*15.1 (58)*	*18.8 (63)*	*2.2 (90)*	-	-	*6.7*	*Feb-21*
eV US Small Cap Value Equity Median			*5.2*	*16.2*	*21.0*	*6.3*	*11.0*	*8.6*	-	
International Equity - Gross	**2,274,124,219**	**17.2**	**4.0 (83)**	**9.3 (80)**	**12.7 (79)**	**1.4 (84)**	**6.6 (77)**	**5.3 (49)**	**6.4**	**Jan-88**
International Equity - Net			**3.9 (85)**	**8.9 (86)**	**12.1 (86)**	**0.9 (88)**	**6.0 (89)**	**4.8 (74)**	**6.0**	**Jan-88**
MSCI AC World ex USA (Net)			*4.7 (56)*	*10.6 (40)*	*13.3 (60)*	*1.9 (74)*	*6.0 (90)*	*4.3 (92)*	*5.7*	*Jan-88*
InvMetrics All DB Global ex-US Equity Median			*4.8*	*10.4*	*13.6*	*3.1*	*7.4*	*5.3*	-	
International - Developed - Gross	**1,669,305,282**	**12.6**	**4.9 (68)**	**11.0 (64)**	**14.5 (37)**	**4.2**	**8.0**	**6.2**	**5.2**	**Apr-98**
International - Developed - Net			**4.8 (71)**	**10.7 (67)**	**13.8 (63)**	**3.6**	**7.4**	**5.6**	**4.7**	**Apr-98**
MSCI World ex U.S. (Net)			*5.6 (53)*	*11.9 (55)*	*15.3 (5)*	*4.9*	*7.5*	*4.8*	*4.8*	*Apr-98*
InvMetrics All DB Developed Market ex-US Equity Median			*5.9*	*12.2*	*14.0*	-	-	-	-	
Large Cap - Gross	**1,451,867,342**	**11.0**	**5.2 (51)**	**11.1 (49)**	**14.9 (51)**	**5.1 (45)**	**8.3 (50)**	**6.3 (31)**	**5.7**	**Jan-05**
Large Cap - Net			**5.1 (52)**	**10.8 (50)**	**14.3 (54)**	**4.5 (57)**	**7.7 (63)**	**5.8 (48)**	**5.2**	**Jan-05**
MSCI World ex U.S. (Net)			*5.6 (43)*	*11.9 (41)*	*15.3 (46)*	*4.9 (48)*	*7.5 (67)*	*4.8 (82)*	*5.2*	*Jan-05*
eV EAFE Large Cap Equity Median			*5.2*	*10.8*	*15.0*	*4.8*	*8.2*	*5.7*	-	
Lazard - Gross	367,203,583	2.8	7.6 (19)	12.1 (35)	16.5 (30)	3.4 (38)	7.1 (63)	5.9 (48)	8.2	Jul-12
Lazard - Net			7.5	11.7	15.9	3.0	6.7	5.5	7.9	Jul-12
MSCI World ex U.S. (Net)			*5.6 (42)*	*11.9 (37)*	*15.3 (37)*	*4.9 (24)*	*7.5 (54)*	*4.8 (78)*	*7.0*	*Jul-12*
eV All ACWI ex-US Equity Median			*5.1*	*10.6*	*13.6*	*2.6*	*7.7*	*5.8*	-	
Walter Scott & Partners Limited - Gross	532,913,085	4.0	3.6 (82)	6.7 (60)	10.3 (58)	4.0 (15)	8.5 (57)	-	9.6	Apr-17
Walter Scott & Partners Limited - Net			3.5	6.5	9.5	3.2	7.5	-	8.7	Apr-17
MSCI World ex U.S. Growth (Net)			*6.9 (38)*	*10.4 (27)*	*13.7 (24)*	*2.8 (32)*	*7.9 (68)*	-	*7.7*	*Apr-17*
eV EAFE Large Cap Growth Median			*6.0*	*7.5*	*11.5*	*1.9*	*8.6*	*6.6*	-	
LSV - Gross	551,750,674	4.2	5.2 (29)	15.1 (9)	18.7 (15)	7.6 (34)	9.1 (28)	6.0 (15)	5.6	Jan-05
LSV - Net			5.1	14.7	18.2	7.2	8.7	5.6	5.1	Jan-05
MSCI World ex U.S. Value (Net)			*4.2 (45)*	*13.4 (25)*	*16.9 (32)*	*6.8 (46)*	*6.6 (71)*	*3.6 (88)*	*4.4*	*Jan-05*
eV EAFE Large Cap Value Median			*3.7*	*11.1*	*15.1*	*5.9*	*7.8*	*5.0*	-	

See Policy Index and Benchmark History

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Small Cap - Gross	**217,437,940**	**1.6**	**2.6 (63)**	**10.1 (54)**	**11.5 (49)**	**-2.7 (80)**	**5.2 (69)**	**4.5 (79)**	**7.6**	**Oct-08**
Small Cap - Net			**2.4**	**9.5**	**10.9**	**-3.4**	**4.5**	**3.7**	**6.8**	**Oct-08**
MSCI World ex U.S. Small Cap Index (Net)			*2.6 (63)*	*9.5 (59)*	*10.0 (55)*	*-0.9 (64)*	*5.4 (67)*	*4.5 (79)*	*7.0*	*Oct-08*
eV EAFE Small Cap Equity Median			*4.1*	*10.5*	*11.0*	*1.0*	*6.8*	*6.1*	-	
William Blair Dev Small Cap - Gross	103,348,739	0.8	-0.8 (91)	5.1 (85)	6.9 (84)	-4.4 (86)	5.5 (71)	4.4 (93)	7.7	Oct-08
William Blair Dev Small Cap - Net			-1.0	4.4	5.9	-5.3	4.5	3.4	6.7	Oct-08
MSCI World ex U.S. Small Cap Index (Net)			*2.6 (54)*	*9.5 (61)*	*10.0 (65)*	*-0.9 (62)*	*5.4 (72)*	*4.5 (89)*	*7.0*	*Oct-08*
eV ACWI ex-US Small Cap Equity Median			*3.1*	*11.3*	*13.2*	*0.9*	*7.5*	*6.7*	-	
Acadian Asset Management - Gross	114,089,201	0.9	5.9 (23)	15.0 (29)	-	-	-	-	14.4	Apr-23
Acadian Asset Management - Net			5.7 (28)	14.6 (30)	-	-	-	-	14.1	Apr-23
MSCI World ex U.S. Small Value (Net)			*2.9 (52)*	*12.1 (43)*	*12.9 (52)*	-	-	-	*12.9*	*Apr-23*
eV ACWI ex-US Small Cap Equity Median			*3.1*	*11.3*	*13.2*	*0.9*	*7.5*	*6.7*	-	
International - Emerging - Gross	**604,814,865**	**4.6**	**1.6 (94)**	**4.9**	**8.0**	**-7.1**	**2.2**	**2.9**	**5.5**	**Feb-00**
International - Emerging - Net			**1.5**	**4.5**	**7.5**	**-7.4**	**1.9**	**2.5**	**5.1**	**Feb-00**
MSCI Emerging Markets (Net)			*2.4*	*7.2*	*8.2*	*-5.1*	*2.2*	*2.9*	*5.6*	
Arga Emg - Gross	202,610,063	1.5	1.3 (78)	5.8 (72)	10.5 (49)	-	-	-	7.0	Feb-23
Arga Emg - Net			1.1	5.2	9.7	-	-	-	6.2	Feb-23
MSCI Emerging Markets (Net)			*2.4 (59)*	*7.2 (57)*	*8.2 (64)*	-	-	-	*3.6*	*Feb-23*
Baillie Gifford Emg All Cap - Gross	220,541,035	1.7	3.5 (43)	6.6 (62)	10.3 (50)	-7.8 (88)	2.8 (71)	-	7.6	Apr-16
Baillie Gifford Emg All Cap - Net			3.5	6.6	10.3	-7.8	2.8	-	7.6	Apr-16
MSCI Emerging Markets (Net)			*2.4 (59)*	*7.2 (57)*	*8.2 (64)*	*-5.1 (65)*	*2.2 (82)*	-	*5.3*	*Apr-16*
eV Emg Mkts Equity Median			*3.0*	*7.8*	*10.3*	*-3.1*	*4.3*	*4.6*	-	
Oaktree Emg - Gross	181,663,621	1.4	-0.4 (91)	1.0 (94)	2.1 (93)	-	-	-	-3.0	Feb-23
Oaktree Emg - Net			-0.6	0.4	1.2	-	-	-	-3.8	Feb-23
MSCI Emerging Markets (Net)			*2.4 (59)*	*7.2 (57)*	*8.2 (64)*	-	-	-	*3.6*	*Feb-23*
eV Emg Mkts Equity Median			*3.0*	*7.8*	*10.3*	*-3.1*	*4.3*	*4.6*	-	

See Policy Index and Benchmark History

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Global/Unconstrained Equity - Gross	**407,081,463**	**3.1**	**10.4 (7)**	**16.8 (22)**	**22.5 (17)**	**-**	**-**	**-**	**4.6**	**Apr-22**
Global/Unconstrained Equity - Net			**10.4**	**16.8**	**22.5**	**-**	**-**	**-**	**4.6**	**Apr-22**
MSCI AC World IMI Index (Net)			*7.7 (56)*	*15.6 (54)*	*22.5 (17)*	-	-	-	*6.3*	*Apr-22*
InvMetrics All DB Global Equity Median			*7.8*	*15.8*	*19.9*	*6.9*	-	-	-	
Artisan Partners Global Opp - Gross	150,970,173	1.1	10.9 (18)	18.5 (26)	25.5 (28)	-	-	-	17.5	Sep-22
Artisan Partners Global Opp - Net			10.9	18.5	25.5	-	-	-	17.5	Sep-22
MSCI AC World IMI Index (Net)			*7.7 (48)*	*15.6 (43)*	*22.5 (41)*	-	-	-	*18.0*	*Sep-22*
eV Global All Cap Equity Median			*7.5*	*14.7*	*20.7*	*6.7*	*11.3*	*9.1*	-	
Nikko Asset Management - Gross	146,280,000	1.1	14.0 (4)	17.7 (30)	24.3 (33)	-	-	-	17.1	Sep-22
Nikko Asset Management - Net			14.0	17.7	24.3	-	-	-	17.1	Sep-22
MSCI AC World IMI Index (Net)			*7.7 (48)*	*15.6 (43)*	*22.5 (41)*	-	-	-	*18.0*	*Sep-22*
eV Global All Cap Equity Median			*7.5*	*14.7*	*20.7*	*6.7*	*11.3*	*9.1*	-	
Third Point Offshore Fund - Gross	19,789,030	0.1	2.6 (92)	9.2 (85)	10.7 (89)	-2.2 (95)	6.5 (94)	5.5 (95)	7.9	May-12
Third Point Offshore Fund - Net			2.6	9.2	10.7	-2.2	6.5	5.5	7.9	May-12
MSCI AC World IMI Index (Net)			*7.7 (48)*	*15.6 (43)*	*22.5 (41)*	*6.3 (55)*	*10.6 (58)*	*8.4 (63)*	*9.5*	*May-12*
eV Global All Cap Equity Median			*7.5*	*14.7*	*20.7*	*6.7*	*11.3*	*9.1*	-	
Allspring Global Investments - Gross	90,042,260	0.7	6.7 (62)	-	-	-	-	-	19.3	Sep-23
Allspring Global Investments - Net			6.7	-	-	-	-	-	19.3	Sep-23
MSCI AC World IMI Index (Net)			*7.7 (48)*	-	-	-	-	-	*14.7*	*Sep-23*
eV Global All Cap Equity Median			*7.5*	*14.7*	*20.7*	*6.7*	*11.3*	*9.1*	-	
Private Equity - Gross* **	**1,693,186,010**	**12.8**	**2.8 (7)**	**4.5 (17)**	**6.1 (40)**	**12.6 (62)**	**16.9 (27)**	**16.0**	**7.1**	**Mar-08**
Private Equity - Net* **			**2.8**	**4.5**	**6.1**	**12.6**	**16.9**	**16.0**	**7.2**	**Mar-08**
Cambridge Associates All PE 1 Qtr Lag			*0.0 (46)*	*1.2 (76)*	*3.1 (82)*	*9.7 (78)*	*13.8 (62)*	*13.0*	*11.3*	*Mar-08*
Russell 3000 +3% 1Q Lag			*12.8 (1)*	*19.5 (1)*	*29.0 (1)*	*11.6 (76)*	*18.2 (18)*	*14.5*	*12.7*	*Mar-08*
InvMetrics All DB Private Equity Median			*0.0*	*2.6*	*5.2*	*15.4*	*15.6*	-	-	
Abbott VI - Gross	22,695,537	0.2	0.0	-0.1	1.4	4.3	10.4	13.1	6.4	Aug-08
Abbott VI - Net			0.0	-0.1	1.4	4.3	10.4	13.1	-	Aug-08
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*12.0*	
Accel-KKR V - Gross	29,020,757	0.2	2.8	9.6	11.2	30.7	27.9	-	22.3	Feb-17
Accel-KKR V - Net			2.8	9.6	11.2	30.7	27.9	-	22.3	Feb-17
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*14.4*	
Accel-KKR VI - Gross	26,952,762	0.2	0.0	0.0	0.0	-19.7	-	-	-19.2	Mar-21
Accel-KKR VI - Net			0.0	0.0	0.0	-19.7	-	-	-19.2	Mar-21
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*14.8*	

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 Athyrium Opportunities up to 4/1/17.*
**** Returns are one-quarter lag.*
+ Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar weighted-returns.

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Accel-KKR Growth Partners II - Gross	8,569,209	0.1	8.9	19.9	20.8	49.8	36.4	-	18.6	Mar-15
Accel-KKR Growth Partners II - Net			8.9	19.9	20.8	49.8	36.4	-	18.6	Mar-15
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*12.6*	
Accel-KKR Growth Partners III - Gross	32,479,786	0.2	1.9	6.5	7.5	16.1	-	-	4.5	Aug-19
Accel-KKR Growth Partners III - Net			1.9	6.5	7.5	16.1	-	-	4.5	Aug-19
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*13.8*	
Accel-KKR Growth Partners IV - Gross	11,167,176	0.1	0.9	1.8	2.3	-	-	-	-18.1	Jul-22
Accel-KKR Growth Partners IV - Net			0.9	1.8	2.3	-	-	-	-18.1	Jul-22
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*-1.6*	
Atalaya Special Opp V - Gross	440,098	0.0	0.1	-0.9	-20.4	-4.2	1.4	4.0	3.4	Aug-13
Atalaya Special Opp V - Net			0.1	-0.9	-20.4	-4.2	1.4	4.0	3.4	Aug-13
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.1*	
Atalaya Special Opp VI - Gross	1,157,158	0.0	8.1	-7.0	-7.2	-1.2	9.9	-	9.3	May-16
Atalaya Special Opp VI - Net			8.1	-7.0	-7.2	-1.2	9.9	-	9.3	May-16
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*14.8*	
Canvas Ventures III - Gross	13,429,541	0.1	-7.4	-11.3	-12.2	0.0	-	-	-1.9	Dec-20
Canvas Ventures III - Net			-7.4	-11.3	-12.2	0.0	-	-	-1.9	Dec-20
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*16.9*	
Cortec Group Fund VII - Gross	27,385,076	0.2	3.9	8.1	7.6	19.3	-	-	24.0	Jan-20
Cortec Group Fund VII - Net			3.9	8.1	7.6	19.3	-	-	24.0	Jan-20
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*14.1*	
Cortec Group Fund VIII - Gross**	3,359,388	0.0	-7.6	-21.3	-	-	-	-	-21.3	Apr-23
Cortec Group Fund VIII - Net**			-7.6	-21.3	-	-	-	-	-21.3	Apr-23
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*3.1*	
CRV Select Fund I - Gross	18,261,883	0.1	1.8	4.9	4.3	-	-	-	0.8	Jun-21
CRV Select Fund I - Net			1.8	4.9	4.3	-	-	-	0.8	Jun-21
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*10.3*	
CRV Select Fund II - Gross	5,679,405	0.0	0.2	3.5	2.9	-	-	-	-7.8	Apr-22
CRV Select Fund II - Net			0.2	3.5	2.9	-	-	-	-7.8	Apr-22
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*-1.8*	
CRV XVIII LP - Gross	16,977,040	0.1	-2.1	-5.0	-5.0	1.1	-	-	1.1	Mar-21
CRV XVIII LP - Net			-2.1	-5.0	-5.0	1.1	-	-	1.1	Mar-21
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*14.8*	

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.*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
CRV XIX LP - Gross	6,758,454	0.1	-2.5	-8.1	-13.9	-	-	-	-18.2	Jul-22
CRV XIX LP - Net			-2.5	-8.1	-13.9	-	-	-	-18.2	Jul-22
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*-1.6*	
Davidson Kempner LT Dist Opp IV - Gross	18,669,797	0.1	-0.4	5.8	8.6	24.1	16.3	-	16.3	Apr-18
Davidson Kempner LT Dist Opp IV - Net			-0.4	5.8	8.6	24.1	16.3	-	16.3	Apr-18
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.0*	
Davidson Kempner LT Dist Opp V - Gross	32,308,124	0.2	1.9	5.2	6.9	9.2	-	-	13.6	Jun-20
Davidson Kempner LT Dist Opp V - Net			1.9	5.2	6.9	9.2	-	-	13.6	Jun-20
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*14.4*	
Dyal Capital Partners II - Gross	36,251,438	0.3	-4.8	2.4	11.2	23.0	18.6	-	4.2	Jan-15
Dyal Capital Partners II - Net			-4.8	2.4	11.2	23.0	18.6	-	4.2	Jan-15
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.0*	
Dyal Capital Partners III - Gross	32,669,878	0.2	4.8	13.6	26.9	20.2	25.5	-	24.2	Jan-17
Dyal Capital Partners III - Net			4.8	13.6	26.9	20.2	25.5	-	24.2	Jan-17
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.9*	
Garrison Investment Group - Gross	1,384,851	0.0	-1.1	-7.1	-7.4	48.0	22.9	9.9	9.6	Jun-12
Garrison Investment Group - Net			-1.1	-7.1	-7.4	48.0	22.9	9.9	9.6	Jun-12
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.7*	
Golden Capital Co Invest - Gross	25,653,707	0.2	4.8	16.5	16.3	-	-	-	8.3	Nov-22
Golden Capital Co Invest - Net			4.8	16.5	16.3	-	-	-	8.3	Nov-22
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*1.6*	
Gridiron Capital Fund IV - Gross	54,623,623	0.4	3.2	9.2	9.8	31.2	-	-	29.3	Jun-20
Gridiron Capital Fund IV - Net			3.2	9.2	9.8	31.2	-	-	29.3	Jun-20
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*14.4*	
Gridiron Capital Fund V - Gross	15,848,711	0.1	1.7	39.7	16.5	-	-	-	14.0	Feb-23
Gridiron Capital Fund V - Net			1.7	39.7	16.5	-	-	-	14.0	Feb-23
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*3.5*	
Harbourvest VIII - Gross	1,430,740	0.0	-19.3	-50.7	-50.6	-17.1	-4.8	4.0	5.0	Jan-08
Harbourvest VIII - Net			-19.3	-50.7	-50.6	-17.1	-4.8	4.0	-	Jan-08
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*11.0*	
H.I.G. Bayside Loan III - Gross	3,480,672	0.0	2.0	-11.5	-12.9	-3.7	-4.4	3.3	2.0	Feb-13
H.I.G. Bayside Loan III - Net			2.0	-11.5	-12.9	-3.7	-4.4	3.3	2.0	Feb-13
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*15.0*	

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
H.I.G. Capital V - Gross	7,181,894	0.1	5.9	-11.7	-11.7	13.5	15.0	14.5	12.2	Aug-13
H.I.G. Capital V - Net			5.9	-11.7	-11.7	13.5	15.0	14.5	12.2	Aug-13
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.1*	
H.I.G. Europe Capital II - Gross	10,894,300	0.1	4.5	6.0	9.7	5.7	12.3	-14.6	-14.4	Feb-14
H.I.G. Europe Capital II - Net			4.5	6.0	9.7	5.7	12.3	-14.6	-14.4	Feb-14
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*13.5*	
Khosla IV - Gross	13,811,000	0.1	14.9	4.4	3.7	0.0	18.3	20.1	17.7	Aug-11
Khosla IV - Net			14.9	4.4	3.7	0.0	18.3	20.1	17.7	Aug-11
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.0*	
Khosla V - Gross	36,585,310	0.3	0.8	-1.2	2.2	23.6	21.4	-	15.7	Dec-14
Khosla V - Net			0.8	-1.2	2.2	23.6	21.4	-	15.7	Dec-14
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*12.7*	
Khosla VI - Gross	76,048,770	0.6	28.4	27.7	25.0	30.7	19.9	-	16.0	Sep-18
Khosla VI - Net			28.4	27.7	25.0	30.7	19.9	-	16.0	Sep-18
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.5*	
Khosla VII - Gross	18,360,212	0.1	6.1	13.5	15.0	4.0	-	-	3.8	Feb-21
Khosla VII - Net			6.1	13.5	15.0	4.0	-	-	3.8	Feb-21
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*14.4*	
Linden Capital III - Gross	20,196,285	0.2	9.2	-2.5	-3.8	0.2	17.6	-	16.7	Jul-16
Linden Capital III - Net			9.2	-2.5	-3.8	0.2	17.6	-	16.7	Jul-16
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*14.1*	
Linden Capital Partners IV - Gross	42,155,700	0.3	14.2	24.9	28.1	26.5	9.5	-	18.2	Oct-18
Linden Capital Partners IV - Net			14.2	24.9	28.1	26.5	9.5	-	18.2	Oct-18
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*12.8*	
Linden Capital Partners V - Gross	17,900,733	0.1	3.2	11.7	16.8	-	-	-	7.8	Aug-22
Linden Capital Partners V - Net			3.2	11.7	16.8	-	-	-	7.8	Aug-22
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*-1.7*	
Marlin Equity IV - Gross	8,653,868	0.1	-8.0	-14.2	-12.6	-1.4	3.3	4.3	3.5	Dec-13
Marlin Equity IV - Net			-8.0	-14.2	-12.6	-1.4	3.3	4.3	3.5	Dec-13
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.1*	
Marlin Equity V - Gross	31,337,746	0.2	0.5	6.2	9.7	17.8	21.2	-	18.3	Mar-18
Marlin Equity V - Net			0.5	6.2	9.7	17.8	21.2	-	18.3	Mar-18
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.7*	

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Marlin Heritage - Gross	3,951,875	0.0	-5.8	-20.9	-23.9	-14.8	2.1	-	11.8	Aug-14
Marlin Heritage - Net			-5.8	-20.9	-23.9	-14.8	2.1	-	11.8	Aug-14
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.1*	
Marlin Heritage II - Gross	10,335,094	0.1	-0.4	-10.9	-12.3	6.7	10.3	-	4.6	Nov-17
Marlin Heritage II - Net			-0.4	-10.9	-12.3	6.7	10.3	-	4.6	Nov-17
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.7*	
Marlin Heritage III - Gross	7,080,643	0.1	8.3	2.1	164.6	-	-	-	-47.4	Jan-23
Marlin Heritage III - Net			8.3	2.1	164.6	-	-	-	-47.4	Jan-23
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*3.2*	
Marlin Heritage Europe - Gross	19,138,116	0.1	5.1	5.0	7.5	20.1	24.9	-	21.0	Sep-17
Marlin Heritage Europe - Net			5.1	5.0	7.5	20.1	24.9	-	21.0	Sep-17
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*14.0*	
New Enterprise 14 - Gross	39,016,030	0.3	-0.2	10.4	7.7	5.2	11.0	14.7	12.8	Jun-12
New Enterprise 14 - Net			-0.2	10.4	7.7	5.2	11.0	14.7	12.8	Jun-12
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.7*	
New Enterprise 15 - Gross	27,665,419	0.2	0.7	1.3	3.4	-10.9	2.0	-	8.0	May-15
New Enterprise 15 - Net			0.7	1.3	3.4	-10.9	2.0	-	8.0	May-15
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.2*	
New Enterprise 16 - Gross	34,774,813	0.3	-2.7	0.7	0.3	-1.0	6.5	-	5.7	Jun-17
New Enterprise 16 - Net			-2.7	0.7	0.3	-1.0	6.5	-	5.7	Jun-17
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*14.1*	
New Enterprise 17 - Gross	21,801,892	0.2	3.2	0.8	2.2	6.0	-	-	8.3	Aug-19
New Enterprise 17 - Net			3.2	0.8	2.2	6.0	-	-	8.3	Aug-19
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*13.8*	
Oaktree Power Opp Fund VI - Gross	26,660,636	0.2	2.4	16.9	18.5	-	-	-	6.1	Jun-22
Oaktree Power Opp Fund VI - Net			2.4	16.9	18.5	-	-	-	6.1	Jun-22
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*-2.0*	
OrbiMed Private Investments VIII - Gross	10,024,433	0.1	7.9	18.2	18.8	10.8	-	-	4.7	Jan-21
OrbiMed Private Investments VIII - Net			7.9	18.2	18.8	10.8	-	-	4.7	Jan-21
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*14.0*	
OrbiMed Private Investments IX - Gross	5,099,429	0.0	-6.6	9.7	-4.3	-	-	-	-23.3	Dec-22
OrbiMed Private Investments IX - Net			-6.6	9.7	-4.3	-	-	-	-23.3	Dec-22
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*1.7*	

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
RCP Multi-Fund Feeder - Gross	79,793,447	0.6	0.0	3.8	4.3	18.2	13.5	-	10.4	Dec-18
RCP Multi-Fund Feeder - Net			0.0	3.8	4.3	18.2	13.5	-	10.4	Dec-18
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.3*	
RRJ Capital Master Fund II - Gross	4,665,682	0.0	32.9	39.1	21.8	0.7	3.4	7.2	9.0	Jun-13
RRJ Capital Master Fund II - Net			32.9	39.1	21.8	0.7	3.4	7.2	9.0	Jun-13
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.5*	
RRJ Capital Master Fund III - Gross	7,538,785	0.1	-11.7	-25.5	-21.7	-15.4	-10.4	-	-11.2	Jan-16
RRJ Capital Master Fund III - Net			-11.7	-25.5	-21.7	-15.4	-10.4	-	-11.2	Jan-16
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*14.4*	
Shamrock Capital II - Gross	13,304,463	0.1	2.3	7.6	10.7	10.2	-	-	-68.0	Aug-20
Shamrock Capital II - Net			2.3	7.6	10.7	10.2	-	-	-68.0	Aug-20
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*18.0*	
Shamrock Capital III - Gross	165,635	0.0	-109.7	-100.0	-100.0	-	-	-	-100.0	Jan-23
Shamrock Capital III - Net			-109.7	-100.0	-100.0	-	-	-	-100.0	Jan-23
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*3.2*	
Shamrock Capital Growth Fund V - Gross	12,523,888	0.1	1.9	5.3	4.4	-	-	-	-25.6	Aug-21
Shamrock Capital Growth Fund V - Net			1.9	5.3	4.4	-	-	-	-25.6	Aug-21
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*7.1*	
Sixth Street Opp Partners V - Gross	17,194,443	0.1	0.7	6.2	7.6	-	-	-	-2.9	Jul-22
Sixth Street Opp Partners V - Net			0.7	6.2	7.6	-	-	-	-2.9	Jul-22
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*-1.6*	
Spectrum Equity VII - Gross	34,752,108	0.3	3.9	1.3	7.6	-4.3	22.6	-	17.3	Jan-15
Spectrum Equity VII - Net			3.9	1.3	7.6	-4.3	22.6	-	17.3	Jan-15
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.0*	
Spectrum Equity Fund VIII - Gross	28,197,836	0.2	20.8	24.9	30.5	33.9	25.4	-	-9.2	Jul-18
Spectrum Equity Fund VIII - Net			20.8	24.9	30.5	33.9	25.4	-	-9.2	Jul-18
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.0*	
Spectrum Equity Fund IX - Gross	21,284,170	0.2	-0.4	0.9	-0.3	-7.5	-	-	-8.5	Oct-20
Spectrum Equity Fund IX - Net			-0.4	0.9	-0.3	-7.5	-	-	-8.5	Oct-20
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*16.1*	
Spectrum Equity Fund X - Gross	2,720,945	0.0								
Spectrum Equity Fund X - Net										
Cambridge Associates All PE 1 Qtr Lag			*0.0*	-	-	-	-	-	*0.0*	

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Strategic Value Spl Fund V - Gross	22,096,422	0.2	5.0	14.7	19.5	-	-	-	10.9	Sep-21
Strategic Value Spl Fund V - Net			5.0	14.7	19.5	-	-	-	10.9	Sep-21
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*7.3*	
Summit EUR Growth Equity II - Gross	51,773,054	0.4	8.0	24.7	47.6	52.0	45.3	-	68.0	Feb-18
Summit EUR Growth Equity II - Net			8.0	24.7	47.6	52.0	45.3	-	68.0	Feb-18
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.5*	
Summit EUR Growth Equity III - Gross	20,137,961	0.2	7.4	24.7	42.3	-3.4	-	-	-3.2	Feb-21
Summit EUR Growth Equity III - Net			7.4	24.7	42.3	-3.4	-	-	-3.2	Feb-21
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*14.4*	
Summit Ventures III - Gross	3,434,559	0.0	-4.8	-6.3	11.9	5.7	13.0	15.3	12.3	Jul-12
Summit Ventures III - Net			-4.8	-6.3	11.9	5.7	13.0	15.3	12.3	Jul-12
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.5*	
Summit Ventures IV - Gross	58,348,643	0.4	13.5	9.8	9.2	39.6	29.1	-	33.3	Jun-16
Summit Ventures IV - Net			13.5	9.8	9.2	39.6	29.1	-	33.3	Jun-16
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*15.0*	
Summit Ventures V - Gross	12,850,183	0.1	5.7	9.5	8.2	-	-	-	-0.6	Jun-21
Summit Ventures V - Net			5.7	9.5	8.2	-	-	-	-0.6	Jun-21
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*10.3*	
Thoma Bravo XI - Gross	25,063,694	0.2	10.3	17.7	31.6	5.7	25.5	-	21.9	Jul-14
Thoma Bravo XI - Net			10.3	17.7	31.6	5.7	25.5	-	21.9	Jul-14
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.1*	
Thoma Bravo XII - Gross	36,648,630	0.3	9.3	16.6	19.0	14.4	19.5	-	12.3	Jun-16
Thoma Bravo XII - Net			9.3	16.6	19.0	14.4	19.5	-	12.3	Jun-16
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*15.0*	
Thoma Bravo XIII - Gross	66,469,422	0.5	4.3	14.8	18.4	10.7	25.6	-	25.1	Mar-19
Thoma Bravo XIII - Net			4.3	14.8	18.4	10.7	25.6	-	25.1	Mar-19
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.2*	
Threshold Ventures III - Gross	21,668,289	0.2	-5.0	-19.4	-26.2	16.5	-	-	6.1	Nov-19
Threshold Ventures III - Net			-5.0	-19.4	-26.2	16.5	-	-	6.1	Nov-19
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*13.7*	
Threshold Ventures IV - Gross	4,375,650	0.0	1.4	-7.2	-13.2	-	-	-	-73.7	Jul-22
Threshold Ventures IV - Net			1.4	-7.2	-13.2	-	-	-	-73.7	Jul-22
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*-1.6*	

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
TPG Opp Partners III - Gross	5,985,895	0.0	-4.0	-12.8	-12.8	-0.1	2.0	-7.9	-7.9	Apr-14
TPG Opp Partners III - Net			-4.0	-12.8	-12.8	-0.1	2.0	-7.9	-7.9	Apr-14
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*13.0*	
Trinity Ventures XI - Gross	41,994,735	0.3	-7.5	-4.5	-7.5	-1.6	5.0	9.8	5.8	May-13
Trinity Ventures XI - Net			-7.5	-4.5	-7.5	-1.6	5.0	9.8	5.8	May-13
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.5*	
Trinity Ventures XII - Gross	36,351,699	0.3	-32.0	-22.5	-32.0	-1.6	9.1	-	12.2	May-16
Trinity Ventures XII - Net			-32.0	-22.5	-32.0	-1.6	9.1	-	12.2	May-16
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*14.8*	
TSG7 A LP - Gross	16,609,237	0.1	11.8	-8.4	-2.6	14.7	16.7	-	-182.6	Apr-16
TSG7 A LP - Net			11.8	-8.4	-2.6	14.7	16.7	-	-182.6	Apr-16
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.9*	
TSG7 B LP - Gross	3,632,835	0.0	3.1	-4.5	-5.0	10.4	10.3	-	-4.2	Feb-16
TSG7 B LP - Net			3.1	-4.5	-5.0	10.4	10.3	-	-4.2	Feb-16
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.5*	
TSG8 LP - Gross	36,118,157	0.3	-4.1	-9.5	-8.5	3.6	-62.5	-	-61.2	Feb-19
TSG8 LP - Net			-4.1	-9.5	-8.5	3.6	-62.5	-	-61.2	Feb-19
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.0*	
TSG9 LP - Gross	6,859,825	0.1	-2.0	-4.6	-37.9	-	-	-	-33.5	Feb-23
TSG9 LP - Net			-2.0	-4.6	-37.9	-	-	-	-33.5	Feb-23
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	-	-	-	*3.5*	
TSSP Opportunities Partners IV - Gross	26,295,330	0.2	2.0	8.4	12.6	8.0	11.9	-	11.5	Feb-19
TSSP Opportunities Partners IV - Net			2.0	8.4	12.6	8.0	11.9	-	11.5	Feb-19
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*13.0*	
Waterland V - Gross	705,035	0.0	0.0	17.1	11.5	18.4	18.6	39.8	22.8	Sep-11
Waterland V - Net			0.0	17.1	11.5	18.4	18.6	39.8	22.8	Sep-11
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*14.2*	
Waterland VI - Gross	12,483,599	0.1	0.0	8.8	13.6	13.5	21.2	-	8.0	Aug-15
Waterland VI - Net			0.0	8.8	13.6	13.5	21.2	-	8.0	Aug-15
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	-	*12.8*	
Wayzata Opportunities III - Gross	3,679,896	0.0	22.6	8.2	12.3	19.5	8.0	2.7	0.2	Mar-13
Wayzata Opportunities III - Net			22.6	8.2	12.3	19.5	8.0	2.7	0.2	Mar-13
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	*13.8*	*13.0*	*15.0*	

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Wynnchurch Capital Partners V - Gross	17,849,514	0.1	3.3	3.4	5.2	22.3	-	-	-2.7	May-20
Wynnchurch Capital Partners V - Net			3.3	3.4	5.2	22.3	-	-	-2.7	May-20
Cambridge Associates All PE 1 Qtr Lag			*0.0*	*1.2*	*3.1*	*9.7*	-	-	*14.0*	
Public Credit - Gross	**229,961,646**	**1.7**	**2.8**	**8.7**	**12.0**	**3.2**	**5.1**	**4.5**	**4.6**	**Dec-13**
Public Credit - Net			**2.8**	**8.7**	**12.0**	**3.2**	**5.1**	**4.5**	**4.6**	**Dec-13**
Brigade Custom			*2.0*	*9.2*	*11.8*	*4.1*	*4.7*	*4.5*	*4.6*	
Brigade Capital - Gross	229,961,646	1.7	2.8 (8)	8.7 (53)	12.0 (15)	3.2 (22)	5.1 (13)	4.5 (28)	4.6	Dec-13
Brigade Capital - Net			2.8 (8)	8.7 (53)	12.0 (15)	3.2 (22)	5.1 (13)	4.5 (28)	4.6	Dec-13
Brigade Custom			*2.0 (24)*	*9.2 (31)*	*11.8 (18)*	*4.1 (9)*	*4.7 (22)*	*4.5 (27)*	*4.6*	*Dec-13*
eV US High Yield Fixed Inc Median			*1.5*	*8.8*	*10.4*	*2.3*	*4.0*	*4.1*	-	
Private Credit - Gross	**430,467,530**	**3.2**	**1.8**	**6.6**	**10.4**	**7.7**	**9.1**	**8.2**	**7.7**	**Nov-11**
Private Credit - Net			**1.8**	**6.6**	**10.4**	**7.7**	**9.1**	**8.2**	**7.7**	**Nov-11**
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	*7.7*	*6.5*	*6.8*	
Ares Capital Europe Fund V - Gross	30,183,296	0.2	3.5	9.0	14.4	-	-	-	12.6	Aug-21
Ares Capital Europe Fund V - Net			3.5	9.0	14.4	-	-	-	12.6	Aug-21
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	-	-	-	*7.5*	
Athyrium Opp II - Gross	6,789,691	0.1	14.4	28.3	42.6	10.3	12.2	-	9.6	Jul-15
Athyrium Opp II - Net			14.4	28.3	42.6	10.3	12.2	-	9.6	Jul-15
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	*7.7*	-	*6.7*	
Athyrium Opp III - Gross	7,365,180	0.1	-0.3	4.1	12.0	-4.6	1.6	-	-0.1	Jun-17
Athyrium Opp III - Net			-0.3	4.1	12.0	-4.6	1.6	-	-0.1	Jun-17
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	*7.7*	-	*6.8*	
Benefit St Pr Sr Secure Opp - Gross	21,423,068	0.2	1.6	5.8	9.6	7.4	6.9	-	6.1	Feb-18
Benefit St Pr Sr Secure Opp - Net			1.6	5.8	9.6	7.4	6.9	-	6.1	Feb-18
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	*7.7*	-	*6.9*	
Benefit St Pr Sr Secure Opp II - Gross	41,129,796	0.3	2.1	9.1	12.5	6.0	-	-	9.1	Jan-20
Benefit St Pr Sr Secure Opp II - Net			2.1	9.1	12.5	6.0	-	-	9.1	Jan-20
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	-	-	*7.1*	
Brookfield Infra Debt Fund III - Gross	18,845,771	0.1	1.5	5.2	5.6	-	-	-	5.6	Apr-23
Brookfield Infra Debt Fund III - Net			1.5	5.2	5.6	-	-	-	5.6	Apr-23
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	-	-	-	*15.3*	

See Policy Index and Benchmark History

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
IFM US Infrastructure DB FD LP - Gross	36,516,393	0.3	1.7	5.0	9.3	7.8	-	-	7.8	Apr-21
IFM US Infrastructure DB FD LP - Net			1.7	5.0	9.3	7.8	-	-	7.8	Apr-21
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	-	-	*7.8*	
MCP Private Capital IV - Gross	35,954,454	0.3	7.5	18.1	23.9	10.4	-	-	7.1	May-20
MCP Private Capital IV - Net			7.5	18.1	23.9	10.4	-	-	7.1	May-20
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	-	-	*7.0*	
OrbiMed Royalty & Credit Opp III - Gross	15,165,033	0.1	-0.3	3.9	7.1	-2.3	-	-	14.8	Oct-19
OrbiMed Royalty & Credit Opp III - Net			-0.3	3.9	7.1	-2.3	-	-	14.8	Oct-19
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	-	-	*7.1*	
OrbiMed Royalty & Credit Opp IV - Gross	10,130,673	0.1	2.3	8.6	14.0	-	-	-	10.6	Oct-22
OrbiMed Royalty & Credit Opp IV - Net			2.3	8.6	14.0	-	-	-	10.6	Oct-22
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	-	-	-	*13.3*	
Shamrock Capital Debt Fund I - Gross	10,072,236	0.1	2.5	6.2	6.8	-	-	-	-36.9	Aug-21
Shamrock Capital Debt Fund I - Net			2.5	6.2	6.8	-	-	-	-36.9	Aug-21
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	-	-	-	*7.5*	
Silver Point Specialty Credit Fund II - Gross	33,185,119	0.3	2.6	8.4	11.9	8.3	-	-	13.0	Aug-20
Silver Point Specialty Credit Fund II - Net			2.6	8.4	11.9	8.3	-	-	13.0	Aug-20
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	-	-	*10.4*	
Silver Point Specialty Credit Fund III - Gross	13,501,030	0.1	12.0	5.9	2.0	-	-	-	2.0	Apr-23
Silver Point Specialty Credit Fund III - Net			12.0	5.9	2.0	-	-	-	2.0	Apr-23
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	-	-	-	*15.3*	
Summit Credit - Gross	81,995	0.0	169.2	91.5	97.5	38.9	24.3	15.3	13.4	Nov-11
Summit Credit - Net			169.2	91.5	97.5	38.9	24.3	15.3	13.4	Nov-11
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	*7.7*	*6.5*	*6.8*	
Summit Credit II - Gross	7,364,214	0.1	-28.9	-35.7	-31.6	-8.4	-4.3	-	0.3	Dec-14
Summit Credit II - Net			-28.9	-35.7	-31.6	-8.4	-4.3	-	0.3	Dec-14
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	*7.7*	-	*6.5*	
Summit Credit III - Gross	11,240,733	0.1	-3.9	-7.8	-3.6	7.7	11.7	-	10.9	Nov-18
Summit Credit III - Net			-3.9	-7.8	-3.6	7.7	11.7	-	10.9	Nov-18
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	*7.7*	-	*6.8*	
Summit Credit IV - Gross	15,500,955	0.1	3.2	9.3	13.7	-	-	-	10.9	Dec-21
Summit Credit IV - Net			3.2	9.3	13.7	-	-	-	10.9	Dec-21
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	-	-	-	*7.6*	

See Policy Index and Benchmark History

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
TCP Direct Lending VIII - Gross	116,017,893	0.9	1.5	7.9	10.4	8.5	8.6	-	7.6	Mar-18
TCP Direct Lending VIII - Net			1.5	7.9	10.4	8.5	8.6	-	7.6	Mar-18
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			*3.4*	*11.3*	*15.3*	*7.8*	*7.7*	-	*6.9*	
Growth Oriented Absolute Return - Gross	**7,235,770**	**0.1**	**-1.5**	**0.1**	**0.5**	**-1.2**	**3.8**	**3.4**	**4.4**	**Sep-04**
Growth Oriented Absolute Return - Net			**-1.5**	**0.1**	**0.5**	**-1.2**	**3.8**	**3.4**	**4.4**	**Sep-04**
HFRI FoF Composite Index + 1%			*4.4*	*8.8*	*10.8*	*3.9*	*6.1*	*5.4*	*6.0*	
Grosvenor SCARF Growth - Gross	7,235,770	0.1	-1.5 (72)	0.1 (85)	0.5 (87)	-0.8 (91)	1.9 (94)	2.3 (95)	4.1	Dec-11
Grosvenor SCARF Growth - Net			-1.5	0.1	0.5	-0.8	1.9	2.3	4.1	Dec-11
HFRI FoF Composite Index + 1%			*4.4 (28)*	*8.8 (34)*	*10.8 (50)*	*3.9 (53)*	*6.1 (44)*	*5.4 (33)*	*5.3*	*Dec-11*
eV Alt Fund of Funds - Multi-Strategy Median			*1.0*	*7.6*	*10.6*	*4.2*	*5.0*	*5.0*	-	
Diversifying Asset Category - Gross	**2,859,327,293**	**21.6**	**0.7**	**3.8**	**3.6**	**0.1**	**2.3**	**-**	**2.3**	**Apr-17**
Diversifying Asset Category - Net			**0.7**	**3.7**	**3.5**	**0.0**	**2.1**	**-**	**2.2**	**Apr-17**
Diversifying Custom			*0.2*	*3.5*	*3.2*	*-0.6*	*1.6*	-	*2.0*	
Fixed Income - Gross	**1,757,372,886**	**13.3**	**-0.7**	**2.5**	**1.6**	**-2.0**	**0.9**	**2.1**	**2.3**	**Jul-11**
Fixed Income - Net	**1,757,372,886**	**13.3**	**-0.8**	**2.3**	**1.4**	**-2.2**	**0.7**	**1.9**	**2.2**	**Jul-11**
Fixed Income Custom			*-0.5*	*3.0*	*2.4*	*-2.0*	*0.6*	*1.5*	-	
Core/Core Plus Fixed Income - Gross	**1,347,848,183**	**10.2**	**-0.7**	**2.8**	**2.1**	**-1.9**	**1.2**	**2.3**	**2.4**	**Jul-11**
Core/Core Plus Fixed Income - Net			**-0.7**	**2.6**	**1.9**	**-2.0**	**1.1**	**2.1**	**2.3**	**Jul-11**
Blmbg. U.S. Aggregate Index			*-0.8*	*2.6*	*1.7*	*-2.5*	*0.4*	*1.5*	*1.9*	
Prudential - Gross	340,886,752	2.6	0.4 (8)	5.0 (3)	5.9 (1)	-1.4 (17)	1.5 (14)	-	2.7	Aug-14
Prudential - Net			0.3	4.8	5.7	-1.6	1.3	-	2.5	Aug-14
Blmbg. U.S. Aggregate Index			*-0.8 (95)*	*2.6 (87)*	*1.7 (87)*	*-2.5 (89)*	*0.4 (95)*	-	*1.4*	*Aug-14*
eV US Core Fixed Inc Median			*-0.4*	*3.2*	*2.5*	*-1.9*	*1.0*	*2.0*	-	
TCW MetWest Fixed - Gross	332,864,328	2.5	-0.9 (98)	2.8 (83)	1.8 (85)	-2.1 (62)	1.2 (36)	2.2 (35)	4.8	Jan-02
TCW MetWest Fixed - Net			-1.0	2.6	1.5	-2.3	1.0	2.0	4.6	Jan-02
Blmbg. U.S. Aggregate Index			*-0.8 (95)*	*2.6 (87)*	*1.7 (87)*	*-2.5 (89)*	*0.4 (95)*	*1.5 (97)*	*3.4*	*Jan-02*
eV US Core Fixed Inc Median			*-0.4*	*3.2*	*2.5*	*-1.9*	*1.0*	*2.0*	-	
Brandywine US FI - Gross	327,351,692	2.5	-1.6 (99)	1.0 (99)	-1.0 (99)	-	-	-	-0.7	Jun-22
Brandywine US FI - Net			-1.7	0.8	-1.3	-	-	-	-0.9	Jun-22
Blmbg. U.S. Aggregate Index			*-0.8 (94)*	*2.6 (96)*	*1.7 (97)*	-	-	-	*0.0*	*Jun-22*
eV US Core Plus Fixed Inc Median			*-0.2*	*3.7*	*3.2*	*-2.0*	*1.1*	*2.1*	-	

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Reams Core Plus FI - Gross	346,745,411	2.6	-0.6 (90)	2.3 (98)	1.9 (93)	-	-	-	1.7	Jun-22
Reams Core Plus FI - Net			-0.7	2.2	1.7	-	-	-	1.5	Jun-22
Blmbg. U.S. Aggregate Index			*-0.8 (94)*	*2.6 (96)*	*1.7 (97)*	-	-	-	*0.0*	*Jun-22*
eV US Core Plus Fixed Inc Median			*-0.1*	*3.9*	*3.5*	*-1.7*	*1.5*	*2.5*	-	
U.S. Treasury - Gross	**409,524,703**	**3.1**	**-0.9**	**1.5**	**0.1**	**-2.6**	**0.0**	**-**	**0.8**	**Mar-18**
U.S. Treasury - Net			**-0.9**	**1.5**	**0.0**	**-2.7**	**0.0**	**-**	**0.8**	**Mar-18**
Blmbg. U.S. Treasury Index			*-1.0*	*1.4*	*0.1*	*-2.7*	*-0.1*	-	*0.8*	
Neuberger Berman - Gross	409,524,703	3.1	-0.9 (71)	1.5 (89)	0.1 (83)	-2.6 (73)	0.0 (83)	1.4 (55)	5.5	Jul-88
Neuberger Berman - Net			-0.9	1.5	0.0	-2.7	0.0	1.4	5.4	Jul-88
Blmbg. U.S. Government Index			*-0.9 (80)*	*1.5 (89)*	*0.1 (83)*	*-2.7 (74)*	*0.0 (84)*	*1.0 (88)*	*5.0*	*Jul-88*
eV US Government Fixed Inc Median			*-0.5*	*2.2*	*1.5*	*-2.1*	*0.5*	*1.5*	-	
Absolute Return - Gross	**845,144,359**	**6.4**	**3.6**	**6.7**	**7.9**	**4.6**	**4.9**	**2.8**	**3.1**	**Dec-11**
Absolute Return - Net			**3.6**	**6.7**	**7.9**	**4.6**	**4.9**	**2.8**	**3.1**	**Dec-11**
HFRI FoF Conservative Index			*2.5*	*6.0*	*7.1*	*4.0*	*5.0*	*4.7*	*4.7*	
Aristeia Partners LP - Gross	53,395,219	0.4	1.0 (1)	4.5 (15)	5.9 (23)	4.5 (18)	-	-	5.4	Jan-21
Aristeia Partners LP - Net			1.0	4.5	5.9	4.5	-	-	5.4	Jan-21
HFRI FoF Conservative Index			*2.5 (1)*	*6.0 (4)*	*7.1 (10)*	*4.0 (21)*	-	-	*4.8*	*Jan-21*
eV Alt Relative Value - Multi-Market Arbitrage Median			*-1.3*	*1.1*	*2.1*	*1.9*	*0.5*	*1.6*	-	
BlackRock Event Driven Equity Fund - Gross	57,009,492	0.4	0.7 (67)	6.0 (67)	5.3 (77)	2.4 (75)	-	-	3.5	Mar-20
BlackRock Event Driven Equity Fund - Net			0.7	6.0	5.3	2.4	-	-	3.5	Mar-20
HFRI FoF Conservative Index			*2.5 (41)*	*6.0 (67)*	*7.1 (58)*	*4.0 (56)*	-	-	*5.5*	*Mar-20*
eV Alt All Event Driven Median			*1.4*	*8.1*	*9.5*	*4.7*	*5.8*	*8.0*	-	
Davidson Kempner Instl Partners LP - Gross	63,595,163	0.5	3.2 (59)	7.1 (65)	8.2 (73)	3.9 (53)	-	-	5.3	May-19
Davidson Kempner Instl Partners LP - Net			3.2	7.1	8.2	3.9	-	-	5.3	May-19
HFRI FoF Conservative Index			*2.5 (73)*	*6.0 (74)*	*7.1 (79)*	*4.0 (53)*	-	-	*4.9*	*May-19*
eV Alt All Multi-Strategy Median			*4.0*	*8.3*	*10.2*	*4.6*	*6.3*	*3.4*	-	
Elliott Associates - Gross	83,832,702	0.6	0.0 (75)	4.4 (70)	5.4 (76)	7.7 (5)	8.8 (39)	7.4 (59)	7.9	May-12
Elliott Associates - Net			0.0	4.4	5.4	7.7	8.8	7.4	7.9	May-12
HFRI FoF Conservative Index			*2.5 (41)*	*6.0 (67)*	*7.1 (58)*	*4.0 (56)*	*5.0 (72)*	*4.7 (100)*	*4.8*	*Jan-11*
eV Alt All Event Driven Median			*1.4*	*8.1*	*9.5*	*4.7*	*5.8*	*8.0*	-	

See Policy Index and Benchmark History

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Graham Global Inv II - Gross	51,600,869	0.4	17.1 (1)	3.7 (42)	11.0 (36)	10.6 (13)	10.3 (10)	-	5.8	Mar-17
Graham Global Inv II - Net			17.1	3.7	11.0	10.6	10.3	-	5.8	Mar-17
HFRI FoF Conservative Index			*2.5 (55)*	*6.0 (39)*	*7.1 (54)*	*4.0 (62)*	*5.0 (75)*	-	*4.5*	*Mar-17*
eV Alt All Managed Futures Median			*3.4*	*2.6*	*8.5*	*6.2*	*6.6*	*1.2*	-	
Grosvenor SCARF Diversifying - Gross	250,526,792	1.9	5.8 (15)	9.8 (29)	12.0 (47)	5.7 (26)	6.3 (43)	2.6 (94)	3.2	Dec-11
Grosvenor SCARF Diversifying - Net			5.8	9.8	12.0	5.7	6.3	2.6	3.2	Dec-11
HFRI FoF Conservative Index			*2.5 (46)*	*6.0 (62)*	*7.1 (71)*	*4.0 (52)*	*5.0 (49)*	*4.7 (62)*	*4.7*	*Dec-11*
eV Alt Fund of Funds - Multi-Strategy Median			*1.0*	*7.6*	*10.6*	*4.2*	*5.0*	*5.0*	-	
Junto Capital Partners - Gross	51,228,705	0.4	2.5 (71)	-	-	-	-	-	2.5	Jan-24
Junto Capital Partners - Net			2.5	-	-	-	-	-	2.5	Jan-24
HFRI FoF Conservative Index			*2.5 (70)*	*6.0 (68)*	*7.1 (73)*	*4.0 (49)*	*5.0 (71)*	*4.7 (69)*	*4.8*	*Jan-11*
Laurion Capital - Gross	62,474,145	0.5	0.5 (91)	5.1 (100)	4.2 (100)	-0.3 (100)	9.4 (23)	7.7 (-)	7.6	Mar-14
Laurion Capital - Net			0.5	5.1	4.2	-0.3	9.4	7.7	7.6	Mar-14
HFRI FoF Conservative Index			*2.5 (73)*	*6.0 (100)*	*7.1 (100)*	*4.0 (70)*	*5.0 (100)*	*4.7 (-)*	*4.7*	*Mar-14*
MW Global Opportunities Fund - Gross	62,867,795	0.5	5.9 (59)	9.5 (57)	11.1 (64)	6.6 (47)	7.0 (74)	-	6.9	Jan-19
MW Global Opportunities Fund - Net			5.9	9.5	11.1	6.6	7.0	-	6.9	Jan-19
HFRI FoF Conservative Index			*2.5 (80)*	*6.0 (72)*	*7.1 (73)*	*4.0 (65)*	*5.0 (85)*	-	*5.4*	*Jan-19*
eV Alt Fundamental - Long/Short Equity Median			*7.3*	*11.9*	*15.3*	*6.1*	*10.7*	*8.5*	-	
PSquared Event Driven Opp Fund - Gross	55,534,042	0.4	-0.2 (76)	5.7 (68)	3.2 (94)	3.2 (65)	-	-	3.0	Aug-20
PSquared Event Driven Opp Fund - Net			-0.2	5.7	3.2	3.2	-	-	3.0	Aug-20
HFRI FoF Conservative Index			*2.5 (41)*	*6.0 (67)*	*7.1 (58)*	*4.0 (56)*	*5.0 (72)*	*4.7 (100)*	*4.8*	*Jan-11*
eV Alt All Event Driven Median			*1.4*	*8.1*	*9.5*	*4.7*	*5.8*	*8.0*	-	
Sculptor Domestic II - Gross	1,223,787	0.0	0.0 (83)	0.0 (92)	0.0 (91)	-2.0 (87)	4.4 (69)	4.7 (41)	6.0	Jan-12
Sculptor Domestic II - Net			0.0	0.0	0.0	-2.0	4.4	4.7	6.0	Jan-12
HFRI FoF Conservative Index			*2.5 (73)*	*6.0 (74)*	*7.1 (79)*	*4.0 (53)*	*5.0 (64)*	*4.7 (41)*	*4.7*	*Jan-12*
eV Alt All Multi-Strategy Median			*4.0*	*8.3*	*10.2*	*4.6*	*6.3*	*3.4*	-	
Tudor BVI Global Fund - Gross	51,855,650	0.4	0.3	3.7	3.5	-	-	-	3.0	Jan-23
Tudor BVI Global Fund - Net			0.3	3.7	3.5	-	-	-	3.0	Jan-23
HFRI FOF Conservative Index			*2.5*	*6.0*	*7.1*	-	-	-	*6.4*	

See Policy Index and Benchmark History

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Dedicated Cash Allocation - Gross	**256,810,049**	**1.9**	**1.3**	**4.1**	**5.4**	**2.7**	**-**	**-**	**2.0**	**Jul-19**
Dedicated Cash Allocation - Net			**1.3**	**4.1**	**5.4**	**2.7**	**-**	**-**	**2.0**	**Jul-19**
Secured Overnight Financing Rate			*1.4*	*4.1*	*5.4*	*2.7*	-	-	*2.1*	
Real Return Asset Category - Gross	**2,134,359,612**	**16.1**	**0.1**	**-2.0**	**-2.0**	**7.2**	**6.2**	**-**	**7.6**	**Apr-17**
Real Return Asset Category - Net			**0.1**	**-2.0**	**-2.1**	**7.0**	**6.0**	**-**	**7.5**	**Apr-17**
Real Return Custom			*-1.5*	*-2.8*	*-3.7*	*7.0*	*5.4*	-	*5.7*	
Real Estate - Gross	**884,149,483**	**6.7**	**-2.0 (50)**	**-8.9 (42)**	**-10.6 (18)**	**3.6**	**4.9**	**8.0**	**8.9**	**Jul-11**
Real Estate - Net			**-2.0**	**-8.9**	**-10.7**	**3.5**	**4.7**	**7.5**	**8.3**	**Jul-11**
Real Estate Custom			*-3.3 (67)*	*-8.9 (42)*	*-11.5 (29)*	*4.1*	*3.9*	*6.7*	*7.6*	*Jul-11*
InvMetrics All DB Real Estate Private Median			*-2.0*	*-10.1*	*-13.7*	-	-	-	-	
Core RE - Limited Partnership - Gross	**597,700,027**	**4.5**	**-1.5**	**-8.1**	**-11.3**	**4.5**	**5.5**	**8.5**	**5.2**	**Oct-08**
Core RE - Limited Partnership - Net			**-1.5**	**-8.2**	**-11.4**	**4.3**	**5.3**	**8.1**	**4.7**	**Oct-08**
NFI-ODCE			*-2.4*	*-8.8*	*-11.3*	*3.4*	*3.5*	*6.8*	*4.9*	
Brookfield Premier RE Partners - Gross	100,899,693	0.8	-5.5	-10.2	-14.6	2.6	3.7	-	4.1	Oct-18
Brookfield Premier RE Partners - Net			-5.5	-10.2	-14.6	2.6	3.7	-	4.1	Oct-18
NFI-ODCE			*-2.4*	*-8.8*	*-11.3*	*3.4*	*3.5*	-	*3.7*	
Clarion Lion Properties - Gross	104,881,332	0.8	-2.9	-8.1	-13.6	2.8	3.6	-	4.0	Oct-18
Clarion Lion Properties - Net			-2.9	-8.5	-14.2	2.0	2.8	-	3.2	Oct-18
NFI-ODCE			*-2.4*	*-8.8*	*-11.3*	*3.4*	*3.5*	-	*3.7*	
Metlife Core Property - Gross	72,856,369	0.5	-1.4	-8.8	-12.8	4.8	4.8	7.8	8.3	Jan-14
Metlife Core Property - Net			-1.4	-8.8	-12.9	4.5	4.4	7.4	7.8	Jan-14
NFI-ODCE			*-2.4*	*-8.8*	*-11.3*	*3.4*	*3.5*	*6.8*	*6.9*	
Principal US Property - Gross	54,448,695	0.4	-2.0	-8.0	-9.8	2.9	3.2	-	5.4	Nov-15
Principal US Property - Net			-2.0	-8.0	-9.8	2.9	3.2	-	5.4	Nov-15
NFI-ODCE			*-2.4*	*-8.8*	*-11.3*	*3.4*	*3.5*	-	*5.4*	
Prologis Targeted Euro Logistics - Gross	60,197,237	0.5	1.1	-1.1	-1.8	-0.4	5.6	-	8.3	Nov-15
Prologis Targeted Euro Logistics - Net			1.1	-1.1	-1.8	-0.4	5.6	-	8.3	Nov-15
NFI-ODCE			*-2.4*	*-8.8*	*-11.3*	*3.4*	*3.5*	-	*5.4*	
Prologis Targeted US Logistics - Gross	72,962,488	0.6	1.9	-7.4	-10.5	12.2	13.2	-	14.6	Aug-15
Prologis Targeted US Logistics - Net			1.9	-7.4	-10.5	12.2	13.2	-	14.6	Aug-15
NFI-ODCE			*-2.4*	*-8.8*	*-11.3*	*3.4*	*3.5*	-	*5.7*	
Townsend Real Estate - Gross*	131,454,213	1.0	0.0	-9.5	-11.1	4.4	5.0	-	6.7	Apr-16
Townsend Real Estate - Net*			0.0	-9.5	-11.1	4.4	5.0	-	6.7	Apr-16
NFI-ODCE			*-2.4*	*-8.8*	*-11.3*	*3.4*	*3.5*	-	*5.1*	

See Policy Index and Benchmark History
**Value as of 12/31/2023.*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Non-Core RE - Opportunistic - Gross	**165,950,614**	**1.3**	**-6.3**	**-17.4**	**-15.9**	**-1.3**	**1.0**	**11.7**	**11.6**	**Mar-14**
Non-Core RE - Opportunistic - Net			**-6.3**	**-17.4**	**-15.9**	**-1.3**	**1.0**	**11.3**	**11.2**	**Mar-14**
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	*7.3*	*7.6*	
Carlyle China Realty - Gross	4,770,585	0.0	-25.3	-40.3	-43.3	-18.3	-9.4	-	-9.5	Jul-17
Carlyle China Realty - Net			-25.3	-40.3	-43.3	-18.3	-9.4	-	-9.5	Jul-17
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	-	*5.3*	
Carlyle China Rome Logistics - Gross	21,250,083	0.2	-25.2	-40.0	-42.8	-17.9	-10.4	-	-9.1	Jul-17
Carlyle China Rome Logistics - Net			-25.2	-40.0	-42.8	-17.9	-10.4	-	-9.1	Jul-17
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	-	*5.3*	
CIM Opportunity VIII - Gross	21,288,916	0.2	-7.0	-13.5	-17.3	-12.4	-10.9	-	-3.4	Mar-15
CIM Opportunity VIII - Net			-7.0	-13.5	-17.3	-12.4	-10.9	-	-3.9	Mar-15
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	-	*7.1*	
Kohlberg Kravis Roberts - Gross	1,007,684	0.0	-26.6	-26.8	-25.7	-10.6	-15.0	-3.4	-3.3	Mar-14
Kohlberg Kravis Roberts - Net			-26.6	-26.8	-25.7	-10.6	-15.0	-3.5	-3.4	Mar-14
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	*7.3*	*7.6*	
Lasalle China Logistics Venture LP - Gross	7,778,844	0.1	-8.7	-15.9	-16.2	-	-	-	-25.1	Oct-21
Lasalle China Logistics Venture LP - Net			-8.7	-15.9	-16.2	-	-	-	-25.1	Oct-21
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	-	-	-	*3.4*	
NREP Nordic Strat II - Gross	15,477,908	0.1	-2.7	-16.9	-8.7	12.0	14.3	-	15.2	Jul-16
NREP Nordic Strat II - Net			-2.7	-16.9	-8.7	12.0	14.3	-	15.2	Jul-16
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	-	*5.7*	
NREP Nordic Strat III - Gross	35,026,657	0.3	1.7	-12.0	-5.1	3.6	6.8	-	4.7	Aug-18
NREP Nordic Strat III - Net			1.7	-12.0	-5.1	3.6	6.8	-	4.7	Aug-18
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	-	*4.9*	
NREP Nordic Strat IV - Gross	22,095,311	0.2	1.3	-15.3	-11.3	-1.2	-	-	7.4	Aug-20
NREP Nordic Strat IV - Net			1.3	-15.3	-11.3	-1.2	-	-	7.4	Aug-20
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	-	-	*4.1*	
NREP Nordic Strat V - Gross	13,838,071	0.1	-2.9	-5.3	1.6	-	-	-	-17.2	Nov-22
NREP Nordic Strat V - Net			-2.9	-5.3	1.6	-	-	-	-17.2	Nov-22
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	-	-	-	*-11.4*	
Sculptor Real Estate Fund III - Gross	3,841,061	0.0	3.2	2.0	13.9	38.0	26.3	-	16.6	Oct-14
Sculptor Real Estate Fund III - Net			3.2	2.0	13.9	38.0	26.3	-	14.3	Oct-14
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	-	*7.1*	

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.*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Sculptor Real Estate Fund IV - Gross	19,575,494	0.1	2.1	8.0	10.0	11.9	-	-	6.3	Jul-20
Sculptor Real Estate Fund IV - Net			2.1	8.0	10.0	11.9	-	-	6.3	Jul-20
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	-	-	*4.1*	
Non-Core RE - Value Added - Gross	**120,498,842**	**0.9**	**1.7**	**-0.9**	**2.4**	**4.5**	**7.1**	**8.8**	**0.9**	**Oct-08**
Non-Core RE - Value Added - Net			**1.7**	**-0.9**	**2.4**	**4.5**	**7.1**	**8.4**	**0.0**	**Oct-08**
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	*7.6*	*6.7*	
Asana Partners Fund II - Gross	34,769,394	0.3	1.3	-1.5	0.3	14.2	-	-	-177.6	May-19
Asana Partners Fund II - Net			1.3	-1.5	0.3	14.2	-	-	-177.6	May-19
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	-	-	*4.4*	
Asana Partners Fund III - Gross	15,929,469	0.1	1.4	-7.5	-9.7	-	-	-	-13.3	May-22
Asana Partners Fund III - Net			1.4	-7.5	-9.7	-	-	-	-13.3	May-22
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	-	-	-	*-2.8*	
ECE Euro Prime Shopping II - Gross	34,483,784	0.3	4.9	1.2	11.4	0.9	1.6	-	7.6	Aug-15
ECE Euro Prime Shopping II - Net			4.9	1.2	11.4	0.9	1.6	-	7.1	Aug-15
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	-	*6.8*	
European RE Debt II - Gross*	295,329	0.0	5.7	1.6	15.7	-21.9	-31.0	-14.7	-14.4	Dec-13
European RE Debt II - Net*			5.7	1.6	15.7	-21.9	-31.0	-14.7	-14.4	Dec-13
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	*7.6*	*8.0*	
Hammes II - Gross	3,306,785	0.0	3.8	9.5	10.9	13.5	118.4	-	67.7	Aug-15
Hammes II - Net			3.8	9.5	10.9	13.5	118.4	-	65.9	Aug-15
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	-	*6.8*	
Hammes III - Gross	19,890,064	0.2	1.2	3.0	4.1	9.6	6.6	-	-2.0	Nov-18
Hammes III - Net			1.2	3.0	4.1	9.6	6.6	-	-2.0	Nov-18
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	*5.0*	*4.3*	-	*4.7*	
Hammes IV - Gross	712,239	0.0	-17.3	-49.2	-49.2	-	-	-	-39.8	Dec-22
Hammes IV - Net			-17.3	-49.2	-49.2	-	-	-	-39.8	Dec-22
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	-	-	-	*-12.1*	
Seven Seas Japan Opp Fund - Gross	11,111,778	0.1	-3.9	-4.2	-9.9	-	-	-	-0.9	Apr-22
Seven Seas Japan Opp Fund - Net			-3.9	-4.2	-9.9	-	-	-	-0.9	Apr-22
NFI-ODCE net +1% 1Q Lag			*-4.8*	*-9.0*	*-11.8*	-	-	-	*-2.6*	

See Policy Index and Benchmark History
** Non-Core RE returns are lagged one quarter*
***Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Private Real Assets - Gross	**1,098,240,034**	**8.3**	**1.9**	**4.4**	**6.2**	**14.0**	**9.2**	**14.1**	**6.9**	**Feb-13**
Private Real Assets - Net			**1.9**	**4.4**	**6.2**	**14.0**	**9.2**	**14.1**	**6.9**	**Feb-13**
Private Real Assets Custom			*0.2*	*3.2*	*4.8*	*11.8*	*7.7*	*7.1*	*7.1*	
ACM II - Gross	13,922,461	0.1	-6.2	-9.0	-10.2	-12.2	-11.6	-	-9.5	Oct-16
ACM II - Net			-6.2	-9.0	-10.2	-12.2	-11.6	-	-9.5	Oct-16
NCREIF Farmland 1 Qtr Lag			*2.3*	*2.8*	*5.0*	*7.5*	*6.0*	-	*6.3*	
ARA Partners Fund III LP - Gross	4,197,722	0.0	-14.2	-	-	-	-	-	-14.2	Oct-23
ARA Partners Fund III LP - Net			-14.2	-	-	-	-	-	-14.2	Oct-23
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	-	-	-	-	-	*0.8*	
ArcLight Energy VI - Gross	12,511,275	0.1	-2.5	-8.0	-15.7	9.1	-1.9	-	2.8	Sep-15
ArcLight Energy VI - Net			-2.5	-8.0	-15.7	9.1	-1.9	-	2.8	Sep-15
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*11.4*	
Brookfield Infra III - Gross	41,862,172	0.3	3.2	9.8	14.0	13.7	13.2	-	12.4	Jun-16
Brookfield Infra III - Net			3.2	9.8	14.0	13.7	13.2	-	12.4	Jun-16
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*11.0*	
Brookfield Infra IV - Gross	40,797,090	0.3	3.4	9.9	12.7	14.3	-	-	10.9	Oct-19
Brookfield Infra IV - Net			3.4	9.9	12.7	14.3	-	-	10.9	Oct-19
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	-	-	*9.4*	
Brookfield Super Core Infra - Gross	104,932,636	0.8	1.8	5.8	8.6	-	-	-	6.5	Aug-22
Brookfield Super Core Infra - Net			1.8	5.8	8.6	-	-	-	6.5	Aug-22
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	-	-	-	*5.4*	
Carlyle Power II - Gross	38,700,773	0.3	0.2	4.6	5.2	12.2	12.2	-	6.9	Nov-15
Carlyle Power II - Net			0.2	4.6	5.2	12.2	12.2	-	6.9	Nov-15
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*10.8*	
Digital Colony Partners II - Gross	35,407,920	0.3	2.8	6.8	7.8	-	-	-	7.1	Jun-21
Digital Colony Partners II - Net			2.8	6.8	7.8	-	-	-	7.1	Jun-21
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	-	-	-	*9.3*	
EnCap Energy IX - Gross	6,082,059	0.0	-11.2	9.7	13.3	44.2	10.3	11.0	4.3	Feb-13
EnCap Energy IX - Net			-11.2	9.7	13.3	44.2	10.3	11.0	4.3	Feb-13
Cambridge Associates Private Energy 1 Qtr Lag			*0.0*	*4.9*	*4.5*	*18.9*	*6.2*	*2.8*	*3.6*	
EnCap Energy X - Gross	22,686,413	0.2	-0.7	14.4	16.3	41.9	18.7	-	10.0	May-15
EnCap Energy X - Net			-0.7	14.4	16.3	41.9	18.7	-	10.0	May-15
Cambridge Associates Private Energy 1 Qtr Lag			*0.0*	*4.9*	*4.5*	*18.9*	*6.2*	-	*3.6*	

See Policy Index and Benchmark History
**Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.*
++Private Real Assets returns are lagged one quarter.

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
EnCap Flatrock Midstream III - Gross	10,822,348	0.1	0.1	0.9	-5.6	13.1	6.9	-	7.2	Aug-14
EnCap Flatrock Midstream III - Net			0.1	0.9	-5.6	13.1	6.9	-	7.2	Aug-14
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*10.4*	
EnCap Flatrock Midstream IV - Gross	13,300,311	0.1	1.5	4.3	5.4	8.2	9.4	-	3.9	Mar-18
EnCap Flatrock Midstream IV - Net			1.5	4.3	5.4	8.2	9.4	-	3.9	Mar-18
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*10.0*	
EQT Infrastructure Fund IV - Gross	40,957,766	0.3	4.0	6.9	10.7	11.1	-	-	3.4	Jul-19
EQT Infrastructure Fund IV - Net			4.0	6.9	10.7	11.1	-	-	3.4	Jul-19
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	-	-	*9.5*	
First Reserve - Gross	8,848,469	0.1	-5.8	-21.3	-24.8	-12.6	-6.4	-	-4.5	Jan-15
First Reserve - Net			-5.8	-21.3	-24.8	-12.6	-6.4	-	-4.5	Jan-15
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*10.5*	
Harrison St Social Infra Fd - Gross	109,099,824	0.8	0.4	3.5	3.9	-	-	-	6.0	Aug-21
Harrison St Social Infra Fd - Net			0.4	3.5	3.9	-	-	-	6.0	Aug-21
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	-	-	-	*9.4*	
IFM Global Infrastructure US LP - Gross	167,659,701	1.3	2.7	5.7	8.4	11.3	10.2	-	11.3	May-17
IFM Global Infrastructure US LP - Net			2.7	5.7	8.4	11.3	10.2	-	11.3	May-17
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*11.0*	
ISQ Global Infrastructure Fund II - Gross	56,643,775	0.4	2.9	6.4	25.0	11.0	12.8	-	12.2	Nov-18
ISQ Global Infrastructure Fund II - Net			2.9	6.4	25.0	11.0	12.8	-	12.2	Nov-18
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*9.8*	
ISQ Global Infrastructure Fund III - Gross	22,044,246	0.2	7.1	11.5	13.5	-	-	-	18.3	Jan-22
ISQ Global Infrastructure Fund III - Net			7.1	11.5	13.5	-	-	-	18.3	Jan-22
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	-	-	-	*8.3*	
KKR Asia Pacific Infrastructure Investors II - Gross	7,299,783	0.1								
KKR Asia Pacific Infrastructure Investors II - Net										
Cambridge Associates Private Infrastructure 1 Qtr Lag			-	-	-	-	-	-	*0.0*	
Meridiam Infra N America III - Gross	42,593,613	0.3	11.9	8.8	11.9	45.0	-4.5	-	-51.6	Oct-17
Meridiam Infra N America III - Net			11.9	8.8	11.9	45.0	-4.5	-	-51.6	Oct-17
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*10.1*	
Meridiam Infra N America IV - Gross	9,551,247	0.1	-4.8	-	-	-	-	-	-4.8	Aug-23
Meridiam Infra N America IV - Net			-4.8	-	-	-	-	-	-4.8	Aug-23
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	-	-	-	-	-	*2.4*	

See Policy Index and Benchmark History

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Meridiam Sa Infra Euro IV - Gross	10,515,917	0.1	10.1	6.1	16.5	-	-	-	-44.9	Aug-21
Meridiam Sa Infra Euro IV - Net			10.1	6.1	16.5	-	-	-	-44.9	Aug-21
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	-	-	-	*9.4*	
NGP Royalty Partners - Gross	23,051,385	0.2	-0.9	15.1	10.1	49.2	-	-	34.1	Sep-20
NGP Royalty Partners - Net			-0.9	15.1	10.1	49.2	-	-	34.1	Sep-20
Cambridge Associates Private Energy 1 Qtr Lag			*0.0*	*4.9*	*4.5*	*18.9*	-	-	*19.3*	
NGP Royalty Partners II - Gross	44,171,995	0.3	-0.2	2.9	-6.5	-	-	-	-10.2	Jan-23
NGP Royalty Partners II - Net			-0.2	2.9	-6.5	-	-	-	-10.2	Jan-23
Cambridge Associates Private Energy 1 Qtr Lag			*0.0*	*4.9*	*4.5*	-	-	-	*6.0*	
Paine Schwartz Food Chain V - Gross	35,567,496	0.3	0.2	-0.2	1.7	22.8	-	-	9.7	Feb-20
Paine Schwartz Food Chain V - Net			0.2	-0.2	1.7	22.8	-	-	9.7	Feb-20
NCREIF Farmland 1 Qtr Lag			*2.3*	*2.8*	*5.0*	*7.5*	-	-	*6.7*	
Pantheon Ventures - Gross	37,261,251	0.3	3.4	-0.3	1.0	6.7	5.6	-	14.0	Aug-14
Pantheon Ventures - Net			3.4	-0.3	1.0	6.7	5.6	-	14.0	Aug-14
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*10.4*	
Quantum Energy VI - Gross	17,956,893	0.1	-7.3	-11.6	-12.2	11.9	8.9	-	17.0	Dec-14
Quantum Energy VI - Net			-7.3	-11.6	-12.2	11.9	8.9	-	17.0	Dec-14
Cambridge Associates Private Energy 1 Qtr Lag			*0.0*	*4.9*	*4.5*	*18.9*	*6.2*	-	*1.8*	
Quantum Energy VII - Gross	39,867,368	0.3	6.8	4.5	4.3	22.4	16.5	-	12.1	Sep-17
Quantum Energy VII - Net			6.8	4.5	4.3	22.4	16.5	-	12.1	Sep-17
Cambridge Associates Private Energy 1 Qtr Lag			*0.0*	*4.9*	*4.5*	*18.9*	*6.2*	-	*5.5*	
Ridgewood Water & Strategy Infra II - Gross	20,435,881	0.2	0.0	1.1	-192.3	-	-	-	-111.3	Jan-23
Ridgewood Water & Strategy Infra II - Net			0.0	1.1	-192.3	-	-	-	-111.3	Jan-23
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	-	-	-	*7.3*	
Tailwater Energy Fund III - Gross	22,497,284	0.2	8.0	3.1	1.4	13.3	3.2	-	3.2	Oct-18
Tailwater Energy Fund III - Net			8.0	3.1	1.4	13.3	3.2	-	3.2	Oct-18
Cambridge Associates Private Energy 1 Qtr Lag			*0.0*	*4.9*	*4.5*	*18.9*	*6.2*	-	*4.7*	
Tailwater Energy IV - Gross	30,882,268	0.2	10.2	10.8	10.2	32.3	-	-	8.0	Nov-19
Tailwater Energy IV - Net			10.2	10.8	10.2	32.3	-	-	8.0	Nov-19
Cambridge Associates Private Energy 1 Qtr Lag			*0.0*	*4.9*	*4.5*	*18.9*	-	-	*7.1*	
Wastewater Opportunity - Gross	6,110,693	0.0	-27.0	-28.4	-28.8	-0.6	-0.9	-	-12.0	Jan-16
Wastewater Opportunity - Net			-27.0	-28.4	-28.8	-0.6	-0.9	-	-12.0	Jan-16
Cambridge Associates Private Infrastructure 1 Qtr Lag			*0.0*	*2.4*	*4.9*	*8.8*	*9.7*	-	*10.8*	

See Policy Index and Benchmark History

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception Date
Liquid Real Return - Gross	**151,970,095**	**1.1**	**0.2**	**2.7**	**3.4**	**3.5**	**-**	**-**	**4.1**	**Jul-19**
Liquid Real Return - Net			**0.2**	**1.0**	**1.6**	**2.7**	**-**	**-**	**3.5**	**Jul-19**
SSgA Real Asset			*0.7*	*4.4*	*3.4*	*3.7*	-	-	*4.0*	
SSgA Passive Real Return Proxy - Gross	151,894,599	1.1	0.3	2.3	1.3	3.8	4.4	2.7	2.4	Feb-08
SSgA Passive Real Return Proxy - Net			0.3	2.2	1.2	3.6	4.1	2.5	2.2	Feb-08
SSgA Real Asset			*0.7*	*4.4*	*3.4*	*3.7*	*4.2*	*2.5*	-	
Brookfield Liquid Real Return	75,496	0.0								
Cash - Gross	**204,248,661**	**1.5**	**1.5**	**4.4**	**5.8**	**3.2**	**2.6**	**2.1**	**3.1**	**Aug-92**
Cash - Net			**1.5**	**4.4**	**5.8**	**3.2**	**2.6**	**2.1**	**-**	**Aug-92**
Secured Overnight Financing Rate			*1.4*	*4.1*	*5.4*	*2.7*	*2.1*	*1.4*	*2.5*	
Cash Account - Gross	204,248,661	1.5	1.5	4.4	5.8	3.3	2.8	2.2	3.2	Jul-92
Cash Account - Net			1.5	4.4	5.8	3.3	2.8	2.2	-	Jul-92
Secured Overnight Financing Rate			*1.4*	*4.1*	*5.4*	*2.7*	*2.1*	*1.4*	*2.5*	

See Policy Index and Benchmark History

AB	$1,473,130,811	11.1
AQR US Enhanced Equity	$415,116,175	3.1
JP Morgan 130/30	$223,934,005	1.7
DE Shaw Broad Mkt Core Alpha Ext	$192,000,927	1.4
Eagle Capital	$417,492,109	3.1
Huber Capital	$20,264	0.0
Weatherbie	$105,046,662	0.8
Snyder Capital Management	$138,193,092	1.0
Lazard	$367,203,583	2.8
Walter Scott & Partners Limited	$532,913,085	4.0
LSV	$551,750,674	4.2
William Blair Dev Small Cap	$103,348,739	0.8
Acadian Asset Management	$114,089,201	0.9
Arga Emg	$202,610,063	1.5
Baillie Gifford Emg All Cap	$220,541,035	1.7
Oaktree Emg	$181,663,621	1.4
CBRE Clarion	$4,072	0.0
Allspring Global Investments	$90,042,260	0.7
Artisan Partners Global Opp	$150,970,173	1.1
Nikko Asset Management	$146,280,000	1.1
Third Point Offshore Fund	$19,789,030	0.1
Abbott VI	$22,695,537	0.2
Accel-KKR V	$29,020,757	0.2
Accel-KKR VI	$26,952,762	0.2
Accel-KKR Growth Partners II	$8,569,209	0.1
Accel-KKR Growth Partners III	$32,479,786	0.2
Accel-KKR Growth Partners IV	$11,167,176	0.1
Atalaya Special Opp VI	$1,157,158	0.0
Atalaya Special Opp V	$440,098	0.0
Canvas Ventures III	$13,429,541	0.1
Cortec Group Fund VII	$27,385,076	0.2
Cortec Group Fund VIII	$3,359,388	0.0
CRV Select Fund I	$18,261,883	0.1
CRV Select Fund II	$5,679,405	0.0

CRV XVIII LP	$16,977,040	0.1
CRV XIX LP	$6,758,454	0.1
Davidson Kempner LT Dist Opp IV	$18,669,797	0.1
Davidson Kempner LT Dist Opp V	$32,308,124	0.2
Dyal Capital Partners II	$36,251,438	0.3
Dyal Capital Partners III	$32,669,878	0.2
Garrison Investment Group	$1,384,851	0.0
Golden Capital Co Invest	$25,653,707	0.2
Gridiron Capital Fund IV	$54,623,623	0.4
Gridiron Capital Fund V	$15,848,711	0.1
Harbourvest VIII	$1,430,740	0.0
H.I.G. Bayside Loan III	$3,480,672	0.0
H.I.G. Capital V	$7,181,894	0.1
H.I.G. Europe Capital II	$10,894,300	0.1
Junto Capital Partners	$51,228,705	0.4
Khosla IV	$13,811,000	0.1
Khosla V	$36,585,310	0.3
Khosla VI	$76,048,770	0.6
Khosla VII	$18,360,212	0.1
Linden Capital III	$20,196,285	0.2
Linden Capital Partners IV	$42,155,700	0.3
Linden Capital Partners V	$17,900,733	0.1
Marlin Equity IV	$8,653,868	0.1
Marlin Equity V	$31,337,746	0.2
Marlin Heritage	$3,951,875	0.0
Marlin Heritage II	$10,335,094	0.1
Marlin Heritage III	$7,080,643	0.1
Marlin Heritage Europe	$19,138,116	0.1
New Enterprise 14	$39,016,030	0.3
New Enterprise 15	$27,665,419	0.2
New Enterprise 16	$34,774,813	0.3
New Enterprise 17	$21,801,892	0.2
Oaktree Power Opp Fund VI	$26,660,636	0.2
OrbiMed Private Investments VIII	$10,024,433	0.1
Orbimed Private Investments IX	$5,099,429	0.0

RCP Multi-Fund Feeder	$79,793,447	0.6
RRJ Capital Master Fund II	$4,665,682	0.0
RRJ Capital Master Fund III	$7,538,785	0.1
Shamrock Capital II	$13,304,463	0.1
Shamrock Capital III	$165,635	0.0
Shamrock Capital Growth Fund V	$12,523,888	0.1
Sixth Street Opp Partners V	$17,194,443	0.1
Spectrum Equity VII	$34,752,108	0.3
Spectrum Equity Fund VIII	$28,197,836	0.2
Spectrum Equity Fund IX	$21,284,170	0.2
Spectrum Equity Fund X	$2,720,945	0.0
Strategic Value Spl Fund V	$22,096,422	0.2
Summit EUR Growth Equity II	$51,773,054	0.4
Summit EUR Growth Equity III	$20,137,961	0.2
Summit Ventures III	$3,434,559	0.0
Summit Ventures IV	$58,348,643	0.4
Summit Ventures V	$12,850,183	0.1
Thoma Bravo XI	$25,063,694	0.2
Thoma Bravo XII	$36,648,630	0.3
Thoma Bravo XIII	$66,469,422	0.5
Threshold Ventures III	$21,668,289	0.2
Threshold Ventures IV	$4,375,650	0.0
TPG Opp Partners III	$5,985,895	0.0
Trinity Ventures XI	$41,994,735	0.3
Trinity Ventures XII	$36,351,699	0.3
TSG7 A LP	$16,609,237	0.1
TSG7 B LP	$3,632,835	0.0
TSG8 LP	$36,118,157	0.3
TSG9 LP	$6,859,825	0.1
TSSP Opportunities Partners IV	$26,295,330	0.2
Waterland V	$705,035	0.0
Waterland VI	$12,483,599	0.1
Wayzata Opportunities III	$3,679,896	0.0
Wynnchurch Capital Partners V	$17,849,514	0.1
Brigade Capital	$229,961,646	1.7

Ares Capital Europe Fund V	$30,183,296	0.2
Athyrium Opp II	$6,789,691	0.1
Athyrium Opp III	$7,365,180	0.1
Benefit St Pr Sr Secure Opp	$21,423,068	0.2
Benefit St Pr Sr Secure Opp II	$41,129,796	0.3
Brookfield Infra Debt Fund III	$18,845,771	0.1
IFM US Infrastructure DB FD LP	$36,516,393	0.3
OrbiMed Royalty & Credit Opp III	$15,165,033	0.1
Orbimed Royalty & Credit Opp IV	$10,130,673	0.1
Shamrock Capital Debt Fund I	$10,072,236	0.1
Silver Point Specialty Credit Fund II	$33,185,119	0.3
Silver Point Specialty Credit Fund III	$13,501,030	0.1
Summit Credit	$81,995	0.0
Summit Credit II	$7,364,214	0.1
Summit Credit III	$11,240,733	0.1
Summit Credit IV	$15,500,955	0.1
TCP Direct Lending VIII	$116,017,893	0.9
Grosvenor SCARF Growth	$7,235,770	0.1
Prudential	$340,886,752	2.6
TCW MetWest Fixed	$332,864,328	2.5
Brandywine US FI	$327,351,692	2.5
Reams Core Plus FI	$346,745,411	2.6
Neuberger Berman	$409,524,703	3.1
Aristeia Partners LP	$53,395,219	0.4
BlackRock Event Driven Equity Fund	$57,009,492	0.4
Davidson Kempner Instl Partners LP	$63,595,163	0.5
Elliott Associates	$83,832,702	0.6
Graham Global Inv II	$51,600,869	0.4
Grosvenor SCARF Diversifying	$250,526,792	1.9
Laurion Capital	$62,474,145	0.5
MW Global Opportunities Fund	$62,867,795	0.5
PSquared Event Driven Opp Fund	$55,534,042	0.4
Sculptor Domestic II	$1,223,787	0.0
Tudor BVI Global Fund	$51,855,650	0.4
Dedicated Cash Allocation	$256,810,049	1.9

Brookfield Premier RE Partners	$100,899,693	0.8
Clarion Lion Properties	$104,881,332	0.8
Metlife Core Property	$72,856,369	0.5
Principal US Property	$54,448,695	0.4
Prologis Targeted Euro Logistics	$60,197,237	0.5
Prologis Targeted US Logistics	$72,962,488	0.6
Townsend Real Estate	$131,454,213	1.0
Carlyle China Realty	$4,770,585	0.0
Carlyle China Rome Logistics	$21,250,083	0.2
CIM Opportunity VIII	$21,288,916	0.2
Kohlberg Kravis Roberts	$1,007,684	0.0
Lasalle China Logistics Venture LP	$7,778,844	0.1
NREP Nordic Strat II	$15,477,908	0.1
NREP Nordic Strat III	$35,026,657	0.3
NREP Nordic Strat IV	$22,095,311	0.2
NREP Nordic Strat V	$13,838,071	0.1
Sculptor Real Estate Fund III	$3,841,061	0.0
Sculptor Real Estate Fund IV	$19,575,494	0.1
Asana Partners Fund II	$34,769,394	0.3
Asana Partners Fund III	$15,929,469	0.1
ECE Euro Prime Shopping II	$34,483,784	0.3
European RE Debt II	$295,329	0.0
Hammes II	$3,306,785	0.0
Hammes III	$19,890,064	0.2
Hammes IV	$712,239	0.0
Seven Seas Japan Opp Fund	$11,111,778	0.1
ACM II	$13,922,461	0.1
ARA Partners Fund III LP	$4,197,722	0.0
ArcLight Energy VI	$12,511,275	0.1
Brookfield Infra III	$41,862,172	0.3
Brookfield Infra IV	$40,797,090	0.3
Brookfield Super Core Infra	$104,932,636	0.8
Carlyle Power II	$38,700,773	0.3
Digital Colony Partners II	$35,407,920	0.3
EnCap Energy IX	$6,082,059	0.0

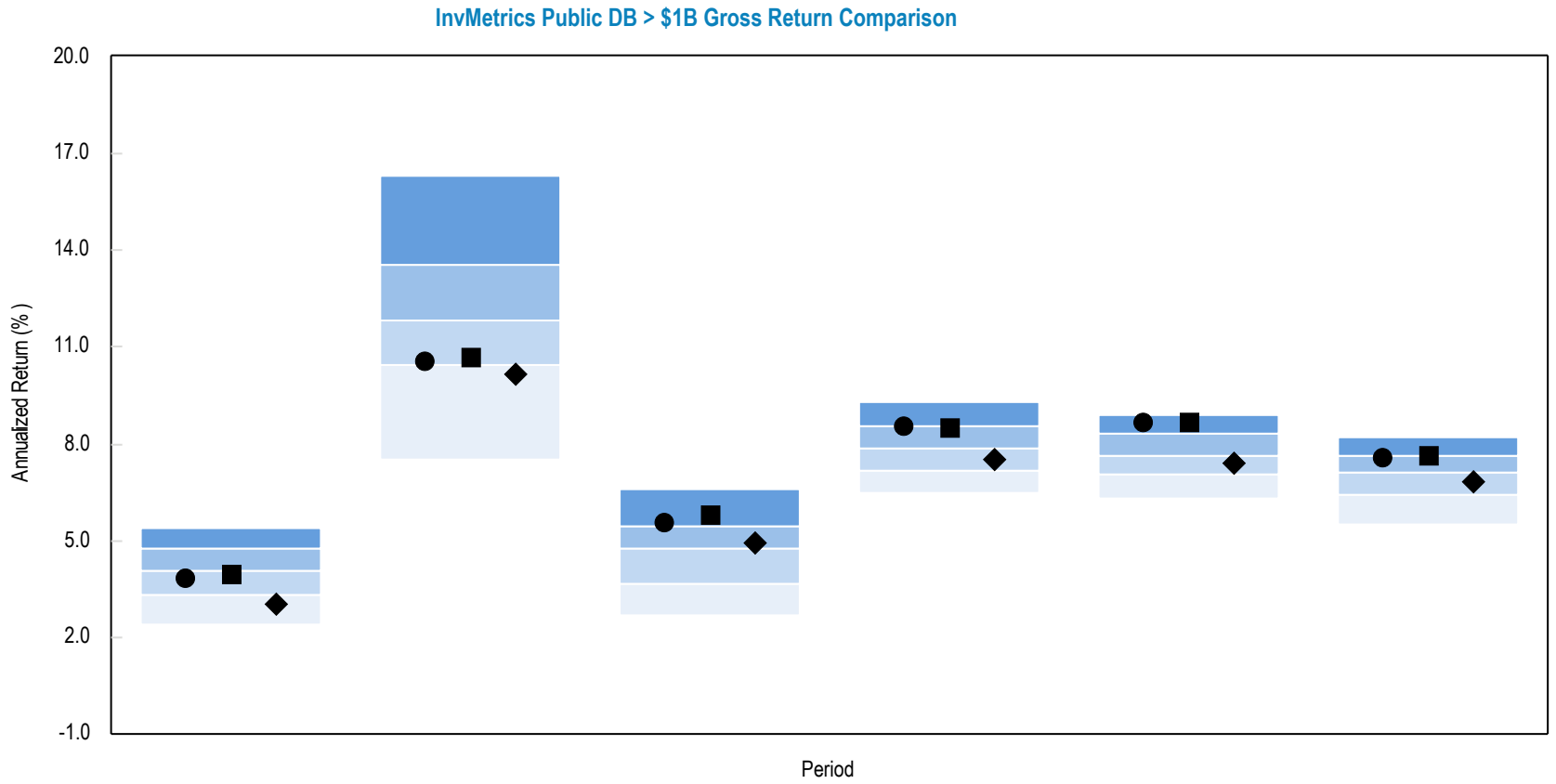
EnCap Energy X	$22,686,413	0.2
EnCap Flatrock Midstream III	$10,822,348	0.1
EnCap Flatrock Midstream IV	$13,300,311	0.1
EQT Infrastructure Fund IV	$40,957,766	0.3
First Reserve	$8,848,469	0.1
Harrison St Social Infra Fd	$109,099,824	0.8
IFM Global Infrastructure US LP	$167,659,701	1.3
ISQ Global Infrastructure Fund II	$56,643,775	0.4
ISQ Global Infrastructure Fund III	$22,044,246	0.2
KKR Asia Pacific Infrastructure Investors II	$7,299,783	0.1
Meridiam Infra N America III	$42,593,613	0.3
Meridiam Infra N America IV	$9,551,247	0.1
Meridiam Sa Infra Euro IV	$10,515,917	0.1
NGP Royalty Partners	$23,051,385	0.2
NGP Royalty Partners II	$44,171,995	0.3
Paine Schwartz Food Chain V	$35,567,496	0.3
Pantheon Ventures	$37,261,251	0.3
Quantum Energy VI	$17,956,893	0.1
Quantum Energy VII	$39,867,368	0.3
Ridgewood Water & Strategy Infra II	$20,435,881	0.2
Tailwater Energy IV	$30,882,268	0.2
Tailwater Energy Fund III	$22,497,284	0.2
Wastewater Opportunity	$6,110,693	0.0
Brookfield Liquid Real Return	$75,496	0.0
SSgA Barclays 1-10 Yrs TIPS Index	$45,476,984	0.3
SSgA Real Asset	$106,417,615	0.8
Cash Account	$204,248,661	1.5
Transition Account	$146	0.0
SSgA Overlay	$49,779,196	0.4
Total Fund	**$13,254,705,446**	**100.0**

3 Years

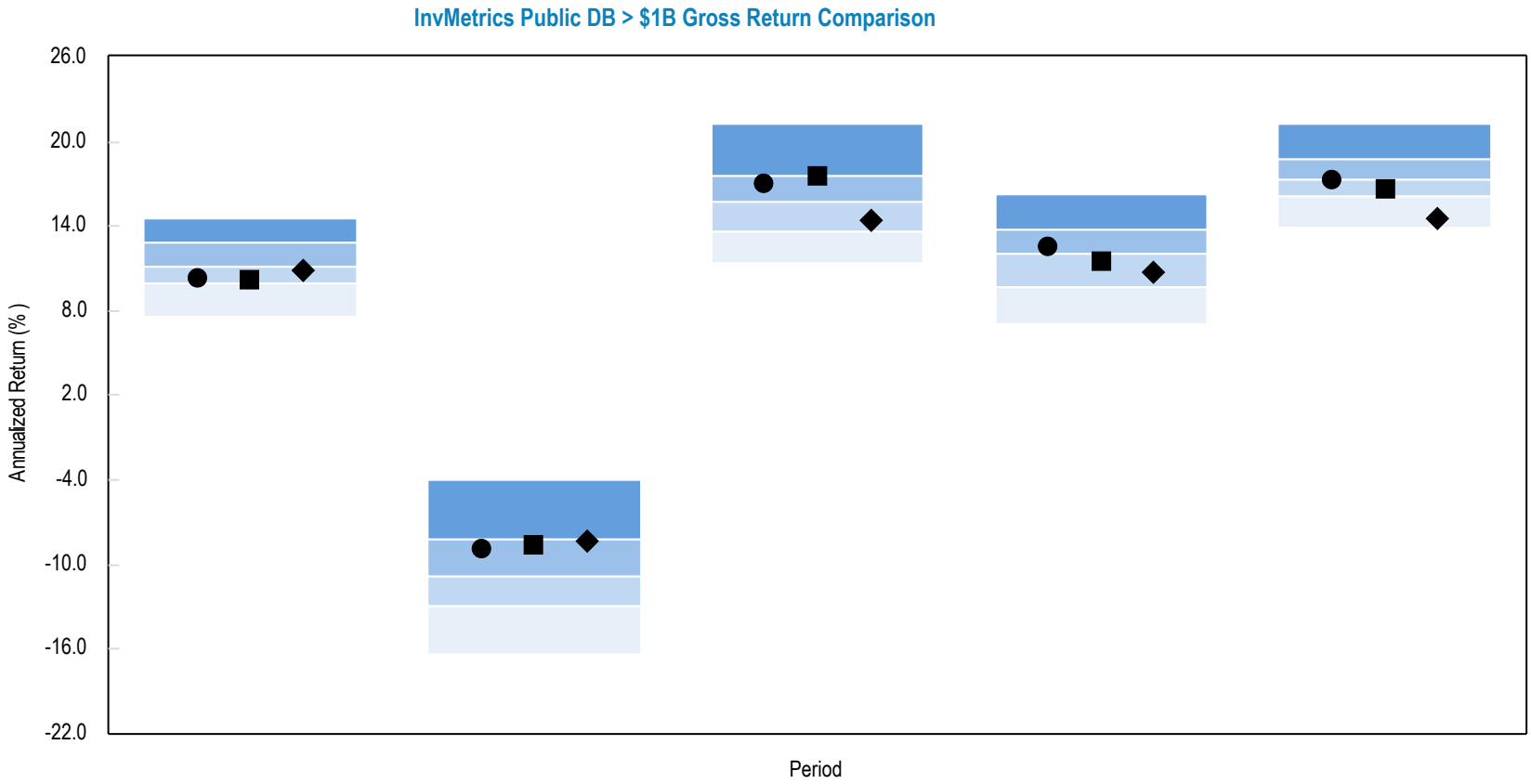
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	5.6 (20)	8.0 (13)	0.4 (13)	0.2 (25)	2.6 (41)
Policy Index	*4.9 (38)*	*7.9 (13)*	*0.3 (25)*	-	*0.0*
Total Fund ex Overlay	5.8 (14)	7.5 (7)	0.4 (11)	0.3 (23)	2.8 (42)
Policy Index	*4.9 (38)*	*7.9 (13)*	*0.3 (25)*	-	*0.0*

5 Years

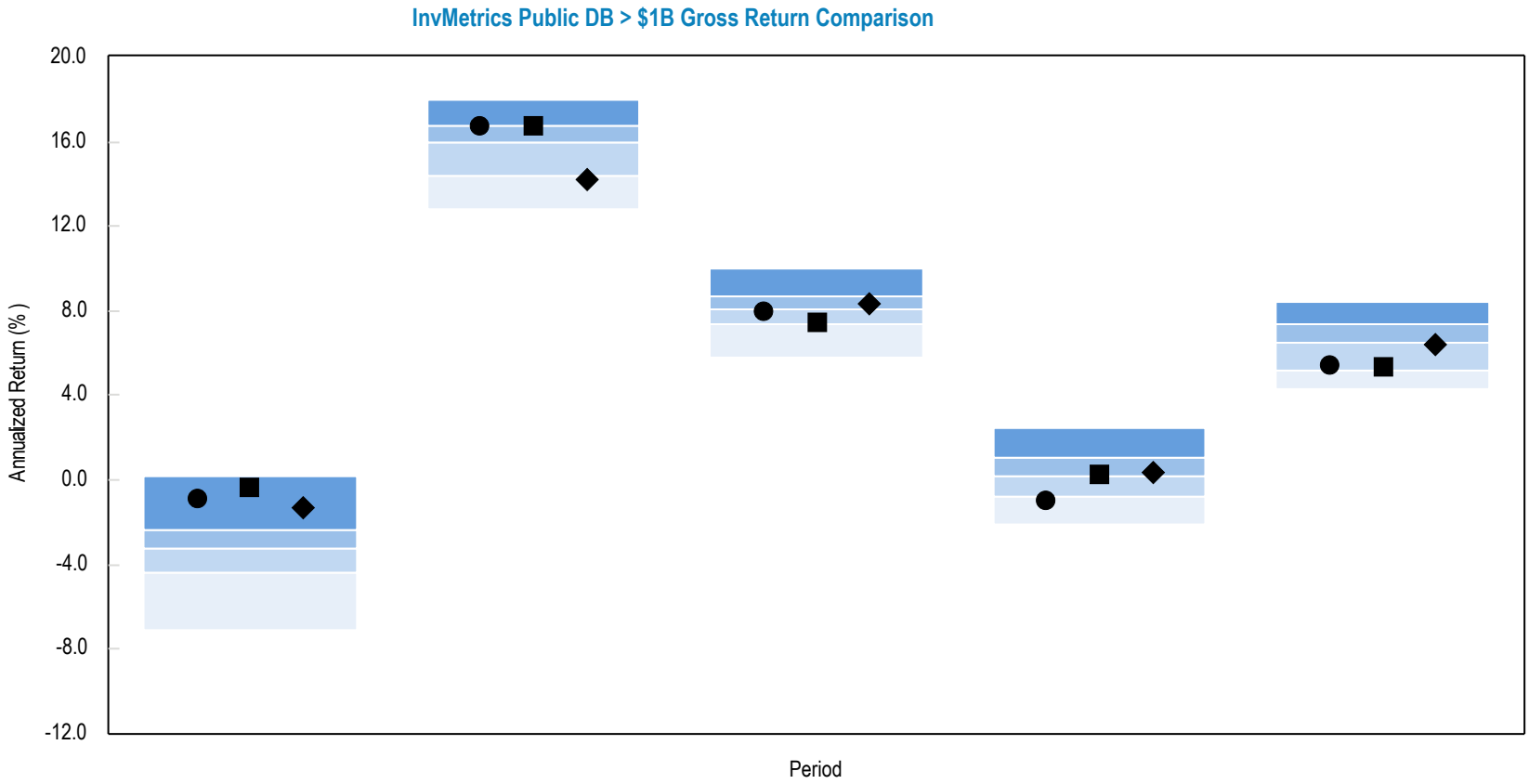
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	8.6 (26)	8.5 (5)	0.8 (3)	0.4 (18)	2.8 (22)
Policy Index	*7.5 (61)*	*8.3 (4)*	*0.7 (16)*	-	*0.0*
Total Fund ex Overlay	8.5 (28)	8.2 (3)	0.8 (3)	0.3 (21)	2.9 (26)
Policy Index	*7.5 (61)*	*8.3 (4)*	*0.7 (16)*	-	*0.0*



	QTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Total Fund	3.8 (56)	10.6 (70)	5.6 (20)	8.6 (26)	8.7 (15)	7.6 (31)
■ Total Fund ex Overlay	3.9 (55)	10.7 (69)	5.8 (14)	8.5 (28)	8.7 (15)	7.6 (30)
◆ Policy Index	3.0 (84)	10.2 (80)	4.9 (38)	7.5 (61)	7.4 (63)	6.8 (56)
5th Percentile	5.4	16.3	6.6	9.3	8.9	8.2
1st Quartile	4.7	13.6	5.5	8.6	8.3	7.6
Median	4.0	11.9	4.7	7.8	7.6	7.1
3rd Quartile	3.3	10.5	3.6	7.2	7.1	6.4
95th Percentile	2.4	7.5	2.7	6.5	6.3	5.5
Population	65	44	40	40	38	35



	2023	2022	2021	2020	2019
● Total Fund	10.4 (71)	-8.9 (33)	17.1 (33)	12.6 (41)	17.3 (51)
■ Total Fund ex Overlay	10.2 (72)	-8.5 (28)	17.6 (25)	11.5 (58)	16.6 (65)
◆ Policy Index	10.8 (61)	-8.3 (26)	14.4 (63)	10.8 (66)	14.5 (92)
5th Percentile	14.6	-4.0	21.2	16.3	21.3
1st Quartile	12.9	-8.2	17.6	13.8	18.7
Median	11.2	-10.8	15.8	12.1	17.3
3rd Quartile	9.9	-13.0	13.7	9.7	16.2
95th Percentile	7.6	-16.4	11.4	7.0	13.9
Population	86	95	129	144	108



	2018	2017	2016	2015	2014
● Total Fund	-0.8 (9)	16.8 (27)	8.0 (53)	-0.9 (82)	5.5 (67)
■ Total Fund ex Overlay	-0.4 (6)	16.7 (30)	7.5 (73)	0.3 (47)	5.3 (72)
◆ Policy Index	-1.3 (11)	14.2 (78)	8.4 (36)	0.4 (45)	6.4 (51)
5th Percentile	0.2	18.0	10.0	2.5	8.4
1st Quartile	-2.3	16.8	8.7	1.1	7.4
Median	-3.2	16.0	8.1	0.2	6.5
3rd Quartile	-4.4	14.4	7.4	-0.8	5.2
95th Percentile	-7.1	12.8	5.8	-2.1	4.3
Population	88	97	102	98	93

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
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%
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									
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 (Net)	16.0%	20.0%	20.0%	20.0%	22.5%	22.5%	20.0%		
MSCI ACWI IMI (Net)	4.0%								
MSCI EAFE								15.0%	15.0%
MSCI Emerging Markets								5.0%	5.0%
NAREIT							3.0%	3.0%	
NFI-ODCE	5.9%	4.6%	4.6%						
NFI-ODCE net +1% 1Q Lag	3.2%	2.5%	2.5%						
NCREIF				7.0%			12.0%	12.0%	15.0%
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%
Russell 1000 +3% 1QL (PE)					10.0%	10.0%			
Russell 2000								5.0%	5.0%
Russell 3000	20.0%	20.0%	21.0%	21.0%	22.5%	22.5%	30.0%		
S&P 500 +2% 1QL (PE)							5.0%		
Cambridge Associates All PE 1 Qtr Lag	11.0%	9.0%	9.0%	9.0%					
Bloomberg Roll Select Commodity Total Return	0.2%	0.2%							
Bloomberg U.S. Floating Rate Note < 5 Yr	0.2%	0.2%							
S&P Global LargeMidCap Commodity and Resources	0.2%	0.2%							
S&P Global Infrastructure Index - Net of Tax on Dividend	0.5%	0.5%							
Bloomberg U.S. Government Inflation-Linked 1-10 Yrs	0.6%	0.6%							
FTSE EPRA Nareit Developed Liquid Index	0.3%	0.3%							
ICE LIBOR Spot/Next Overnight USD	1.0%	1.0%							
	100.0%	100.0%	100.0%	90.0%	90.0%	90.0%	95.0%	95.0%	95.0%

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 (Net)	27.58%	34.48%	33.90%	33.90%
MSCI ACWI IMI (Net)	6.89%			
Russell 3000	34.48%	34.48%	35.59%	35.59%
Cambridge Associates All PE 1 Qtr Lag	18.97%	15.52%	15.25%	15.25%
	100.0%	**100.0%**	**100.0%**	**94.9%**

Global Public Equity Benchmark	As of: 4/1/22	7/1/11
MSCI ACWI		100.0%
MSCI ACWI IMI (Net)	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 (Net)	100.0%		
MSCI EAFE		75.0%	100.0%
MSCI Emerging Markets		25.0%	
	100.0%	**100.0%**	**100.0%**

Private Equity Benchmark	As of: 4/1/17	1/1/12	1/1/08
Russell 1000 +3% 1QL		100.0%	
S&P 500 +2% 1QL			100.0%
Cambridge Associates All PE 1 Qtr Lag	100.0%		
	100.0%	**100.0%**	**100.0%**

Public Credit Benchmark	As of: 4/1/17
ICE BofA ML High Yield II	50.0%
Credit Suisse Leveraged Loans	50.0%
	100.0%

Private Credit Benchmark	As of: 4/1/17
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag	100.0%
	100.0%

Growth Oriented Absolute Return Benchmark	As of: 7/1/17	4/1/17
91-day UST Bill +5%		100.0%
HFRI FoF Composite Index + 1%	100.0%	
	100.0%	**100.0%**

Diversifying Benchmark	As of: 4/1/22	7/1/17	4/1/17
91 Day T-Bill +5%			28.00%
Bloomberg US Aggregate	52.17%	40.00%	40.00%
Bloomberg US Treasury	17.39%	20.00%	20.00%
FTSE WGBI ex US Unhedged		9.60%	9.60%
HFRI FoF Conservative Index	30.43%	28.00%	
JPM GBI EM Diversified		2.40%	2.40%
	100.0%	**100.0%**	**100.0%**

Diversifying Absolute Return Benchmark	As of: 7/1/17	4/1/17
91-day UST Bill +5%		100.0%
HFRI FoF Conservative Index	100.0%	
	100.0%	**100.0%**

Real Return Benchmark	As of: 4/1/22	4/1/19	4/1/17
Real Estate Benchmark	50.00%	43.75%	43.75%
Private Real Assets Benchmark	38.89%	43.75%	43.75%
Bloomberg Commodity			12.50%
Liquid Real Return Custom Benchmark	11.11%	12.50%	
	100.0%	**100.0%**	**100.0%**

Real Estate Benchmark	As of: 4/1/22	7/1/17	71/2011
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%**

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

Private Real Assets Benchmark	As of: 4/1/22	7/1/17	4/1/17
CPI-U Headline +5%			100.0%
Cambridge Associates Private Energy 1 Qtr Lag	30.0%	35.0%	
Cambridge Associates Private Infrastructure 1 Qtr Lag	60.0%	45.0%	
NCREIF Farmland 1 Qtr Lag	10.0%	10.0%	
NCREIF Timberland Index Lagged		10.0%	
	100.0%	100.0%	100.0%

Liquid Real Return Custom Benchmark	As of: 7/1/19
Bloomberg Roll Select Commodity Total Return	10.0%
Bloomberg U.S. Floating Rate Note < 5 Yr	10.0%
S&P Global LargeMidCap Commodity and Resources	10.0%
S&P Global Infrastructure Index - Net of Tax on Dividend	25.0%
Bloomberg U.S. Government Inflation-Linked 1-10 Yrs	30.0%
FTSE EPRA Nareit Developed Liquid Index	15.0%
	100.0%

Cash Benchmark	As of: 4/1/22	7/1/92
91 Day T-Bills		100.0%
NFI-ODCE net +1% 1Q Lag	100.0%	
	100.0%	100.0%

AllianceBernstein Benchmark	As of: 1/1/01	1/1/98	5/1/89
Russell 1000	100.0%		
Russell 3000		100.0%	
Wilshire 2500			100.0%
	100.0%	100.0%	100.0%

Eagle Capital Benchmark	As of: 2/1/19	9/1/08
Russell 1000 Value		100.0%
Russell 1000	100.0%	
	100.0%	100.0%

Lazard Benchmark	As of: 4/1/22	7/1/12
MSCI ACWI ex USA		100.0%
MSCI World ex US (Net)	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 Inde	10.0%
ICE BofA USD Real Asset High Yield Custom Index	16.0%
ICE BofA USD Real Asset Corporate Custom Index	24.0%
	100.0%

SSgA Real Asset Benchmark	As of: 3/2/2018	10/1/15	2/1/08
Bloomberg US Govt Inflation-Linked 1-10 Yrs		10.0%	
Bloomberg US TIPS		10.0%	20.0%
Bloomberg 1-10 Yr US TIPS	30.0%		
Bloomberg Roll Select Commodity TR	10.0%	20.0%	
Bloomberg USD Floating Rate Note <5yr	10.0%		
DJ US Select REIT			30.0%
FTSE EPRA/NAREIT Developed Liquid	15.0%	10.0%	
MSCI World Natural Resources		20.0%	25.0%
S&P Global Large Mid Cap Commodity Resources	10.0%		
S&P Global Infrastructure	25.0%	20.0%	
S&P GS Commodities			25.0%
S&P MLP		10.0%	
	100.0%	100.0%	100.0%

Cash Benchmark	As of: 4/1/22	7/1/92
91 Day T-Bills		100.0%
Secured Overnight Financing Rate	100.0%	

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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