

Research Review

Fourth Quarter 2023

Strong performance tailwinds that supported the financial markets in November persisted in December, punctuating a year marked by performance gains out of nearly every asset class and category. With the worst cyclical inflationary pressures likely in the rearview mirror, market participants embraced the Federal Reserve's (Fed) mid-December implicit confirmation of an anticipated easing in its current restrictive stance. Across the equity markets, small capitalization U.S. stocks outperformed their larger cap counterparts in the fourth quarter. While positive in absolute terms, both international developed and emerging market equity gains underperformed domestic in the quarter, despite a meaningful move lower in the U.S. dollar in the year's final two months. After appearing on the verge of posting an unprecedented third consecutive calendar year decline, core bond returns rallied during the quarter, with the Bloomberg U.S. Aggregate Bond Index notching a 6.8% total return in the fourth quarter and a 5.5% gain for 2023. Similar to the equity and bond markets, real asset returns were generally positive, particularly for the interest-rate-sensitive real estate sector. In contrast, commodity futures faced performance headwinds amid global growth uncertainty.

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Economic Update

Fed Gives Nod to Bond Market Positioning Suggesting Near-Term Easing Bias

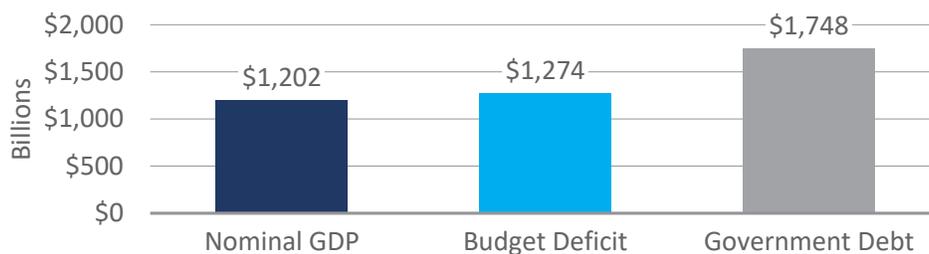
"A forensic analysis is not necessary to ascertain the economic gains generated in 2023 came with an asterisk." - Michael O'Connor, CFA, CAIA.

A prevailing theme throughout 2023 was the growing narrative that the Fed has potentially successfully achieved its "soft landing," as inflation cooled from multi-decade high levels, the economy expanded at a healthy pace throughout the year, interest rates moved sharply lower in the final two months of the year, and the labor market has yet to display obvious signs of deterioration. Against this backdrop, the Fed's final policy meeting of the year on December 12-13 provided those in the soft landing camp with subtle confirmation the Fed indeed is on the path towards a less-restrictive policy stance.

As discounted by the bond market leading up to the Fed meeting, the Fed kept the policy rate level in the range of 5.25% to 5.50%—a level first reached during the current tightening cycle in July—while also updating its summary of economic projections to reflect a policy rate projection that implied 75 basis points of rate cuts throughout 2024. The formal acknowledgment by the Fed that the current restrictive policy stance is likely unwarranted in the coming months added a policy expectation tailwind to an already upward-trending equity market, the rally of which saw U.S. large cap equities (S&P 500 Index) ascend to a fresh record nominal high on a total return index level basis, established December 28.

While on the surface it appears the U.S. has entered a goldilocks environment, one characterized by recent robust financial market performance, cooling inflationary pressures, moderating interest rates, solid economic growth, and a resilient labor market, a forensic analysis is not necessary to ascertain the economic gains generated in 2023 came with an asterisk.

YEAR-TO-DATE CHANGE IN GDP, BUDGET DEFICIT, AND U.S. GOVERNMENT DEBT



Data sources: BEA, U.S. Treasury, Bloomberg, L.P.; Data as of 3Q 2023

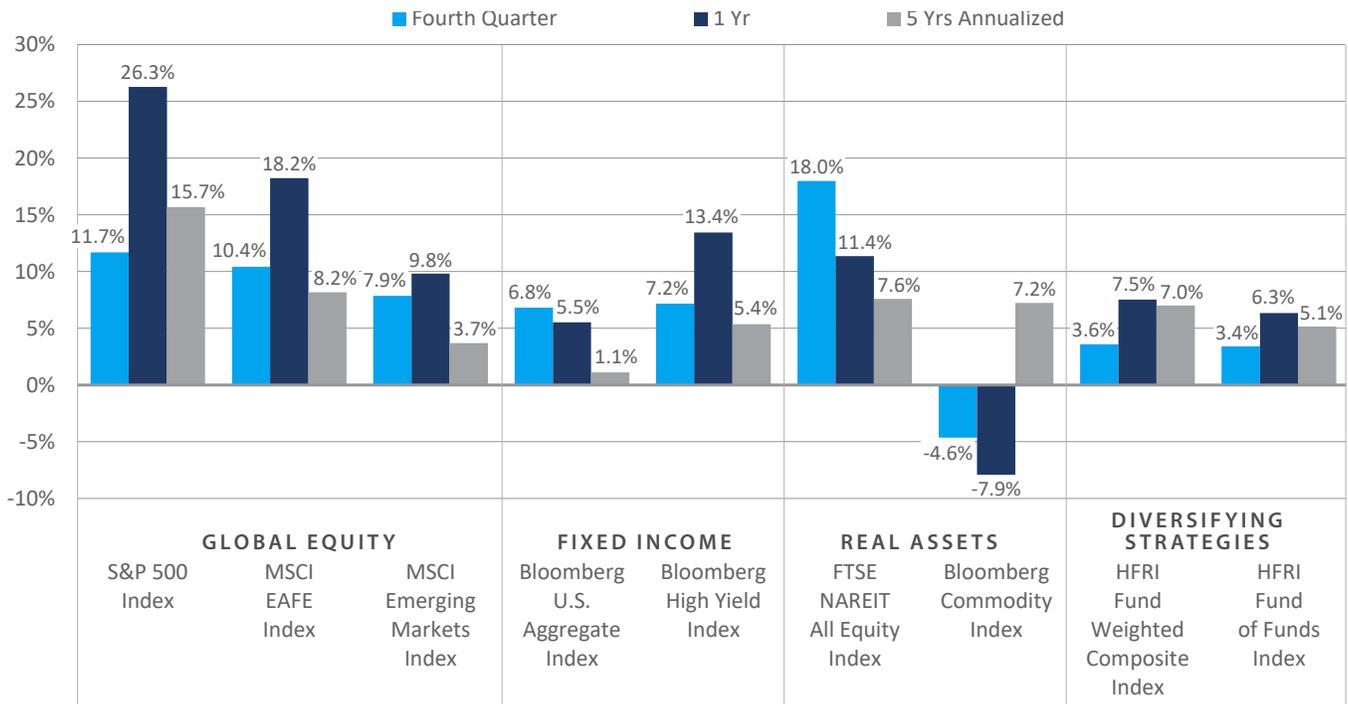
The latest updates to gross domestic product (GDP) through the third quarter showed that in the first nine months of the year, the U.S. economy grew an impressive \$1.2 trillion in nominal dollars, from \$26.4 trillion at the end of 2022 to \$27.6 trillion as of the third quarter 2023. Unfortunately, this prosperity came at the expense of digging an even deeper fiscal hole, as the Treasury budget deficit widened nearly \$1.3 trillion and the government's debt burden ballooned more than \$1.7 trillion. The two are, of course, related.

While headline measures of the U.S. economy displayed a remarkable amount of resiliency in the face significant Fed monetary restraint in 2023, the expense of generating this growth not only required digging a deeper fiscal hole, but also came with a higher price tag, as the Fed's task of quelling inflation required hiking the federal funds rate to the highest level in more than two decades.

In summary, unlike 2022, performance across the majority of global investment markets appeared notably strong in 2023, with the U.S. economy shrugging off a further tightening in monetary conditions by the Fed and displaying economic leadership on the global stage. Underneath the hood, however, this fortune appears to have been produced by plunging deeper into the fiscal abyss. The longer-run implications of this move will likely demand investors' attention for the foreseeable future.

Market Summary

Fourth Quarter 2023



Data source: Lipper, HedgeFund Research

Global Equity

Global equity markets finished the fourth quarter with a strong rally. The U.S. equity market was a top performer against the developed and emerging markets indices.

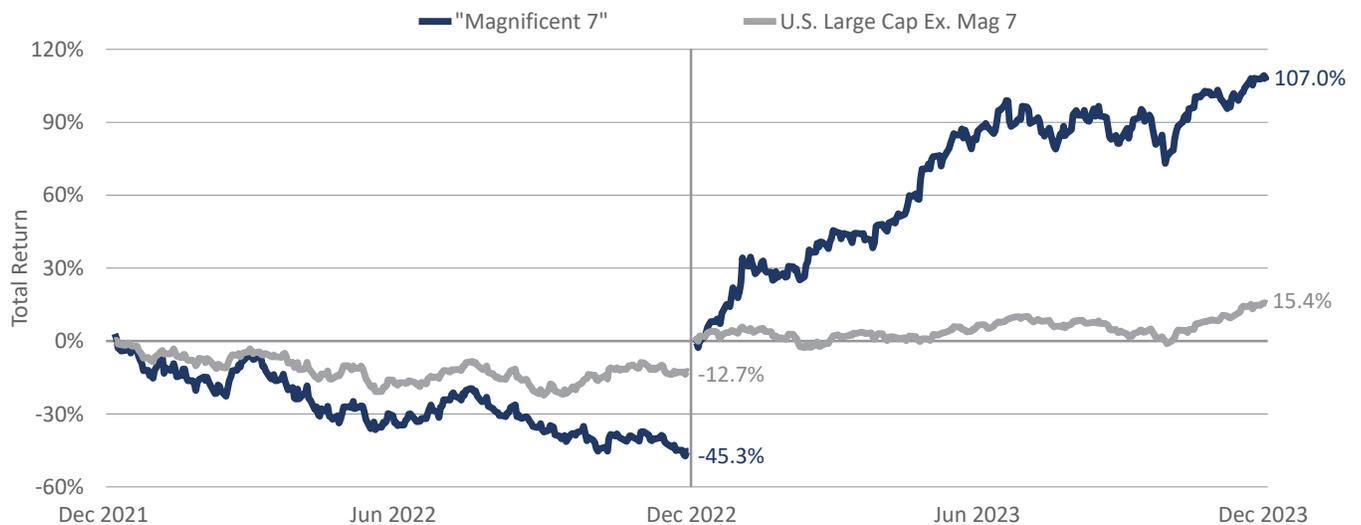
Throughout 2023, the U.S. equity market was consistently impacted by top-down influences. Most significant was the expectation of a Fed pivot to a less hawkish monetary policy. In December, equities rallied in response to a more dovish tone from the Fed, which led the market to expect multiple interest rate cuts next year.

The late-year rally benefited interest rate-sensitive sectors like real estate and information technology, which were up over 17% in the fourth quarter. While these sectors benefited most, the rally showed breadth relative to most of 2023, in which performance was driven heavily by the top-performing mega-cap stocks. Over the quarter, however, small caps outperformed large caps across both growth and value styles and more than doubled the performance of large cap during December's rally.

European equities finished the quarter higher. Like the U.S., real estate and information technology were the top-performing sectors. Economically sensitive sectors like industrials and materials performed well as annual inflation fell to 2.4%. The United Kingdom similarly benefited from falling inflation. The decline of the U.S. dollar against both the euro and the pound was particularly beneficial to U.S. investors, contributing materially to international equity returns in dollar terms.

"MAGNIFICENT 7" vs. REST OF MARKET

2022 and 2023 Performance Evolution



Data source: Bloomberg, L.P.; Data as of December 29, 2023

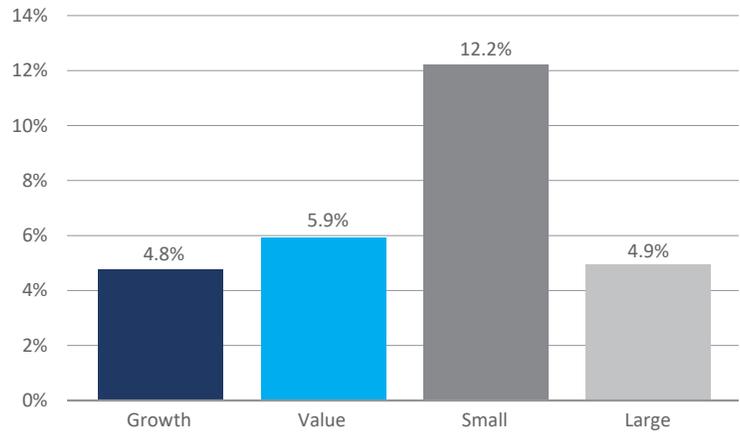
Note: "Magnificent 7" = Google, Amazon, Apple, Meta, Microsoft, Nvidia, Tesla

Japanese stocks produced positive returns but underperformed the MSCI EAFE Index. Even more dramatically than in Europe, U.S. dollar investors experienced a significant tailwind as the dollar weakened against the yen, almost quadrupling Japan's local currency return.

Emerging market equity returns were positive but underperformed developed markets. Chinese equities were the primary cause of underperformance as weak economic conditions weighed on Chinese equities throughout 2023. Taiwan, South Korea, and India were the strongest-performing markets in the fourth quarter. Technology and semiconductor stocks continued to appreciate as the theme of artificial intelligence remains a catalyst for outperformance.

SMALL CAP COMEBACK

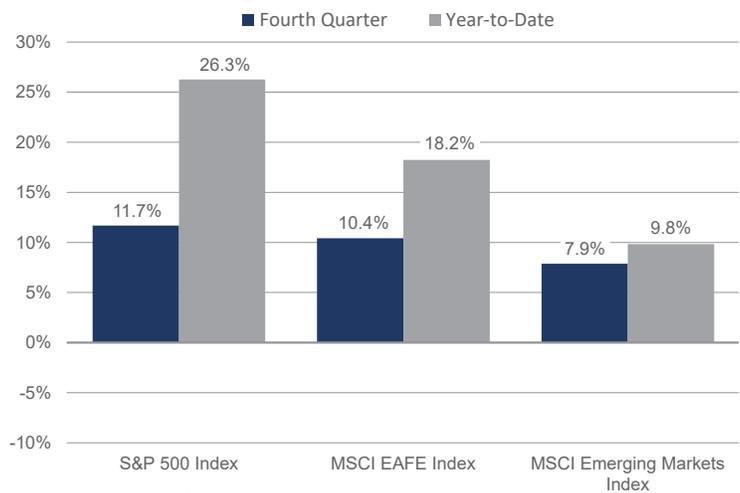
U.S. Style Returns



Data source: FTSE Russell

THE "MAGNIFICENT 7" DROVE U.S. PERFORMANCE AND CHINA DROVE EMERGING MARKETS

Equity Indices Performance Returns (U.S. Dollars)



Data sources: S&P, MSCI

Fixed Income

In the fourth quarter, interest rates reverted considerably, rallying on anticipated rate cuts. The long and intermediate segments of the yield curve fell in tandem. The 2-year and 10-year Treasury yields fell 0.80% and 0.72% to 4.23% and 3.88%, respectively. Continuing with this theme, the 30-year Treasury fell nearly 75 bps to 4.09%, highlighting the magnitude of the rally throughout the yield curve.

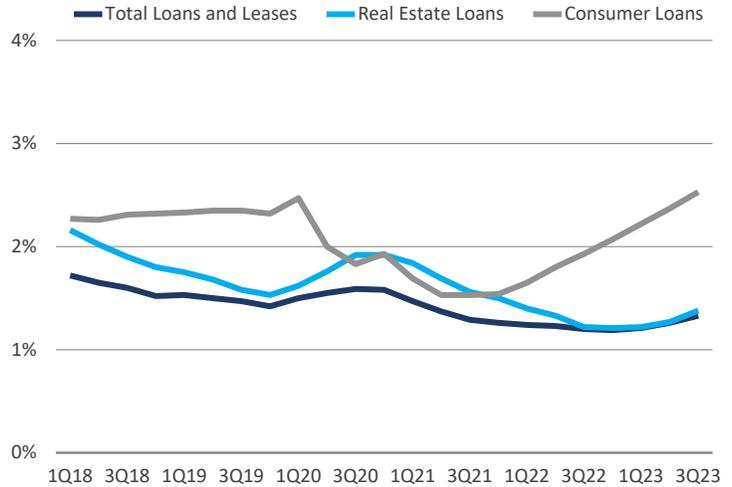
Correlations between equities and fixed income remained high as the curve continued to move in line with equities. The higher-for-longer narrative quickly changed in the fourth quarter, as the soft-landing narrative gained further traction, triggering spread compression. However, delinquency rates for real estate and consumer loans rose modestly from the second quarter to the third quarter. Of particular concern, credit card delinquencies hit their highest level since the first quarter of 2012.

As rates fell, risk appetites rose. High yield corporate spreads, already tight by historical standards, tightened to below 35 percentage points. This is the tightest high yield spread since the beginning of the second quarter of 2022 and similar to pre-pandemic levels. This left the HY yield-to-worst (YTW) at 7.7% to end the year, as base rates fell with the declining credit spread. For comparison, the investment grade YTW sits at 5.2%.

As desired by the Fed, their quantitative tightening (QT) program has steadily played out in the background. Securities holdings at the Fed peaked in mid-2022 at roughly \$5.8 trillion and decreased roughly \$1 trillion through the end of September.

CHARGE-OFF AND DELINQUENCY RATES ON LOANS AND LEASES AT COMMERCIAL BANKS

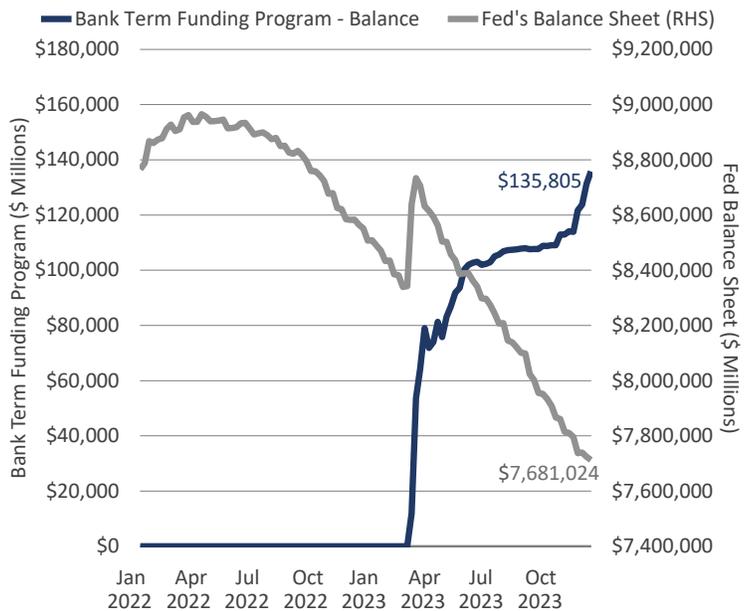
Real Estate and Consumer Loans



Data source: Board of Governors of the Federal Reserve System
Data as of September 30, 2023.

BANK TERM FUNDING PROGRAM – BALANCE

Fed's Balance Sheet (RHS)



Data source: St. Louis Federal Reserve

Real Assets

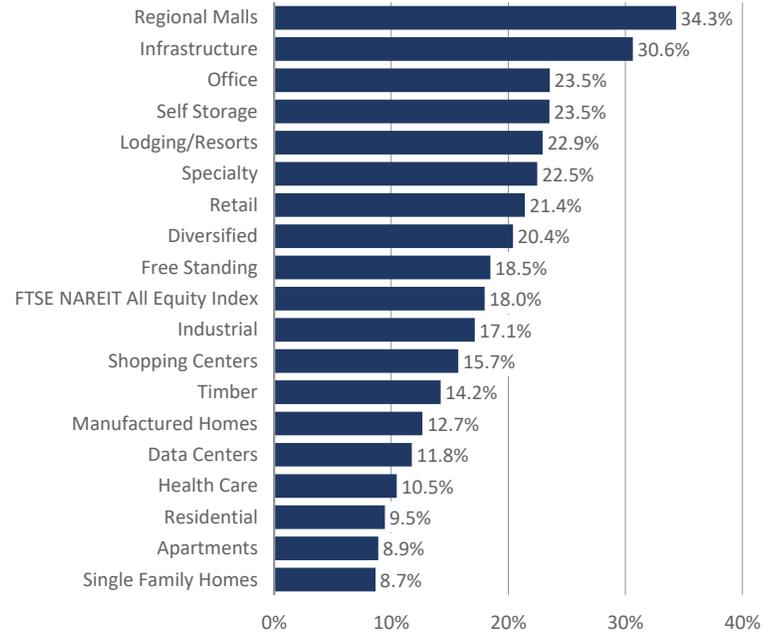
Real Estate

U.S. and global Real Estate Investment Trusts (REITs) rebounded strongly in December following Federal Reserve Chairman Jerome Powell's announcement that the Fed will likely issue interest rate cuts in 2024. Until the announcement of potential cuts, higher interest rates had negatively impacted REITs from 2022 through 2023.

Both global and U.S. REITs underperformed the broader equity markets in 2023 despite the market-leading rebound in the fourth quarter. U.S. REITs returned nearly 18% during the quarter, measured by the FTSE NAREIT All Equity Index, and Global REITs returned 15.6%, measured by the FTSE EPRA/NAREIT Developed Index. The regional malls and infrastructure REIT sectors were the top-performing sectors during the fourth quarter, while data centers led for the year.

REITs RALLY LED BY REGIONAL MALLS AND CELL TOWER SECTORS

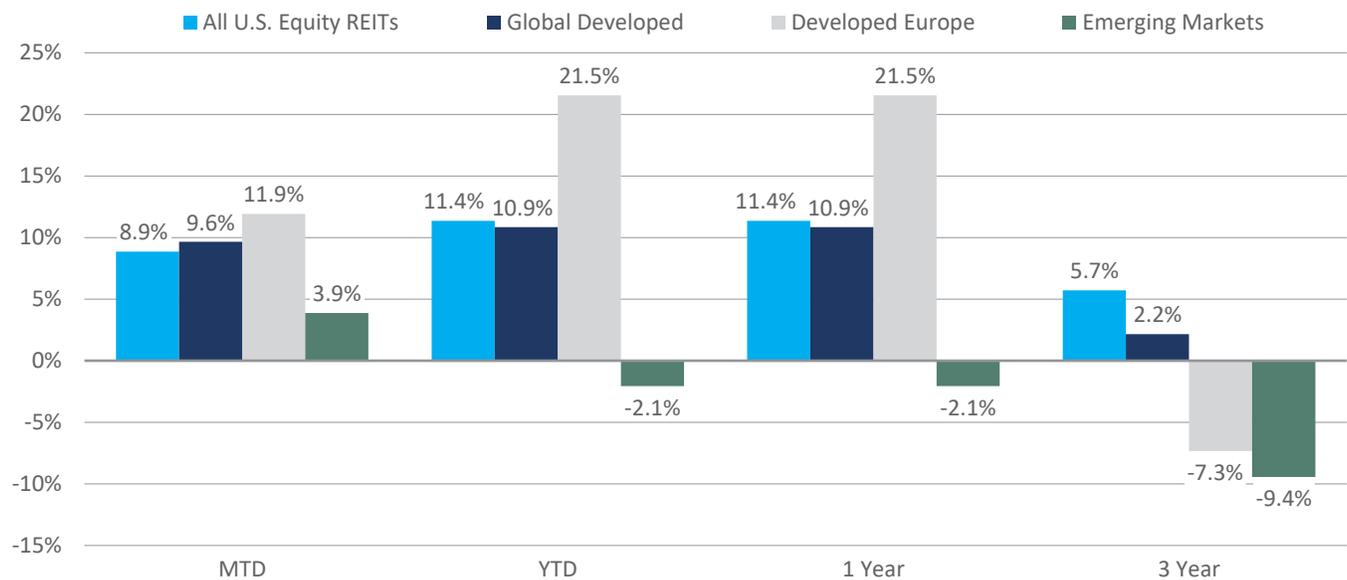
U.S. REIT Trailing Performance by Property Type, Quarter-to-Date



Data source: FactSet

REIT's STRONG FOURTH QUARTER PERFORMANCE CAPS POSITIVE YEAR-END RALLY

U.S. REIT Trailing Performance by Geography



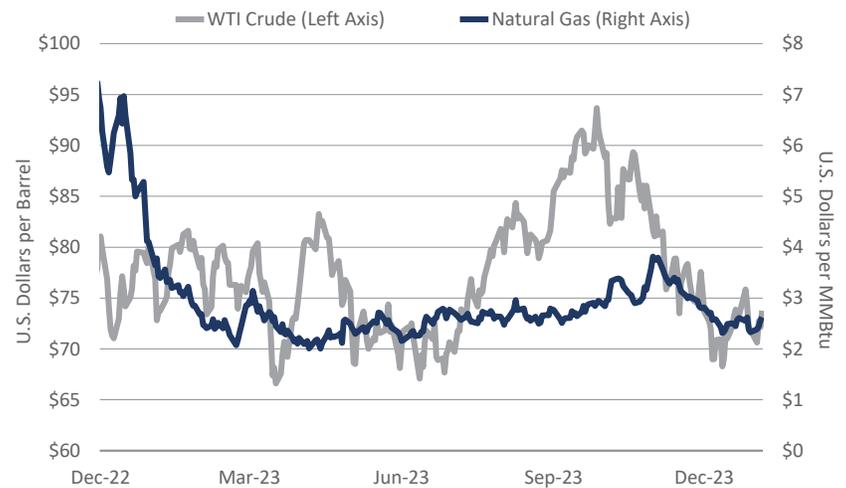
Data source: FactSet

Natural Resources

Oil prices, as measured by West Texas Intermediate (WTI), declined roughly 5% in December. Despite Houthis attacks on cargo vessels in the Red Sea and increased geopolitical tension in the Middle East, global oil prices declined during the fourth quarter. U.S. crude oil production remained strong, driven by productivity gains and efficient operations, even as producers took rigs offline. Mergers and acquisitions activity also remained strong, with Occidental Petroleum acquiring Crown Rock for \$12 billion in December.

OIL AND GAS PRICES DROP HEADING INTO WINTER

Price of West Texas Intermediate (WTI) Crude and U.S. Natural Gas



Data source: FactSet

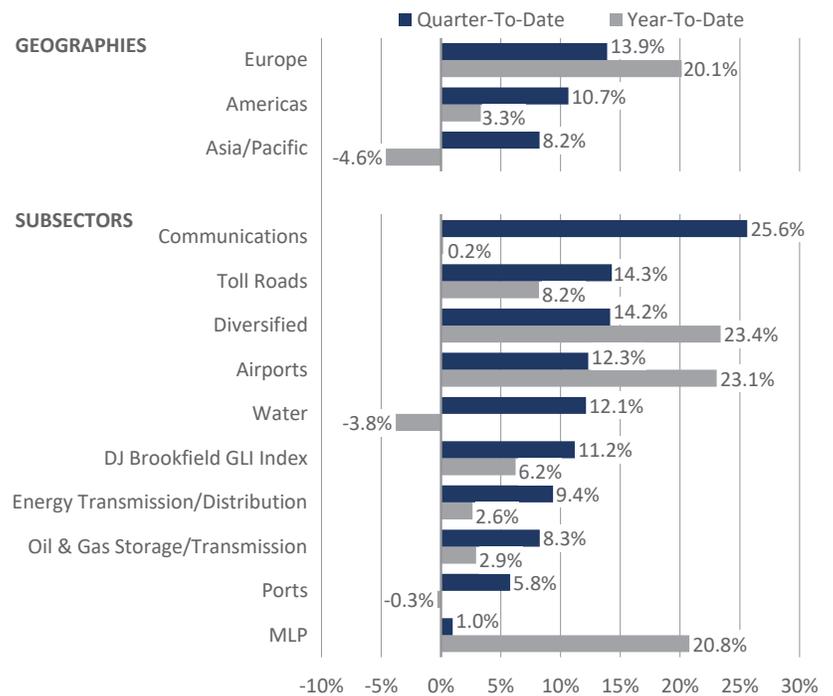
Infrastructure

Global infrastructure rallied in December, as measured by the Dow Jones Brookfield Global Infrastructure Index. The sector experienced poor performance throughout 2023 as it was viewed as less attractive relative to other yield-focused securities. Powell's announcement of potential rate cuts in 2024 drew attention back to the sector, however, and the index finished the year up roughly 6%.

Midstream energy was a standout in 2023, up more than 26% as measured by the Alerian MLP Index. Midstream companies had strong performance due to their ability to generate free cash flow and return excess cash to investors through dividends and stock repurchases.

CELL TOWERS LEAD INFRASTRUCTURE GAINS IN FOURTH QUARTER

Listed Infrastructure Trailing Returns



Data source: FactSet

Diversifying Strategies

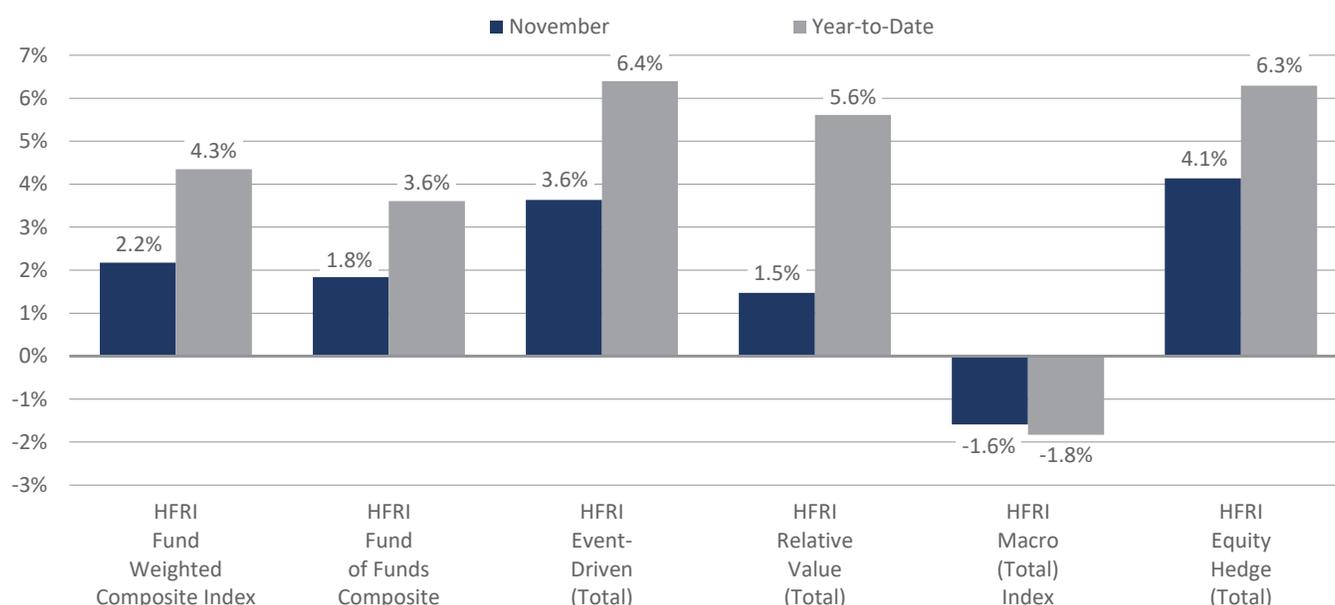
Hedge funds, outside of global macro, produced strong gains across most strategies during the fourth quarter. Equity hedge and event-driven approaches were the best performers.

Hedge fund strategies ended the year on a high note due to a combination of strong tailwinds, including falling inflation, improving mergers and acquisitions, and the general economic outlook for the upcoming year.

Systematic trend-following strategies faced continued trend reversals across asset classes, most notably within currencies and commodities. Weakness in the U.S. dollar was a key contributor to losses within foreign exchange markets. Broadly, uncertainty triggered by dynamic economic data, including inflation and rate expectations, resulted in a lack of clarity for numerous assets.

HEDGE FUNDS ENJOYED A STRONG YEAR

HFRI Indices Performance Returns (U.S. Dollars)



Data source: HedgeFund Research

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